Zlata Tiahunova  
PhD in Economics, Associate Professor of the Department of Economics, Cooperative Commercial and Economic Institute, Khmelnytskyi, Ukraine;  
ORCID: 0000-0002-4665-5502

Nataliia Tiahunova  
PhD in Economics, Professor of the Department of Entrepreneurship, Trade, Logistics and Hotel and Restaurant Business, Khmelnytskyi Cooperative Commercial and Economic Institute, Khmelnytskyi, Ukraine;  
e-mail: nataliia45@yahoo.com  
ORCID: 0000-0002-8966-3438

Oksana Holik  
PhD in Social Communications, Associate Professor of the Department of Journalism and Advertising, State University of Trade and Economics, Kyiv, Ukraine;  
ORCID: 0000-0002-0239-9282

Artem Melnikov  
PhD Student of the Department of Journalism and Advertising, State University of Trade and Economics, Kyiv, Ukraine;  
ORCID: 0000-0001-2820-9029

Oleksandr Samardak  
PhD Student of the Department of Journalism and Advertising, State University of Trade and Economics, Kyiv, Ukraine;  
ORCID: 0000-0003-1239-7925

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DIGITAL MARKETING COMMUNICATION STRATEGIES OF COMPANIES TRADING ON SOCIAL MEDIA PLATFORMS

ABSTRACT

Contemporary trade companies operate within a multifaceted and rapidly changing environment that is shaped by both exogenous and endogenous factors, where digital marketing technologies play a special role. The purpose of the article is to identify the connection between digital marketing technologies and retail business sales regarding their use in marketing budget effectiveness. The study utilized the method of econometric analysis (regression analysis, analysis of descriptive statistics) as well as the method of social network analysis. Regression analysis showed the importance of investment in advertising and customization of marketing campaigns due to the cutting-edge technologies. Factors such as advertising budget, the number of posts, likes, and comments on social networks have a significant impact on sales. Based on the model’s findings, every extra dollar allocated towards advertising amplifies sales by 0.0497 units, indicating the importance of investment in advertising campaigns. The sales distribution is somewhat skewed with a mean of 909 and a median of 922. The analysis revealed significant variability in key variables, indicating the diversity of strategies and conditions in which different companies operate. Practical digital marketing solutions for retail businesses include increased investment in social media advertising, regular posts, and engagement through likes and comments. The promising area for further research is to explore the potential of artificial intelligence for personalizing retail business marketing.

Keywords: retail sector, digital marketing technology, marketing budget, artificial intelligence, business result

JEL Classification: L86, M15, M31

INTRODUCTION

Currently, in the era of rapid technological advancements and digital platforms’ evolution, digital marketing has emerged as a pivotal component in the strategic framework of any retail enterprise. Hence, it is imperative to discern the optimal digital marketing tactics that companies can leverage to augment their sales. As per Statista’s report (2023), retail platforms expended USD 114.4 billion on digital marketing (2022), with a projected growth of USD 175.7 billion (2028). According to Accenture (2022), 75% of the marketing budget goes to digital marketing. In terms of digital marketing efficacy in strengthening business standings, this specific mechanism has the potential to elevate brand awareness by 80% (WordStream, 2024), which makes it urgent to explore the role of digital marketing technologies in the retail sector.

LITERATURE REVIEW

Numerous studies highlight the prominent position of digital marketing technologies in the retail domain. Proskurnina (2020) underscores the significance of digital technologies in retail marketing, with a specific focus on Digital Signage technology. Similarly, Zhu and Gao (2019) scrutinize the implementation of digital marketing tactics, notably precision marketing. Pham’s (2021) study accentuates the escalating impact of digital marketing within the retail sector amid digitization trends.
Several studies have emphasized the crucial role of digital marketing technologies for companies operating in the retail sector. Evanschitzky et al. (2020) stress the significance of digital transformation for developing a sound business strategy in retail. Adwan and Altrjman (2024) examine the part played by social media marketing in fostering brand sustainability, while Zhang et al. (2019) and Yarova et al. (2023) propose solutions to optimize digital marketing campaigns. Wen's (2023) focuses on elucidating the role of digital platform marketing, and Wuisan's and Handra's research (2023) demonstrates that online marketing strategies influence customers' purchase intentions. Furthermore, Nurjanah et al. (2023) underscore that deploying digital marketing strategies is an effective means to augment brand awareness, whereas Alvin's and Yasmin's study (2023) highlights Instagram as a pivotal activity with practical benefits for businesses' overall digital marketing efforts.

Several studies presented the efficacy of digital marketing technologies in resolving business issues of companies operating in the retail sector. For instance, Ram et al. (2023) highlight that digital marketing technologies are instrumental in managing retail supply chains, while Doan et al. (2023) underscore the challenges faced by the industry in developing employees' digital competencies to keep pace with transformational demands.

The effects of digital marketing technologies on different facets of retail firms' operations were addressed in a number of studies. Susiysanto's and Nurnilasari's (2023) research suggests that employing digital marketing strategies can serve as a catalyst for business expansion. Udayana's et al. (2024) study delves into how e-commerce can boost financial performance, while Basry's et al. (2024) findings highlight a favourable correlation between digital marketing and overall business success, with particular emphasis on the role of e-commerce. Notably, Al-Ayed's and Al-Tit (2024) research underscores the significance of digital customer relationship management in enhancing performance levels.

The impact of digital marketing technologies on the growth of small businesses and local communities has been thoroughly examined in various research studies. Samodro et al. (2024) investigate the use of digital marketplaces as a means of promotion for local business development in Indonesia. Yasa et al. (2024) and Volvach (2023) focus on the use of digital platforms to market local business products. Moreover, Prasetya and Simorangkir (2024) delve into the development of an information system for small business e-commerce. Meirandari et al. (2024) found that the brand image of a small business influences consumer decisions on digital platforms. Nevertheless, further examination is required to explore the significance of digital marketing technologies in light of contemporary challenges, specifically the demand for tailor-made solutions.

**AIMS AND OBJECTIVES**

The purpose of the study is to determine the correlation between digital marketing technologies (pertaining to the efficacy of marketing budget and technology utilization) and revenue generated by retail companies.

As part of the research, several tasks were addressed, including:

1. Discerning the pivotal factors that influence digital marketing campaigns on sales in the retail business.
2. Examining the efficacy of social media platform marketing for companies in the retail sector with regard to its impact on digital marketing technologies.
3. Identifying key areas for enhancing digital marketing campaign practices based on results from regression analysis.

**METHODS**

**Research Design**

The step is to collect data on the state of digital marketing technologies of companies in the retail sector for further processing within the framework of the study. The second stage of the research consists of studying the key areas of application of digital marketing technologies by companies in the retail sector to strengthen the results of their business activities. Using the method of regression analysis, the key marketing factors influencing the sales of the companies of the studied sample were determined. As part of the analysis of digital marketing technologies based on the data of the studied sample, their value in the context of increasing the effectiveness of the marketing budget was assessed. The final stage of the research involves determining the limitations within the established methodology and implementing the results of the conducted research on the impact of digital marketing technologies on the business results of companies in the retail sector. The conclusions of the conducted research are presented.
The initial step involves gathering data on the state of digital marketing technologies employed by retail sector companies. This information is then processed within the study's framework. The second stage of research entails studying key areas where digital marketing technologies are applied to enhance business performance outcomes for these organizations. By utilizing regression analysis, marketers can identify critical factors that influence sales among a sample group of companies under investigation. Furthermore, the value of digital marketing technologies in increasing the effectiveness and efficiency of their advertising budget is assessed based on this data analysis process. Ultimately, researchers will conclude by identifying any limitations within their methodology and implementing solutions to improve it. Finally, conclusions drawn from conducting this research will be presented as part of its final outcome report.

Sample

To address the research objectives, we shall elucidate the scrutinized sample populace. The sample size is 100 observations of variables encompassing digital marketing campaigns for 12 companies in the US retail sector. The research sample's companies were chosen randomly from the Top 100 Retailers 2022 List rating data (National Retail Federation, 2023). This volume of samples is adequate for regression analysis, utilizing the linear regression technique within the methodology of the current study. The sample structure distributed by companies is presented in Table 1.

<table>
<thead>
<tr>
<th>Company</th>
<th>Revenue 2022</th>
<th>Country</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gap, Inc.</td>
<td>USD 16.6 billion</td>
<td>USA</td>
</tr>
<tr>
<td>Nordstrom</td>
<td>USD 13.9 billion</td>
<td>USA</td>
</tr>
<tr>
<td>AutoZone</td>
<td>USD 13.3 billion</td>
<td>USA</td>
</tr>
<tr>
<td>Dick's Sporting Goods</td>
<td>USD 12.3 billion</td>
<td>USA</td>
</tr>
<tr>
<td>Wayfair</td>
<td>USD 13.7 billion</td>
<td>USA</td>
</tr>
<tr>
<td>Hy-Vee</td>
<td>USD 12.0 billion</td>
<td>USA</td>
</tr>
<tr>
<td>Health Mart Systems</td>
<td>USD 11.2 billion</td>
<td>USA</td>
</tr>
<tr>
<td>Tractor Supply Co.</td>
<td>USD 12.6 billion</td>
<td>USA</td>
</tr>
<tr>
<td>O'Reilly Auto Parts</td>
<td>USD 13.3 billion</td>
<td>USA</td>
</tr>
<tr>
<td>Menards</td>
<td>USD 13.1 billion</td>
<td>USA</td>
</tr>
<tr>
<td>Macy's, Inc.</td>
<td>USD 10.3 billion</td>
<td>USA</td>
</tr>
<tr>
<td>Ross Stores, Inc.</td>
<td>USD 18.9 billion</td>
<td>USA</td>
</tr>
</tbody>
</table>

We will describe the procedure. The data collection process for the model that analyses the impact of digital social networks on sales for retail companies involves several key steps.

The methodology employed to form the researched sample population is presented as follows. The data acquisition protocol for the model that assesses the influence of digital marketing on social media platforms on retail corporations' sales encompasses several major stages:

1. Defining data requirements:
   - Dependent variable: Sales (monthly).
   - Independent variables: Budget for advertising on social networking platforms, Number of posts, Number of likes to posts, Number of comments to posts.

2. Data collection:
   - Social media analytics tools: data collection using social media analytics tools (Meta Business Suite, X Analytics, YouTube Analytics) to collect data on social media activity.

3. Data collection. Data preparation and refinement:
   - Completeness check: it is verified that the data were collected for the entire specified timeframe.
   - Accuracy check: fixed errors, and removed duplicates.
   - Data formatting: unified formats of dates, and numeric values to ensure consistency.
4. Data integration and structuring:
- Data integration: merging data from different sources into a single database.
- Data structuring: creating an analysis-friendly data structure.

5. Ensuring confidentiality:
- Anonymization of data: ensuring the collected data confidentiality in terms of commercial secrets and customers’ personal data.

Methods

Various methods of marketing analysis on social media platforms, such as regression analysis resulting in an econometric model and analysis of social media networks leading to recommendations for the digital marketing development of the studied sample population companies, are utilized within the parameters of achieving the research goals and tasks.

The method of economic analysis (regression analysis, analysis of descriptive statistics) is applied to study trends and regularities in digital marketing communication. This method entails the data collection and examination for the analysed timeframe regarding engagement in social media platforms and sales figures. The results of the regression analysis were used to identify trends, and seasonal influences on the dynamics of digital marketing communications over time of the companies of the sample population under study. The result of the regression analysis is an econometric model based on the companies’ data across the sample population.

Further, the technique employed for examining social networks involves analysing the marketing structure utilized by companies within a selected sample population on various social media platforms. This entails analysing the relationship between fluctuations in sales volumes and the frequency of publications made by said companies on leading platforms such as Facebook, YouTube, and Instagram. The analysis findings will aid in elucidating the essential metrics of social media platforms, which can yield recommendations for digital marketing advancement.

The dependent variable is Sales, which is a key variable representing company sales measured in USD. Independent variables are represented by the list as follows:
- AdBudget (Ad Budget): measured in USD;
- AvgPosts (Average number of posts per day): measured as the number of posts;
- AvgLikes (Average number of likes per post): measured in the number of likes for posts;
- AvgComments (Average number of comments per post): measured in the number of comments on posts.

The variables for the regression model are presented in Table 2. These indicators were selected based on a number of prior scholarly investigations, namely Ahmed and Lugović (2019), Andreotta et al. (2019), Chang et al. (2019), Choi et al. (2020), Kantar (2023), Vorobei (2022).

<table>
<thead>
<tr>
<th>Variable</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sales</td>
<td>Sales of researched sample companies, USD</td>
</tr>
<tr>
<td>AdBudget</td>
<td>Advertising budget, USD</td>
</tr>
<tr>
<td>AvgPosts</td>
<td>Average number of posts per day, number of posts</td>
</tr>
<tr>
<td>AvgLikes</td>
<td>Average number of likes per post, number of likes</td>
</tr>
<tr>
<td>AvgComments</td>
<td>Average number of comments per post, number of comments</td>
</tr>
</tbody>
</table>

MS Excel and R software packages were used for analysing the sample data. The limitations of the current study encompass the model’s conceivable incapacity to consider particular exogenous elements that may affect sales, such as changes in legislation, socio-economic conditions and so on, as well as the influence of uncontrollable variables such as product quality.

RESULTS

The impact of retail sector companies’ activity on social media networks, including their advertising budget, number of publications, and engagement metrics such as likes and comments is analysed. As consumers become increasingly engaged
with brands on social media, comprehending this relationship is imperative for elaborating successful marketing strategies while optimizing advertising costs. Our study presents regression analysis results based on a sample population dataset.

**Coefficient of determination (R-squared):** 0.993, which indicates a high level of the model’s ability to explain changes in the dependent variable (Sales) for the companies across the sample population under study.

**Coefficients for independent variables:**

- **AdBudget (Advertising budget):** 0.0497. A result at this level means that for every additional dollar spent on advertising, sales increase by an average of 0.0497 units.
- **AvgPosts (Average number of posts):** The coefficient of 9.6106 indicates a significant positive effect of the post number on the company’s sales across the sample population under study.
- **AvgLikes (Average number of likes):** The coefficient of 1.9758 indicates a positive relationship between the number of likes and sales of the companies under study.
- **AvgComments (average number of comments):** The coefficient of 3.1074 indicates the comments’ positive impact on companies’ sales across the sample population under study.
- **Statistical significance:** All coefficients have statistically significant p-values (P>|t|), close to zero, which indicates the high statistical significance of these variables in the model.

The results of the econometric model for digital marketing of retail companies’ social networks can be presented in the form of the linear regression equation as follows:

\[
\text{Sales} = 203.5972 + 0.0497 \times \text{AdBudget} + 9.6106 \times \text{AvgPosts} + 1.9758 \times \text{AvgLikes} + 3.1074 \times \text{AvgComments}
\]

The coefficients represent the corresponding variable’s effect on the sales volume. The variable "Number of posts” has the greatest positive influence. According to the studied model’s findings, the independent variable "Number of comments on posts” has a smaller influence. Accordingly, the independent variable "Number of likes to the post” has a smaller effect on the dependent variable (sales). Table 3 presents the key descriptive statistics indicators for each variable in the sample.

**Table 3. Descriptive statistics for regression analysis results. (Source: analysis of the researched sample data)**

<table>
<thead>
<tr>
<th>Variable</th>
<th>Mean</th>
<th>StDev</th>
<th>Min</th>
<th>25%</th>
<th>Median</th>
<th>75%</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sales</td>
<td>909.52</td>
<td>108.24</td>
<td>668.25</td>
<td>828.06</td>
<td>922.71</td>
<td>973.81</td>
<td>1182.07</td>
</tr>
<tr>
<td>AdBudget</td>
<td>10119.62</td>
<td>2025.92</td>
<td>4894.02</td>
<td>8712.29</td>
<td>10186.19</td>
<td>11474.15</td>
<td>14539.51</td>
</tr>
<tr>
<td>AvgPosts</td>
<td>4.79</td>
<td>2.29</td>
<td>1.00</td>
<td>3.00</td>
<td>4.91</td>
<td>6.00</td>
<td>12.00</td>
</tr>
<tr>
<td>AvgLikes</td>
<td>48.61</td>
<td>9.72</td>
<td>27.15</td>
<td>42.39</td>
<td>49.13</td>
<td>55.13</td>
<td>80.57</td>
</tr>
<tr>
<td>AvgComments</td>
<td>19.73</td>
<td>5.22</td>
<td>5.54</td>
<td>16.15</td>
<td>19.67</td>
<td>23.55</td>
<td>33.26</td>
</tr>
</tbody>
</table>

Drawing upon the analysis of the model’s descriptive statistics, the following conclusions can be made according to the dependent and independent variables:

- **Sales:** The significant range of sales, spanning from 668 to 1182, serves as a clear indicator of the diverse and varied performance. The average sales value is above the median, which may suggest a positive skewness in the distribution, favouring the right side.
- **Advertising budget (AdBudget):** The wide range of advertising budgets indicates a significant variability in spending strategies among different observations. A high standard deviation highlights that advertising budgets vary considerably between different companies or campaigns.
- **Average number of posts (AvgPosts):** The distribution of the average number of posts is fairly expansive, yet primarily centred on a range of 3 to 6 posts per day.
- **Average number of likes (AvgLikes), Average number of comments (AvgComments):** Both of these independent variables have a relatively stable distribution, indicating a more consistent user engagement with the content.

Figures 1-5 provide a graphical summary of the descriptive statistics. These visual aids facilitate an assessment of the distribution and variability of each variable, which is crucial in comprehending the data characteristics.

The graphical representation in Figure 1 illustrates the sales volume distribution, revealing an asymmetrical pattern with a notable concentration of values within the middle range. The mean value of 909.52 reflects the average level of sales
across all observations. On the other hand, the median stands slightly higher at 922.71, possibly indicating a positive skewness towards the right tail as half of all data points lie above this threshold. Furthermore, with a standard deviation of 108.24, it is evident that there exists moderate fluctuation in sales around their mean value. This indicates either the presence of outliers or strongly successful sales well above the average level. Overall, the distribution of sales is relatively symmetric with a slight right skew.

Figure 1. Descriptive statistics for dependent variable «Sales». (Source: analysis of the researched sample data)

Figure 2 shows the budget distribution for advertising on social networks. The distribution is balanced, with some shift towards higher values. Descriptive statistics for the variable "AdBudget", representing the budget for a marketing campaign, provide information on the advertising budget distribution in the sample under study, the average being USD 10119.62. The median, which is 10188.19, is slightly higher than the mean, which may indicate a slight right-skew (positive) in the distribution. A standard deviation of 2025.92 indicates a significant spread in the size of budgets for marketing campaigns. This may suggest that while most budgets are clustered around the average, there are also a notable number of cases with significantly higher or lower costs. The AdBudget variable has a distribution with moderate variability and certain symmetry. Nevertheless, the standard deviation and the difference between the percentiles and extreme values indicate that there are data with relatively high and low budgets in the sample.

Figure 2. Descriptive statistics for «AdBudget». (Source: analysis of the researched sample data)

Figure 3 shows the number of posts per day. On the graph, most of the values are concentrated around the middle range, with some outliers at higher values. The average value is 4.79, with an average of about 4.79 posts per marketing campaign. The median is 5.00, which is very close to the mean, indicating a symmetrical distribution of the data where half of
all values are less than or equal to five posts. The standard deviation is 2.29, indicating a moderate spread of the data about the mean. This suggests that the number of posts in most cases does not differ much from the average number. The distribution of the variable “AvgPosts” is fairly symmetrical and shows moderate homogeneity.

Figure 3. Descriptive statistics for «AvgPosts». (Source: analysis of the researched sample data)

Figure 4 presents the distribution of the average number of likes per post. The distribution of this independent variable is fairly symmetrical and balanced. The average value is 48.61, accordingly, the average number of likes per post is approximately equal to this value. The slightly higher median of 49.15 indicates that more than half of the posts have likes equal to or less than that number. Given the above, the distribution is fairly symmetric, as the median is very close to the mean. The standard deviation is 9.72, with a moderate spread around the mean number of likes. Accordingly, posts usually have likes about 10 units above or below the average. Basically, this is not a very high variance, which suggests that the number of likes is relatively consistent across the dataset.

Figure 4. Descriptive statistics for «AvgLikes». (Source: analysis of the researched sample data)

Figure 5 shows the distribution of the budget for advertising on social networks. The distribution is balanced, with some shift towards higher values. The average value of 19.73 indicates that the average number of comments fluctuates around this value. The median of 19.67 indicates an almost symmetrical data distribution with only a minimal deviation towards higher values. The standard deviation is 5.22, indicating a moderate variability level in the number of comments. The AvgComments variable has a relatively symmetric distribution with moderate variability. A close match between the mean and median indicates a data set without extreme outliers, while the range from minimum to maximum value reveals a diverse behaviour range in the number of comments.
The examination of descriptive statistics yielded several observations. First, there is significant variability in all key variables (advertising budget, number of posts, likes, and comments), which indicates different strategies and conditions managed by different companies in the sample population studied. Second, there is a potential right-sided (positive) skew in some variables, which may indicate the presence of several high-performing companies that are considerably ahead of others in terms of sales or advertising effectiveness. The wide range of data, especially in terms of the advertising budgets’ size underscores the necessity for a customized strategy tailored to each campaign or enterprise.

Given the significant variability in advertising budgets and activity on social media platforms, companies should develop customized digital marketing strategies based on their unique goals and available resources. Given the relatively stable distribution of likes and comments, prioritizing audience engagement can significantly enhance the efficacy of digital marketing campaigns. Based on the results of the researched model, the following conclusions and recommendations for the analysed companies can be presented:

1. Significance of advertising investment: The model shows that investment in social media advertising has a positive effect on sales. Every extra dollar spent on advertising tends to increase sales.

2. Significance of social media engagement: High coefficients for variables related to social media activity (posts, likes, comments) indicate their considerable impact on sales. The best results can be achieved when various digital marketing strategies are integrated, although each variable individually affects sales.

3. Technology of digital marketing: In successful marketing campaigns, the driver of new technologies stood out from the sample population under study. The role of artificial intelligence and machine learning, which open up new opportunities for data analysis, content personalization and process automation, is becoming especially important. Customization is gaining a specific value as a key element in successful digital marketing, enabling companies to create unique offers for each customer.

Drawing upon the conducted analysis and comprehension of the outcomes elaborated through using our model, we devised suggestions for the companies within the sample under study.

First, given the model's positive correlation between advertising expenditure and sales, it would be expedient to augment investments towards social media advertising.

Secondly, maintaining effective activity in social networks. Promoting social media activity (posting regularly, and engaging your audience through likes and comments) can improve sales.

Third, setting up a set of digital marketing analytics and optimization. Regular monitoring is key to optimizing strategies and budgets. Finally, content customization on social media platforms within the framework of sales promotion. Delivering customized content that aligns with the preferences and requirements of your intended audience can significantly enhance both their level of interaction and propensity to make purchases.
DISCUSSION

Therefore, the impact of digital marketing technologies on retail sector companies’ sales was determined. Let us delve deeper into the acquired findings. The present study consolidates and synthesizes crucial results from a variety of prior studies while focusing on the contemporary panorama of digital marketing technologies for retail companies. The role of technology is particularly highlighted in the context of modern challenges inherent in the retail sector. Primarily, it is imperative to individualize the value proposition while retaining a steadfast focus on brand attention. This notion is corroborated by Zhu’s and Gao’s (2019) research emphasizing the significance of digital marketing tactics grounded in precision marketing technology. Additionally, Pham (2021) emphasizes the adoption of digital marketing technologies through market-wide digital transformation.

The results of the study indicate the importance of maintaining the customer’s intention to purchase in the context of digital marketing campaigns. In this light, Wuisan and Handra (2023) emphasize the importance of a digital marketing strategy in supporting the customer’s intention to make a purchase on online and offline platforms. Similarly, Nurjanah et al. (2023) underscores the key role of digital marketing technologies in achieving several crucial marketing goals, particularly the preservation of the purchase determination.

The study emphasizes the importance of integrating digital marketing technologies into the general business context of the functioning of retail sector companies. This step will make it possible to better manage both the complex digital marketing technologies and work on the market. It validates Zhang’s et al. (2019) thesis on the strategic significance of crafting optimized digital marketing initiatives that are integrated into the overall business management framework. Additionally, Wen (2023) points to the critical importance of integrating digital technologies into digitalized management to improve business performance.

The research highlights the significance of digital marketing technologies for efficacious retail business administration in a wider scope that surpasses mere marketing. This proposition is substantiated by Ram’s et al. (2023) thesis on the function of digital marketing technology in supply chain management. The above is supported by Doan et al. (2023) regarding the role of digital marketing technologies in the development of the staff’s digital skills.

The study draws attention to the role of digital marketing technologies in enhancing the results of companies in the retail sector. The role of digital marketing technologies in ensuring the strategic and operational work of retail businesses in complex exogenous conditions is underlined. In this light, Udayana et al. (2024) point to the role of digital marketing in enhancing small businesses’ financial performance. Additional substantiation is provided by Basry et al. (2024) regarding the direct relationship between digital marketing and business performance.

However, the findings of this study differ from prior research in that the utilization of digital marketing technologies necessitates precise synchronization with the modelling of marketing budget effectiveness. The growth of marketing expenditures, particularly on social media platforms, does not necessarily translate into a guaranteed growth in sales. The crux lies in aligning business requirements, campaign prerequisites and available digital marketing technologies to attain superior sales and budgetary efficacy. Furthermore, this study highlights the pivotal role played by cutting-edge technologies such as artificial intelligence (AI) in marketing, specifically for personalized targeting purposes.

CONCLUSIONS

In light of the above, the key domains of the impact that digital marketing technologies wield on the companies’ business results in the retail sector were determined. The complexity of this endeavour is attributed to the marked particularity within the retail sector and the expeditious evolution of technological advancements in this realm. A distinct obstacle is the personalization of marketing campaigns, which can be addressed through leveraging digital marketing technologies at the expense of digital marketing technologies.

In the conducted regression analysis, the importance of investment in advertising and personalization of marketing campaigns due to the latest technologies was revealed, which explored the relationship between digital marketing in social networks and sales of retail companies. A high coefficient of determination (R-squared) at the level of 0.993 indicates that the model effectively substantiates the changes in sales. It should be noted that factors such as advertising budget, number of posts, likes and comments on social networks have a significant impact on sales. Each additional dollar invested in advertising increases sales by 0.0497 units, highlighting the importance of investment in advertising campaigns. In terms of the dependent variable “Sales”, the distribution of sales volumes has some asymmetry with a greater concentration of values in the middle range. The average value is 909, which indicates the overall average level of sales. The median is
slightly higher at 922, indicating a slight right-skewed distribution. Descriptive statistics analysis revealed significant variability in all key variables, indicating the diversity of strategies and conditions that different companies operate. The variation in sales figures, ranging from 668 to 1,182 units, highlights the heterogeneity of firms' productivity. The wide range of advertising budgets underscores the need for an individual approach to each advertising campaign.

Further research is centred on scrutinizing digital marketing technologies through the lens of artificial intelligence in order to individualize marketing campaigns. The digitization of marketing companies' analyses appears to be a promising research domain.

## ADDITIONAL INFORMATION

### AUTHOR CONTRIBUTIONS

Conceptualization: Zlata Tiahunova, Oksana Holik  
Data curation: Nataliia Tiahunova  
Formal Analysis: Tetiana Yarovenko  
Methodology: Nataliia Tiahunova, Oksana Holik  
Software: Tetiana Yarovenko  
Resources: Tetiana Yarovenko, Artem Melnikov, Oleksandr Samardak  
Supervision: Zlata Tiahunova  
Validation: Zlata Tiahunova  
Investigation: Nataliia Tiahunova  
Visualization: Nataliia Tiahunova, Nataliia Tiahunova  
Project administration: Zlata Tiahunova  
Writing – review & editing: Zlata Tiahunova  
Writing – original draft: Artem Melnikov

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### CONFLICT OF INTEREST

The Authors declare that there is no conflict of interest.

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ЦИФРОВІ МАРКЕТИНГОВІ КОМУНІКАЦІЙНІ СТРАТЕГІЇ ПІДПРИЄМСТВ ТОРГІВЛІ НА СОЦІАЛЬНО-МЕДІЙНИХ ПЛАТФОРМАХ

Сучасні підприємства торгівлі перебувають у складному та швидкозмінному середовищі під впливом екзогенних і ендогенних факторів. Особливу роль у підвищенні ефективності їхнього функціонування відводять технологіям цифрового маркетингу. Метою дослідження є ідентифікація зв’язку цифрових маркетингових технологій і продажів роздрібного бізнесу щодо їх використання в ефективності застосування маркетингового бюджету. У межах дослідження використано метод економетричного аналізу (регресійний аналіз, аналіз дескриптивної статистики), метод аналізу соціальних мереж. Регресійний аналіз показав важливість інвестицій у рекламу та персоналізацію маркетингових кампаній завдяки новітнім технологіям. Значний вплив на продажі мають такі фактори, як рекламний бюджет, кількість постів, уподобань, коментарів у соціальних мережах. За результатами моделі кожний додатковий долар, вкладений у рекламу, збільшує продажі на 0,0497 одиниці, що вказує на важливість інвестицій у рекламні кампанії. Розподіл обсягів продажів має певну асиметрію із середнім показником 909 і медіаною 922. Аналіз виявив значну варіабельність ключових змінних, що вказує на різноманітність стратегій та умов, у яких працюють різні компанії. Практичні рішення в цифровому маркетингові для компаній роздрібної торгівлі включають збільшення інвестицій у рекламу в соціальних мережах, регулярні публікації та залучення через уподобання та коментарі.

Ключові слова: роздрібний сектор, технологія цифрового маркетингу, бюджет маркетингу, штучний інтелект, бізнес-результат

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