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THE IMPACT OF DIGITAL MARKETING STRATEGIES ON ENHANCING BUSINESS PERFORMANCE

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INTRODUCTION

In the modern world, where digital technologies are rapidly evolving and significantly impacting various aspects of business, the automotive industry is not left aside. The implementation of digital marketing strategies is becoming increasingly important for car-selling companies to enhance their market competitiveness.

Digital marketing encompasses the use of various internet platforms, social media, email, and other digital channels to promote products and services. Technologies provide automotive companies with the opportunity to engage and interact with consumers in new ways, opening up new possibilities for increasing competitiveness.

One of the most significant advantages of digital marketing strategies for car sales is the ability to precisely target advertising to the desired audience. Through data analysis, companies can identify potential buyers, determine their needs and interests, and create personalized advertising campaigns that effectively communicate with this audience.

Moreover, digital marketing strategies allow automotive companies to build an online presence and create a positive brand image. Social media and online channels provide opportunities to interact with consumers, respond to their questions and feedback, and showcase new car models and technological advancements. This helps build brand trust and attract more potential buyers.

The authors have analyzed various aspects of digital marketing, such as social media and data analysis, to determine their role in the effective promotion of cars. Additionally, an analysis was conducted on the impact of digital marketing strategies on car buyers, including their preferences, product understanding, and decision-making processes.

The results of this study can be valuable for automotive companies aiming to effectively utilize digital marketing strategies to attract more customers and increase their market share. The conclusions of the research can also provide recommendations and directions for future marketing strategies in the automotive industry.

In the context of globalization and increasing competitive pressure, the customer becomes the most valuable asset for a company. Therefore, it is

necessary to assess its competitive advantage to ensure not only maximum customer satisfaction but also profit growth. Hence, a consumer-oriented approach must be developed and implemented to ensure the company's efficiency and profitability.

1. Analysis of the U.S. automotive sales market

A marketing strategy is a set of marketing activities that a company uses to sustainably promote its products in the market. It includes setting objectives, analyzing, planning marketing activities, and monitoring their results. However, the Ukrainian interpretation of this concept provides a more specific and relevant definition for contemporary conditions.

A marketing strategy is the process of formulating and implementing the objectives and tasks of a manufacturer and exporter in each specific market (or market segment) and for each product over a certain period of time. This strategy is developed based on the research and forecasting of market conditions, studying products, customers, and competitors, and represents a logical framework that allows an organization to effectively solve its marketing tasks[1].

Digital marketing strategies are a set of measures aimed at monitoring, analyzing, and interacting with users in the online environment. Their goal is to create content and tools that attract user attention and encourage interaction, ultimately leading to decisions such as purchasing a product or service[2].

Business marketing strategies are the foundation of any company's marketing activities, as they define the direction of the company's interaction with the market and resources, while also focusing on increasing profits. These strategies allow the company to assess its capabilities and properly allocate resources to achieve maximum effect. There are three main directions of business strategies: portfolio strategy, growth strategy, and competitive strategy.

The portfolio strategy involves viewing the company as a collection of business units, each of which can have its own development strategy. It allows the company to focus attention and resources on the most promising market segments and products.

[1] Kuzmenko, I. L. (2018). Enhancing competitiveness of automotive industry enterprises in crisis conditions. *Economics. Finance. Law,* 7(11), 49-56. Available at: http://www.economy.nayka.com.ua/?op=1&z=3390

[2] Yuriy Kyrylov, Viktoriia Hranovska, Hanna Zhosan, Inna Dotsenko, Innovative Development of Agrarian Enterprises of Ukraine in the Context of the Fourth Industrial Revolution. *Solid State Technology*. Volume: 63 Issue: 6. Publication Year: 2020. pp. 1430-1448. Available at: http://solidstatetechnology.us/index.php/JSST/article/view/2218

Table 1

Digital Marketing Strategies

Strategy Name	Year	Country	Description	Advantages	Disadvantages
Search Engine Optimization	1990	USA	Optimization of web pages for high rankings in search engines.	Improves visibility in search engines.	Time and resource-intensive.
Social Media Advertising	2004	USA	Advertising campaigns on popular social networks.	Reaches target audience.	Potential for low conversion rates.
Content Marketing	2007	USA	Creation and distribution of valuable content to attract customers.	Establishes company expertise and authority.	Requires time to build authority.
Email Marketing	1971	USA	Using email for advertising and customer communication.	Accessibility, fast delivery.	Potential for email spam.
Video Marketing	2005	USA	Implementing videos to promote products and services.	Captures attention and emotionally engages the audience.	Requires high-quality content and technical knowledge.
Marketing Automation	2009	USA	Using software tools to automate marketing processes.	Increases efficiency and saves time.	Requires investment in software.
Mobile Marketing	2000	USA	Implementing mobile devices and apps for advertising and communication.	Accessibility to a wide audience, mobility.	Limited screen space, potential for customer rejection.
Social Media Analysis	2006	USA	Studying data and trends on social networks for brand management.	Understanding audience and product reactions.	Complexity of analyzing large data volumes, limited sources.
Geotargeting	2010	USA	Targeting advertisements based on location.	Adapts offers to local conditions and needs.	Potential privacy concerns, limited coverage.

Source: created by the author based on sources[3,4]

[3] Davydenko, I., & Mu, J. (2019). Customer Satisfaction and Online Car Purchasing Intention: A Case Study of Chinese Consumers. Available at: https://ltu.diva-portal.org/smash/get/diva2:1674436/FULLTEXT02.pdf

[4] Sudirjo, F. Marketing Strategy in Improving Product Competitiveness in the Global Market. Available at: https://journal.literasisainsnusantara.com/index.php/adman/article/download/24/39

The growth strategy defines the directions for increasing sales volumes and the company's market share. This can include expanding the product range, introducing new products to the market, expanding geographical presence, etc.

The competitive strategy includes various approaches to conducting competitive battles in the market, such as price reduction, promotional campaigns, quality improvement of products, etc.

Functional marketing strategies are developed for each unit (department) of the company separately. They are established for each brand or product if the company has multiple brands. These strategies help each unit adapt to the company's overall strategies and effectively fulfill their tasks within the context of the overall marketing strategy.

Competitiveness is a dynamic and variable market category. Despite the stable qualitative characteristics of a product, its competitiveness can significantly change depending on market conditions, competitors' actions, pricing policies, advertising activities, and other factors.

To ensure a company's competitiveness, it is important to have high production efficiency, which is achieved through modern equipment, advanced technologies, qualified personnel, and the ability to successfully compete and maintain stable market positions. This is accomplished through the effective application of marketing management principles.

The main conditions for ensuring competitiveness include:

– Applying scientific approaches to strategic management;

– Ensuring the interconnection between technological progress, technologies, economics, and management;

– Utilizing modern research and development methods such as program-target planning, decision theory, etc.;

– Considering the interrelations between management functions at all stages of the object's life cycle;

– Developing a system of measures to ensure the competitiveness of various objects.

The market is characterized by an increasing level of competition and rapid changes in the business environment. In the current market environment, it is crucial for organizations to develop and implement effective marketing strategies to enhance the competitiveness of their products in the global market.

A marketing strategy refers to a carefully formulated plan or approach developed by organizations to achieve their marketing goals. The process encompasses a sequence of actions and choices made to promote, distribute, and sell the company's products or services to consumers or a defined market. The primary objective of a marketing strategy is to increase product

awareness, perception, and sales, while simultaneously fostering strong relationships with consumers.

Researching the factors influencing used car prices is crucial for understanding market dynamics and their impact on supply and demand. A stable and efficient used car market can provide consumers access to affordable transportation options, foster competition among businesses, promote innovation, and contribute to overall economic development.

In the marketing sphere, it's important to grasp the relationship between supply and demand in the used car market. Factors such as financing availability, competition among dealerships, and the age and condition of vehicles can influence the prices consumers are willing to pay for used cars. By analyzing these and other factors, marketing policies and businesses can develop strategies aimed at enhancing competitiveness in the used car market.

These strategies may include developing marketing campaigns to increase consumer awareness of the benefits of used cars, creating differentiated offerings for different market segments, emphasizing the quality and reliability of used cars, and improving the sales and customer service processes. Marketing strategies may also involve partnerships with insurance companies, financial institutions, and other market players to ensure accessible financing terms and create additional benefits for consumers.

In the modern automotive world, used cars are attracting increasing attention as an alternative transportation solution. Rapid technological advancements, shifting consumer preferences, and economic factors significantly influence sales trends in this segment.

While the automotive industry's contribution to the U.S. economy has been declining over the years, the workforce in this sector remains substantial. Automakers, car parts suppliers, dealerships, and parts sellers constitute a significant portion of the U.S. workforce. In 2022, approximately 4.3 million people were employed in the automotive industry, accounting for about 2.5% of the total workforce of 165.5 million people, according to government data[5].

In the context of active U.S. government support for the electrification of the automotive industry by the 2030s, sales of cars and trucks will be a key indicator of the transition to alternative energy sources and the phasing out of coal-based fuel. It is projected that in the next decade, sales of new vehicles will reflect increasing consumer demand for electric-powered cars and trucks, alongside a decline in internal combustion engine vehicles. Sales of new cars and trucks are likely to become a primary indicator of the country's technological transformation and consumer spending on advanced technologies[6].

[5] Auto Sales Definition. URL: https://www.thestreet.com/dictionary/auto-sales

[6] Auto Sales Definition. URL: https://www.thestreet.com/dictionary/auto-sales

Researching the factors influencing the prices of used cars can provide valuable insights into market dynamics affecting supply and demand. A stable and efficient market for used cars can offer consumers accessible transportation options, foster competition and innovation among businesses, and contribute to overall economic health. Understanding the relationship between supply and demand in the used car market is crucial.

Factors such as financing availability, competition among dealership centers, as well as the age and condition of vehicles, can influence the prices consumers are willing to pay for used cars. By studying these and other factors, policies and businesses can develop marketing strategies that promote the development of a healthy and efficient used car market.

The authors conducted an analysis using data collected in RStudio. They found that the best sales performance in the U.S. among all models were for (Manufacturer Ford, Manufacturer Honda, Manufacturer Jeep, Manufacturer Porsche, Manufactuer Toyota), and certain metrics such as Engine_size, Wheelbase, and Curb_weight played important roles. This analysis indicates that these models and characteristics show sufficiently positive indicators for purchasing a car.

Table 2

Best Model Performances and Characteristics

Model/ Characteristic	Estimate	Std. Error	value	Pr(>|t|)
ManufacturerFord	109.25727	46.58551	2.345	0.02152
ManufacturerHonda	102.09224	45.74371	2.232	0.02846
ManufacturerJeep	109.69805	59.65175	1.839	0.06968
ManufacturerPorsche	127.67671	73.78888	1.730	0.08748
ManufactuerToyota	77.10298	42.95561	1.795	0.07649
Engine_size	38.27529	21.94883	1.744	0.08508
Wheelbase	6.79007	2.17050	3.128	0.00246
Curb_weight	-62.79377	34.85525	-1.802	0.07535

Source: created by the author of the research based on RStudio analysis

The top performers include (Ford, Honda, Jeep, Porsche, Toyota) among 130 other firms, and among the components, (Engine size, wheelbase, curb weight) play an important role.

Std. Error – станд. Standard error, is a measure of variability or uncertainty in the estimate. It indicates how much the estimate may differ from the true value.

The t-value is the estimate divided by the standard error. It indicates the number of standard deviations the estimate is from zero. A higher t-value provides more evidence against the null hypothesis of no effect.

Pr(>|t|) is the p-value associated with each estimate. It represents the probability of observing a t-value as extreme as computed from the data, assuming the null hypothesis is true. Smaller p-values indicate stronger evidence against the null hypothesis.

Table 3

Data Analysis of Overall Characteristics

	Sales_in_ thousands	Horsepower	Wheelbase	Fuel_ efficiency	Power_ perf_factor
min	0.11	55.0	92.6	15.00	23.28
Ist.Qu	14.11	149.5	103.0	21.00	60.41
Median	29.45	177.5	107.0	24.00	72.03
Mean	53.00	185.9	107.0	23.84	77.04
3rd Qu	67.96	215.0	112.2	26.00	89.41
Max	540.56	450.0	138.7	45.00	188.14
NA's		1	1	3	2

Source: created by the author based on the analysis from RStudio

The analysis results indicate that the standard error is within the normal range, therefore this result is reliable.

Car sales are measured widely, ranging from very low values (minimum 0.11 thousand units) to very high values (maximum 540.56 thousand units). The average sales amount to approximately 29.45 thousand units, indicating that half of the cars have lower sales, while the other half have higher sales.

The average horsepower of cars is 185.9 horsepower, but the maximum value reaches 450 horsepower. This shows a significant difference in horsepower among different car models.

The average wheelbase length for cars is 107.0 inches. The minimum value is 92.6 inches, and the maximum is 138.7 inches. This means cars can have varying wheelbase lengths, affecting their stability and smoothness of movement.

The average fuel consumption of cars is 23.84 miles per gallon. The minimum value of this characteristic is 15.00 miles, and the maximum is 45.00 miles. This characteristic indicates a significant difference in fuel consumption among different car models.

The average power-to-weight ratio for cars is 77.04. The minimum value of this factor is 23.28, and the maximum is 188.14. This ratio reflects the relationship between a car's power and its weight.

2. Analysis of car sales in Ukraine

Car sales are an important indicator of Ukraine's economy, with a significant portion of the population employed in the automotive sector.

The automotive market in Ukraine has the potential to significantly contribute to the state budget, but this potential has not been fully realized. To understand why, experts from the Institute for Market Studies, Analytics YouControl.Market, and Automoto.ua conducted a study on market volumes and their impact on the state budget, alongside reviewing statistics on purchases of new and used cars.

According to official data, Ukrainian legal entities purchased only 2.6% of cars in 2022. The majority of transactions were conducted by individuals, with many purchases made through car markets, particularly for used cars. These situations raise questions about the functioning of the automotive market.

Even amidst the war, demand for cars in Ukraine has not decreased. Information about car sales is readily available and understandable, as there are official dealers and importers operating. In 2022, the situation was as follows:

Ukrainians purchased 100.7 thousand new cars, of which approximately 71% were imported, and 28% were manufactured or re-equipped locally.

There were 1.3 million transactions registered for the sale of used cars.

97.4% of used cars were registered to individuals, with only 2.6% registered to legal entities.

The majority of car transactions in Ukraine, 66.8%, occur through the State Traffic Inspectorate service centers, indicating that many Ukrainians buy cars from previous owners. 32.8% of deals are conducted through commission sites that act as intermediaries between the seller and buyer, avoiding responsibility for the transaction and tax payments on the commissions received.

The participation of legal entities in the Ukrainian car market is limited. In 0.3% of cases, cars were sold by companies that owned fleets. Experts believe that such deals are likely related to the sale of corporate fleets by legal entities.

As an example, Poland and Germany where legal entities are active participants in the used car market can be cited. For instance, Polish dealers sold 19.6% of the total number of cars in 2022. In Germany, this figure is even higher at 79%. Only 21% of used cars in 2020 were sold by individuals.

The authors of this research conducted an analysis of car sales data for the year 2020. The analysis included 22,000 records, comprising 9 subordinates: car brand, model, year of manufacture, body type, car price, mileage (km), fuel type, horsepower, and transmission type.

To handle such a large database, RStudio software was utilized. RStudio offers a wide range of functions that researchers can use in their analysis of car sales for a specific period. By using RStudio, it is possible to make

forecasts specifically in marketing categories, identifying which features and characteristics have the greatest impact on car sales.

The research results are both practical and visually informative. They allow entrepreneurs to visually observe sales trends and draw corresponding conclusions.

Table 4

Linear Regression

	Estimate	**Std. Error**	**t value**	**Pr(>|t|)**
(INTERCEPT)	-111.5216	1.2561	-88.7811	0
BRANDAUDI	0.363	0.0178	20.3934	0
BRANDBMW	0.3603	0.0154	23.3548	0
BRANDFORD	0.0201	0.0155	1.2958	0.195
BRANDHYUNDAI	-0.0141	0.0169	-0.8342	0.4042
BRANDMERCEDES.BENZ	0.434	0.0148	29.3668	0
BRANDOPEL	0.0449	0.0165	2.7194	0.0065
BRANDRENAULT	0.0028	0.0145	0.1929	0.847
BRANDSKODA	0.1408	0.016	8.8161	0
BRANDTOYOTA	0.2638	0.0159	16.542	0
BRANDVOLKSWAGEN	0.1598	0.0111	14.339	0
YEAR	0.0601	6e-04	96.5591	0
BODYCOUPE	-0.0678	0.0633	-1.071	0.2842
BODYHATCHBACK	-0.4897	0.0594	-8.2478	0
BODYLIFTBACK	-0.3456	0.0676	-5.1114	0
BODYLIMOUSINE	0.0433	0.1332	0.3248	0.7454
BODYMINIVAN	-0.3532	0.0602	-5.8668	0
BODYOTHER	-0.339	0.0677	-5.0108	0
BODYPASSENGER.VAN	-0.4177	0.0611	-6.8386	0
BODYPICKUP	-0.2296	0.0688	-3.3382	8e-04
BODYSEDAN	-0.3806	0.0589	-6.4637	0
BODYSTATION.WAGON	-0.422	0.0594	-7.1091	0
BODYSUV.CROSSOVER	-0.0213	0.059	-0.361	0.7181
CAR_MILEAGE	0	0	-1.4575	0.145
FUELGAS	-0.1987	0.011	-18.0612	0
FUELPETROL	-0.0557	0.0087	-6.425	0
POWER	0.1985	0.0041	48.4889	0
TRANSMISSIONAUTOMATIC	0.0195	0.0788	0.2478	0.8043
TRANSMISSIONMANUAL	-0.2144	0.079	-2.713	0.0067
TRANSMISSIONOTHER	-0.1761	0.082	-2.1468	0.0318
TRANSMISSIONTYPTRONIK	0.0532	0.0802	0.6633	0.5071

Source: created using RStudio with direct author involvement

The first step taken was the removal of cells lacking source data. According to the respective programming language codes for R, the top 10 automobile brands were selected based on price category. It should be noted that RStudio has its own features; firstly, it not only deletes empty cells but can also remove entire columns of data, typically the first row and column. This requires special attention to ensure successful projection of results.

Based on the results of linear regression, several conclusions can be drawn. This data analysis was performed using logarithms in RStudio software. There exist distributions of power law (80/20 relationships, Pareto principle) in many fields of business, economics, and social sciences. Several observations at the distribution extremes rise very non-linearly, complicating the placement of a linear trend line through the data. This can complicate pattern recognition and distort analysis. Fortunately, transformations of the dataset can help. Taking the logarithm of the data can reduce the range of values and simplify pattern and relationship visualization. Additionally, transforming the dataset can help normalize the data distribution.

Reasons for conducting the analysis with transformations include:

Reducing skewness, which is beneficial for statistical analysis as many statistical tests assume normality.

Decreasing variance; if data have unequal variances between different groups or levels, transforming the dataset can help stabilize variances and make them more uniform.

Making patterns visible; sometimes, patterns in data are easier to see on a logarithmic scale than on a linear scale.

Simplifying interpretation; in some cases, transforming the dataset can help simplify the interpretation of data necessary for statistical analysis.

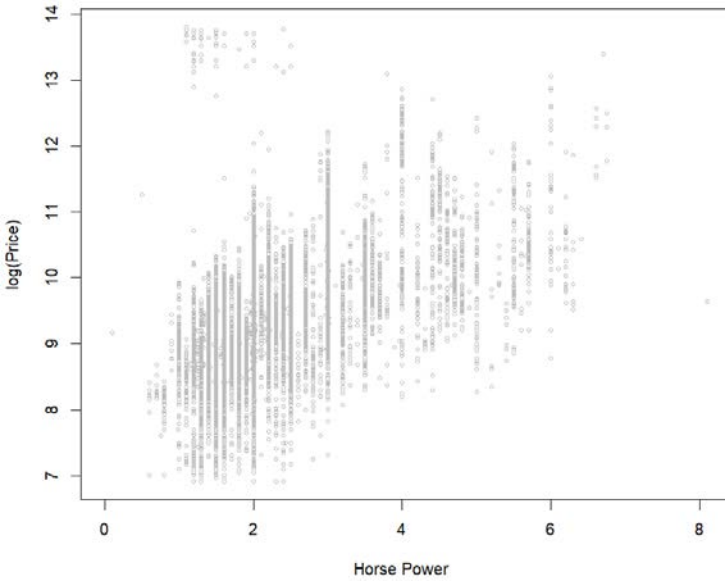
Logarithmic transformation is a convenient method to transform a variable with significant skewness into a more normalized dataset. When modeling variables with nonlinear relationships, the likelihood of making errors in prediction can also be negatively affected. Theoretically, minimizing errors during forecasting is possible, provided the model does not dominate. Dominance occurs when there are too many dependent variables at play, lacking sufficient generalization of the dataset to make an accurate forecast. Using the logarithm of one or more variables improves model fit by transforming the feature distribution into a more normal bell-shaped curve.

Among the car brands Audi, BMW, Mercedes-Benz, Skoda, Toyota, Volkswagen, play a crucial role in car sales. This is because their score exceeds the value of 0.5. Therefore, all indicators displayed in the table and highlighted accordingly represent the main dependencies for processing the analysis results.

The analysis results mentioned above were directly conducted using RStudio software. This function is extremely important as it facilitates the task for company executives and the marketing department in further market analysis and decision-making, in accordance with the conclusions.

Graphical interpretation allows for a visual examination of the corresponding results. One of the main advantages of the statistical package is the variety of graph types it can generate. R, in this sense, is one of the leaders. The basic set includes several dozen types of graphs, even more in the recommended lattice package, and even more in CRAN packages, where at least half of them build at least one original graph. Moreover, they are still quite customizable, allowing users to easily tailor the output to their research needs.

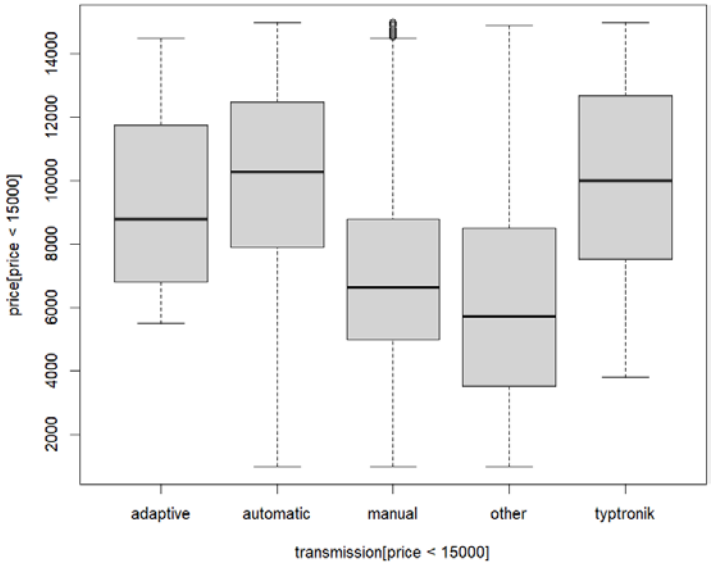
Interactive graphics allow pinpointing specific points on the diagram, placing objects (e.g., labels) precisely, and tracking the involvement of the same points across different graphs. Additionally, if the data is multidimensional, rotating a point cloud in the plane of different variables can reveal the data structure.



Graph 1. Graphic representation of the relationship between horsepower and price (Created using RStudio with direct author participation)

The given graphical representation of the linear relationship between horsepower and price shows that the data could have a more definite linear appearance. That is, the data should be graphically represented so that a direct line can be drawn; currently, this is not possible due to numerous data outliers significantly affecting the graph.

It's important for the manager to see that the relationship is fairly good, but more attention needs to be paid to these indicators going forward. At the very least, this issue should be closely monitored.



Graph 2. Graphic representation of the relationship between transmission and price (Created using RStudio with direct author participation)

Graphical interpretation indicates that automatic transmission is highly valued by buyers and holds a favorable position in car sales. Therefore, for effective implementation of marketing strategy, it is necessary to consider not only this fact but also other indicators for balanced business development.

For successful graphical interpretation, the boxplot function was utilized. Boxplots can be created for individual variables or grouped variables. The format is boxplot(x, data=), where x is the formula and data= is the data frame providing the data. An example of the formula is y~group, where a separate boxplot is generated for each group value of the numeric variable y.

Add varwidth=TRUE to make the width of the box proportional to the square root of sample sizes. Add horizontal=TRUE to change the orientation of the axis.

Boxplots depict data from the first quartile (25%) to the third quartile (75%). Thus, the box represents the central 50% of the data with a line inside representing the median. Whiskers extend to the furthest data points within 1.5 times the interquartile range from the box edges, excluding outliers, which, if present, are represented as dots.

3. The impact of marketing during wartime on the competitiveness of the enterprise

Companies that enter the market and effectively manage themselves based on marketing are the most competitive and contribute to achieving strategic goals in a competitive environment. Marketing activity itself is crucial. During crises, many companies drastically reduce their marketing expenditures and public displays. This is understandable, especially in conditions of military conflict, economic crises, and employee evacuations. However, it is important that even during wartime, companies continue to invest in their marketing activities.

The proper balance of various types of communication in the future leads to loyal customers who will continue to purchase goods and services for many years. The marketing system, guided by current information, analysis, and reports, must adjust its activities and adapt to current economic conditions.

It is understandable that business owners in times of uncertainty seek to avoid losses, hence they focus their efforts on marketing as a tool to stabilize company operations. Strategic marketing involves a set of measures aimed at forming the company's strategy based on strategic market segmentation, forecasting strategies for improving product quality, resource conservation, production development, and competitiveness standards, all contributing to maintaining or achieving competitive advantages for the company and ensuring stable profitability.

The conditions of war and the post-war period urge strategic marketing to initially focus on stabilizing the company, which involves budget reduction, focusing on the most profitable and stable product, and abandoning long-term projects. Marketing requires careful market analysis, purchasing power, and behavioral factors to create communications that correspond to crisis realities. In a crisis period, it is important to avoid spontaneous and ill-considered decisions as they can negatively impact the business. However, it is worth noting that competition usually decreases during a crisis period, creating opportunities to build a base of potential customers, study one's audience and their demands. Such a period can be used to prepare long-term development

strategies, increase awareness among customers, and prepare for future economic recovery efforts.

CONCLUSIONS

This scientific work conducted two analyses regarding car sales in the USA and Ukraine. The research showed that the use of digital marketing tools significantly influences sales performance in the automotive industry.

For Ukrainian companies in the automotive sector, it is advisable to conduct analyses of their operations more frequently than before the full-scale invasion of the aggressor country into Ukrainian territory. This is because during wartime, the Ukrainian economy is not stable and fluctuates. To support the country's economic stability, it is necessary to continuously improve services according to consumer demand.

The use of this programming language can impact the marketing structure of a company. When a company enhances its skills in the economic market, it automatically becomes competitive. As a result, other firms (competitors) begin to monitor the company, which serves as an additional stimulus for development in a complex economic situation.

It was found that the use of modern information programs, such as RStudio, can significantly facilitate the work of entrepreneurs for comprehensive information management within the company and aid in making marketing decisions.

Digital marketing strategies allow effective interaction with the target audience and meet their needs and expectations. Through working with the R programming language, more effective communications with potential clients can be created.

Digital information technologies allow the collection of important data on customer behavior, helping to analyze their preferences and habits. Based on this data, companies can improve their marketing strategies by offering more relevant and personalized offers.

SUMMARY

Based on the conducted research, it can be concluded that implementing advanced programs into daily workflow has a significant impact on increasing the competitiveness of car sales in Ukraine. The use of data analysis through R programming and defining appropriate marketing strategies allows companies to attract more customers, interact with them effectively, and adapt their offers to their needs and demands.

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