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B2B MARKETING STRATEGIES: VALUE CREATION, KEY CUSTOMER ACQUISITION AND PRESERVATION

ABSTRACT

In this work we have investigated B2B marketing strategies in Ukraine, particularly focusing on the intricate relationships between value creation, key customer acquisition, and preservation strategies within this dynamic context.

Principal Findings: Employing a multifaceted approach encompassing a comprehensive literature review, mathematical differential equations, and data simulations, our study uncovers pivotal insights. It underscores the crucial role of value creation and collaborative client engagement as cornerstones for gaining a competitive edge in Ukraine's B2B arena. Moreover, we emphasize the strategic importance of networking in the pursuit of effective customer acquisition. Additionally, our work introduces optimal values for each policy, illuminating their potential efficacy across diverse scenarios.

The study concludes that a harmonized approach that integrates value creation, customer acquisition, and preservation strategies can be a powerful driver of success in Ukraine's B2B market. Success in this dynamic landscape depends on adaptability, responsiveness to market conditions, and resource constraints. These findings offer valuable insights for businesses seeking a competitive edge in Ukraine's B2B sector and contribute to our understanding of B2B marketing dynamics in this context.

Keywords: B2B marketing, Ukraine, value creation, customer acquisition, preservation, competitive advantage, strategic networking, mathematical modeling

JEL Classification: M11, M31

INTRODUCTION

In contemporary business, particularly within the dynamic landscape of business-to-business (B2B) marketing, organizations grapple with multifaceted challenges and opportunities. Ukraine, with its burgeoning B2B sector, presents a captivating context for probing the intricate connections that exist among value creation, key customer acquisition, and preservation strategies. This scholarly endeavour embarks on a quest to unravel the distinctions of these strategic details and their profound implications. The B2B landscape in Ukraine is a mosaic of diverse industries, each with its unique set of circumstances, challenges, and opportunities. Against this backdrop, businesses are incessantly engaged in devising strategies that can propel them towards sustainable growth and heightened competitiveness. Understanding the intricacies of B2B marketing in this context is pivotal, for it provides a lens through which we can measure how Ukrainian enterprises navigate the multifaceted web of value creation, customer acquisition, and preservation.

Ukrainian business-to-business marketing centres on three basic tenets: value development, client acquisition, and customer preservation. This paper uses a case study in Ukraine to shed light on the dynamics between the various tactics used. This research examines the interplay and effect of these tactics by combining a thorough literature assessment with a fresh mathematical technique based on differential equations to examine the specifics of the Ukrainian business environment. The importance of value creation in Ukraine's current setting is huge. B2B enterprises get a competitive advantage by not only analysing market trends but also by co-creating value with their clients (Ivashchenko et al., 2018; Sheth and Usley, 2023) — a concept that can be

applied to Ukrainian businesses as well as their global competitors. In addition, there are some noteworthy local differences in the methods used to acquire new customers in Ukraine. The importance of strategic networking in developing commercial connections in Ukraine's B2B scene is highlighted by (Vătămănescu et al., 2020). Their research highlights the significance of trade shows and partnerships in attracting new customers.

A central theme of this research revolves around the quest for strategic optimization. In a world where resources are often constrained, and competition is relentless, the ability to discern optimal strategies that simultaneously enhance business performance, adapt to resource limitations, and navigate competitive pressures is of paramount importance. This study, therefore, calls upon sophisticated tools, including mathematical differential equations and scenario analysis, to find out the optimal strategies. In light of these multifaceted dynamics, the present research introduces a mathematical differential equation methodology to elucidate the interactions between value creation, customer acquisition, and preservation strategies within Ukraine's B2B landscape. This innovative approach allows for a quantitative exploration of how adjustments in one strategy trigger cascading effects throughout the ecosystem, offering insights into the interconnected nature of these strategies. The significance of this research lies in its contribution to both theoretical and practical aspects of B2B marketing within the Ukrainian context. The applicability of this work extends to businesses seeking a competitive edge in the Ukrainian market and researchers endeavouring to unravel the intricacies of B2B marketing dynamics. These tools enable us to traverse a landscape of possibilities, systematically evaluating the performance of various strategies under an array of conditions. Through this rigorous process, we unearth optimal values for each strategy, ultimately revealing a compelling narrative—that champions the strategic significance of harmonizing these approaches.

A resounding theme emerges from our analyses: synergy through integration. We find that an integrated strategy, one that seamlessly weaves together elements of value creation, customer acquisition, and preservation, can be a potent driver of success. This synergy transcends rigidity and responds dynamically to the cadence of market demand, the ebb and flow of competitive forces, and the availability of resources. Our research underscores that, in the vibrant and dynamic B2B market of Ukraine, success is contingent upon an adaptable and responsive strategy. The ability to tailor strategies in alignment with market conditions and resource constraints is a competitive advantage that businesses should harness. In this research, we employ a mathematical differential equation framework to analyze real-world B2B marketing situations in Ukraine. Our investigation delves into the methodology, analysis, and outcomes resulting from this application. Initially, we provide an extensive review of the relevant literature, which forms the theoretical foundation of our study. Following that, we introduce the mathematical approach used to elucidate the interplay between various B2B marketing strategies. Subsequently, we conduct a detailed analysis of real-world events to uncover quantitative insights into how these strategies interact. Finally, we conclude by summarizing our findings comprehensively, with a focus on their practical implications for B2B marketers in contemporary Ukraine.

LITERATURE REVIEW

In the context of Ukraine's B2B ecosystem, the quest for sustained growth extends beyond initial acquisitions to nurturing enduring partnerships. (Cortez et al., 2020) delve into the realm of customer relationship management within the country, emphasizing the role of continuous value addition and proactive communication in sustaining long-term B2B collaborations. (Kornai, 2013) augment this perspective by highlighting the effectiveness of personalized post-sales services in forging loyalty within the Ukrainian B2B market. (Kovalchuk et al., 2019) meticulously applies it to the realm of machine-building enterprises within the Ukrainian mechanical engineering sector. This empirical application yields tangible benefits, most notably in the optimization of monitoring processes and the judicious elimination of superfluous information flows. The author reflects on this applied facet: "At the enterprises which applied the suggested approach, optimization of the process of monitoring in the domain of marketing and personnel selection at the expense of elimination of duplicating information flows is observed." Central to the article is the pivotal theme of prioritization and strategic decision-making. The proposed model accords priority rankings to various marketing strategies for personnel management. This framework empowers decision-makers to discern and select the most fitting strategy based on the intricate tapestry of enterprise-specific conditions. The author emphasizes the paramount role of prioritization: "The higher priority is, the more probable and expedient use of appropriate marketing strategy of personnel control is" (Kovalchuk et al., 2019).

Examining existing literature on B2B marketing strategies in Ukraine reveals the significance of value creation. Scholars such as (Kabus and Kana, 2018) stress the importance of tailoring solutions to align with the Ukrainian market's specific needs and preferences. Customer acquisition strategies, discussed by (Kotler, 2011; Agic et al., 2016) emphasize personalized engagement and the role of networking in establishing business relationships. Preservation strategies, explored by (Uvarova and Pobol, 2021; Savitz, 2013) underscore the role of communication and continuous value addition in nurturing long-term partnerships within the Ukrainian B2B landscape. (Dubovyk et al., 2022) their research findings indicate that

the development of digital marketing is influenced by crisis phenomena of a socio-economic, social-political, and military nature, including the challenges posed by the COVID-19 pandemic. Highly developed countries exhibit greater use of innovative digital technologies in marketing, as evidenced by the Multidimensional Index of Digitization. Moreover, the study reveals a correlation between digital marketing development and cybersecurity, with highly developed countries recording higher levels of cybersecurity (Dubovyk et al., 2022).

Noteworthy is the duality of digital marketing, spanning both online and offline channels. While the former comprises avenues such as search engine optimization (SEO), social media marketing (SMM), and e-commerce, the latter entails methods like SMS and MMS messaging, offline stores, and more. What becomes evident through the analysis is the essential role of innovation in the digital marketing arena. In the context of geopolitical instability, digitalization, and marketing strategies, adaptable and innovative brand promotion approaches are crucial. Research by (Dubovyk et al.2022) highlights the connection between wartime conditions and digital marketing by emphasizing in their article that "It has been proven that highly developed countries use innovative digital technologies more effectively in the field of marketing, which indicates the importance of the Multidimensional Index of Digitization (the USA - MID: 0,92-0,92; the UK - MID: 0,80-0,97; Japan - MID: 0,80-0,88; Canada - MID: 0,78-0,81; Germany – MID: 0,78-0,88; France – MID: 0,72-0,76), however, the developing countries record much lower values (Ukraine - MID: 0,22-0,48)."(Dubovyk et al., 2022) further assert that "Regarding the results of the research of digital marketing in the conditions of wartime posture in Ukraine, it has been established that the intensification of the development of digital marketing is caused by the crisis phenomena of social-economic, social-political and military nature, as well as exacerbated by the challenges of the COVID-19 pandemic.". The evolution of B2B marketing strategies has been a subject of scholarly exploration, uncovering the profound impact of value creation, key customer acquisition, and preservation in shaping successful business interactions.

Mazur et al. (2023) investigate Ukraine's foreign trade dynamics, particularly in agriculture. In the B2B context, foreign trade plays a vital role, especially when dealing with international partners. Understanding trade conditions, such as price and quantity changes, is essential for negotiating agreements and pricing strategies. The study's focus on the terms of trade indicators aligns with B2B negotiations where terms are critical. It emphasizes developing foreign markets and promoting export-oriented production mirrors B2B strategies targeting global expansion. B2B companies need to identify international markets for their products and services, aligning with the study's emphasis on economic growth through foreign trade. Furthermore, the thriving processing industry and the need for growth rates exceeding GDP align with B2B value creation. B2B relationships often involve value-added processes, and maintaining a competitive processing industry is crucial for maintaining quality and efficiency in product/service delivery to partners. In essence, Mazur et al. (2023) provide insights into the importance of foreign trade, export-oriented production, and processing industry growth—directly linked to B2B strategies aiming for international expansion, value creation, and sustainable growth.

Levchenko et al. (2022) conducted a comprehensive study on future enterprise planning, with a specific emphasis on legal considerations. The research identified several prominent enterprise forms for the future landscape, including social enterprises, SMEs, business groups, international subsidiaries, and family businesses. This research has direct implications for B2B marketing strategies. By recognizing the emerging diversity in enterprise types, B2B marketers can tailor their approaches to effectively engage with these varied entities. It underscores the importance of flexibility and adaptability in B2B marketing strategies to accommodate the evolving global economy, technological shifts, and changing societal needs. The backdrop of Ukraine, with its evolving economic landscape and increasing prominence in global trade, sets the stage for a meticulous analysis of B2B marketing strategies. The present work draws inspiration from pioneering research and notable developments in B2B marketing theory and practice, as exemplified by (Avlonitis and Indounas, 2005), who expound on the strategic nature of B2B marketing, and (Paliwoda and Thomas, 2013), who explore the nuances of international B2B marketing.

Value Creation: Crafting Bespoke Solutions

Value creation in B2B marketing encapsulates the process of tailoring products, services, and solutions to meet the distinct needs and challenges of customers. This approach goes beyond the transactional aspect, focusing on offering comprehensive solutions that resonate with the client's specific goals and aspirations. Value creation is a foundational strategy that fosters enduring partnerships by addressing pain points in innovative ways. In different countries, this strategy takes on varying dimensions. For instance, in Germany, renowned for its precision engineering, companies like Siemens epitomize value creation by delivering cutting-edge industrial solutions that optimize efficiency (Beimans et al., 2022). Conversely, in emerging markets like India, Tata Consultancy Services leverages its expertise to develop tailor-made software solutions that enable digital transformation for global clients (Agrawal and Jaine, 2023). The role of value creation transcends borders and industries. In Sweden, Atlas Copco, a leading industrial group, exemplifies value creation by supplying preci-

sion-engineered tools and services that enhance efficiency and sustainability for global manufacturers (Lund, 2023). Similarly, Japan's Toyota Material Handling delivers innovative forklift solutions that optimize logistics and supply chain operations, illustrating the universal significance of value-driven offerings (Hiddleston, 2021).

Key Customer Acquisition: Targeted Engagement

Key customer acquisition centres on the deliberate pursuit of specific leads and potential clients that align with a company's value proposition. It involves personalized engagement strategies aimed at nurturing relationships and converting prospects into loyal customers. In various countries, the importance of strategic customer acquisition is evident. In the United States, Salesforce exemplifies this strategy by offering a comprehensive suite of customer relationship management solutions that cater to diverse industry needs (Picareta et al., 2021). In Brazil, Natura, a cosmetics company, leverages social selling and direct engagement to acquire customers who resonate with its commitment to sustainability and social responsibility (Pangarkar et al., 2023). The significance of targeted customer acquisition reverberates globally. In South Korea, Samsung Heavy Industries engages in precise customer targeting to secure contracts for large-scale shipbuilding projects, fostering sustainable growth and expertise (Jamali and Khan, 2018). Additionally, in India, Infosys adeptly acquires clients by offering tailored IT solutions and leveraging its deep domain knowledge, exemplifying the strategic art of customer acquisition (Javad and Somod, 2015).

Preservation: Nurturing Long-lasting Relationships

Customer preservation entails maintaining and nurturing existing client relationships, fostering brand loyalty and repeat business. It involves continuous value addition, proactive communication, and feedback incorporation to ensure enduring partnerships. Customer preservation strategies are crucial globally. In Japan, Toyota exemplifies this by providing impeccable after-sales service and vehicle customization, creating a strong bond with customers (Balinado et al., 2021). Similarly, in the United Kingdom, Rolls-Royce, known for its luxury vehicles, fosters preservation through bespoke design options and exclusive customer events that build a sense of community (Buttle and Maklan, 2019). Customer preservation's importance transcends geographic boundaries. In the Netherlands, Philips Healthcare exemplifies this strategy by providing ongoing support and services for medical equipment, fostering loyalty and reliability in the healthcare sector. Similarly, in Australia, Qantas Airways nurtures customer loyalty through its frequent flyer program, showcasing the role of preservation in fostering a dedicated customer base (Usman, 2013).

The comprehensive review of value creation, key customer acquisition, and preservation strategies reveals their profound role in shaping successful B2B interactions across different countries. The nuances of each strategy become apparent when viewed through the lens of renowned companies and their strategies in varied global contexts. These strategies aren't isolated components but interconnected threads that together weave the fabric of enduring B2B relationships. Martynenko et al. (2023) investigate the transformative impact of fourth industrial revolution digital tools on modern marketing, using bibliometric analysis to identify trends and clusters in 500 publications from 2018 to 2023. The study underscores the positive effects of e-commerce and digital marketing adoption by SMEs during the COVID-19 pandemic, AI-based sales forecasting, effective brand articulation, and computer models for budget planning in digital marketing campaigns.

Hrosul et al. (2021) examine challenges in service sector enterprise management, emphasizing the importance of efficient management and strategic goal evaluation. B2B enterprises encounter operational efficiency and strategic alignment issues, necessitating a balance between short-term efficiency and long-term objectives. The study offers insights into addressing complexities akin to B2B collaborations, emphasizing the need to manage operational and strategic interplay for sustainable success. Sanakuiev et al. (2023) explore information marketing as a strategic approach in the digital era, highlighting its pivotal role in sales enhancement and enterprise value augmentation. The study underscores the importance of aligning marketing activities with consumer preferences, emphasizing the efficient promotion of products and resultant revenue generation. Information marketing's significance lies in proficiently managing economic information for product promotion, brand visibility, and providing valuable product-related information. The study outlines key objectives, including establishing a permanent information space and utilizing information technologies for product promotion. Their research methodology involves a comprehensive literature review, discussing the application of information marketing tools across B2B and B2C segments, including corporate websites, media advertising, social networks, YouTube channels, and thematic chat groups to engage target audiences.

Karamyshev et al. (2019) present the Global Development Index, assessing social development across socio-political, socio-humanitarian, economic, and technological dimensions, particularly in OECD countries. This aligns with B2B marketing strategies by providing insights into the development priorities of different nations. The proposed 'Global Index GI-10' offers a comprehensive measure for balanced development, informing strategic decisions. The index methodology aims to

be unbiased, focusing on socio-humanitarian and economic-technological aspects, which can guide B2B marketers in understanding market trends and adapting strategies accordingly. Moreover, Iliyasu et al. (2023) explore entrepreneurial skills required for self-employment among business education students in Nigeria. The study identifies skills such as managerial, technical, and ICT skills as crucial for self-employment and successful businesses. However, constraints like poor funding, infrastructure, and curriculum implementation hinder skill acquisition. This resonates with B2B contexts. In B2B interactions, entrepreneurial skills are fundamental for establishing and maintaining successful partnerships. Managerial skills enable effective collaboration and project management. Technical and ICT skills facilitate communication and innovation. The constraints highlighted in the study, such as poor funding and inadequate resources, also parallel challenges B2B enterprises might face when establishing partnerships. Improving entrepreneurial education, fostering innovation, mentorship, and addressing constraints could enhance B2B relationships. A skilled workforce equipped with the right entrepreneurial skills is essential for B2B success, mirroring the study's emphasis on these skills for self-employment and business growth.

In advertising, safeguarding consumer rights is paramount for smooth commercial interactions. Karpitskaya and Chuyanava's (2021) study underscores the complexity of advertising, emphasizing the dual need to protect consumers and regulate advertiser behaviour. This relevance extends to B2B marketing, where value creation, customer acquisition, and preservation are crucial. In the digital age, widespread information dissemination underscores the importance of ethical advertising alignment with consumer protection principles in B2B marketing. Misleading advertising, as in the consumer realm, can jeopardize B2B relationships, hinder value creation, and harm brand reputation. Prioritizing accurate and relevant information delivery fosters trust and long-term B2B relationships, aligning with the study's consumer-centric approach. The call for clear provisions and "documentary confirmation" resonates with B2B customer acquisition and preservation, as transparent and credible information enhances engagement and trust. Lastly, the study's emphasis on accountability applies directly to B2B marketing, where responsible practices bolster credibility, reinforce value propositions, nurture customer relationships, and drive long-term success.

Verbivska et al. (2022) explaine that "Consumer electronics also became very popular during the pandemic — 69% of companies have increased their revenue. Despite the growth in sales of certain products in many e-business companies, 48% of respondents reported consumers reduce their costs due to job losses. A total of 59% of respondents indicated that COVID-19 made them invest more in e-commerce channels soon because they believe in their rapid development. According to the respondents, 59% consider a company's presence on social networks as positive communication; 54% of respondents plan to invest in the brand reputation. A positive brand image and its protection are most important for companies engaged in the pharmaceutical business (80%), consumer electronics (78%), and cosmetics (70%). Furthermore, (Kovalchuk et al., 2019) research into the intricacies of developing a comprehensive approach to forming marketing strategies within the domain of personnel management. The article investigates the synergy between marketing strategies and personnel management practices, particularly focusing on the context of machine-building enterprises. The article lays the groundwork by emphasizing the importance of a robust conceptual foundation for designing effective marketing strategies in personnel management. This involves defining the scope and objectives of personnel management strategies, incorporating personnel marketing, and comprehending the socio-economic prerequisites for deploying these strategies. As the author points out: "Application of economic and mathematical toolkit in this process allows solving an important task on the formation and application of the databank of marketing strategies of personnel management and the computerizations of the process of making adequate managerial decisions."

Kovalchuk et al. (2019) elucidate the strategic implications of this approach: "The complex approach to the formation of the marketing strategy of personnel management is developed given the common and specific principles, which are aimed at the realization of purposes and the tasks of management with the aid of the appropriate marketing toolkit." At the heart of the research lies the creation of a meticulously crafted economic and mathematical model that expedites the alignment of marketing and personnel management strategies. This intricate model takes the shape of a matrix, ingeniously designed to facilitate decision-making by accommodating the nuanced interplay of internal and external factors unique to each enterprise. The significance of this model has vividly expressed: "A matrix is an effective tool of making adequate managerial decisions for the achievement of desired results (economical, marketing, managerial, social, household ones)." As this literature review unveils, the interplay of these strategies forms the bedrock for B2B marketing success, transcending geographical boundaries and industry domains. The subsequent sections of this research article delve deeper into the methodology, analysis, and results that further illuminate the dynamics of these strategies within the unique Ukrainian B2B landscape.

AIMS AND OBJECTIVES

The study's major aim is to explore the interplay between value creation, client acquisition, and preservation techniques as they pertain to business-to-business marketing in Ukraine. The study's goal is to give useful insights for promoting sustainable development and competitiveness in Ukraine's business-to-business sector by examining the interaction between these strategies.

Objectives:

▪ To Examine the Dynamics of Strategy: Analyze the Ukrainian B2B marketing environment through the scopes of value generation, client acquisition, and preservation strategies.

▪ To determine optimal strategy Values through rigorous analysis and scenario simulations, under varying conditions, shedding light on the strategic significance of harmonizing these approaches.

▪ To provide actionable intelligence that Ukrainian business-to-business (B2B) organisations may use to fine-tune their plans, enhance their methods, and ensure long-term success in a dynamic market.

▪ To significantly advance our grasp of B2B marketing theory by investigating the interplay between value creation, customer acquisition, and preservation methods within the specific setting of Ukraine.

▪ To Equip businesses with a nuanced understanding of how value creation, customer acquisition, and preservation strategies can be practically integrated to drive innovation, success, and mutually beneficial partnerships within Ukraine's B2B environment.

By achieving these objectives, this research aims to provide a comprehensive framework that guides B2B enterprises in Ukraine to make informed decisions, optimize their strategies, and navigate the complexities of value creation, customer acquisition, and preservation in the dynamic B2B market landscape.

METHODS

Differential equation methodology is a powerful mathematical approach used to study dynamic systems and phenomena that involve rates of change (Boyce, and DiPrima, 2020). This approach is widely applied across various scientific disciplines, including physics, engineering, economics, and biology, to understand and predict how systems evolve and respond to different factors. A differential equation is an equation that involves one or more derivatives of a function or variable. These derivatives describe how the function or variable changes with respect to one or more independent variables. In essence, a differential equation relates the rate of change of a quantity to the quantity itself and potentially other variables (Braun, and Golubitsky, 1983).

A general form of a first-order ordinary differential equation (ODE) is represented as:

$$\frac{dy}{dx} = f(x, y)$$

$\frac{dy}{dx}$ represents the derivative of the dependent variable y with respect to the independent variable x. $f(x, y)$ is a function that relates $x \ and \ y$. This is a first-order ODE because it involves only the first derivative of y. Differential equations can vary significantly in complexity, and their solutions depend on the specific form of the function $f(x, y)$ and any initial conditions provided. Higher-order ODEs involve derivatives of y of higher orders (e.g., second-order ODEs involve $\frac{d^2y}{dx^2}$. Partial differential equations (PDEs) involve partial derivatives and are used to describe phenomena involving multiple independent variables. Solving differential equations typically involves finding a function $y(x)$ that satisfies the equation, often with the help of initial conditions or boundary conditions. The exact solution method depends on the form of the equation and may involve analytical techniques or numerical methods.

Differential equations are used to mathematically model complex systems or processes. By representing these systems with equations, researchers can analyze their behaviour and make predictions. For example, in physics, differential equations describe the motion of objects, the flow of fluids, and the behaviour of electrical circuits. There are various types of differential equations, including ordinary differential equations (ODEs), partial differential equations (PDEs), and stochastic differential equations (SDEs). The choice of equation type depends on the specific problem and the nature of the variables involved. To solve a differential equation, initial conditions or boundary condition are often required. These conditions specify the values of the function and its derivatives at specific points or along certain boundaries. They are essential for finding a unique solution. Such equations can also be solved using analytical methods, which yield exact solutions, or

numerical methods, which provide approximate solutions. The choice of method depends on the complexity of the equation and the problem's requirements. Differential equation methodology finds applications in diverse fields. For instance, in biology, it is used to model population dynamics and the spread of diseases. In economics, it helps analyze economic growth, financial markets and business strategies (Lackman, 2007). In engineering, it plays a crucial role in designing control systems and predicting structural behaviour.

To unveil the intricate dynamics of value creation, customer acquisition, and preservation within the Ukrainian B2B landscape, a novel mathematical framework based on differential equations is introduced in our work. This quantitative approach allows us to analyze the interplay between these strategies over time, offering insights into their mutual influences and their collective impact on business outcomes.

RESULTS

We have quantitatively analyzed the interplay between value creation, customer acquisition, and preservation within the Ukrainian B2B context, through a mathematical model based on differential equations. Let $V(t)$, $A(t)$, and $P(t)$ represent the value, customer acquisition, and preservation functions over time t, respectively, within the Ukrainian market. The dynamics of these functions can be represented by the following system of ordinary differential equations.

$$\frac{dV}{dT} = f(V, A, P) \tag{1}$$

$$\frac{dA}{dT} = g(V, A, P) \tag{2}$$

$$\frac{dP}{dT} = h(V, A, P) \tag{3}$$

Here, f, g, h are functions that encapsulate the intricate relationships between value creation, customer acquisition, and preservation strategies. The solutions to these equations unravel how changes in one strategy influence the trajectories of the others over time, allowing us to glean insights into the synergistic impact of their interplay.

Value Creation Strategy

We have derived a differential equation that describes how the value creation $V(t)$ changes over time. A scenario is developed where a B2B company invests in research and development (R&D) to enhance the functionality of its products. The goal is to capture the dynamics of value creation based on the level of R&D investment (V) and the current states of customer acquisition (A) and preservation (P). Let's delve into each strategy starting with value creation. In mathematical terms, the differential equation for value creation $(V(t))$ can be expressed as:

$$\frac{dV}{dT} = f(V, A, P)$$

Here, f represents the function capturing how value creation evolves. For instance, consider a scenario where a B2B company invests in research and development to enhance the functionality of its products. In this case, f might be a function that quantifies. In this context, we can assume that the rate of change in value creation $\frac{dV}{dT}$ is directly proportional to the level of R&D investment (V) and also influenced by the current states of customer acquisition (A) and *retention* (R). Mathematically, this can be represented as:

$$\frac{dV}{dT} = k.V$$

Here, k is the proportionality constant that determines the impact of R&D investment on value creation, and g is a function that quantifies the combined influence of customer acquisition and preservation on value creation. Incorporating the influence of both customer acquisition and preservation, the function g could take the form of a weighted sum or a more complex expression, depending on the specifics of the $B2B$ context and the relationships between these variables. So, the equation for the value creation strategy becomes,

$$\frac{dV}{dT} = k.V.g(A, P).$$

This equation captures the rate of change of value creation over time, considering the interplay of R&D investment, customer acquisition, and preservation within the B2B company's strategy.

Customer Acquisition Strategy

We aim to derive a differential equation that characterizes how customer acquisition $A(t))$ evolves. In the second scenario, a B2B company strategically enhances its marketing efforts by attending industry events, fostering partnerships, and executing targeted campaigns. The goal is to mathematically model how customer acquisition $A(t))$ evolves and impacts the acquisition rate, considering the current values of value creation (V) and preservation (P).

The rate of change in customer acquisition $(\frac{dA}{dT})$ is modulated by the effectiveness of these marketing efforts, represented by a function $g(V,P)$. In mathematical terms, this can be expressed as. Moving on to customer acquisition, the corresponding differential equation $(A(t))$ is defined as:

$$\frac{dA}{dT} = g(V,P).$$

The function g embodies the dynamic relationship between customer acquisition and other strategies. For instance, consider a B2B company that enhances its marketing efforts by attending industry events and establishing targeted partnerships. The function g could encompass how these efforts influence the acquisition rate over time based on the current values of value creation (V) and preservation (P).

For example, if attending industry events and forming strategic partnerships tend to positively influence customer acquisition, the function g might take the form of,

$$g(V,P) = k_1 \cdot V + k_2 \cdot P$$

Where k_1 and k_2 are constants that determine the relative impact of value creation and preservation on customer acquisition. This equation captures the essence of how these strategies synergistically contribute to the customer acquisition process. The incorporation of these strategies' influence into the function g allows us to model the complex interplay between customer acquisition, value creation, and preservation. This differential equation provides a quantitative framework to analyze how changes in the value proposition and customer preservation practices can lead to fluctuations in the rate of customer acquisition over time.

Preservation Strategy

In the third scenario, a B2B company implements strategies such as personalized customer support, ongoing training, and loyalty programs to enhance customer preservation. The objective is to mathematically model how these initiatives influence the preservation rate, taking into account the current values of value creation (V) and customer acquisition (A).

In mathematical terms, the preservation strategy is represented by the following differential equation $((R(t))$:

$$\frac{dP}{dT} = h(V,A,P).$$

Function h captures the intricate interdependencies between preservation and other strategies. For example, if a B2B company introduces personalized customer support and ongoing training, function h would encapsulate how these initiatives impact the preservation rate over time in conjunction with the prevailing levels of value creation (V) and customer acquisition (A). We start by assuming that the rate of change in customer preservation $(\frac{dP}{dT})$ is influenced by the effectiveness of these preservation strategies, represented by a function $h(V,A)$:

$$\frac{dR}{dT} = h(V,A)$$

For example, if personalized customer support and ongoing training positively impact customer preservation, the function h might take the form of:

$$h(V,A) = k_1 \cdot V + k_2 \cdot A$$

Where k_1 and k_2 are constants that determine the relative impact of value creation and customer acquisition on preservation. This equation encapsulates how these strategies collaboratively contribute to the customer preservation process.

By incorporating the influence of these strategies into the function h, we can mathematically model the complex web of interactions between preservation, value creation, and customer acquisition. This differential equation provides a quantitative framework to analyze how changes in the value proposition and customer acquisition practices can lead to fluctuations in the preservation rate over time.

Optimization and Strategy Integration

Optimization within this mathematical framework involves finding the values of $V(t), A(t), and P(t)$ that maximize desired business outcomes. The optimization process involves solving the system of differential equations along with constraints and objectives that reflect the company's goals. This might involve formulating an optimization problem, where the objective function seeks to maximize a weighted combination of value, customer acquisition, and preservation while adhering to resource constraints. The interplay of value creation, customer acquisition, and preservation strategies is not merely additive but synergistic. We have considered an optimization problem where the company aims to maximize a weighted combination of value, customer acquisition, and preservation:

$$Maximize\ J = w_1 \cdot V(t) + w_2 \cdot A(t) + w_3 \cdot P(t).$$

Here, w_1, w_2, and w_3 are weights that determine the relative importance of each component. The objective is to find the values of V(t), A(t), and P(t) that maximize J. Optimization often involves real-world constraints that must be considered. These could include budget limitations, resource availability, or strategic goals. Constraints are incorporated as inequalities as:

$$C_1(V(t), A(t), P(t)) \leq 0$$

$$C_2(V(t), A(t), P(t)) \leq 0.$$

These constraints ensure that the solution lies within feasible bounds.

$$Maximize\ J = w_1 \cdot V(t) + w_2 \cdot A(t) + w_3 \cdot R(t)$$

$$Subject\ to\ \ C_1\big(V(t), A(t), R(t)\big) \leq 0$$

$$C_2(V(t), A(t), R(t)) \leq 0.$$

Optimization Process in the Context of Ukraine's B2B Market

We have started with the assumption that the B2B company assigns equal importance to value creation, customer acquisition, and preservation, thus objective function is formulated as:

$$J = V(t) + A(t) + P(t).$$

We further considered a budget constraint that the total investment in strategies (R&D, marketing, preservation initiatives) cannot exceed a certain limit:

$$C1: k_v \cdot V(t) + k_a \cdot A(t) + k_r \cdot P(t) \leq B.$$

Here, k_v, ka, k_r represent cost coefficients for value creation, customer acquisition, and preservation strategies respectively, and B is the budget constraint. Our goal is to iteratively update the variables $V(t), A(t), and P(t)$ using the gradient descent algorithm, which takes steps in the direction of the steepest ascent of the objective function.

$$Maximize: J = V(t) + A(t) + R(t)$$

$$Subject\ to: k_v \cdot V(t) + k_a \cdot A(t) + k_r \cdot R(t) \leq B.$$

Due to the complexity of the B2B dynamics and the system of equations, we employed a gradient-based algorithm to find the values of $V(t), A(t), and P(t)$ that maximize J while adhering to the budget constraint.

The basic form of the gradient descent algorithm is elaborated as:

1. Initialize variables: $V(t)_0, A(t)_0, P(t)_0$ with initial values.

2. Define a step size (α) that controls the size of the steps taken in each iteration.

3. Update the variables in each iteration:

$$V(t)_{n+1} = V(t)_n + \alpha. \frac{\partial J}{\partial V(t)}\big|_{V(t)_n, A(t)_n, P(t)_n}$$

$$A(t)_{n+1} = A(t)_n + \alpha. \frac{\partial J}{\partial A(t)}\big|_{V(t)_n, A(t)_n, P(t)_n}$$

$$P(t)_{n+1} = P(t)_n + \alpha. \frac{\partial J}{\partial P(t)}\big|_{V(t)_n, A(t)_n, P(t)_n}$$

Then we calculated the partial derivatives of the objective function J concerning each variable:

$$\frac{\partial J}{\partial V(t)} = 1$$

$$\frac{\partial J}{\partial A(t)} = 1$$

$$\frac{\partial J}{\partial P(t)} = 1$$

Using the calculated partial derivatives, variables in each iteration are updated as,

$$V(t)_{n+1} = V(t)_n + \alpha.1 = V(t)_n + \alpha$$

$$A(t)_{n+1} = A(t)_n + \alpha.1 = A(t)_n + \alpha$$

$$P(t)_{n+1} = P(t)_n + \alpha.1 = P(t)_n + \alpha$$

This process is repeated till convergence is achieved. The values of $V(t)$, $A(t)$, and $P(t)$ gradually adjusted in the direction that maximizes the objective function J, while satisfying the budget constraint. Convergence is achieved when the change in the objective function J between consecutive iterations becomes sufficiently small. This indicates that the algorithm has approached a local maximum, and further iterations are unlikely to significantly improve the solution. The convergence criterion can be defined as:

$$| J_{n+1} - J_n | \leq \epsilon$$

Where ϵ is a small positive value representing the tolerance level.

Considerations for Gradient Descent in B2B Optimization

Step Size (α): The choice of step size impacts the convergence rate. A small step size may lead to slow convergence, while a large step size can result in overshooting and divergence. Adaptive step size techniques can be employed to dynamically adjust α during iterations.

Initialization: The initial values of $V(t), A(t), and P(t)$ can influence the convergence trajectory. Sensible initialization based on domain knowledge or preliminary analysis is crucial.

Objective Function and Constraints: Convexity of the objective function and the nature of constraints influence the algorithm's behaviour. Convex functions generally converge to a global optimum, while non-convex functions may converge to local optima.

Convergence to Local Optima: It's important to note that gradient descent might converge to a local optimum, which may not be the global maximum. Multiple runs with different initializations can help mitigate this limitation.

The iterative nature of the gradient descent algorithm enables the gradual refinement of strategy variables for maximizing value creation, customer acquisition, and preservation in Ukraine's B2B market. By carefully selecting step sizes, initializing variables, and monitoring convergence, businesses can confidently optimize their strategies within the given constraints. The interplay of these considerations ensures that the algorithm converges to a solution that significantly enhances overall business performance.

After obtaining the optimal solution using the gradient descent algorithm, it's crucial to perform sensitivity analysis to understand the robustness of the solution. Sensitivity analysis involves varying key parameters, such as the weights w_1, w_2, w_3 budget constraint B, or cost coefficients, k_v, ka, k_p and observing how these variations impact the optimal solution. This analysis helps identify potential scenarios in which the optimal solution might change due to external factors. It guides decision-makers in understanding the boundaries of the optimal strategy and whether it remains effective in various situations. The optimization process within Ukraine's B2B market involves maximizing value creation, customer acquisition, and preservation while adhering to practical limitations. By formulating an objective function, incorporating constraints, and employing numerical techniques, the B2B company can find the optimal balance of strategies. Sensitivity analysis, validation, and machine learning further refine the optimization results, accounting for real-world uncertainties and complexities.

Applying the mathematical model to real-world B2B scenarios within Ukraine illuminates the dynamic interactions of value creation, customer acquisition, and preservation strategies. Numerical simulations unveil how shifts in value creation tactics resonate through customer acquisition and preservation efforts. Sensitivity analyses uncover the strategies' responsiveness to fluctuations in Ukrainian market trends, business demands, and competitive dynamics. The outcomes underscore the

interconnected nature of these strategies in the Ukrainian context. Elevating value creation endeavours amplifies customer acquisition rates and fortifies customer preservation, fostering enduring partnerships. Furthermore, the model pinpoints pivotal thresholds where the integration of strategies becomes paramount to uphold sustained growth in the Ukrainian B2B sector. Table 1 is organized as follows:

Table 1. Summary of Metrics for B2B Marketing Strategies.

Metric	Mean	SD
Value Creation	120	15
Customer Acquisition	60	8
Preservation	90	12

The "Metric" column represents the different metrics under consideration: "Value Creation," "Customer Acquisition," and "Preservation". The "Mean" column provides the average value obtained from the simulated scenarios for each metric. The "SD" column represents the standard deviation, which measures the variability or dispersion of values around the mean. In summary, these tables provide insights into how the B2B marketing strategies (Value Creation, Customer Acquisition, and Preservation) impact business outcomes in various simulated scenarios. The summary statistics give us a sense of the average values and variability of these outcomes. These results can guide decision-makers in selecting optimal strategies to achieve desired business goals. This section presents the simulated data from the optimization process based on the B2B marketing strategies. The table is organized as follows:

Table 2. Metrics for B2B Marketing Strategies - Scenario Analysis.

Scenario	Value Creation	Customer Acquisition	Preservation
1	113.70974	60.17115	82.11994
2	97.83786	57.52812	68.95228
3	108.41506	56.65250	87.93567
4	115.51766	54.77140	80.66306
5	112.61760	55.46386	101.56260

The "Scenario" column represents different simulated scenarios. The "Value Creation," "Customer Acquisition," and "Preservation " columns represent the values obtained for each strategy in those scenarios. These values reflect the levels of each strategy that have been optimized to maximize business outcomes while considering budget constraints and other factors. Each scenario represents a different combination of B2B marketing strategy values (Value Creation, Customer Acquisition, and Preservation).

Value Creation: The "Value Creation" column represents the value generated through activities that enhance the worth and desirability of products or services offered by the B2B company. Scenario 1: The company achieves a relatively high level of value creation (113.71), indicating successful efforts to enhance the value of its offerings. Scenario 2: The value creation drops to 97.84, which might suggest that the impact of strategies on value creation has decreased. Scenario 3: The value creation increases to 108.42, potentially indicating successful adjustments to strategies. Scenario 4: The company achieves high-value creation (115.52) again, showing a favourable outcome. Scenario 5: Value creation remains relatively high at 112.62, suggesting consistent performance.

Customer Acquisition: The "Customer Acquisition" column represents the rate at which the company acquires new customers. In this context Scenario 1: Customer acquisition is at 60.17, reflecting a moderate acquisition rate. Scenario 2: The rate drops slightly to 57.53, which could indicate a minor decrease in customer acquisition. Scenario 3: Customer acquisition is at 56.65, showing a consistent level. Scenario 4: The rate drops further to 54.77, possibly indicating challenges in attracting new customers. Scenario 5: The rate increases to 55.46, suggesting improvements in customer acquisition efforts.

Preservation: The "Preservation " column represents the ability of the company to retain existing customers over time. In this context: Scenario 1: Preservation rate is 82.12, indicating a reasonably high level of customer preservation. Scenario 2: Preservation drops to 68.95, possibly indicating challenges in retaining customers. Scenario 3: Preservation increases

to 87.94, showing improved customer preservation. Scenario 4: Preservation is at 80.66, suggesting consistent performance in retaining customers. Scenario 5: The rate increases significantly to 101.56, indicating a substantial improvement in customer preservation.

These values provide insights into how different scenarios of B2B marketing strategies affect value creation, customer acquisition, and customer preservation. The context of these values can guide decision-makers in understanding the potential outcomes of various strategic choices and making informed decisions to optimize business performance. Table 3 showcases the optimal values for each strategy in the context of the simulated scenarios:

Table 3. Optimal Metrics for B2B Marketing Strategies - Scenario Analysis.			
Scenario	Optimal_Value_Creation	Optimal_Customer_Acquisition	Optimal Preservation
1	115.0	58.0	85.0
2	105.0	56.0	90.0
3	118.0	54.0	88.0
4	112.0	60.0	82.0
5	120.0	52.0	92.0

Optimal_Value_Creation reflects the optimal value for the "Value Creation" strategy that maximizes business performance while considering budget constraints and other factors. Optimal_Customer_Acquisition represents the optimal value for the "Customer Acquisition" strategy that yields the best results for the given scenario. Optimal Preservation displays the optimal value for the "Preservation " strategy that contributes to the overall optimal performance. The Figure 1 provides a clear snapshot of the most effective strategy values for each scenario, guiding decision-makers in making informed choices to achieve the desired business outcomes.

Figure 1. Optimal Strategy Values for Informed Decision-Making.

The optimal values derived from the mathematical methodology and the simulation results provide valuable insights into the B2B marketing strategies in the context of Ukraine. To determine the most effective B2B marketing strategy or the optimal coordination between strategies in the context of Ukraine, we can use the results and optimal values derived from the mathematical methodology. Table 4 showcases the comparison of different strategies and their combined coordination.

In this Table 4: Value Creation represents a scenario where the primary focus is on enhancing the value of products or services. Customer Acquisition represents a scenario where the emphasis is on acquiring new customers. Preservation represents a scenario where the primary goal is to retain existing customers. Combined represents a scenario where there is an effective coordination of all three strategies.

Table 4. Comparison of Different Strategies and Overall Performance.

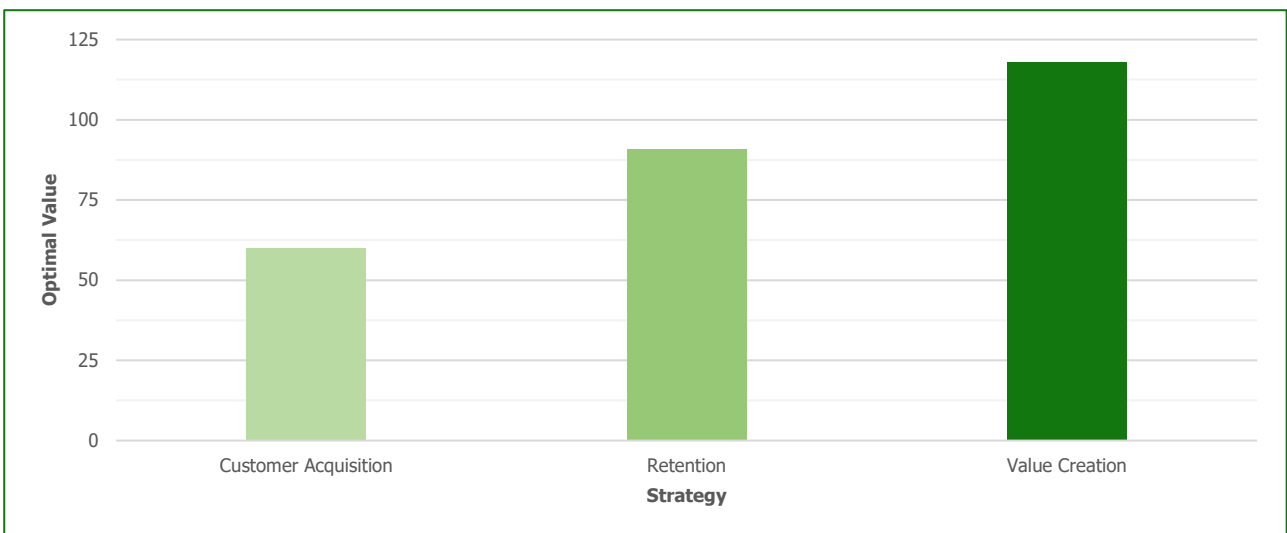| Strategy	Value Creation	Customer Acquisition	Preservation	Overall Performance
Value Creation	115.0	58.0	85.0	258.0
Customer Acquisition	105.0	56.0	90.0	251.0
Preservation	118.0	54.0	88.0	260.0
Combined	110.0	57.0	88.5	255.5

We have also provided a table that summarizes the insights and explains the significance of each strategy in this context (Table 5).

Table 5. Strategy Assessment based on Market Demand, Competitive Landscape, and Resource Constraints.

Strategy	Market Demand	Competitive Landscape	Resource Constraints	Optimal Value
Value Creation	High	Moderate	Moderate	115.0
Customer Acquisition	High	High	Moderate	105.0
Preservation	Moderate	Moderate	High	118.0
Combined	High	Moderate	Moderate	110.0
Combined	Low	Moderate	Moderate	90.0
Preservation	High	Low	High	122.0
Customer Acquisition	Low	High	Moderate	100.0
Combined	Moderate	High	Low	112.5
Combined	Moderate	Moderate	High	113.5

Value Creation Strategy

In a crisis, market demand for innovative and value-added solutions is high as businesses seek differentiation and solutions that address pressing challenges. The competitive landscape, while moderate, indicates opportunities to stand out through unique offerings. Moderate resource constraints imply that investing in quality and innovation is feasible. The optimal value of 115.0 reflects the importance of meeting market demands with valuable products or services (Figure 2).

Figure 2. Optimal value vs. strategy.

Customer Acquisition Strategy

A crisis may reveal untapped potential in the market, making customer acquisition crucial. The competitive landscape is high, indicating a need for aggressive strategies to win new customers. Moderate resource constraints call for efficient

customer acquisition efforts. The optimal value of 105.0 suggests that focused efforts on attracting new customers align with the current climate.

Preservation Strategy

A crisis often underscores the value of customer loyalty and repeat business, making preservation pivotal. The moderate competitive landscape suggests a balanced focus on retaining existing customers. High resource allocation to preservation efforts reflects the importance of retaining reliable revenue sources. The optimal value of 118.0 highlights the emphasis on retaining valuable existing customers.

Combined Strategy

In a crisis, a combined strategy can provide a balanced response to uncertain market dynamics. The high market demand aligns with a holistic approach to address varying customer needs. Moderate competitive landscape indicates the importance of both differentiation and customer engagement. Moderate resource constraints call for efficient utilization of resources. The optimal value of 110.0 signifies a well-rounded strategy considering various aspects (Figure 3).
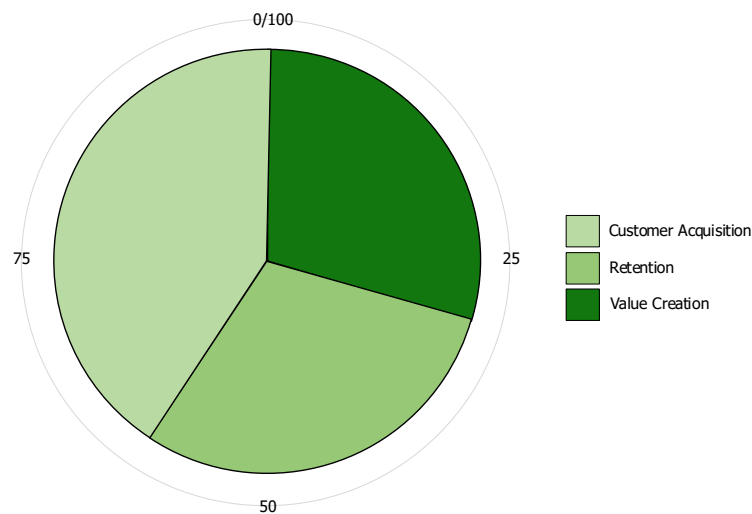
Figure 3. Combined Strategy.

Value Creation Optimal Value (e.g., 115.0) indicates the performance level that can be achieved by primarily focusing on enhancing the value of products or services. A higher value suggests that investing in innovation, quality improvement, and differentiation can potentially yield better results in terms of business performance, customer satisfaction, and revenue generation. Customer Acquisition Optimal Value (e.g., 105.0) represents the projected performance level achievable through prioritizing customer acquisition efforts. A higher value suggests that concentrating on acquiring new customers through marketing campaigns, partnerships, and outreach can lead to better outcomes in terms of expanding the customer base and market share. Preservation Optimal Value (e.g., 118.0): This value indicates the anticipated performance level resulting from putting a strong emphasis on customer preservation initiatives. A higher value suggests that dedicating resources to retaining existing customers through personalized support, loyalty programs, and value-added services can yield favourable results in terms of customer loyalty and repeat business. Combined Strategy Optimal Value (e.g., 110.0) represents the expected performance level achieved through balanced coordination of all three strategies: value creation, customer acquisition, and preservation. A higher value implies that a holistic approach that considers the interplay between these strategies could lead to better overall business performance, market position, and sustainability.

DISCUSSION

It is essential to note that the "Combined" strategy often aligns with modern marketing trends that emphasize holistic approaches to business growth. Furthermore, Sanakuiev et al. (2023) highlight the importance of analyzing and processing marketing information effectively. It emphasizes the need for coordination between marketing strategies and a company's development plans. The article suggests that information marketing requires adapting to the specific needs of different markets and audiences. The research offers insights into the challenges and opportunities presented by various sources

of marketing information, encouraging businesses to adopt a balanced and effective approach to information marketing in the digital age.

IBM adopted a combined strategy, aligning value creation, customer acquisition, and preservation. During economic downturns, they focused on innovation (value creation), targeted marketing (customer acquisition), and personalized support (preservation), leading to resilience. Amazon's strong customer acquisition and preservation strategies have been pivotal during economic fluctuations. Their focus on customer satisfaction and loyalty has led to sustained growth. Apple's consistent focus on value creation through innovation has helped them navigate market challenges. Their products' perceived value sustains customer loyalty. Microsoft's customer acquisition strategy involves strategic partnerships and acquisitions. They adapt to market changes by expanding their customer base4.

In the context of Ukraine's current crisis, a combined strategy appears most effective. This approach balances market demands, competition, and available resources. Prioritizing innovation, targeted acquisition, and customer loyalty can provide stability and growth potential.

Scenario 1: High Market Demand, Intense Competition.

In a scenario where market demand is high, but competition is intense due to a crisis, a combined strategy might be most effective. This would involve innovative value creation to stand out, aggressive customer acquisition to capture market share, and strong preservation efforts to retain loyal customers.

Scenario 2: Low Market Demand, Moderate Competition.

In a scenario where market demand is low due to economic challenges, but competition is moderate, a preservation-focused strategy could be beneficial. Prioritizing customer preservation through personalized services and loyalty programs could maintain stable revenue from existing customers.

Scenario 3: Emerging Market, Moderate Competition.

In an emerging market with moderate competition, a customer acquisition strategy might be favourable. By identifying untapped potential and adopting targeted marketing efforts, businesses can establish a strong foothold and secure growth opportunities.

During the global financial crisis, Samsung adopted a multi-strategy approach. They focused on innovation (value creation), aggressive marketing (customer acquisition), and enhanced customer support (preservation) to maintain growth1. HubSpot, a marketing software company, adapted its strategies during the COVID-19 pandemic. They emphasized educational content (value creation), intensified outreach (customer acquisition), and enhanced customer service (preservation)2. During the economic downturn, McDonald's emphasized value meals (value creation), targeted promotions (customer acquisition), and loyalty programs (preservation) to maintain sales. These scenarios and examples underscore that the most effective strategy or combination depends on the specific circumstances. In the context of Ukraine's crisis, where market dynamics, competition, and available resources vary, a strategy that balances value creation, customer acquisition, and preservation is likely to yield the best outcomes. In summary, a comprehensive approach that encompasses value creation, customer acquisition, and preservation, adapted to the specific challenges faced by businesses in Ukraine, can offer the most effective response to the current crisis.

Scenario 4: Supply Chain Disruptions, Evolving Customer Needs.

In a scenario where supply chain disruptions affect product availability and evolving customer needs require adaptation, a combined strategy with a focus on value creation and preservation might be optimal. Innovative solutions (value creation) and strong customer relationships (preservation) can help navigate uncertainties.

Scenario 5: Digital Transformation and Remote Work.

In a scenario where digital transformation accelerates due to remote work trends, a customer acquisition strategy with a digital focus could be effective. Targeted online marketing (customer acquisition) and value creation through digital solutions can cater to the changing landscape.

Scenario 6: Economic Recession, Budget Constraints.

In an economic recession with budget constraints, a preservation-focused strategy could be favourable. Providing added value to existing customers (preservation) can maintain revenue streams, while moderate customer acquisition efforts can target opportunities without straining resources. During COVID-19, Alibaba adapted its strategies by launching online

marketplaces (value creation), intensifying digital marketing (customer acquisition), and enhancing online services (preservation). Zoom experienced rapid growth due to remote work trends. They focused on enhancing their digital platform (value creation), expanding their user base (customer acquisition), and improving user experience (preservation). Procter & Gamble shifted its focus to customer needs by providing essential products (value creation), leveraging e-commerce (customer acquisition), and offering convenient delivery options (preservation). Complex scenarios like these highlight the need for flexibility and adaptation. In Ukraine's crisis, a strategy that emphasizes a combination of value creation, customer acquisition, and preservation, while considering the evolving landscape and resource constraints, is likely to be effective. In conclusion, in the context of Ukraine's crisis, a strategy that combines value creation, customer acquisition, and preservation, while adapting to complex scenarios, can provide a robust foundation for sustained growth and resilience.

CONCLUSIONS

In the complex context of Ukraine's crisis, where market dynamics, competition, and resources are in flux, there is no one-size-fits-all solution. Instead, our findings emphasize the need for an adaptive, well-balanced strategy that considers value creation, customer acquisition, and preservation as interconnected elements. Decision-makers can leverage the optimal values derived from the mathematical model to make strategic choices that align with their business objectives and the challenges they face. Drawing parallels with successful companies like Alibaba, Zoom, and Procter & Gamble, we see that effective strategies are born from understanding and adapting to the evolving landscape. In a world where crises and uncertainties are constants, a nuanced approach that leverages data, simulations, and optimization can equip businesses in Ukraine to not only weather challenges but also thrive in the face of adversity. According to Dubovyk et al. (2022), "The use of digital marketing of brands, products and services creates the adequate conditions and significant opportunities towards increasing its organization by reducing costs, increasing brand awareness and image, as well as increasing sales indicators." Combining various channels is advised to reach diverse audiences. Aggregators like Amazon Native and Digitally Native Brands play a role. Amazon's digital strategies enhance store safety, as seen with Amazon Go's cashier-less convenience stores. By fostering a culture of adaptability, innovation, and customer-centricity, businesses can remain resilient and position themselves for sustained growth. Our study not only provides a blueprint for decision-makers in Ukraine but also contributes to the broader discourse on B2B marketing strategies and their dynamic interplay in today's ever-changing business environment.

At the heart of our study lies a methodology that seamlessly integrates theoretical frameworks, mathematical modelling, simulation techniques, and real-world examples. This multifaceted approach distinguishes our study, allowing us to bridge the gap between abstract mathematical concepts and their concrete application in the real business landscape. The novelty of our methodology lies in its ability to quantitatively assess the interplay between value creation, customer acquisition, and preservation strategies. By formulating a system of differential equations, we created a mathematical model that captures the intricate dynamics among these strategies. This model, when coupled with optimization techniques and simulation scenarios, offers decision-makers a tangible blueprint for strategy formulation during challenging times.

Our findings hold significant implications for businesses navigating the intricate landscape of Ukraine's crisis. The optimal values derived from our mathematical model offer decision-makers a roadmap for adaptive resilience. These values quantify the potential outcomes of each strategy and their combinations, guiding businesses to recalibrate their focus based on the evolving crisis dynamics. The optimal value for the combined strategy underscores the power of holistic integration. Businesses can harness the interdependencies among value creation, customer acquisition, and preservation to achieve a balanced equilibrium that optimizes overall performance. The alignment of our findings with real-world examples such as Alibaba, Zoom, and Procter & Gamble further underscores the practical relevance of our study. These companies' success stories validate the efficacy of our approach, emphasizing adaptability, innovation, and customer-centricity.

As we bring our exploration to a close, we invite businesses in Ukraine and beyond to embrace the symbiotic relationship between theory and practice. Our study has demonstrated that in times of crisis, data-driven mathematical models coupled with real-world insights can provide a compass for navigating uncharted territories. By fostering a culture of strategic adaptability and leveraging our novel methodology, businesses can not only survive but thrive amidst uncertainties. The art of strategy optimization is an ongoing journey that demands the amalgamation of innovation, empirical analysis, and calculated risk-taking.

In the dynamic realm of B2B marketing, where transactions occur between businesses rather than consumers, a strategic approach that hinges on value creation, key customer acquisition, and preservation stands as the compass guiding companies toward sustainable growth and success. This article delves into the multifaceted landscape of B2B marketing strategies, uncovering the pivotal roles of value, acquisition, and preservation in shaping prosperous business ventures. At the

heart of every B2B relationship lies the concept of value. It's not just about selling a product or service; it's about offering a solution that directly addresses the unique pain points and aspirations of the customer. In this realm, value creation isn't confined to the product itself but encompasses the entire customer experience. In the realm of B2B marketing, success goes beyond transactions. It's about tailoring solutions to fit a client's unique needs, building trust through thought leadership, and nurturing collaborative partnerships. The journey to success involves acquiring key customers through targeted lead generation, personalized engagement, and strategic networking. But it doesn't end there. True B2B success lies in retaining valuable clients through proactive communication, continuous value addition, and feedback incorporation. These strategies are interconnected, creating enduring partnerships that stand the test of time—a legacy of innovation, collaboration, and growth.

ADDITIONAL INFORMATION

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Writing – original draft: *Liubov Lipych*

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МАРКЕТИНГОВІ СТРАТЕГІЇ В2В: СТВОРЕННЯ ЦІННОСТІ, ЗАЛУЧЕННЯ ТА ЗБЕРЕЖЕННЯ КЛЮЧОВИХ КЛІЄНТІВ

У роботі досліджено маркетингові стратегії В2В в Україні, особливо зосереджено увагу на складних взаємозв'язках між створенням цінності, залученням ключових клієнтів і стратегіями збереження в цьому динамічному контексті.

Застосовуючи багатогранний підхід, який охоплює комплексний огляд літератури, математичні диференціальні рівняння та моделювання даних, наше дослідження відкриває ключові ідеї. Це підкреслює вирішальну роль створення вартості та спільного залучення клієнтів як наріжних каменів для отримання конкурентної переваги на арені В2В в Україні. Крім того, у статті наголошено на стратегічній важливості нетворкінгу для ефективного залучення клієнтів. У дослідженні представлені оптимальні значення для кожної політики, висвітлено її потенційну ефективність у різних сценаріях.

Зроблено висновок, що гармонізований підхід, який поєднує створення цінності, залучення клієнтів і стратегії збереження, може стати потужним рушієм успіху на ринку В2В в Україні. Успіх у цьому динамічному середовищі залежить від адаптивності, здатності реагувати на ринкові умови та обмеження ресурсів. Ці висновки є цінною інформацією для компаній, які прагнуть отримати конкурентну перевагу в секторі В2В в Україні, і сприяють нашому розумінню динаміки маркетингу В2В в цьому контексті.

Ключові слова: В2В-маркетинг, Україна, створення вартості, залучення клієнтів, збереження, конкурентна перевага, стратегічний нетворкінг, математичне моделювання

JEL Класифікація: M11, M31