

GAME STRATEGIES FOR BUSINESS INTEGRATION IN THE DIGITAL ECONOMY

Edited by Elena G. Popkova

ADVANCES IN BUSINESS
MARKETING AND PURCHASING

VOLUME 27

**GAME STRATEGIES FOR BUSINESS
INTEGRATION IN THE DIGITAL
ECONOMY**

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PURCHASING VOLUME 27

GAME STRATEGIES FOR BUSINESS INTEGRATION IN THE DIGITAL ECONOMY

EDITED BY

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INTRODUCTION

Elena G. Popkova

Marketing Text

Elena G. Popkova

MGIMO University (Russia)

The book focuses on developing a game approach to business marketing and purchasing in the context of integration in the digital economy. The book is unique in that it systemically covers the totality of advanced business integration strategies, including mutual trade, foreign direct investments, clustering, strategic alliances, special economic zones, technology parks and innovative networks, collaboration of universities and business structures, and public–private partnership. The novelty of this book and its contribution to the literature also lies in the fact that it offers a pioneering methodology for the management of market strategies for business integration based on the progressive economic and mathematical apparatus of game theory.

The first part of this book demonstrates the benefits of business integration for business marketing and purchasing. The second part rethinks business integration strategies from the game theory perspective. The third part offers recommendations for monitoring and controlling the effectiveness of game strategies for business integration. The fourth part closes the book with a digital perspective on improving game strategies for business integration.

The book is intended for scholars engaged in studying business integration. They will find a coherent theoretical view of the totality of existing market strategies of business integration and its cause-and-effect relations. The book is of interest to representatives of such fields of scientific and economic knowledge as business marketing and purchasing, business management, business economics, industry market theory, strategic management, decision-making and digital business.

The book is also of interest to business representatives, who will find numerous cases and applied recommendations for improving management in implementing business integration strategies. The book will allow them to streamline their

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decision-making when choosing a market strategy for business integration. The authors' game approach to business marketing and purchasing in the context of integration in the digital economy will improve the effectiveness of business marketing and purchasing.

Game Approach to Business Marketing and Purchasing in the Context of Integration in the Digital Economy (Introduction)

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Business integration is a promising mechanism for adapting business structures to market conditions. The integration mechanism of business development is especially in demand in conditions of instability and crisis. Therefore, this mechanism has recently become especially relevant. The COVID-19 pandemic and crisis (2020–2021) has made an individual business presence in the market-place more difficult and increased the appeal of business integration as a way to reduce costs and receive expanded government support.

With the worsening of the international sanctions crisis (2022), integration is also preferable when restructuring business value chains because it helps fill gaps in supply and sales, increases the reliability of counterparties, and reduces business risks. Nowadays, many market-based business integration strategies have been successfully institutionalised (established as economic practices and received regulatory support), including mutual trade, foreign direct investments, clustering, strategic alliances, special economic zones, technology parks and innovative networks, collaboration of universities and business structures, and public–private partnership.

Each market strategy of business integration has its own characteristics; in particular, it is applicable and beneficial in certain market conditions and characterised by specific requirements for business management. The problem lies in the complexity of making decisions when selecting business structures from among the many existing market strategies for business integration, as well as in the insufficiently unlocked potential for improving business efficiency through these strategies due to imperfect business management.

The posed problem is rooted in the fact that the existing literature treats market strategies of business integration in isolation; by drawing disparate knowledge and disparate information from different sources, managers have incomplete information, which violates the principle of rational decision-making. Although the available publications reflect the features of market strategies of business integration and the logic and order of their implementation in theory and individual examples from practice, they do not provide a methodological basis for achieving the flexibility necessary to adapt the template strategies to the specifics of each business and market. This problem has four manifestations.

First, there is no guarantee of extracting the benefits of business integration for business marketing and purchasing. In crisis conditions, when the market environment is unfavourable (unreliable supply and sales, inflation, aggressive competition, including price dumping, government intervention etc.) to maintain

their market positions, business structures are particularly prone to integration, which is often spontaneous and not well-thought-out. The market strategy of business integration is chosen based on the available opportunities – the representation of forms of business integration in the territory of business and overcoming their entry barriers for a given business entity.

In this case, the market (not the business) dictates the need for integration and determines its terms. Accordingly, the benefits are derived on a market scale: preserving domestic entrepreneurship, restoring healthy competition, and balancing supply and demand. However, for some business structures, integration, instead of the expected benefits, can be associated with additional costs, which may even worsen the market positions of these business structures. Therefore, a fundamentally new approach to planning and management of business integration is needed, in which the initiative comes from the business itself and meets its interests.

Second, there is a lack of manoeuvrability of market strategies for business integration. Even if the choice of this strategy is made correctly, it does not mean that the strategy will be successfully implemented. There are many scientific papers published on the topic of business integration. Nevertheless, these papers focus on business integration strategies in static and predetermined (i.e. ‘ideal’) market conditions. Changing these conditions leads to a decrease in efficiency up to the complete inapplicability of template strategies.

In this regard, the urgent task of contemporary scientific literature is not the development of templates (the tip of the ‘iceberg’), which are well known, but an in-depth study of the logic and methodology of decision-making during business integration. That is, the literature should not provide ready-made answers but educate and support the independent search for answers by businesses. This requires rethinking the basics of business integration (at the very bottom of the ‘iceberg’).

Third, there is uncertainty about monitoring and controlling the effectiveness of market strategies for business integration. The simplest and most apparent way is related to the comparison of key business indicators (sales volume, market share, profit, profitability) before and after integration. However, this method is associated with low accuracy and insufficient reliability of the assessment results, which is due to the fact that business performance prior to integration is observed in a stable and favourable market environment. In turn, after the integration, indicators are collected in a completely different, unfavourable market environment, which prompted the business to integrate. Thus, it is incorrect to compare these indicators. Instead, it is necessary to use a more sophisticated methodology to monitor and control the effectiveness of market strategies for business integration, which will consider the state of the market environment and make adjustments for its changes.

Fourth, the features and prospects of market strategies for business integration in the digital economy are unclear. Existing template strategies were developed before the Fourth Industrial Revolution, which fundamentally changed the technology and organisation of today’s markets. The digital economy opens up new opportunities for business integration (electronic document management,

joint sales of products based on Internet trade, general digital marketing) and, simultaneously, creates new risks of this integration (e.g. in the area of cybersecurity), which must be considered when developing and implementing market strategies for business integration.

The most important feature of business integration in the digital economy is that it expands all possible integration boundaries. The geographical boundaries of integration are literally disappearing because business structures can integrate with the whole world and develop globally in the digital marketplace. The industry boundaries of integration are overcome by the wide possibilities of joint sales of products not connected by common value chains in the format of e-commerce (e.g. Amazon, Ozon, Yandex.Market or Wildberries). The boundaries of areas of integration are being broken down – integration can now encompass everything: from the organisation, management and R&D to production, marketing and sales.

Thus, the separate reflection of market strategies of business integration and unformed scientific and methodological support for the choice among these strategies and their practical implementation are gaps in the existing literature. The identified gaps are filled in this book through the development of scientific and methodological foundations for implementing market-based business integration strategies. The book aims to develop a game-changing approach to business marketing and purchasing in the context of integration in the digital economy.

The novelty of this book lies in the systemic review of market strategies of business integration and the formation of a comprehensive view of them. Based on this book, business structures will be able to select the most optimal strategies for business integration, considering the market conditions and their own interests. The book's uniqueness lies in developing a new methodology for implementing market strategies for business integration based on game theory. The advantage of the new methodology is increased flexibility and adaptability to all market characteristics and business needs, as well as increased accuracy and rationality through reliance on advanced economic and mathematical apparatus.

This book's practical relevance is ensured by considering the peculiarities of today's context that have emerged in the digital economy. The book makes it possible to take the fullest and most effective advantage of the digital economy and manage the risks associated with it. The book is divided into four parts. The first part highlights the benefits of business integration for business marketing and purchasing. The second part reinterprets market strategies for business integration based on the game theory perspective. The third part proposes innovative scientific and methodological support for monitoring and controlling the effectiveness of game strategies for business integration. The fourth part reveals a digital perspective on improving game strategies for business integration.

The target audience for this book is scholars studying business integration. In this book, they will find a coherent theoretical view of the totality of existing market strategies for business integration. For this reason, the book reveals the cause-and-effect relationships of business integration in more detail, precision, and depth, drawing on a variety of strategies. For this target group, the book also

offers an improved scientific and methodological apparatus of business marketing and purchasing in implementing game strategies for business integration in the digital economy based on the progressive methodology of game theory. The book will be of interest to representatives of such fields of scientific and economic knowledge as business marketing and purchasing, business management, business economics, industry market theory, strategic management, decision-making and digital business.

An additional audience for this book is business representatives. For them, the book presents numerous cases and applied recommendations to improve management in the implementation of business integration strategies. The book also makes it possible to rationalise decision-making when choosing a market strategy for business integration. The author's game approach to business marketing and purchasing in the context of integration in the digital economy can improve the effectiveness of business marketing and purchasing.

New Horizons for Transforming Game Strategies for Business Integration in the Digital Economy in the Transition to Industry 5.0 (Conclusion)

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The emergence of the digital economy under the influence of the Fourth Industrial Revolution has contributed to the transition to a new stage of business integration. As this book has shown, this new phase provides business structures with expanded opportunities for integration across a variety of geographies, industries and business processes. The game approach to business marketing and purchasing in the digital economy developed and presented in this book shifts the focus of this integration from market to business and ensures that business entities benefit from business integration.

On the verge of the Fifth Industrial Revolution, new horizons are opening up for transforming game strategies for business integration in the digital economy. The transition to Industry 5.0 will mean a technological and social revolution because its main idea is the socialisation of artificial intelligence and the creation of cyber-social systems. In this regard, along with new knowledge, this book has also highlighted new research questions.

One of the new questions that emerged from this book is what the social implications of business integration might be. Since one of the strategic objectives of business integration is to reduce costs, it creates high social risks because human resource management is one of the main and most significant costs of today's business, which may be reduced by automation. The social consequences of such integration and support for the adaptation of workers to the new work environment deserve special attention.

Another question raised in this book is the possible new forms of business integration in Industry 5.0. Integration involving the creation of cyber-social systems could be one of these new forms of business integration. The creation of integrated workforces in which human resources and intelligent machines collaborate in a single work team, led by human or artificial intelligence, may

already be on the horizon for future business integration in an Industry 5.0 environment. This and other potential new forms require the development of appropriate market-based business integration strategies based on the game approach proposed in the book.

Thus, the methodology of game theory has opened up a new broad field for future research in business marketing and purchasing. Based on the improved methodological apparatus developed in this book, it is proposed to devote further scientific research in the continuation of this book to the study of the prospects of the application of game theory for the adaptation of market strategies for business integration to the upcoming Fifth Industrial Revolution and Industry 5.0.

PART 1

BENEFITS OF BUSINESS

INTEGRATION FOR BUSINESS

MARKETING AND PURCHASING

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