The application of information technologies in the development of corporate growth strategy

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Abstract. The emergence of new industries in the information sphere stimulates the company to use additional opportunities for increasing the efficiency and expand the boundaries of business. One of the strategies for changing the scale and structure of the company's activities is the implementation of the corporate growth strategy. The study is based on the fundamental and applied research of foreign and domestic authors in the development of corporate strategies and information and communication technologies. We achieved the goal using methods of economic and financial analysis, comparisons, system and situational analysis, analogies and expert assessments. The article analyzes the motives and factors that motivate the company to implement the growth strategy. The features of an internationalization strategy models in the world economy and the specificity of their application for individual countries and territories were studied. We suggested a methodical approach for the development of a corporate growth strategy with a set of options for the industrial Internet of things (IoT).
The study showed that there is no optimal and universal model of corporate growth strategy that can be applied for companies operating in emerging markets. The reason for it is the fact that the need to develop a corporate strategy is caused by the influence of external and internal factors specific to each particular company and market. Application of the proposed model will help to justify the choice of areas of investment activity, ensuring the growth of business value with the maximum possible utilization of the company's potential.

Key words: corporate growth strategy, internationalization, information technologies, new markets, digitalization of business processes

When a company expands beyond the local market, the question where and how to develop further inevitably arises. One of the strategies for changing the scale and structure of the company's activities is the implementation of corporate growth strategies. When developing a corporate strategy, we face with restrictions of access in the region, federal district, countries of near and far abroad. Justification of the opportunities for entering foreign markets can be made with the help of the internationalization model.

The term internationalization usually means a position in the international arena, or the implementation of operations abroad. At the same time, it is assumed that the company first enters the domestic market, and internationalization is nothing more than the result of progressive decision-making. [1, 2, 3] The further development of the theory conjoins both internationalization and the complex process of increasing involvement of the organization in international operations. [4]

In order to make a decision on the implementation of the strategy for entering foreign markets, the company must follow certain motives, which can be divided into several major areas: management characteristics, company specific features, environmental factors and current export motives. [6]

The main motives for internationalization are the motives of the owners and managers of the company, as they make decisions about options for the company's growth strategy and assess its potential for export activities. These entities make the final decision whether the company will implement a strategy of entering foreign markets based both on marketing prerequisites (aspiration for growth, expansion of sales markets), and on financial (availability of financing sources and efficiency of their use). Thus, the investment and production potential, the presence of a developed growth strategy and the availability of accumulated reserves are factors that can influence or motivate the company's export operations. [6] Reasons motivating companies to expand the boundaries of doing business include the inadequate use or simple available production capacity, the spread of restrictions on the domestic market, the pressure of local competitors, the existing opportunities in foreign markets and the encouragement from external agents. [5, 6]

Right now, a large number of models have been developed for the company to enter foreign markets, studied by foreign researchers and actively used in developed countries.

Most authors distinguish three major theoretical directions of internationalization: "economic", "process", "global". Covillo and McAuley (1999) distinguished the main models of internationalization in three schools:

- Economic School of Foreign Direct Investment;
- Behavioral school of stage models;
- School of network models. [7]

Each of these subgroups considers the firm's entering to the external market from its position, relying both on the company's resource potential (the theory of E. Penrose [8]), on the stage of product existence (the hypothesis of R. Vernon's life cycle [9]) and on the features of the competitive advantages of the importing country and industry (M. Porter [10]).

The most suitable for companies operating in emerging markets is the model developed by Reio Luostarinen (POM-model) in the study of the internationalization of Finnish companies. In his study, Luostarinen identified three necessary components for the implementation of the strategy of internationalization:

- Product strategy (what products does the company produce and which of them will be preferable for entering foreign markets);
- Marketing (territorial) strategy (where, to which markets the company enters);
- Operational strategy (how, methods of introduction on foreign markets). [11]

The three main strategies, as Luostarinen notes, concentrate on the components of the potential market activity of the company abroad. This approach considers secondary changes in the company, which, nevertheless, serve as additional steps towards the result of internationalization. The most significant elements of the model are "personnel" and "finance", which act as the resource potential of the company to achieve the result, but the organizational structure of the company that allows conducting operations to enter the foreign market is also an important element. [12] Reio Luostarinen notes that this model can be used to compare companies of different degrees of internationalization.

For each of the three strategic models, common standards were developed. For the product strategy of internationalization, there are four areas for entering foreign markets: goods, services, technology or know-how. For the territorial strategy of internationalization, it is assumed that markets that are close geographically, culturally and economically are selected at first, and then the company gradually adapts to markets with a long business-distance. [13] The choice of the operational strategy depending on the territorial is presented in Table 1.

Table 1. Combinations of operational strategies' types

Operational strategy	Type of distance		
	Geographic	Cultural	Economical
Marketing operations with indirect investment	short	long	long negative
Marketing operations with direct investment	short	short	long positive
Production operations with indirect investment	long	long	short negative
Production operations with direct investment	long	short	short positive

Source: Welch, L. S., Luostarinen, R. K. Internationalization: Evolution of a Concept.

Depending on what kind of product the company is going to output to foreign markets, different entry methods with specific operating strategies presented in Table 2.

Table 2. The matrix of company product types and operational strategies

	Marketing operations with indirect investment	Marketing operations with direct investment	Production operations with indirect investment	Production operations with direct investment
Goods	indirect/direct export	retail outlets	contract production	assembly base, production unit
Services	export of services	service center	-	-
Technology	Partially owned project	-	turnkey, franchising, co-	-

Know-how	know-how agreement	transfer	-	production licensing	-

Source: Welch, L. S., Luostarinen, R. K. Internationalization: Evolution of a Concept.

Thus, it is possible to trace the relationship between the type of product that the company intends to export to the world level and investment operations of both production and marketing nature. This scheme clearly represents the directions of internationalization the organization can choose depending on the product, territorial and operational strategies.

Summarizing the main provisions of R. Luostarinen's theory, it should be noted that internationalization here is studied as a step-by-step process that takes into account both geographic and economic features of entering the market of another country, requires adequate information provision, significant qualitative changes in planning, organization, control , the performance of the company.

For the step-by-step model of Luostarinen, the factors of the internal market for making a "push" towards internationalization are defined by the small size of the market, openness and location. This model can be used as a basis for forming a growth strategy for companies operating in emerging markets. [12]

Such companies rely on gradual development and expansion of their activities based on the implementation of the organic growth strategy. Therefore, to enter new markets at every stage of the company's development, it is necessary to develop a corporate strategy taking into account both the territorial advantages and the features of the product. In a complex, this gives a wide range of options for entering new markets, adapted to the capabilities of a particular company. Implementation of the growth strategy is important primarily for the management of the company and for its owners. Having obtained the results corresponding to the goals of the owners, one can proceed to the reasoned actions connected with the search for additional opportunities for increasing the efficiency of the activity and review the boundaries of the business.

Now there is no single methodology for assessing the feasibility of the company's entry into new markets. Most of the strategies rely either on comparison with existing companies in the regional market (Szymura-Tyc M.) [14], or on forecasting cash flows and assessing the potential effectiveness of their management in the new market. (Asuman A.) [15] The experience of foreign countries with developing economies (eg Poland) shows that many studies on this topic affect simple and integral structural indicators identified in traditional models: the share of exports in sales, the proximity of markets, the stages of entry into foreign market, forms of implementing the corporate growth strategy. (Dörrenbächer, Gorynia). [14, 16] Less commonly, the quantities that characterize the share of imports in purchases, the number of markets for imports and the distance between them become values.

The authors developed a model of the company's growth strategy, which makes is possible to assess the choice and likely ways of entering the company into new markets [17, 18].

The necessary parameters for developing a growth strategy model for companies operating in emerging markets are:

- Distance (differences in geographic location, cultural characteristics and economic characteristics of the territories);
- Product (necessary diversification, production volume and competitive advantages, sufficient for the company to enter new markets);
- Finance (assessment of sufficiency and availability of resources, quality of long-term planning of activities before embarking on the implementation of the growth strategy);
- Personnel (qualified and trained management, able to take the company to a new level, the competence of owners);
- Organizational structure.

Based on the presented groups of indicators, the authors developed a corporate growth strategy model, evaluated the investment attractiveness of the growth strategy options and justified the way the company would enter new markets [18].

Within the framework of this study, possible options for using the technologies of the industrial Internet of things (The Industrial Internet of Things - IIoT) in developing the corporate growth strategy model are presented. Taking into account the essential features of each block of the model, it is proposed to use the following specialized information technologies, presented in Tables 3-6 [19,20].

Table 3. Distance

Digital technology	Advantages of its usage
The technology of automatic object identification (RFID)	allow using radio signals to read or write data stored in RFID tags; allow to simplify and automate logistics; protect against fraud and theft
Extranet is an intranet extension that contains selected areas that are allowed to be accessed by external users	the possibility of providing partial and adjustable access of external users to corporate data on the movement of orders, assortment, availability of products in the warehouse, the possibility of obtaining discounts; Coordination of the activities of subdivisions and branches; Expand opportunities for communication with partners
CRM-system - system of management of relations with clients	Synthesis of information about the relationship with customers: the presence and need for the product, sales cycles, the price of the product, etc. network interaction between the manufacturer and the customer

Table 4. Product

Digital technology	Advantages of its usage
Cloud computing	accumulation and processing of large amounts of information resources; allow you to quickly and easily use the services and applications; allow to form the type of service (public, private, hybrid); help to increase the speed of decision-making and increase productivity in general; increasing the level of customization of products; acceleration of products' entrance to the market;
Augmented Reality Technologies (Augmented Reality - AR)	simplify and shorten the process of creating a new product; creation of knowledge-intensive virtual models instead of expensive real-life models-prototypes; can reduce the impact of the human factor; reduction of downtime of equipment; optimization of maintenance costs; reduction of equipment repair costs; intellectual diagnostics and predicative analysis; satisfy the need for more economical use of materials in production
Factories of the future	creation of customized products; use of achievements of computer engineering; allow re-equipment without human intervention; ensure the interconnection of global supply chains and production assets; creation of high-tech jobs; possibility of validation of technological processes
SCN-system	Providing automatic communication with the order management system of suppliers and buyers

Table 5. Finance

Digital technology	Advantages of its usage
Dstributed ledger technology — DLT	allows to form the type of the register of participants (open, closed, mixed), which makes it possible to control access to and validation of transactions; Increases the security of transactions and data storage; distribution of financial platforms, cloud technologies and large data; decrease the role of financial intermediaries; development of blockchain technology
P2P (person-to-person) payments	allow to automate complex transactions, for example,

	insurance payments, payment of taxes, exchange of any types of assets, including intellectual property; customization of applications for payment and offline transactions
Smart contracts (smart contracts)	allow transactions or implement agreements automatically when the relevant conditions are met; decentralization of blockchain technology
ERP system (resource planning system)	a set of software applications allows you to integrate information (procurement, sales, marketing, stakeholder engagement, finance, human resources) and to carry out effective planning of the company's activities; standardization of information; decrease in the influence of the human factor; optimization of the company's geographically dispersed business units

Table 6. Personnel

Digital technology	Advantages of its usage
Industrial Wireless Sensor Networks	allow to control and control the state of equipment using interconnected wireless sensors and information systems; predicative analysis allows you to notify staff about possible failures and problem situations; customization of workplaces
Inranet	combining diverse data into a single information space; creating a digital workspace; the possibility of using in geographically distributed companies; enhanced data protection and authorized access to them; ensuring high-speed access of employees to the company's electronic information resources; increased involvement, interest and productivity of teamwork; performance evaluation

Thus, the use of up-to-date technological solutions in the development of the corporate growth strategy promotes the transformation of the traditional management and organizational structure of the company, changes the competence of personnel, allows solving various tasks in the field of company management, introduction of innovations, digitalization of business processes.

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