



SME internationalisation decision-making: An innovation-based knowledge model

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Abstract

The internationalisation of small and medium-sized enterprises (SMEs) is an important topic in economics, with numerous studies focusing on this process over the past decades. Many researchers have concluded that internationalisation of SMEs is a complex task requiring the consideration of many factors. A key issue in existing research is the insufficient attention given to the role of knowledge in the internationalisation process. Despite the recognition of the importance of knowledge, most studies focus on other aspects such as innovation activities, network structures, and management. While these aspects are important, the potential of SMEs remains untapped without adequate attention to the knowledge that underpins successful international operations.

This article proposes a new model of internationalisation based on knowledge-driven innovation, which views international market entry through the lens of knowledge acquired by SMEs and the resulting innovations implemented. The model is based on empirical research with 179 respondents representing SMEs operating in international markets.

The model views internationalisation as a dynamic process in which knowledge-based innovation plays a crucial role at each stage, helping SMEs adapt to international conditions and enhance their competitiveness. The study found that successful internationalisation of SMEs depends on the creation of knowledge-based innovations. Effective knowledge management - including collection, storage, dissemination and exploitation - is essential for the development of such innovations. To achieve better results, SMEs should prioritise aspects such as regular knowledge sharing, the use of efficient information systems, and the involvement of management in knowledge management processes. The knowledge-driven innovation model provides a structured approach to internationalisation, covering the stages of preparation, initiation, and experienced market penetration.

To successfully enter international markets, it is essential to create an environment where employees understand their role and the importance of knowledge, and where management actively supports knowledge sharing and innovation processes. Such approaches will help SMEs achieve sustainable success and remain competitive in international markets.

Keywords: knowledge management, effects of knowledge management, internationalisation, entering foreign markets, small and medium-sized enterprises (SMEs).

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中小企业国际化决策：基于知识创新的模式

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简介

中小型企业进入国际市场是经济科学中的一个重要课题，近几十年来，有大量研究都是针对这一过程的。许多研究人员认为，中小企业的国际化进程是一项复杂的任务，需要考虑许多因素。现有研究的主要问题是知识在国际化过程中的作用缺乏关注。

尽管认识到知识的重要性，但大多数研究还是把重点放在创新、网络和管理等其他方面。尽管这些方面都很重要，但如果不适当关注知识和以知识为基础的创新，中小企业的国际化可能仍然无法实现。

本文提出了一种通过知识创新实现国际化的新模式，即从中小企业的知识和在此基础上进行的创新的角度来研究中小企业进入国际市场的过程。此外，本文还提出了作者对知识创新的分类。

该模型基于对179家中小企业的实证研究。所研究的所有中小企业都在国际市场上运营。该模型将国际化视为一个动态过程，其中以知识为基础的创新在每个阶段都发挥着关键作用，帮助中小企业适应国际环境并提高竞争力。

研究发现，中小企业的成功国际化有赖于创造以知识为基础的创新。为了创造这种创新，适当的知识管理，包括知识的获取、存储、传播和利用，是非常重要的。为了取得更好的成果，中小企业应注意定期分享知识、使用有效的信息系统以及管理人员参与知识管理过程等方面。以知识为基础的创新模式为国际化提供了一种结构化方法，涵盖了国际市场的准备、启动和试点阶段。为了成功进入国际市场，必须创造一种环境，让员工了解自己的作用和知识的重要性，让管理层积极支持知识共享和创新进程。这些方法将有助于中小企业在国际市场上取得可持续的成功并保持竞争力。

关键词：知识管理、知识管理效应、国际化、进入外国市场、中小型企业。

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Introduction

In the research literature, the internationalisation of small and medium-sized enterprises (hereafter referred to as SMEs) has been examined from different perspectives and, to date, many theories and models have been proposed to explain the processes of SME internationalisation, such as process or stage models¹ [Johanson, Wiedersheim-Paul, 1975; Johanson, Vahlne, 1977], innovation models (I-models)² [Simmonds, Smith, 1968; Lee, Brasch, 1978; Reid, 1981], pre-export and export initiation models³ [Olson, Wiedersheim-Paul, 1978; Wiedersheim-Paul et al., 1978], network theory [Johanson, Mattsson, 1986; Johanson, Vahlne, 1990] and international entrepreneurship theory [McDougall, Oviatt, 2000]. However, most theories have their limitations: while they consider some aspects of internationalisation, they ignore others. Although there are some studies in the

research literature that attempt to develop a holistic approach to internationalisation, such as [Leonidou, Katsikeas, 1996; Coviello, McAuley, 1999; Bell et al., 2003; Etemad, 2004; Ruzzier et al., 2006], there is a lack of studies that address the role of knowledge-based innovation.

The aim of this article is to develop a decision-making model for the internationalisation of small and medium-sized enterprises based on the creation of knowledge-based innovations.

Small and medium-sized entrepreneurship is a very important and complex phenomenon, the level of development of which largely determines the development of the economy and society. In this regard, the State tries to develop SMEs through various forms of support and popularisation of entrepreneurial activity in society.

At present, the impact of SMEs on the Russian economy is more than double that of their counterparts in the US and

¹ Process or stage models of internationalisation are approaches that view internationalisation as a gradual process that proceeds through several stages or phases. These models assume that firms start with small steps in international markets and increase their involvement over time, acquiring new knowledge and experience. Such models include the Uppsala model and the Welch-Luostarinen model. These models help firms to structure their efforts to enter international markets, taking into account factors such as risk, complexity and the need to accumulate knowledge.

² Innovation models (I-models) of market entry focus on how firms can use innovation to successfully penetrate international markets. These models emphasise the importance of new products, services, business processes and management approaches in achieving competitive advantage on a global scale.

³ Pre-export and export initiation models describe the processes that occur in the early stages of a firm's entry into international markets. These models focus on understanding how firms prepare to export their products and what steps are taken to successfully initiate export activities. For example, the Wiedersheim-Paul, Olson, and Welch model [Wiedersheim-Paul et al., 1978] describes the sequence of actions a firm must take before starting to export and includes market research, strategy development, and resource preparation.

Table 1
Comparative analysis of the share of SMEs in the GDP of Russia, the USA, and Germany, 2021 (%)

Country	Share of SMEs in GDP	Share of employed	Share of SMEs in total export volume
Russia	20.3	27	8.6
The USA	56	52	28
Germany	43	57	28

Source: compiled by the authors on the basis of Rosstat data <https://rosstat.gov.ru/>.

Germany, as measured by their share of GDP and their share of employment (Table 1).

Special attention should be paid to the share of SMEs in the total volume of the country's exports, where the difference is already more than three times. Under the sanctions imposed since 2022, the share of SMEs in the total volume of Russian exports has decreased, and therefore the state aims to support SME export entrepreneurship.

It should be noted that many SMEs have also begun to use the realities to start their activities or are trying to discover new opportunities for themselves. This is shown by statistics from the Federal Tax Service⁴: As of 10 April 2024, the total number of registered legal entities in the Russian Federation reached 6,503,649, compared with 6,184,495 a year earlier. In recent years, despite various crises and sanctions, a positive dynamic has been observed.

The growth and development of new SMEs is linked to their internationalisation, which raises the issue of developing a model for SMEs to enter international markets, including the use of knowledge-based innovation as the most effective tool.

1. Theoretical review of the literature

Research on the internationalisation of SMEs is relatively recent compared to research on the internationalisation of large firms. Among the first works were [Leonidou, Katsikeas, 1996], devoted to a review of research on the construction of export models of manufacturing SMEs from 1975 to 1995; [Leonidou et al., 1998], devoted to a review of research from 1960 to 1995 on the influence of management on exports, etc.

Most researchers agreed that the process of internationalisation of SMEs is quite complex and that it requires the construction of integrative models to explain it. For example, N. Coviello and A. McAuley [Coviello, McAuley, 1999], based on a review of empirical studies conducted between 1989 and 1998 describing the process of SME internationalisation, constructed a model of SME internationalisation based on the integration of three theoretical approaches: step modelling, the network approach and the theory of foreign direct investment.

Similarly, H. Etemad and R. Wright [Etemad, Wright, 1999] concluded that 'no single established model adequately explains the success of small firms in their internationalisation'. Therefore, the behaviour of SMEs in the internationalisation process 'should be viewed as a holistic process based on a number of theoretical models, including stage models, FDI theories and network theories'.

In 2001, R. Fletcher [Fletcher, 2001] proposed his conceptual framework for a comprehensive approach to the internationalisation of a firm. The framework was based on a survey of Australian firms, the majority of which were SMEs. Fletcher identified three forms of SME internationalisation: outbound (e.g. direct export), inbound (e.g. import) and linked (e.g. strategic alliances). The choice of these three forms was determined by the state of the internal and external environment of the SME.

In a study [Ruzzier et al., 2006], five models were proposed to be combined to explain the internationalisation of SMEs: process models, innovation models, the network approach, the resource-based theory of the firm and the theory of international entrepreneurship.

Another integrative model is that of Bell et al [2003], which presents different paths that small firms can take to internationalise. Three paths were identified: the first was to enter foreign markets gradually (traditional firms); the second was to internationalise at a very fast pace (born globalists); the third was to enter foreign markets like traditional firms, but to accelerate the pace of penetration by introducing innovations and improvements (born globalists). The concept first identified knowledge as a source of competitive advantage for born globalists.

Subsequently, many researchers have demonstrated the importance of knowledge for internationalisation; for example, [Saarenketo et al., 2004] presents a knowledge management model for internationalisation based on evolutionary economics. In this model, the role of the entrepreneur is to find new combinations of internal and external knowledge factors that lead to a sustainable international competitive advantage. The study [Prashantham, 2005] presents two types of factors as drivers of internationalisation: social capital (involving knowledge of local markets) and information technologies

⁴ <https://rmsp.nalog.ru/statistics.html>.

such as the Internet, which influence internationalisation through the dissemination, acquisition and exchange of information.

[Ipe, 2003] shows that knowledge helps to reduce uncertainty, risk and the state of ambiguity, i.e. general ignorance. In this sense, the highest level of understanding is manifested in a person's use of data, information and knowledge.

The article [Zhou, 2007] argues that the key value of knowledge is the ability to predict possible scenarios of events based on a given set of input data. Forecasting is used to develop strategies and set intermediate and final objectives. In the context of the internationalisation of companies, knowledge of foreign markets, their evolution, threats and opportunities plays a key role in planning the implementation of future strategies in these markets [Billore, Billore, 2020].

The study [Sudhir, 2016] emphasises that internationalisation places special emphasis on the quality and efficiency of knowledge use, as well as its reliability, timeliness and value. In this context, information and knowledge management plays an important role in needs analysis, knowledge transfer and dissemination, and database formation. It is necessary to know what information and data are needed to solve a problem and to have quick access to them [Varadarajan, 2020].

2. Methodology and findings of the study

In order to develop a decision-making model for the internationalisation of small and medium-sized enterprises based on the creation of knowledge-based innovations, the authors conducted a survey between November 2023 and March 2024, for which the questionnaire was sent electronically to 315 respondents - representatives of SMEs. The selection criteria for the interviewees were their employment in companies characterised by possible participation in internationalisation. The selection was made among the authors' immediate acquaintances and colleagues, as well as people who met the established criteria, identified through communication and electronic correspondence. Respondents were informed of the scientific nature of the study. 183 completed questionnaires were received, of which 4 were excluded due to incorrect completion; the final sample consisted of 179 respondents.

The questionnaire consisted of fifteen questions, the first four of which were designed to identify and characterise the respondent and the SME in which he or she worked; another four questions were devoted to the nature of internationalisation. The characteristics of the respondents, the SMEs included in the sample and the characteristics of their internationalisation are presented in Table 2.

The remaining seven questions (9-15) focused on the role of knowledge and knowledge-based innovation in the internationalisation process. The ninth question concerned the influence of accumulated knowledge in SMEs on the success of the internationalisation process (Fig. 1).

Table 2
Characteristics of respondents and sampled SMEs
(% of respondents)

Characteristics of respondents	Share
Sex structure:	
– men	57
– women	43
Respondents' experience in implementing the internationalisation process	
– up to 3 years	27
– from 3 to 5 years	21
– from 5 to 7 years	19
– from 7 to 10 years	12
– from 10 to 15 years	15
– over 15 years	6
Characteristics of SMEs	
Field of activity:	
– retail trade	34
– industrial production	31
– services	7
– transport and logistics	15
– IT	8
– other	5
SME size (number of employees):	
– up to 10 people	3
– from 10 to 19 people	12
– from 20 to 49 people	19
– from 50 to 79 people	34
– from 80 to 100 people	32
Form of SME internationalisation (several possible answers):	
– export	35
– import	70
– organization of a branch/subsidiary	30
– joint venture	2
– direct investment	
Time of work in foreign markets:	
– up to 3 years	37
– from 3 to 5 years	24
– from 6 to 8 years	18
– from 9 to 12 years	11
– from 12 to 15 years	6
– over 15 years	4
Geography of internationalisation	
– CIS countries	69
– CIS and neighbouring countries	23
– Neighbouring and distant countries	8
Number of markets where SMEs operate	
– 1-2	73
– 3-4	14
– 5-6	4
– 7-9	7
– over 10	2

Source: compiled by the author.

Fig. 1. Impact of knowledge on internationalisation success (% of respondents)



Source: compiled by the authors.

One of the important areas of knowledge in the context of internationalisation is awareness and understanding of the nature of the problems and difficulties that may arise during its implementation. Therefore, the tenth question concerned the difficulties faced by SMEs in the process of internationalisation. Respondents could give more than one answer. The most commonly cited difficulties were fierce competition (72% of respondents) and logistics, cited by 64% of respondents. The third and fourth most frequently mentioned obstacles were sanction pressure (54% of respondents) and communication failures between participants and organisers of the process (38% of respondents). Communication problems were cited by 32% of participants and general difficulties in managing the internationalisation process by 37% of respondents.

Fig. 2. Barriers to internationalisation (% of respondents)

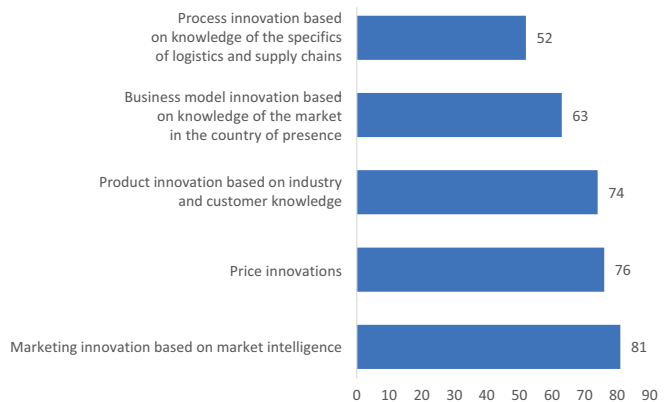


Source: compiled by the authors.

Innovation plays an important role in the internationalisation process; question eleven asked about the type of knowledge-based innovation used by firms in the internationalisation process.

The most frequently cited were marketing innovations based on market knowledge (81% of respondents), including price innovations (76%), product innovations based on industry and customer knowledge (74%), business model innovations based on knowledge of doing business in the country of presence (63%), and process innovations based on knowledge of the specifics of logistics and supply chains (52%) (Fig. 3).

Fig. 3. Implementation of different types of innovation based on SME knowledge in the process of internationalisation (% of respondents)



Source: compiled by the authors.

The next question was about the impact of implementing knowledge-based innovations (Figure 4).

Fig. 4. Impact of implementing knowledge-based innovation (% of respondents)

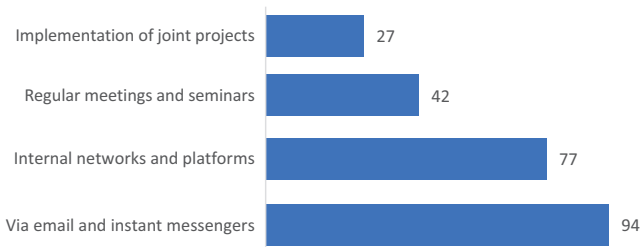


Source: compiled by the authors.

The most frequently cited benefits of knowledge-based innovation were competitive prices (39% of respondents), a wide range of products, their uniqueness and distinctive features (63% of respondents). Less frequently selected responses were better product quality (26%) and shorter delivery times (11%).

The effectiveness of information and knowledge sharing depends on the methods and forms used. Undoubtedly, IT tools play an important role in this process, but the importance of face-to-face communication should not be underestimated, where information and knowledge can be clarified, improved through discussion and enriched with non-verbal signals. In order to identify the methods used to disseminate knowledge, respondents were asked to give their opinion, with the possibility of selecting more than one answer (Figure 5).

Fig. 5. Methods of sharing knowledge and information (% of respondents)

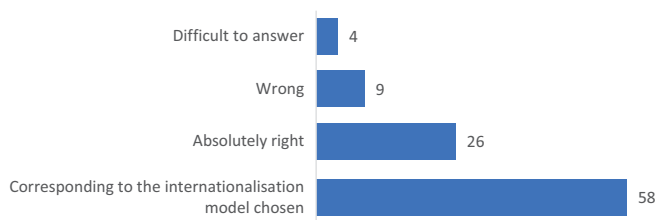


Source: compiled by the authors.

Almost all respondents - 94% - said that knowledge is shared via email and various online messengers. 77% of respondents said that their companies use internal company networks or platforms to manage information and documents; 42% cited regular meetings and seminars as a form of knowledge sharing; 27% cited the implementation of joint projects as a source of knowledge acquisition and sharing.

Respondents were also asked to assess the appropriateness and effectiveness of knowledge management activities in the company, taking into account their impact on the decision-making process in the context of internationalisation (Fig. 6).

Fig. 6. Policy in the area of knowledge creation and management (% of respondents)



Source: compiled by the authors.

The company's knowledge creation and management policy was considered to be in line with the chosen internationalisation model by 58% of respondents. 26% of respondents thought the policy was absolutely correct, 9% thought it was incorrect, and 4% had no opinion.

The final question in the questionnaire asked respondents to describe the difficulties they felt their company had experienced or was experiencing in relation to knowledge management during the internationalisation process. Participants could choose more than one answer (Fig. 7).

The most commonly cited problem was identifying and obtaining information about foreign markets, cited by 87% of respondents. This was followed by the lack of a mechanism and motivation for employees to share knowledge (76% of respondents). In third place were problems related to the lack of appropriate IT tools (44%). Low management involvement was cited by 22% of respondents and 2% found it difficult to answer. These results suggest that despite positive feedback

Fig. 7. Knowledge management challenges in internationalisation faced by SMEs (% of respondents)



Source: compiled by the authors.

on knowledge management policies, many respondents encountered challenges that indicate a need for improvement in this area.

3. Development of a model for the internationalisation of SMEs

In developing the internationalisation model for SMEs, the main criterion identified was the level of experience: pre-internationalisation (no experience), first internationalisation (up to 5 years) and experienced internationalisation (more than 5 years).

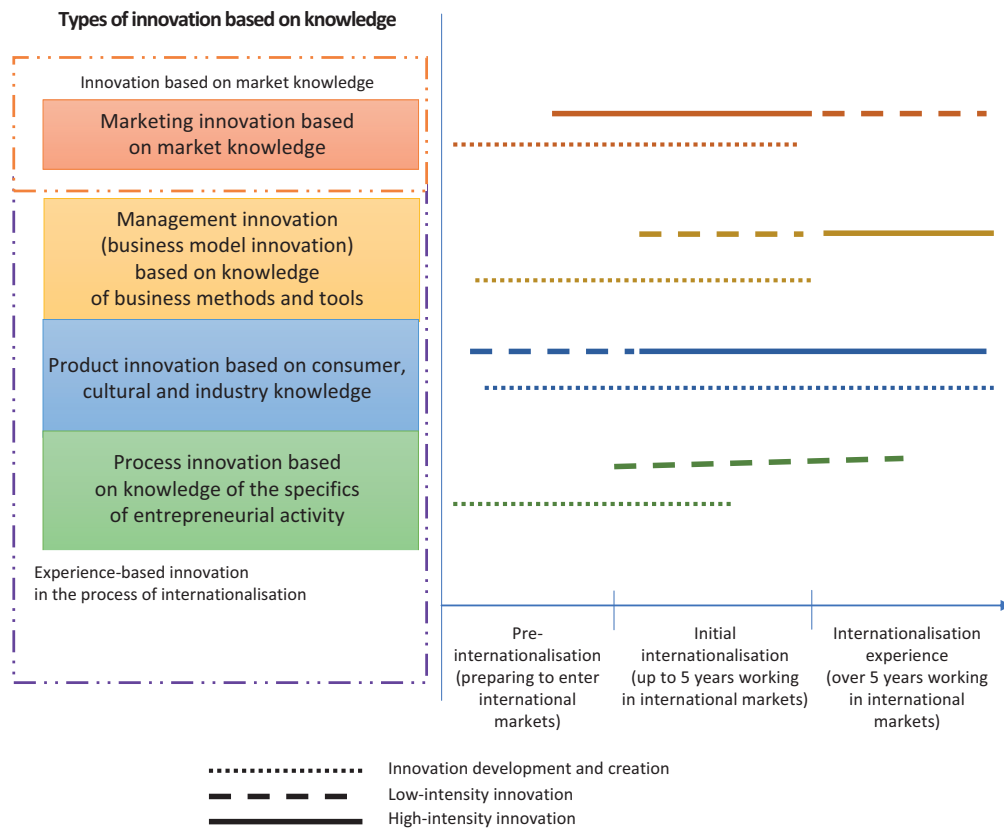
As shown in Figure 8, the developed model of knowledge-based innovation internationalisation consists of three phases influenced by four types of knowledge-based innovation. These phases include pre-internationalisation, initial internationalisation and experimental internationalisation. The boundary between initial internationalisation and experienced internationalisation was drawn on the basis of a period of 5 years working in foreign markets. This boundary was determined taking into account the opinions of the respondents who answered that the company becomes experienced in terms of internationalisation over time as knowledge is accumulated. According to the respondents, the average period of such knowledge accumulation is about 5 years of work in foreign markets.

We now turn to a consideration of knowledge-based innovations that influence the success of SME internationalisation.

4. Classification of innovations based on knowledge gained in the process of internationalisation

Based on the empirical study described above, it was found that four types of innovation based on different knowledge influence the internationalisation process. These include market knowledge and empirical knowledge, which consists of knowledge of the ways and methods of doing business in specific international markets, knowledge of consumers and their cultural characteristics, and entrepreneurial knowledge based on knowledge of internationalisation processes.

Fig. 8. Internationalisation model for knowledge-based innovation



Source: compiled by the authors.

The proposed classification of innovations is based on the different types of knowledge generated in the process of internationalisation and the source of the knowledge. The presented classification of knowledge-based innovations is useful for SMEs to understand the impact of knowledge on the internationalisation of firms.

There are two types of knowledge: one is more objective, or explicit, and the other is more hidden, or empirical. Objective knowledge comes from written documents, reports, and materials. Empirical knowledge comes only from experience. In this study on internationalisation, the first type of knowledge is called market knowledge and the second type is empirical knowledge. Table 3 shows the types of innovation and the knowledge on which they are based.

Marketing innovation based on market knowledge

Market knowledge refers to objective, or explicit, information about foreign markets. It includes information about market size, competitors, regulations, etc. A number of studies have shown that market information obtained during the pre-internationalisation phase is crucial for the initiation of international activity and its first phase. Before entering an international market, a company tries to gather as much information as possible because of the high risk of first-time entry. In the pre-export and export entry models, market knowledge serves as a starting point for developing marketing innovations that facilitate successful entry into the international market.

The creation and implementation of marketing innovations by SMEs in the initial and experimental stages of internationalisation is aimed at maintaining and increasing their market share and improving their competitive position, which depends on knowledge of the factors that create competitive advantages. Competitive advantages are a set of factors or capabilities that allow a company to consistently achieve better results than other competitors [Gnizy, 2024].

Marketing innovation is also based on knowledge of customer and market interests, which in turn leads to the development of sustainable competitive advantages.

It should also be noted that the intensity of the use of market knowledge and the introduction of marketing innovations decreases as the firm progresses along the path of internationalisation. Instead, SMEs rely more on the adoption of other types of knowledge-based innovation, such as networking, cultural and entrepreneurial innovation.

Management innovation (business model innovation) based on knowledge of methods and tools for doing business abroad

The results of this study show that empirical knowledge underpins both internationalisation and managerial innovation in SMEs, but the impact of empirical knowledge on internationalisation success depends on the extent to which it is used to build innovative business models in SMEs. For example, [Orieno et al., 2024] found that firms using innovative business models export more; moreover,

Table 3
Types of knowledge-based innovation generated during the internationalisation process

Types of knowledge-based innovation	Types of knowledge acquired in the process of internationalisation								
	Market knowledge		Empirical knowledge gained in the process of internationalisation						
	Market knowledge	Competitor knowledge	Consumer knowledge	Knowledge of product features offered in specific markets	Knowledge of internationalisation processes	Knowledge of business models used by competitors	Logistics knowledge	Business and industry knowledge	Knowledge of technologies used by competitors
Marketing innovation	✓	✓	✓						
Management innovation	✓		✓	✓	✓	✓	✓	✓	
Process innovation					✓		✓	✓	✓
Product innovation			✓	✓				✓	✓

Source: compiled by the authors.

this work shows that the relationship between innovation and internationalisation depends on the type of innovation, with managerial innovation being particularly important.

Knowledge of the methods and tools for doing business in a particular foreign market is the basis for management innovation, the successful implementation of which takes SMEs further along the path of internationalisation.

Product innovation based on knowledge of consumers in foreign markets, their cultural characteristics and industry knowledge

The accumulation of knowledge about new products, technologies, consumer behaviour, their taste preferences and cultural characteristics leads to the creation and launch of new products and the creation of value for the company [Gui et al., 2024]. This advantage is due to access to knowledge and resources that support business activities. High profits for SMEs in foreign markets are achieved exclusively through innovation. SMEs with a high level of innovation show higher performance [Zuhroh, Rini, 2024]. In order to create product innovations in foreign markets, knowledge of the cultural characteristics of the consumers in a given market plays an important role - an understanding of the values, manners and ways of thinking of the consumers in that market.

The acquisition of this knowledge for innovation begins when the SME starts the process of internationalisation. The SME gradually learns how to do business with partners in foreign markets. As the company acquires more and more knowledge about cultural particularities, the intensity of its use increases.

Research on process models of internationalisation shows that cultural differences play an important role in the choice of country for entering a foreign market. The company will initially choose markets with similar cultures and minor differences. After gaining knowledge in one market, it may seek to expand into other markets that are less culturally similar.

Process innovation based on knowledge of the specifics of entrepreneurial activity

Process innovations for internationalisation are primarily based on reducing costs, improving product quality and introducing new logistics methods. Indeed, improvements resulting from the implementation of process innovations based on internationalisation knowledge can include increased flexibility and quality, rationalisation of production processes [Olu-lawal et al., 2024; Shehzad et al., 2024] and reduction of labour and other costs [Gledson, 2022; Radicic, Alkaraan, 2024], which has an impact on the success of SME internationalisation. Knowledge of how companies operate in foreign markets, their technological characteristics and ways to increase productivity plays an important role in creating such innovations.

The acquisition of such knowledge begins in the pre-internationalisation stage and continues in the early stages of internationalisation. Innovations based on knowledge of entrepreneurial activities abroad are used at different stages of internationalisation. However, the extent to which network knowledge is used and process innovations are implemented varies according to the stage of internationalisation.

The authors of this article found in their survey that experienced SMEs that have already internationalised in several countries develop and implement innovations based on the acquired entrepreneurial knowledge in order to enter a new foreign market. While new exporters strive to acquire this knowledge, experienced companies make greater use of the knowledge they have already acquired. This is because experienced internationalising SMEs implement their innovations more intensively on the basis of previously acquired knowledge. Hence, Fig. 8 shows that in the initial stage of internationalisation, the intensity of innovation implementation based on the use of entrepreneurial knowledge is low, but that this intensity increases in the stage of gaining experience. In addition, entrepreneurial knowledge enables SMEs to recognise opportunities, which is a key factor for a company to survive and grow in foreign markets.

Thus, the creation and implementation of all types of knowledge-based innovations contribute to successful internationalisation. To create such innovations, however, it is necessary to implement a knowledge management system.

5. Conclusions and further research

Since the end of the 20th century, scholars have been actively studying the internationalisation of SMEs. Most have come to the conclusion that integrated models incorporating different aspects are needed to explain the success of SME internationalisation. More recent studies have shown the importance of knowledge accumulation and management processes for internationalisation.

This study is based on an empirical analysis of 179 Russian SMEs operating in foreign markets. Based on the study, it can be concluded that the predominant form of internationalisation in the companies where the respondents work is the export of goods and services to international markets. However, a significant proportion of respondents are setting up branches or divisions abroad. The most commonly cited reasons for doing so are the desire to expand the organisation's market opportunities, to circumvent sanctions, and to diversify sources of income.

All respondents confirmed the importance of acquiring, accumulating and managing knowledge gained through internationalisation, as well as implementing innovations based on knowledge gained through internationalisation.

The main effects of introducing innovations based on the knowledge gained in the process of internationalisation are competitive prices, uniqueness and distinctiveness of product characteristics and their range.

Most respondents recognised the aims of internationalisation, but many also acknowledged that its implementation had been fraught with problems and setbacks. The main problems identified were: fierce competition, sanctions pressure, logistical, communication, language and management difficulties arising from a lack of understanding of the characteristics of the community and the market in a particular region. It can be assumed that the key factor in solving the problems is the introduction of various types of innovation based on the knowledge gained in the process of internationalisation.

In this context, the article develops a model of internationalisation for SMEs based on knowledge innovation. The model includes four types of knowledge-based innovations in the internationalisation process: marketing innovations, based on knowledge of the market; management innovations (business model innovations), based on knowledge of the methods and tools for doing business abroad; product innovations, based on knowledge of consumers in foreign markets, their cultural characteristics and industry knowledge; and process innovations, based on knowledge of the characteristics of entrepreneurial activity.

These innovations, based on knowledge gained through the internationalisation process, are important in explaining the success of SME internationalisation. The creation and intensity of implementation of each of these types of innovation varies according to the stage of internationalisation of SMEs. In addition, the process of knowledge management in SMEs in the context of internationalisation is important for the creation and implementation of such innovations. The study revealed a lack of mechanism and motivation for employees to transfer knowledge, as well as a lack of appropriate IT tools. When asked about ways to share information and knowledge, respondents also emphasised the importance of regular meetings and seminars.

Future research could examine the impact of the considered types of knowledge-based innovation generated during internationalisation on internationalisation performance indicators. A broader empirical test of the proposed model is also needed.

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