

# Territorial expansion and sustainable development: a case study of regional small businesses

*Nazeeh Elsebaie*<sup>1\*</sup>, *Olga Fokina*<sup>1</sup>, *Inna Lukashenko*<sup>2</sup>, *Angela Mottaeva*<sup>2</sup>, and *Alina Fatkullina*<sup>3</sup>

<sup>1</sup>Vyatka State University, 610000 Kirov, Russia

<sup>2</sup>Financial University under the Government of the Russian Federation, 125167 Moscow, Russia.

<sup>3</sup> Moscow architectural institute, 107031 Moscow, Russia

**Abstract.** Small and Medium Enterprises SMEs play a critical role in driving sustainable economic growth and development. As engines of innovation and job creation, they are essential for fostering entrepreneurship and promoting sustainable development at the local and regional levels. In particular, SMEs have the potential to provide a range of economic, social, and environmental benefits, including creating new jobs, increasing local purchasing power, and contributing to the development of local communities. SMEs account for two out of every three jobs worldwide, with over 50 percent of employment in the private sector in developing economies. Furthermore, small businesses are often more adaptable and responsive to the needs of local markets, making them better equipped to compete with larger companies in the same industry. Given their important role in sustainable development, it is crucial to examine ways to support and promote the growth of regional small businesses, including through sustainable territorial expansion. This article presents a case study of an optics network to examine the challenges and opportunities for sustainable territorial expansion of regional small businesses. The study employs a mixed-methods research design, including an analysis of the optics network's client base, a survey of key criteria for competitiveness in the optics industry, and an analysis of potential options for sustainable territorial expansion through the development of territorial representation.

## 1 Introduction

Regional small businesses play a vital role in driving sustainable development, particularly in the context of the United Nations Sustainable Development Goals SDGs. According to the International Labour Organization ILO, small and medium-sized enterprises SMEs account for two out of every three jobs and for more than 90% of businesses worldwide. SMEs are critical drivers of local and regional economic growth, as they are often more embedded in the local community, more responsive to local needs, and more able to generate social and environmental benefits. In many developing economies, more than 50 percent of total

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\* Corresponding author: [nsebaie@outlook.com](mailto:nsebaie@outlook.com)

employment creation in the private sector can be attributed to enterprises with less than 100 employees. In developed economies, SMEs generate 55 percent of GDP (ILO, 2019). Therefore, SMEs are a central economic and social force for employment, growth, and income levels globally. Regional small businesses play a critical role in driving sustainable economic growth and development by fostering entrepreneurship, promoting sustainable development at local and regional levels, and serving as engines of innovation and job creation. Additionally, small businesses have the potential to provide a range of economic, social, and environmental benefits, including creating new jobs, increasing local purchasing power, and contributing to the development of local communities. Small businesses are often more adaptable and responsive to the needs of local markets, making them better equipped to compete with larger companies in the same industry. Therefore, it is crucial to examine ways to support and promote the growth of regional small businesses, including through sustainable territorial expansion. This is particularly important given their critical role in sustainable development. Small business service firms are able to compete successfully with large firms due to the imperfect nature of the market which characterizes business services demand and supply, together with specialization of expertise (Bryson, J., Wood, P. and Keeble, D., 1993). As such, promoting the sustainable growth of regional small businesses is essential for achieving the SDGs and ensuring that economic development is equitable, inclusive, and environmentally sustainable [1-4, 12].

The landscape of territorial markets is rapidly changing in response to the challenges posed by Industry 4.0. As companies increasingly prioritize personalization and customization, the service industry is adopting more flexible forms of proximity to consumers. At the same time, regional small businesses are facing increasing pressure to compete with larger international and federal companies that have expanded their reach through territorial expansion. Against this backdrop, it is essential to explore ways to promote sustainable territorial expansion for regional small businesses, while also addressing the challenges of Industry 4.0.

Regional SMEs face several challenges and opportunities when it comes to territorial expansion. Some challenges that regional small businesses might encounter when expanding their business to new territories include:

- Financial constraints: Expanding a business often requires significant financial investments, which may be challenging for regional small businesses with limited access to funding.
- Lack of expertise and resources: Expanding into new territories may require specialized knowledge, expertise, and resources that are not readily available to regional small businesses.
- Marketing and advertising: Promoting a business in new territories may require significant investments in marketing and advertising, which can be a challenge for businesses with limited budgets.
- Developing relationships with new stakeholders: Expanding a business often requires developing new relationships with suppliers, customers, and other stakeholders, which can be time-consuming and resource-intensive.
- Infrastructure and logistics: Regional small businesses may encounter challenges related to transportation, distribution, and supply chain management when expanding their business to new territories. As businesses expand, maintaining quality and consistency can become more challenging to maintain quality and consistency in products and services, particularly if they are being delivered across a wide geographic area.
- Regulatory and legal compliance: Expanding into new territories may require compliance with different regulatory and legal requirements, which can be complex and time-consuming for businesses to navigate.

- Competition from larger, more established companies: Regional small businesses may face intense competition from larger international and federal companies that have brand recognition and the resources to expand rapidly and dominate the market.

Despite these challenges, there are also several opportunities that regional SMEs can capitalize on when expanding their business to new territories, including:

- Access to new markets: Expanding into new territories can open up new markets for regional small businesses,
- Increased revenue streams: Expanding into new territories can create new revenue streams and opportunities for growth, helping regional small businesses to increase their profitability and sustainability.
- Employment opportunities: Expanding a business often requires hiring new employees, which can help to create new jobs and contribute to the economic development of the surrounding community.
- Diversification of customer base: By expanding into new territories, regional small businesses can diversify their customer base and reduce their reliance on a single market or product.
- Access to new resources and markets: Expanding a business can provide access to new resources and markets, which can help to drive innovation and create new opportunities for growth.
- Local knowledge and expertise (Differentiation from competitors): By adopting sustainable business practices and providing personalized, high-quality customer service, regional small businesses can differentiate themselves from larger, more established competitors and build a loyal customer base. Regional small businesses often have a deep understanding of the local market and culture, which can be a competitive advantage when expanding into new territories.
- Social and environmental benefits: Regional small businesses can generate social and environmental benefits in the communities where they operate, such as job creation, community engagement, and support for local suppliers.

The next table shows few examples, but the specific challenges and opportunities will depend on the industry, the company's size and resources, and the regions being targeted for expansion.

**Table 1.** Challenges and opportunities of territorial expansion for regional small businesses (own)

<b>Challenges</b>	<b>Opportunities</b>
Lack of expertise and resources	Access to new sources of financing and potential partnerships with local businesses
Lack of brand recognition and market presence in new territories	Increased brand recognition and enhanced reputation through territorial expansion.
Cultural differences in new territories	Ability to leverage local expertise and knowledge to tailor products and services to local needs
Difficulties in managing logistics, supply chain, and distribution networks	Diversification of customer base and reduced dependence on a single market
Regulatory and legal hurdles in new territories	Potential for increased efficiency and economies of scale through expansion
Competition from larger companies	Access to new customers and market segments
Limited financial resources and difficulty in accessing financing support from government agencies	Increased market share and revenue growth potential in new territories

In generally, the challenges and opportunities of regional small business territorial expansion will vary depending on the industry, location, and specific circumstances of each business. Understanding these factors is essential for developing effective strategies to promote sustainable territorial expansion for regional small businesses.

## 2 Methodology

In this paper, we present a case study of an optics network as an example to examine the opportunities and challenges of sustainable territorial expansion for regional small businesses in the optics industry. To achieve this, we conducted a comprehensive analysis of the current client base, as well as the features of interaction between optician employees and consumers. This included an observational study of employee-consumer interactions, as well as a consumer survey to identify the most significant competitive factors and communication channels that contribute to effective contact with the target audience. We also considered the potential benefits of expanding market coverage, including the strengthening of the company's brand image and the attraction of new customers to existing optics.

First, we evaluated the factors of competition using the 5 forces method of Michael Porter to assess the feasibility of expansion;

Secondly, we carried out an analysis of the current client base to gain insight into their demographics, preferences, and purchasing behavior;

Thirdly, we conducted an observation of the features of interaction between optician employees and consumers to gain a better understanding of the quality of communication and the level of customer service provided.

Fourthly, to complement these analyses, we also conducted a consumer survey to identify the most significant competitive factors and determine the main communication channels that contribute to quick and effective contact with the target audience.

An important potential follow-up to the study was the assumption that the expansion of the market coverage would help strengthen the company's brand image and attract even more customers to their existing optics. Thus, an increase in the number of opticians will entail an increase in the number of clients in each of them.

Overall, our methodology allowed us to gather a comprehensive set of data on the current state of the optics network, as well as the opportunities and challenges for sustainable territorial expansion. This data informed our recommendations for future growth and development, as detailed in the following sections.

## 3 Results

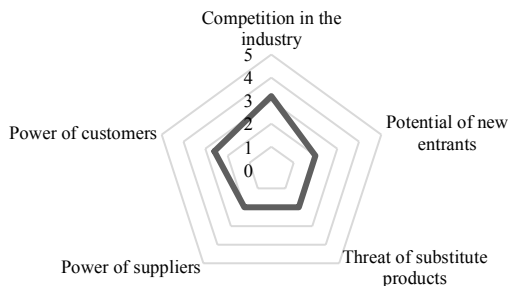
### The assessment of competition within the industry of optics

To evaluate the feasibility of implementing risky projects, the competitive factors were analyzed using Porter's Five Forces framework (Table 2).

**Table 2.** The summary results of the assessment of competitive forces (own)

Factor of competition	Average Factor Score	Factor Weight
Competition in the industry		
Number and strength of competitors	0.2	3.0
Changes in purchasing power	0.1	2.0
Degree of product standardization	0.1	4.0
Customer switching costs	0.15	4.0
Barriers to market exit (reprofiling)	0.1	2.0

Competitors' strategies	0.15	4.0
Market attractiveness	0.2	2.0
Weighted average score		3,2
Potential threat of new entrants (new competitors)		
Difficulty of market entry	0.4	2.0
Access to distribution channels	0.3	2.0
Industry advantages	0.3	2.0
Weighted average score		2.0
Threat of substitute products		
Ability of consumers to switch to alternative products	0.4	2.0
Switching costs for consumers	0.3	2.0
Consumers' predisposition to switch	0.3	2.0
Weighted average score		2.0
Power of suppliers		
Uniqueness of the supply channel	0.5	2.0
Buyer significance	0.5	2.0
Weighted average score		2.0
Power of customers		
Customers status	0.4	2.0
Product significance to the buyer	0.3	2.0
Product standardization	0.3	4.0
Weighted average score		2.6



**Fig. 1.** The assessment of competition within the industry of optics business using method of Porter(own)

The graph shows the results of an assessment of competition within the optics business industry using Michael Porter's Five Forces framework. The five forces include competition in the industry, potential of new entrants, threat of substitute products, power of suppliers, and power of customers. The assessment rates competition in the industry at 3.2 out of 5, indicating that there is moderate competition within the optics business industry. This means that there are a number of established players in the market, but there is still room for new players to enter and compete. The potential of new entrants is rated at 2 out of 5, indicating that it is relatively easy for new entrants to enter the optics business industry. This could be due to factors such as low barriers to entry, easy access to raw materials or distribution channels, or the absence of significant regulatory hurdles. The threat of substitute products

is also rated at 2 out of 5, indicating that there is a moderate threat of substitute products within the industry. This means that consumers may have other options to choose from besides the products offered by optics businesses, but the threat is not so significant as to pose a major risk to the industry. The power of suppliers and customers are both rated at 2. This indicates that both suppliers and customers have moderate bargaining power within the optics business industry. This means that suppliers and customers are not so powerful as to dictate terms to the industry, but they do have some influence over pricing and other factors.

Overall, the assessment suggests that there is moderate competition within the optics business industry, but new entrants have some opportunity to enter and compete. The threat of substitute products is not significant, and both suppliers and customers have moderate bargaining power.

### **3.1 The analysis of the existing client base**

Based on the analysis of the existing client base, the study identified three customer segments with distinct characteristics and preferences. The first segment comprised children of preschool and school age between 4-9 years, seeking diagnostic and selection services for their first pair of glasses. The second segment comprised young women between 19-27 years old, seeking lens selection services, while the third segment consisted of men and women between 40-67 years old, seeking replacement glasses selection services.

To ensure the reliability of the survey data, a representative sample size was calculated using the Socioline online calculator, and a survey was conducted with 95 individuals at the entrance of the optics store. Questions were asked orally, and responses were recorded using a Google form.

### **3.2 The consumer surveys**

The main objective of the survey was to identify the strongest competitive advantages of the optics business, resulting in the formation of a top-three list of competitive advantages in order of significance:

1. Very pleasant employees who are attentive, polite, skilled in working with children, not rushed, spend sufficient time, listen well, do not impose and strive to find the most optimal solution rather than sell what is more expensive;
2. Convenient appointment scheduling for visits;
3. Sufficient choice of glasses and lenses, with the possibility to order necessary items if they are not in stock.

Interestingly, the convenience of the location of optics businesses was not highlighted, although the management of the network places great importance on location analysis when launching new service points. Additionally, pricing characteristics of goods (price, discounts, bonuses, loyalty programs, etc.) did not make it into the top three factors of importance. This leads to the important conclusion that quality of communication with employees is much more important for customers than the price of goods and services or the location of the optics business. The location of the optics business in a large shopping center or in a location with high traffic (usually central city districts or active trading areas) costs several times more than in residential areas, small shopping centers, or in street retail format, away from central streets. This information provides an opportunity for potential cost savings on rental space.

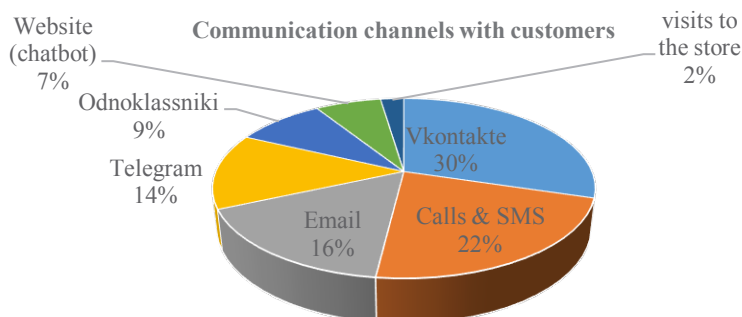
Questions aimed at identifying the most comfortable communication channels with customers determined that the leading channel was the VKontakte social network page. The chart of the distribution of communication channels by degree of popularity is presented.

The pie chart shows the percentage of customers who prefer different communication channels with the optics business. The largest slice of the pie chart (approximately 30%) represents customers who prefer to communicate with the business through VKontakte. The second most popular communication channel is calls and SMS, with around 22% of customers preferring this method. The third most popular communication channel is email, with around 16% of customers choosing to communicate through this method. Telegram and odnoklassniki are preferred by 14% and 9% of customers, respectively. The website (chatbot) and offline visits to the store are the least popular communication channels, with only 7% and 2% of customers preferring these methods, respectively. Overall, the pie chart indicates that customers prefer to communicate through online channels such as VKontakte, calls, SMS, and email, rather than through offline channels such as visits to the store.

In general, this survey helped us to gain insight into the preferences and expectations of the client base, which in turn informed our recommendations for the optimal placement of another small business network.

### 3.3 The evaluation of potential markets

In order to expand the optical business territorially, potential markets were evaluated, including deeper penetration into the cities of N Region and entry into neighboring regions. This constraint was primarily driven by the need for good transportation accessibility.



**Fig. 2** Communication channels distribution pie chart (own)

Factors that were considered as key factors for orientation included the volume of potential target audience (as seen in the above target audience segments), the competitive situation (competitive market maps were constructed for this purpose), and the purchasing power of the population [5-9, 13].

The potential target audience size was estimated based on the fact that one in every seven Russians has visual impairments (statistics, 2017). Competitive analysis was carried out using publicly open-source data. Competitive maps were generated using competitor revenue data for 2020 and 2021, and their respective trends. The average level of competition in the optical business is one store per 1000 people in the target audience. Market monopolization levels were analyzed using the Herfindahl-Hirschman Index (HHI): highly monopolized markets are characterized by  $1800 < HHI < 10000$ , medium monopolization by  $1000 < HHI < 1800$ , and low monopolization by  $HHI < 1000$ . The results are summarized in Table 3.

**Table 3.** Summary of Analyzed Factors for Potential Optical Market Expansion

No.	Territory	Competitive situation	Volume of potential target audience	Purchasing power
1	KKV City (Region N)	High level of competition (650 target audience per 1 optical store), medium level of monopolization (HHI=1300)	4 500	Low
2	KKT City (Region N)	Low level of competition (1500 target audience per 1 optical store), low level of monopolization (HHI=700).	9 521	Medium
3	KKS City (Region N)	Above-average level of competition (900 target audience per 1 optical store), low level of monopolization (HHI=850).	4 495	Low
4	AGZ City (Region G)	Below average level of competition (1260 target audience per 1 optical store), low level of monopolization (HHI=500).	5 049	Medium
5	AGL City (Region G)	High level of competition (680 target audience per 1 optical shop), high level of monopolization (HHI=6700).	8 898	Medium
6	RUG City (Region U)	Below-average level of competition (1193 people per 1 optical store), medium level of monopolization (HHI=1750).	13 132	Medium
7	RRS City (Region R)	High level of competition (740 target audience per 1 optical store), moderate level of monopolization (HHI=1600).	34 754	High

The table provides information on different territories and their potential as markets for expanding an optical business. The competitive situation and monopolization levels for each territory are provided, along with the volume of potential target audience and their purchasing power. Each row represents a different territory, identified by its abbreviation. The second column indicates the competitive situation in each territory, measured by the number of potential target audience per optical store. The third column shows the level of monopolization in each territory, measured by the Herfindahl-Hirschman Index (HHI). The fourth column displays the estimated volume of potential target audience for each territory. Finally, the fifth column shows the purchasing power of the target audience, measured on a scale of low, medium, and high. Based on this information, businesses can evaluate which territories offer the greatest potential for expansion and tailor their strategies accordingly.

The table suggests that city RRS has the highest potential target audience (34,754) and a high level of competition (740 target audience per 1 optical store), but also a moderate level of monopolization (HHI=1600). On the other hand, city AGL has a high level of competition (680 target audience per 1 optical store) and high level of monopolization (HHI=6700), but a smaller potential target audience (8,898). The other regions have varying levels of



competition, monopolization, and purchasing power, providing different opportunities and challenges for an optical business looking to expand into those territories.

Overall, the table helps to identify the most promising regions for expanding the optical business based on factors such as competition, market concentration, potential target audience, and purchasing power.

## 4 Discussion

It is important to acknowledge that this paper has some limitations due to the anonymization and de-identification of certain information for privacy or confidentiality reasons. Specifically, the names of cities and the optics network analyzed in the marketing analysis have been withheld, which may limit the ability of readers to contextualize the findings and apply them directly to specific locations or businesses. Additionally, some demographic information about the client base of the optics network may have been affected by the de-identification process, which could impact the generalizability of the results. Despite these limitations, we believe that the findings presented in this paper still have relevance and value for understanding the opportunities and challenges of sustainable territorial expansion for regional small businesses in the optics industry [10-16]

The article concludes with recommendations for the optimal placement of another optics network in a sustainable manner, taking into account the specific challenges and opportunities of the optics industry.

During the course of the study, several key tasks were addressed, such as conducting an analysis of the customer base of the optics network to identify the target audience. A survey of customers helped to identify the key factors that influence consumer decision-making when selecting a service provider.

## 5 Conclusion

The case study of the regional small business in the optics network sector highlights the importance of developing a clear expansion strategy, building strategic partnerships, leveraging digital technologies, and adopting sustainable business practices for promoting sustainable territorial expansion. By implementing these recommendations, regional small businesses can achieve their expansion goals while also contributing to the economic, social, and environmental well-being of the communities where they operate.

In this study, various methods for promoting optics and communication with a potential target audience were examined, and it was concluded that traditional methods of advertising and in print press should be abandoned in favor of online promotion, especially the social network VKontakte and via direct SMS.

The findings reveal important insights into the importance of sustainability considerations for the territorial expansion of regional small businesses, as well as the need to prioritize quality communication with employees for customer satisfaction and loyalty. Specifically, the following recommendations were proposed:

First, it is advisable to use search engine optimization techniques to attain top positions for key search queries in order to reach potential customers;

Second, active engagement on the social media platform VKontakte, should be accompanied by targeted advertising to attract new audiences, in addition to working with the existing customer base.

## References

1. J. Bryson, P. Wood, D. Keeble, *Entrepreneurship & Regional Development* **5(3)**, 265-278 (1993) <https://doi.org/10.1080/08985629300000016>
2. T. Burtseva, N. Elsebaie, et al., *Bulletin NGIEI, Lobachevsky State University - National Research University* **11(66)**, 17-24 (2016)
3. C. Ding, R. Zhang, X. Wu, *Journal of Business Research* **161**, 113833 (2023) <https://doi.org/10.1016/j.jbusres.2023.113833>
4. The World Bank Group SDG FUND, 2015. Sustainable development goals.
5. R. Fediuk, M. Amran, N. Vatin, Y. Vasilev, V. Lesovik, T. Ozbakkaloglu, *Materials* **14(2)**, 1-28 (2021) <https://doi.org/10.3390/ma14020398>
6. ILO, 2022. Guide to Recommendation 189: Job creation in small and medium sized enterprises Recommendation. Retrieved from [www.ilo.org](http://www.ilo.org)
7. R.C. MacGregor, L. Vrazalic, *Journal of small business and enterprise development* **12(4)**, 510-527 (2005)
8. OECD, 1997. Small businesses, job creation and growth: facts, obstacles and best practices
9. D. Ortiz-Miranda, et al., *Journal of Rural Studies* **95**, 326-335 (2022)
10. M.E. Porter, *International regional science review* **19(1-2)**, 85-90 (1996) <https://doi.org/10.1177/016001769601900208>
11. A. Raszkowski, B. Bartniczak, *Sustainability* **11(2)**, 366 (2019) <https://doi.org/10.3390/su11020366>
12. I.N. Sycheva, Y.L. Ovchinnicov, O.Y. Voronkova, E.M. Akhmetshin, V.V. Kolmakov, A.G. Vasilieva, *Economic potential and development prospects of small businesses in rural areas*. <https://www.um.edu.mt/library/oar/handle/123456789/37345>
13. S. Barykin, et al., *Journal of Environmental Assessment Policy and Management* **25(1)**, 2350001 (2023) <https://doi.org/10.1142/S1464333223500011>
14. S. Bakreen, et al., *Transportation Research Procedia* **63**, 1431–1443 (2022) <https://doi.org/10.1016/j.trpro.2022.06.154>
15. A. Urekeshova, et al., *International Journal of Energy Economics and Policy* **13(2)**, 441-452 (2023) <https://doi.org/10.32479/ijeep.13987>
16. S. Niyazbekova, et al., *E3S Web of Conferences* **371**, 04039 (2023) <https://doi.org/10.1051/e3sconf/202337104039>