

ARTICLES

CENTRAL EUROPEAN REVIEW OF ECONOMICS & FINANCE

vol. 37. No 2 (2022) pp. 57-74

DOI <https://doi.org/10.24136/ceref.2022.009>

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Determinants of maintaining the development of an small online store in the conditions of economic slowdown in Poland

Abstract

Since its inception, the sector of companies selling on the Internet in Poland has been undergoing a process of continuous growth. Even the crisis of 2008 - 2009 did not negatively affect the development of e-commerce in Poland. However, due to the stage of development of the sector, as well as the current macroeconomic conditions, the question of maintaining the development trend under the conditions of economic slowdown arises.

The aim of the article is to identify and assess factors that may support its further development (or at least the maintenance of its position) at the level of an online shop operating in Poland under the conditions of the economic downturn.

The results of the analysis indicate that standard actions taken in favorable market conditions must be modified during a slowdown. Those activities that allow reducing costs and/or reaching a wider audience with an offer (e.g. performance marketing) need to be strengthened.

Keywords: economic downturn, e-commerce, development of enterprise, Poland

JEL classification: L81, M21, O21

Paper type: Theoretical research article

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Introduction

One of the booming industries is online sales. E-commerce offers many benefits for both consumers and businesses. From the customer's point of view, these include convenience, a wide range of products, easy comparability of the offer, attractive prices. Businesses will benefit from the introduction of a new distribution channel, reduced transaction costs, access to customer data, etc. These conditions reinforce each other, leading to an increase in turnover in the sector. In the United Kingdom, for example, average annual growth between 2008 and 2021 was over 20% (Statista, 2022).

In Poland, the e-commerce sector has also undergone a process of multifaceted development. In quantifiable terms, the value of sales, the number of customers buying online, the number of companies selling via the Internet increased year after year. In qualitative terms, there were changes in customer awareness and buying habits, delivery payment methods evolved, customer service in virtual channels professionalized. A factor singularly strongly influencing the development of e-commerce was the SARS-CoV-2 pandemic. The COVID-19 pandemic further strengthened the trends indicated above.

At the same time, 2022 is characterized by an economic slowdown (OECD, 2022). Looking through the prism of GDP growth, inflation levels, retail sales levels (at constant prices), and weakening consumer sentiment, the world, including Poland, must prepare for an economic slowdown. There are also more pessimistic predictions of recession (BIEC, 2022). According to preliminary data, the value of sales in stationary channels has declined in 2022 (Mazurkiewicz, 2022a; Mazurkiewicz, 2022b; Mazurkiewicz, 2022c), and there are also indications of a decline in demand in the virtual channel as well (Duszczuk, 2022a; Duszczuk, 2022b). This raises questions about the further development of the e-commerce sector, which, since its inception in the early 2000s, has operated under positive macroeconomic conditions. Even the crisis of 2008 - 2009 was not too much of a challenge for Polish e-commerce stores, because firstly, the Polish economy as a whole passed through the crisis relatively painlessly. Secondly, the e-commerce sector had been developing in Poland since the early 2000s, so the crisis of 2008 - 2009 occurred during a period of rapid growth in the sector. Thus, in 2022 - 2023, for the first time, online sales face the unpredictable predictions of macroeconomic conditions.

1. Development of e-commerce sector in Poland

Online sales involve commercial transactions in virtual space via a website, mobile application, marketplace or social media (Laudon, Traver, 2007, p. 10). E-commerce is therefore one of the types of trade, next to stationary trade, carried out through physical distribution channels (face-to-face). E-commerce,

on the other hand, is remote in nature, without the simultaneous presence of websites in the same place.

E-commerce is a complex economic subsystem. This is because it uses and appeals to interdisciplinary resources of knowledge and skills, among which are technological (data processing, programming languages, content representation and visualization), social (purchasing behavior, fashions and trends, self-presentation, techniques for dealing with information overload) and managerial (effectiveness of business models used, efficiency of particular IT tools, management of limited resources) issues. From the point of view of managers, e-commerce, compared to stationary commerce, is characterized by the following advantages (Falk, Hagsten, 2015):

- reliance on data on actual purchasing behavior
- reliance on up-to-date data (in part on real-time data)
- ability to automate operations
- speed of response to changes on the part of customers
- reduction of transaction costs
- expansion of markets.

From a retail customer's perspective, the advantages of using e-commerce include (Gemius, 2021):

- multiplicity of product information
- the ability to return in 14 days
- ease of finding rare products
- multiplicity of delivery methods
- the possibility to choose various forms of payment
- very wide assortment (large selection of products)
- ease of comparison
- often there are attractive prices
- unlimited time to make a purchase decision
- there is no need to drive/go to the store
- online store is available non-stop.

The data indicated above confirms the existence of a number of advantages, both on the supply and demand sides. For managers, the most important issues concern knowledge of purchasing behavior (scope and timing of receipt) and the possibility of automating marketing, sales and administrative activities. For customers, the main rationale for online shopping concerns the convenience of purchase (time, place, information), attractive prices and a large selection of assortments.

Of course, e-commerce generates certain disadvantages or barriers. For companies, these will primarily be the full symmetry of information and the ease of moving to another store (the customer is literally just a click

away from the next e-shop), resulting in a reduction in average margins. From the customer's point of view, the drawbacks relate to issues of personal data protection, the difficulty of decision-making under conditions of information overload, and exposure to online fraud (Ingaldi, Ulewicz, 2018). However, market data indicates that the advantages outweigh the risks, which is fueling the growth of e-commerce, both quantitatively and qualitatively. In qualitative terms, there is the emergence of more business models (e.g. group buying), professionalization of customer service, mergers and acquisitions, international expansion (cross-border trade), tax and legal optimizations.

The quantitative growth of e-commerce can be captured in two synthetic measures: the volume of the value of turnover generated by the sector, and the number of companies that have undertaken distance selling business. The above measures reflect changes in a number of other factors affecting the e-commerce sector (e.g., profitability, competition, demand) in an outcome-based manner.

Table 1 summarizes publicly available data on the volume of e-commerce sector turnover in Poland.

Table 1. Polish e-commerce turnover in the period from 2010 to 2021

Year	Revenues [billions of PLN]	Dynamics [% , year-over- year]
2010	15,5	---
2011	17,5	12,90
2012	21,5	22,86
2013	23,8	10,70
2014	27,3	14,71
2015	33	20,88
2016	35,8	8,48
2017	44	22,91
2018	53	20,45
2019	61	15,09
2020	83	36,07
2021	93	12,05

Source: Own elaboration based on PMR (2014); Rynkiewicz (2014); Gólatowski (2016); Wyszynski (2016), PwC (2022)

From a methodological point of view, the various research companies present non-overlapping estimates of online sales volumes. The sales volumes presented in the table are in the middle range of sales values reported by various sources. Over 10 years, there was a double-digit growth

rate in the scale of turnover in annual comparison (except in one case), and taking 2010 as the basis for calculations, the volume of turnover increased 6 times. It proves the enormous success of the sector - the growing demand is matched by the increased scale of supply by sellers.

Another "hard" measure of e-commerce growth in Poland is the number of companies engaged in online sales. In the terms of Polish national statistics, the category of companies selling at a distance (class 4791Z of the REGON register) is taken into account. As digitalization proceeds, it should be estimated that almost all entities recorded in this class are engaged in e-commerce. Table 2 shows the number of e-commerce enterprises against the total number of all registered enterprises in the Polish economy at the end of a given year (data for the fourth quarter).

Table 2. Number of registered e-commerce enterprises and all enterprises.

Year	Number of e-commerce companies	Dynamics [%, year-over-year]	Number of all companies (countrywide, all sectors)	Dynamics [%, year-over-year]
2010	23595	---	3646694	---
2011	25989	10,15	3545838	-2,77
2012	28518	9,73	3551193	0,15
2013	32240	13,05	3590428	1,10
2014	36486	13,17	3800942	5,86
2015	36003	-1,32	3772931	-0,74
2016	36926	2,56	3828687	1,48
2017	38498	4,26	3901469	1,90
2018	40210	4,45	3935158	0,86
2019	43048	7,06	4014354	2,01
2020	49555	15,12	4103598	2,22
2021	54155	9,28	4225921	2,98

Source: Own elaboration based on Moroz (2017), REGON (2022)

The number of companies selling online has more than doubled over a 10-year period, to more than 54,000. However, it is worth pointing out that in addition to officially registered companies, unregistered entities (gray and black market) also sell online. Individuals selling in the c2c model are also not included in the quoted number. The growth rate of the number of companies trading online is positive (again, except for one period). The data presented confirms that the SARS-CoV-2 pandemic accelerated

the dynamics of business establishment in the sector. However, not only 2020 was characterized by a double-digit growth rate in the number of companies selling online - it was similar in a total of 4 years out of the 10 analyzed. Also, a comparison of the growth rate of the number of e-commerce companies in relation to the total number of companies confirms the significantly higher growth rate.

2. Signs of a slowdown in the Polish economy

The economic downturn brings numerous challenges for businesses. An interrelated set of factors is tightening business conditions. Declining GDP, rising inflation, and depreciation of the national currency translate into rising costs of day-to-day operations (including wage costs). Demand is also declining with declining real income. Also, decreasing consumer sentiment indicators do not inspire optimism. Shrinking demand leads to increasing competition, leading to an erosion of margins (Czerwińska-Lubszczyk, Michna, 2013). After all, many companies fail or have to close down (Pońsko, 2010).

The question arises to what extent the scenario of economic slowdown materializes in the conditions of the Polish economy in 2022. The level of Poland's GDP expressed in constant prices (2015 = 100%) and the level of consumer inflation (as of January 2020) are presented below.

Table 3. Changes in Poland's GDP in constant prices

Date	GDP level
4Q15	101,455
4Q16	106,397
4Q17	111,839
4Q18	118,019
4Q19	121,096
4Q20	119,73
4Q21	130,702
1Q22	127,957

Source: Puls Biznesu 2022a

Table 4. Changes in Consumer Price Inflation on monthly basis

Date	CPI level
01.01.2020	0,9
01.02.2020	0,7
01.03.2020	0,2
01.04.2020	-0,1
01.05.2020	-0,2
01.06.2020	0,6
01.07.2020	-0,2
01.08.2020	-0,1
01.09.2020	0,2
01.10.2020	0,1
01.11.2020	0,1
01.12.2020	0,1
01.01.2021	1,3
01.02.2021	0,5
01.03.2021	1
01.04.2021	0,8
01.05.2021	0,3
01.06.2021	0,1
01.07.2021	0,4
01.08.2021	0,3
01.09.2021	0,7
01.10.2021	1,1
01.11.2021	1
01.12.2021	0,9
01.01.2022	1,9
01.02.2022	-0,3
01.03.2022	3,3
01.04.2022	2
01.05.2022	1,7
01.06.2022	1,5
01.07.2022	0,5
01.08.2022	0,8

Source: Puls Biznesu 2022b

Over the analyzed 5 years, Poland generally records an increase in GDP, although a decrease in the measure is visible as a result of the SARS-CoV-2 pandemic. A decline in GDP is also visible in 2022. The consumer inflation rate has reached high levels in recent years (2021-2022). The significance of the above-mentioned macroeconomic measures indicates the formation of a new trend - the slowdown trend.

Confirmation of the above findings is the consumer sentiment index, presented comparatively on a monthly basis (Table 5).

Table 5. Consumer sentiment on monthly basis

Date	CS level
01.01.2020	3,7
01.02.2020	1,3
01.03.2020	1,3
01.04.2020	-36,4
01.05.2020	-15
01.06.2020	-30,1
01.07.2020	-19,4
01.08.2020	-13,4
01.09.2020	-15,2
01.10.2020	-20
01.11.2020	-29,2
01.12.2020	-24,9
01.01.2021	-25,1
01.02.2021	-25,2
01.03.2021	-23
01.04.2021	-22,5
01.05.2021	-13
01.06.2021	-14,6
01.07.2021	-14,8
01.08.2021	-13,5
01.09.2021	-14,6
01.10.2021	-17,8
01.11.2021	-23,3
01.12.2021	-27,3

cd. Table 5

01.01.2022	-29,2
01.02.2022	-27,7
01.03.2022	-39
01.04.2022	-37,2
01.05.2022	-38,4
01.06.2022	-43,8
01.07.2022	-41,7
01.08.2022	-44,9

Source: Puls Biznesu 2022c

This indicator carries the greatest negative charge. Consumers' moods indicate with what optimism / pessimism they look to the future and how willingly they will make purchases. Of course, there is a category of fixed expenses, but for various e-commerce segments (and commerce in general), the dropping level of the measure is a strong concern. The above picture is confirmed by the forecast sales volumes (for the entire trade), which are also at negative levels (Puls Biznesu, 2022d).

To sum up - most of the current data shows a greater or lesser regress. Advance (forecast) economic data predict an even greater slowdown in the near future. of the economic situation predict an even greater slowdown in the near future.

3. Research design

The two resulting indicators of the e-commerce sector's health presented in the article (turnover generated and the number of companies in the sector) reflect the positive trends taking place in the sector by the end of 2021. Entrepreneurs and managers were increasing the scale of operations and/or establishing more companies. All this was happening on the basis of a positive perception of the state of the sector in terms of demand, profitability, level of competition (Porter, 1999, p. 22). However, the coming economic downturn, or as some want recession or stagflation, will challenge the sector to continue growing. The data in Tables 1 and 2 are for 2010 and later, so they do not apply to the crisis of 2008 - 2009. However, this crisis, although devastating for many economies, went relatively smoothly in the Polish economy (Nazarczuk, 2013). Secondly, the e-commerce sector in Poland has not encountered a period of slowdown during its operation since 2002. It resulted from the initial stage of the sector's functioning, which in 2008 was at the stage of dynamic growth. The question is how to prepare for the upcoming slowdown.

The analysis of the literature in the field indicates that the issue of activities that may maintain the market position and financial condition of an online store in slowdown conditions is rarely undertaken. The conducted query in bibliographic databases (Scopus, ScienceDirect, Google Scholar) indicated a significant number of articles devoted to the issue of setting up companies selling on the Internet in crisis conditions. In addition, the issues of adaptation or, more broadly, flexibility of an e-commerce enterprise should be taken into account. Nevertheless, this publication aims to fill a gap in the area of practical measures that do not deteriorate the market position of an online store of a small size. As research shows, in Polish conditions, stores employing up to 5 people are the most numerous (REGON 2022).

The research problem resulting from the above premises is as follows: what actions can lead to maintaining or improving the market position and financial condition of a small online store in an economic downturn. The idea is to identify activities that meet the following conditions together: they are not too costly, they can be carried out with the staff of the e-store, and they have a bearing on the market position and financial condition of the company. Thus, the subject area is concerned with companies already in operation, that is, with a certain market position, customer base, developed procedures, etc.

The aim of the article is to identify and assess factors that may support its further development (or at least the maintenance of its position) at the level of an online shop operating in Poland under the conditions of the economic downturn.

The research method that will be used to achieve the goal is a case study and desk research. The rationale for using a case study is the nature of the research problem adopted: concerning real management problems that are poorly recognized and unstructured. R. Yin (2018) in situations where we are looking for answers to "how", "what" questions recommends choosing the case study methodology. Also, studying specific industries or sectors provides a rationale for using a case study (Naoui, 2014). The object of the research was a small online store operating since 2002. The object of the business is the sale of accessories and materials for artistic painting. The operation of the store, its day-to-day management and customer service are handled by one owner. The owner did not agree to disclose the name of the business.

The research data was collected in September 2022.

4. Case study analysis

The interview with the owner of the online store took place in the second half of September 2022, so in a situation of strong cost growth for the analyzed enterprise, and due to the nature of the operation, the owner's attention is primarily absorbed by two types of costs: energy costs and the rising exchange rate of the USD against the PLN.

Like any online store, an important cost component is the cost of purchasing electricity. Functioning in a virtual space, as well as the requirement for a constant online presence 24 hours a day, means that all electrical and electronic equipment (computers, printers, labeling machines, cash register, etc.) must be constantly powered. In absolute terms, expenses are not high, while the owner's concern is the scale of increases. Added to this is the uncertainty about the levels of increases next year - it is known for now that they will be significant, but it is not known exactly by how much.

The second, even more noticeable cost, is the depreciation of the domestic currency PLN significantly weakened against the USD (from the beginning of 2022 about 20%). Since the vast majority of the assortment the entrepreneur imports from abroad (USA, China), automatically their price expressed in PLN should also increase by 20%. However, this is not entirely possible due to limited demand in the market niche in which the company operates. Poor consumer sentiment is making itself felt in the company's current operations. The company is currently experiencing stagnant sales, customers are uncertain about what will happen in the future and have cut back and some have even stopped making hobby purchases. The situation is slightly better for the segment of companies or professionals using devices sold by Store X. Moreover, the company operates in a competitive environment. The competition is not only from Poland, but also from abroad (European countries, USA). Taking these considerations into account, the owner has not decided to pass on cost increases on a 1:1 basis for each product. In this regard, it is possible to differentiate margins depending on the type of assortment present in the company's offer. The so-called "top shelf" allows higher increases in margins and prices to make up for the aggregate margin volume.

Another cost-cutting factor is more precise management of inventory levels. There are several thousand items in the company's product line. Not all of them are in the company's warehouse, for an obvious reason: there are products that sell more frequently (the so-called category killer), and products whose sale may occur once a year or even less frequently. In this respect, an online store differs from a stationary store, as the virtual presentation can be for up to tens of thousands of stock-keeping items (SKUs), which do not have to be physically in the company's possession. Inventory control is a necessity for trade not only in a slowdown or crisis (Chodak 2007). However, it is under such conditions that one needs to think more precisely about what will actually be a fast-moving

product. And this is where stores where the person making the buying decision is in close contact with customers have an advantage. Real knowledge of the customer's needs (not just estimated in calculating programs or imagined) allows better planning of the necessary inventory.

Another issue that allows the owner to reduce costs, in the assumption, is to track exchange rates and order larger (or smaller) batches of equipment or materials in tact with fluctuations in the exchange rate. In reality, this is a rather risky move. It happened that the owner waited for a lower dollar exchange rate, which, however, did not happen within the accepted time horizon and the purchase had to be made at a higher rate.

Other costs are under the control of the entrepreneur. In particular, this includes the rapidly increasing costs of wages, real estate fees and financial costs (loans) in the economy. The store is run individually, without hiring employees. In the past, the owner made such attempts, but could not find a person with broad competence. In the current situation, he has also held off on hiring an employee due to the level of salary costs and the anticipated reduction in the workload of the e-store. The business is run from the owner's own home, which does not cause problems with the rapidly increasing rent. Finally, in addition to trade credit, the owner does not have business credit obligations. It is also worth mentioning that the rising transportation costs have been passed on to customers. In this regard, most online stores, led by the largest, have gone this way.

The second stream of activities that have been implemented in the analyzed company are customer acquisition activities. In terms of assortment, we are dealing with a classically conceived market niche. On the one hand, this means a limited target group in terms of numbers, but on the other hand it reduces the intensity of the competitive struggle. What matters in this situation is reaching the right people with a precisely targeted marketing message. The owner has experimented with various types of online marketing, from display marketing to social media marketing. However, with the upcoming economic downturn and a specific target audience, the intention is to conduct performance marketing. The planned marketing activities will focus on increasing user conversions and at the same time the advertiser pays only for the effect of the advertising campaign (e.g., making a purchase) (Khamaludin et al. 2022). In such an advertising billing model, the cost is directly related to the effects achieved. Thus, the anticipated types of advertising campaigns will be through search systems, affiliate programs, social media. However, the owner does not intend to run campaigns based on banner ads.

Measures that will allow faster adaptation to changes in the market are also being considered to change the software of the online store. The owner has so far changed the main software four times, due to the ease of implementing changes (e.g. adding new payment methods, integration with courier service providers), convenience, level of reliability. With the upcoming

slowdown, a review of available software solutions is planned on a cost-effectiveness basis. This raises the danger of proper data migration, proper integration with other systems (cash register, partners, accounting, etc.). However, the owner is open to change, has done major software replacements in the past, and hopes that the slowdown will bring down the cost of acquiring the system.

Similarly, cooperation with contractors (courier service providers, payment integrators, companies that take care of the provisions of the sales regulations, suppliers of office supplies) will be reviewed. Again, this will happen according to the cost-effectiveness principle. This does not mean that currently the entrepreneur does not carry out such calculations. It's more about managing to get cheaper service/supply contractors in a downturn. There is one permanent element in this puzzle. The owner does not intend to change the accounting firm, because it has demonstrated professionalism in tax settlements and assertiveness in dealing with the tax office.

5. Discussion and conclusions

An analysis of the actions taken or planned by the owner of a small online store lead to the conclusion that in the conditions of the slowdown, the rationalization of business activities is moving further. Until now, the entrepreneur was guided by cost accounting, paid attention to the efficiency of his business. However, information about deteriorating macroeconomic data coming from the media, as well as one's own observations, conversations and feelings in contacts with customers and clients, as well as calculations based on current data from the enterprise, prompts an even more measured look behind the principles, tools and procedures of doing business. At the same time, it is worth mentioning that data from one's own company is not as alarming as macroeconomic data. However, this does not put the entrepreneur's vigilance to sleep, as he realizes that a slowdown can still manifest itself suddenly with full force.

On the basis of the analyzed case, two main paths of adapting to the anticipated slowdown can be identified: cost reduction and review of activities, procedures and solutions in the most cost-effect manner. Table 6 summarizes the desired actions synthetically.

Table 6. Measures to prepare a small online store for the economic downturn

Areas of action	Priority measures
Reducing operating costs	<ul style="list-style-type: none"> - Reducing energy, administrative, holding costs through economical and rational management of resources - Reduce transaction costs by switching to paperless trading, finding a bank with spread-free foreign currency account service <ul style="list-style-type: none"> - Analyzing and possibly renegotiating counterparties' handling costs - Rational reduction of inventory in the warehouse - Maintain positive cash flow by meticulously monitoring the collection of receivables and activating a low-cost source of financing (leasing, factoring, working capital credit) - Holding off/in-depth analysis of starting a larger investment
Increasing efficiency of operations	<ul style="list-style-type: none"> - Making greater use of cost-effect analysis in every cross-section of the business - Switching to performance marketing solutions in advertising campaigns - Analyze the offer of contractors (store software provider, payment integrator, courier service provider, etc.) for opportunities to reduce costs <ul style="list-style-type: none"> - Sell assets that are unnecessary at the current stage of development
Customer-oriented activities	<ul style="list-style-type: none"> - Improving the level of customer service (time, satisfaction, empathy) - Diversifying the ways of contacting the customer (making greater use of social media) - Launching sales in more channels, especially in new marketplaces - Reviewing the company's existing offerings in terms of breadth and depth of assortment (paying attention to budget products)

Source: Own elaboration

The proposed solutions are tailored to the small scale of operations, small financial resources and individual work of the entrepreneur. On the other hand, they take into account the peculiarities of e-commerce functioning at the current stage of development in Poland.

The effectiveness of the proposed measures will depend on matching the choice of individual measures to the individual market and financial situation of the enterprise, as well as the consistency of the measures taken. This is because there are tensions between some of the proposed actions - for example, most of the recommendations lead to a reduction in costs while improving the quality of customer service may involve more time or the need to purchase a CRM module/software.

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