DOI: 10.55643/fcaptp.3.44.2022.3785

Analytical Toolkit in Terms of Increasing Competitiveness under Unstable Economic Conditions

ABSTRACT

The turbulence of the business environment creates special conditions for business. In particular, challenges in the context of business competitiveness are growing under unstable conditions at the micro and macro level. The aim of the paper is to determine the role of analytical tools in increasing the level of competitiveness of Ukrainian companies under unstable business conditions. It is emphasized that under the influence of agile global socio-economic processes, companies face the problem of maintaining the level of competitiveness through the use of outdated analytical tools. Attention is drawn to the fact that in Ukraine the problem of using analytical tools for that purpose is exacerbated by protracted socio-economic and financial-economic crises, the aftermath of the COVID-19 pandemic, active hostilities, and humanitarian crisis caused by war. It is emphasized that Ukrainian companies are forced to look for the latest approaches to the development and application of analytical tools in terms of ensuring competitiveness. In particular, the special focus of Ukrainian business is aimed at building an integrated system of competitiveness management, covering all aspects of economic activity that are directly or indirectly related to the creation of competitive advantages. Analysis of macro-level indicators is performed in the context of determining the state of factors influencing Ukrainian business competitiveness. The dynamics of unemployment, consumer prices, and retail trade turnover in Ukraine are proposed as key indicators of the state of the national economy and prospects for its development, which in turn indicate the state of competitiveness. The analysis of the state of competitiveness in Ukraine on the basis of the Index of Economic Freedom was carried out separately. Emphasis is placed on urgent challenges for Ukrainian enterprises in the context of the difficult state of competitiveness in comparison with developed and developing countries in the European region. It is proposed to use the unemployment rate, consumer price index, and the dynamics of retail trade as the main drivers of competitiveness at the macro level. It is emphasized that there is a need to integrate macro- and micro-level indicators into the Balanced Scorecard analytical tool in order to make management decisions regarding business competitiveness.

Keywords: competitiveness, balanced scorecard, unemployment rate, consumer price index, retail trade turnover, index of economic freedom

JEL Classification: E66, L19, M19, M29, Q13

INTRODUCTION

Ensuring the effective functioning of a company requires economically rational management of its activities. Business analytics helps in the study of development trends, assessment, and study of factors of change in efficiency, justification of business plans and management decisions, control over their implementation, determination of reserves to improve production efficiency, development of a further economic strategy for the development of the company. Effective functioning of business development is determined, first of all, by the mechanism of competitiveness modification and development under conditions of a highly competitive market, being the major driver of the national economy’s development. Those goals have to be supported by the appropriate analytical toolkit. Analytical toolkit assists in converting data into information to improve
the competitiveness and overall efficiency of the company, based on the study of economic objectives and the construction of mechanisms that would support solving the problems faced by the company. Thus, analytical toolkits are the major focus area for researchers in terms of stimulating company competitiveness.

LITERATURE REVIEW

The analytical toolkit’s role in strengthening company competitiveness is a major area of focus for a number of researchers, namely: Abdiev, 2020 [1] believes that competitiveness mainly depends on the ability of a company to restore its production capacity quickly.

Vyhanialo, 2021 [2] notes that the company may be competitive due to its rapid adaptation to changes in the external and internal environment.

Brillinger, 2020 [3] outlines that the company's analytical capabilities ensure that it remains ahead of market changes and quickly prepares for changes in market conditions.

Ritter, Pedersen, 2020 [4] stress that business analytics plays an important role in a company’s competitive ability, it also allows for receiving timely information on a company’s strengths and weaknesses. In turn, according to Kuznyetsova, 2021 [5] company competitiveness should be based on the implementation of a long-term strategy based on continuous analytical monitoring of its business activities.

However, the problem of supporting Ukrainian companies’ competitiveness under turbulent socio-economic conditions is insufficiently studied.

AIMS AND OBJECTIVES

The purpose of this paper is to study the analytical toolkit’s role in strengthening companies’ competitiveness under unstable economic conditions based on research literature.

This study aims to:

▪ research the impact of the analytical toolkit on companies’ competitiveness program development and implementation;

▪ determine macro-level indicators, affecting the companies’ competitiveness in Ukraine;

▪ form a set of practical recommendations considering analytical toolkit usage in ensuring companies’ competitiveness under unstable economic conditions.

METHODS

The major focus of this paper is on conducting a review of major drivers in ensuring companies’ competitiveness under socio-economic turbulence. The rationale behind such an approach is that research conducted by major analytical centers is the most relevant for the paper’s purpose – being on an intersection of theoretical basis, know-how, and vast data at their disposal. Obtained results are synthesized into a set of recommendations regarding an analytical toolkit usage in ensuring companies’ competitiveness under unstable economic conditions.

In this research the following methods were used: theoretical (analysis; synthesis; concretization; generalization; analogy method; modeling); empirical (analysis of the economic situation and its impact on the business activities); statistics method and graphical representation of results.

The information base of the study is represented by scientific works of leading researchers, and reports of major analytical bodies (State Statistics Service of Ukraine, The Heritage Foundation, The Economist Intelligence Unit).

RESULTS

A prerequisite for the continuous development of every company is to respond quickly to changes in the external environment. That is the main feature today for the company allowing for its market success and competitive rationality through faster and more accurate managerial decisions. Effective and efficient business development implies transitioning to a
higher level of competitive abilities. The key basis for that is an analytical toolkit providing data and insights for educated agile managerial decisions.

Nowadays companies are conducting business in the new reality, affected by mega-trends, the key of which is globalization. Considering global markets and global business practices, Ukrainian companies have lower competitiveness in comparison with foreign companies, since foreign businesses have stronger production capacities and competitive positions [6]. The rapid development of production capacities and analytical toolkits supports an increase in consumer demand, strengthening of competitors’ positions, and faster introduction of innovative technologies [7]. Competition forces market participants to constantly monitor the actions of their competitors, make decisions that will help to reduce the negative effects, and stimulate the development of production capacity, support an increase in consumer demand, i.e., ensure its competitiveness [8].

Economic uncertainty and turbulence issue is a separate research area. Economic uncertainty and turbulence manifest themselves in excessive volatility of major economic indicators on both macro- and micro-level, being an intrinsic phenomenon for a particular national economy. This statement is supported by Bloom [9] who indicated a different level of uncertainty for developed and developing countries. Economic uncertainty and turbulence are first of all considered by Pesola [10] in the negative sense of being a macro-level shock, supported by Baum [11] who defines it as a sharp decline in output level. A number of research centers indicate a growing level of uncertainty due to global shocks of COVID-19 pandemics and geopolitical crisis [12, 13, 14] which reflects in both state-level and company-level shocks. Paper [15] sums up different approaches towards economic uncertainty and turbulence as a trickle-down effect as a result of the «relationship between distortions at the macro- and micro-levels ... dragging on into a tight knot of mutual distrust in the interconnection “state – households – financial corporations – non-financial corporations”, lack of funding, squeezed consumer demand, the growing role of the state in matters of running the national economy, inflation growth and stagnation, Ukraine’s low attractiveness as a destination for foreign direct investments» [15]. Hence, business competitiveness is under the significant influence of economic uncertainty and turbulence.

Competitiveness is a complex concept that has been studied by numerous researchers based on different foundations. Competitiveness should be considered from the perspective of the efficiency of economic activity. The mechanism of competitive advantage management should cover all activities related to the creation of competitive advantages and its interaction with external and inter. Competitive advantage creation encompasses the whole business framework [16], namely, product design and development; marketing and market research; business-process planning and implementation; manufacturing capabilities; logistics process, etc.

All of the mentioned above points are integrated into a superior competitive position for a business. i.e. competitiveness on the micro-level. An appropriate competitive environment is formed by a set of drivers, namely Rule of law, Government size, Regulatory Efficiency, and Market openness. These drivers are incorporated into the Index of Economic Freedom, allowing us to compare different countries.

In terms of the Index of Economic Freedom, it should be noted that in 2020 Ukraine ranked 166th out of 180 countries considered (Table 1). The Index of Economic Freedom considered Ukraine as a country that faced a deep economic crisis – as a result, Ukraine ranks last among European countries. Considering components of the Index of Economic Freedom, the majority of indicators have negative changes, only one indicator shows a positive trend (Freedom from Corruption), and one more indicator remains unchanged (Financial Freedom).

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Economic Freedom Category</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Overall world ranking</td>
<td>162</td>
<td>166</td>
<td>+4</td>
</tr>
<tr>
<td>Economic Freedom Index</td>
<td>46.8</td>
<td>48.1</td>
<td>+1.3</td>
</tr>
<tr>
<td>Financial freedom</td>
<td>30.0</td>
<td>30.0</td>
<td>0</td>
</tr>
<tr>
<td>Monetary freedom</td>
<td>66.9</td>
<td>47.4</td>
<td>-19.5</td>
</tr>
<tr>
<td>Property Rights</td>
<td>25.0</td>
<td>41.4</td>
<td>+16.4</td>
</tr>
<tr>
<td>Business Freedom</td>
<td>56.8</td>
<td>62.1</td>
<td>+5.3</td>
</tr>
<tr>
<td>Investment Freedom</td>
<td>20.0</td>
<td>25.0</td>
<td>+5</td>
</tr>
<tr>
<td>Corruption Freedom</td>
<td>26.0</td>
<td>29.2</td>
<td>+3.2</td>
</tr>
<tr>
<td>Freedom of Trade</td>
<td>85.8</td>
<td>85.9</td>
<td>0.1</td>
</tr>
<tr>
<td>Fiscal Freedom</td>
<td>78.6</td>
<td>78.6</td>
<td>0</td>
</tr>
<tr>
<td>Freedom of Labor Market</td>
<td>47.9</td>
<td>48.8</td>
<td>-0.9</td>
</tr>
<tr>
<td>Government spending</td>
<td>30.6</td>
<td>38.2</td>
<td>+7.6</td>
</tr>
</tbody>
</table>

Table 1. Dynamics of Economic Freedom Index for 2020-2021. (Source: based on data [17])
Considering the peculiarities of the Index of Economic Freedom calculation, it should be noted that the Index is calculated as the arithmetic average of the ten economic freedoms. However, it should be emphasized that in the calculation of the Index in 2021, two other components of the index were taken into account, namely the Judicial Activity Index (22.6 points) and the Financial Condition Index (67.9 points). These components of the Index of Economic Freedom are not calculated in 2021. Speaking of the digital technology component, it is worthwhile to mention that Ukraine shows the highest rates of Internet availability (28th place) and cybersecurity (25th place), but significantly lower results are in e-government (61st place), e-infrastructure (42nd place), and the quality of the Internet (68th place).

Hence, Ukraine is not attractive to businesses in terms of competitive abilities – according to the Index of Economic Freedom. The Digital technology environment in Ukraine is attractive; however, businesses are tentative about the Rule of Law, i.e., its ability to protect their property and investments. Another challenge for Ukraine in terms of competitive position is Russian military aggression ongoing in several regions of Ukraine since February 2022.

Another major point affecting overall competitiveness is Labor Market conditions, namely unemployment rate dynamics, wages dynamics, etc. Studying the problem of unemployment, paper [18] suggests the use of a large-scale model aimed at determining wellbeing as a driver for competitiveness. In that model key determinants are conditions of paid work and the unemployment rate. Hence, well-being is a key driver of competitiveness – both on micro and macro levels.

One more key indicator for Labor Market conditions is wage dynamics. Due to the complications of the COVID-19 pandemics in the first half of 2020 two-thirds of countries showed a downward trend in the level of average wages. There was also negative growth dynamics of wages in the majority of countries due to COVID-19. The crisis affected male and female wages differently, with the latter disproportionately affected, also there was a mismatch between managers and low-wage workers and increased wage inequality [19].

Speaking of Ukraine, the unemployment rate over the past 10 years demonstrates the following trend – the unemployment rate does not fluctuate much (from 7.7% (2014) to 9.9% level (2021)) with a difference of 2.2 p.p. (Fig. 1); there is only one significant drop in the unemployment rate in 2015 – 4.5%. However, businesses have to consider the mass migration of Ukrainian citizens and military occupation of Ukrainian regions in the East and South since 2014, hidden unemployment issues, and skill gap for certain strata in the Ukrainian workforce.

![Figure 1. Unemployment Rate in Ukraine for 2012-2021. (Source: based on data [20])](image)

Another critical driver of competitiveness in Human Capital. It is impossible to build a long-lasting business with a strong consumer proposition without human capital input. One of the most popular measures of human capital quality is The Global Liveability Index (The Economist Intelligence Unit). That Index is based on a methodology that combines the results of studies on the subjective evaluation of life in countries with the objective determinants of quality of life in those countries. It includes data from 80 countries. The index is based on the following criteria: climate and geography, health, marital status, material well-being, social life, political stability and security, job security, political freedom, and gender equality [21]. It indicates Ukraine among developing economies as a country with potential economic growth, yet various socio-economic issues have to be, i.e. healthcare quality, rule of law, etc.
Another key driver for competitiveness on the macro-level is Consumer Inflation. Considering the Consumer Price Index in Ukraine over 2011-2020, the most notable price increases occurred in 2014-2015, after which price growth stabilized somewhat and did not show significant increases over the past five years (Fig. 2). Price stability is key to consumer and business expectations, overall stability is the national economy. Price hikes would be one of the major risks for Ukraine's economy over the short run in 2022.

Figure 2. Consumer Price Index in Ukraine for 2012-2021, points. (Source: based on data [20])

Another key driver to consider in terms of competitiveness is Retail Trade Turnover Volume. There is no unified trend in the volume of retail trade turnover during 2011-2020 in Ukraine (Fig. 3). Since 2011 there is a gradual growth of this indicator up to 2016. Then there is a sharp decline in 2017 in Ukraine by 28657 million UAH, or -35.1%. Retail trade turnover indicates dynamics of consumption and consumer sentiment – thus, current and potential volume of business.

Figure 3. Retail trade turnover volume in Ukraine for 2012-2021, UAH million. (Source: based on data [20])

The selected set of factors focuses on both exogenous and endogenous environments. Another important aspect that distinguishes the above set of factors is its focus on the short- and long-term horizon, which contributes to a more effective adaptation of the company to changes in the pandemic. Another advantage of the selected set of factors is its ability to support the planning and implementation of an adequate adaptation program for a company in response to macro- and micro-level challenges. The above factors can be assessed both quantitatively and qualitatively and applied in a variety of analytical tools of strategic and operational management of a company, such as the Balanced Scorecard.

Given the growing competition, and the high level of uncertainty and risk in the domestic and international markets, it is advisable to recommend Ukrainian companies to use not only purely operational, yet also strategically oriented adaptive management systems based on extensive use of external and internal data. Using the Business Intelligence toolkit would be extremely helpful in finding solutions to the issues mentioned above. Effective use of analytics toolkits allows the building of a competitive strategy that will help improve business performance and explore new markets. Usage of analytics toolkits also supports a more effective management model.
DISCUSSION

This paper found that analytical toolkit usage in terms of increasing companies’ competitiveness under unstable economic conditions is a multi-facet task aimed at a large-scale pool of issues, i.e. managing the company both strategically and operationally, taking into account both exogenous and endogenous factors. Another issue raised by this paper is a need for monitoring and reacting to economic turbulence which is hard to indicate and predict. Such a need could be fulfilled through the usage of a comprehensive set of factors monitoring socio-economic activity, i.e. Economic Freedom Index.

Earlier research papers indicate findings supporting this paper’s results. Namely, peculiarities of a company’s ability to increase competitiveness through agile adaptation are considered by Vyhaniailo, 2021; the issue of a company’s major competitive advantage resting upon its ability to rapidly restore its production capacity is studied by Abdiev, 2020; the problem of continuous monitoring in terms of a company’s strategy planning and implementation is researched by Kuznyetsova, 2021. All above-mentioned results are instrumental to this paper and support indicated peculiarities specific to Ukraine in ensuring the company’s competitiveness.

However, for the above-mentioned research, we indicate a lack of a toolkit that is easy to use by Ukrainian companies and comprehensive for various groups of users. The lack of integrated indicators, i.e. Economic Freedom Index which is considered in this paper, is also a significant gap in this particular research area considering issues of ensuring business competitiveness through an analytical toolkit.

Limitations of this paper are the lack of data on Russian military aggression, potential global economic crises, and potential pandemics globally or regionally, allowing for deeper quantitative analysis.

Future prospects of this research are in the field of introducing modern methods of business intelligence for Ukrainian companies and conducting a comparative analysis of business analysis tools to fully disclose its advantages and disadvantages.

CONCLUSIONS

As a result of this study, we determined the specifics of using an analytical toolkit in terms of increasing competitiveness under unstable economic conditions. These specifics outline a need for balanced managerial decisions to support ensuring business competitiveness. These supports are based on integrated analytics of both exogenous and endogenous factors oriented at short-term and long-term. It is emphasized that external shocks such as COVID-19 pandemics, global recession, and Russian military aggression are among the major drivers challenging the state of competitiveness – this set of factors has to be studied and accounted for through various quantitative and qualitative tools.

It is specifically outlined that macro- and micro-level factors are interconnected in terms of ensuring companies’ competitiveness. That is presented through our analysis of the Economic Freedom Index and various macro-level factors. i.e. Unemployment Rate, Consumer Price Index, Retail Trade Turnover. This set of factors characterizes the external environment and the level of economic turbulence under which the company operates and implements its strategy. Another advantage of such a set of factors is its orientation on both short-term and long-term allowing for efficient goal-setting and implementation process – specifically under significant economic turbulence. Obtained results emphasize that adequate comprehension of the exogenous environment is critical to managing a company both strategically and operationally.

The above factors can be assessed both quantitatively and qualitatively and applied in a variety of analytical tools for the strategic and operational management of a company, such as the Balanced Scorecard. Specific KPIs and targets could be developed for the Balanced Scorecard concerning a specific company’s competitiveness issues both in the short-term and long-term.

REFERENCES / ЛІТЕРАТУРА


Даценко Г., Коцеруба Н., Крупельницька І., Кудирко О., Лобачева І., Откаленко О.

АНАЛІТИЧНИЙ ІНСТРУМЕНТАРІЙ ПОСИЛЕННЯ КОНКУРЕНТОСПРОМОЖНОСТІ ПІДПРИЄМСТВ У НЕСТАБІЛЬНИХ ЕКОНОМІЧНИХ УМОВАХ

Турбулентність середовища діяльності підприємств утворює особливі умови для їхньої діяльності. Зокрема, на тлі нестабільних умов на мікро- та макроводному рівні зростають виклики конкурентоспроможності підприємств. Метою статті є визначення ролі аналітичного інструментарію в підвищенні рівня конкурентоспроможності українських підприємств у нестабільних умовах ведення бізнесу. Наголошено, що під упливом швидкоклінних глобальних соціально-економічних процесів підприємства стикаються з проблемою збереження рівня конкурентоспроможності за використання застарілого аналітичного інструментарію. Наголошено, що в Україні проблема застосування аналітичного інструментарію з метою забезпечення відповідного рівня конкурентоспроможності посилено затяжною соціально-економічною та фінансово-економічною кризами, наслідками пандемії COVID-19, активним веденням військових дій, гуманітарною кризою, яка спричинена війною. Наголошено, що українські підприємства вимушено шукати новітні підходи до розробки та застосування аналітичного інструментарію в розрізі задач забезпечення своєї конкурентоспроможності. Зокрема, особливий фокус українських підприємств спрямований на побудову інтегрованої системи управління конкурентоспроможністю, яка охоплює всі аспекти господарської діяльності, що прямо або опосередковано пов’язані з створенням конкурентоспроможних переваг. Проведено аналіз показників макро-рівня в контексті визначення стану факторів упливу на стан конкурентоспроможності українських підприємств. Проаналізовано динаміку рівня безробіття, рівня споживчих цін, обороту роздрібної торгівлі в Україні як ключових індикаторів стану національної економіки та перспектив її розвитку, що також свідчить про стан конкурентоспроможності українських підприємств. Окрім того здійснено аналіз стану конкурентоспроможності в Україні на основі даних Індексу економічної свободи. Наголошено на нагальних викликах для українських підприємств у контексті ускладненого стану конкурентоспроможності, порівняючи з розвинутими країнами та країнами, що розвиваються, з регіону Європи.

Ключові слова: конкурентоспроможність, збалансована система показників, рівень безробіття, індекс споживчих цін, оборот роздрібної торгівлі, індекс економічної свободи

JEL Класифікація: E66, L19, M19, M29, Q13