

INITIAL PUBLIC OFFERING (IPO) AS A POTENTIAL SOURCE OF CAPITAL FOR THE DEVELOPMENT OF THE WOOD-BASED INDUSTRY ENTERPRISES IN POLAND

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Leszek Wanat¹ – *orcid id: 0000-0002-1166-9258*

Łukasz Sarniak² – *orcid id: 0000-0003-4079-7192*

Elżbieta Mikołajczak² – *orcid id: 0000-0001-9416-4361*

¹Collegium Da Vinci in Poznań, Faculty of Social Sciences, **Poland**

²Poznań University of Life Sciences, Faculty of Economics and Social Sciences, **Poland**

Abstract: The quest for new sources of financing for the development of green economy sectors and enterprises is one of the challenges to effective management. This study verifies whether a relationship exists between the activity of selected companies who access the capital market in search for new financing sources, their development level and their competitive edge. The sample used in this study was composed of companies from the forestry and wood-based sector (a major part of the Polish economy) listed on the Warsaw Stock Exchange. The Technique for Order Preference by Similarity to an Ideal Solution (TOPSIS) was used to assess the development level of selected enterprises. The main recommendations were formulated based on the findings from the analysis of performance ratios and from the comparative and descriptive analysis of data on stock exchange transactions in the wood-based sector. This is because the assumption was made that by becoming more active in the capital market and, as a consequence, by strengthening their competitive position, the enterprises covered by this study may contribute to adding value in the circular economy.

Keywords: wood-based industry, initial public offering (IPO), capital market, TOPSIS, Poland.

1. INTRODUCTION

Business development is impacted by various economic, social, legal and institutional factors which usually differ in strength and frequency. Their strength also depends on the size of the company and on the type, structure and concentration degree of the industry concerned. The key determinants of business development include capital which may be contributed by the owners or derived from a bank loan. An alternative way to obtain financing is to prepare the initial public offering and have the stocks admitted for trading in a stock exchange. The biggest advantage of this process is the

ability to acquire a large amount of funds at once. They can be used for investment purposes or to repay earlier debts.

This paper checks the way the selected wood-based industry companies use the capital raised on the stock exchange. A hypothesis was tested which assumes that funds raised under the initial public offering largely contribute to the development of timber enterprises. The study covered selected wood-based industry companies listed at the Warsaw Stock Exchange who held their initial public offering in 2005-2017. In turn, companies whose shares were withdrawn from the stock exchange in the study period, due to insolvency or takeover, were excluded from the analysis.

2. INITIAL PUBLIC OFFERING AS A SUPPORT TOOL FOR THE CORPORATE FINANCIAL MANAGEMENT PROCESS

A public offering consists in the delivery of information on securities and on the terms and conditions of the purchase thereof to no less than 150 persons within one member state, or to an unspecified recipient, in any form and in way. This information should provide a sufficient basis for making the decision on purchasing these securities (Act of July 29, 2005; Article 3). Making the public offering and having the stocks admitted for trading is a process to be managed by the enterprise in a precise and possibly optimal manner. First, it is preferable to enter into cooperation with a specialized consultancy company who will perform the due diligence assessment. This will help making the decision on the volume of shares to be issued and to specify their indicative price. In the next step, adequate resolutions must be adopted at the General Meeting. This means increasing the capital by issuing new shares; making the decision to dematerialize the shares, where needed; and authorizing the management board to make the public offering and have the shares admitted for trading. At this stage, a specialized legal counselor plays a key role. While the company is not required to hire a counselor, it may avoid many mistakes by doing so. The next step is to choose a statutory auditor and a brokerage house who will act as the offering party.

A company interested in making its initial public offering and having its stock admitted for trading is required to prepare a prospectus in cooperation with all counselors. It includes crucial information, in particular the issuer's history, financial standing, terms and conditions of issuance and the intended use of funds raised through public offering. The scope of information included in the prospectus is provided for in the Commission regulation (EC) No. 809/2004 of April 29, 2004 implementing Directive 2003/71/EC of the European Parliament and of the Council as regards information contained in prospectuses as well as the format, incorporation by reference and publication of such prospectuses and dissemination of advertisement (Commission regulation (EC) No. 809/2004 of April 29, 2004).

The prospectus must be approved by the Financial Supervision Authority. Once a positive decision is issued, the document is published on the website of the issuer and of the brokerage house which acts as the offering party. Following this, promotional and marketing activities are taken to stimulate demand and to have the largest possible number of investors purchase the issuer's shares (Sarniak, 2012). The next step consists in subscribing the shares. In the case of large public offerings, distribution consortia are sometimes established. Upon completing the subscription procedure, shares are allotted by the issuer. The last step is to register the increase in

capital in the registry court and to have the shares admitted for trading. Table 1 presents the milestones of the public offering process.

Table 1

The process of public offering and admission of shares for trading

The process of public offering	Public offering (entering the company to the main list)
Step 1	Resolution of the General Meeting
Step 2	Preparing the prospectus and having it accepted by the competent supervising authority
Step 3	Selecting the counselors for the offering
Step 4	Subscription procedure
Step 5	Having the shares admitted for trading

Source: authors' own study based on (Wanat et al., 2018a, 138-146)

The effect of initial public offerings is understood as a state reflecting the level of development of the company, resulting from investments financed with funds coming from the issue of shares (Boot and Thakor, 1997; Chudobiecki et al., 2009; Levine, 2012; Jin et al., 2017; Sarniak and Wanat, 2017; Sarniak, 2018). The aim of the study was to analyze the way the selected wood-based industry companies use the capital raised on the Warsaw Stock Exchange who held their initial public offering in 2005-2017 (Jonsson, 2012; Wanat et al., 2013; Klus and Wanat, 2015; Kaputa et al., 2016; Mikołajczak et al., 2017; O'Brien and Bringezu, 2018; Wanat et al., 2018a).

3. METHODOLOGICAL FRAMEWORK FOR THIS STUDY

Scientific literature proposes a multitude of methods and techniques for assessing the development level of enterprises. The approach proposes to be used in this study consists in developing a synthetic indicator based on TOPSIS (Technique for Order Preference by Similarity to an Ideal Solution) which allows to order and compare various objects by strictly defined characteristics (Hwang, Yoon, 1981). TOPSIS consists in calculating Euclidean distances between different objects and a predefined positive ideal solution and negative ideal solution. Usually, this involves the following steps (Wysocki, 2010; Okupniak et al., 2017; Wanat et al., 2018, pp.138-146):

- Selecting the characteristics of the aspect under consideration;
- Normalizing the values of characteristics;
- Defining the positive ideal solution and the negative ideal solution;
- Calculating the Euclidean distances from the positive ideal solution and the negative ideal solution;
- Determining the value of the synthetic variable.

Once the value of the synthetic variable is known, the types of development patterns of the enterprises considered may be identified (Wysocki, 2010; Wanat et al., 2018a). One of the ways to group the analyzed objects into classes is to use the arithmetic mean and standard deviation of the synthetic characteristic. Four classes can then be identified:

- **Class 1**, high development level: $S_i \geq \bar{S} + SD$
- **Class 2**, upper-medium development level: $\bar{S} \leq S_i < \bar{S} + SD$
- **Class 3**, lower-medium development level: $\bar{S} - SD \leq S_i < \bar{S}$
- **Class 4**, low development level: $S_i < \bar{S} - SD$

Description (based on Wanat et al., 2018a):

S_i - value of synthetic feature for the i -th object;

\bar{S} - average value of the synthetic characteristic;

SD - standard deviation of synthetic characteristic (from the sample).

4. MATERIALS, RESEARCH SCENARIO AND RESULTS

The basic sources of (secondary) data were as follows: financial reports and prospectuses of companies covered by this study; and data published by the Warsaw Stock Exchange. To assess the impact of funds raised under the public offering on the actual development level of the wood-based industry enterprises, the following ratios were calculated:

- **Ratio 1:** amount of funds raised to the balance sheet total after the public offering (this ratio specifies the percentage of company assets that could be allocated to investments upon completing the public offering).
- **Ratio 2:** amount of capital expenditure to the balance sheet total after the public offering (this ratio specifies the amount of funds invested upon completing the public offering).
- **Ratio 3:** return on sales upon completing the public offering (this ratio specifies the evolution of the return on sales upon investing the funds raised under the public offering).

Table 2 shows a summary of the wood-based industry enterprises listed at the Warsaw Stock Exchange who raised funds under their initial public offering. The procedure included calculating the values of characteristics (ratios) surveyed, as used in the assessment of development levels of the enterprises covered by the analysis.

Table 2

Identification of development indicators for the wood-based industry enterprises listed at the Warsaw Stock Exchange following their initial public offering

Company	Production profile	Ratio 1	Ratio 2	Ratio 3
Arctic Paper S.A.	High-quality paper	0,13	0,01	0,74
Barlinek S.A.	Floorboards	0,35	0,25	-0,03
BSC Drukarnia Opakowań S.A.	Paper and cardboard packaging	0,27	0,31	0,12
Drewex S.A.	Wooden furniture for babies and children	0,19	0,17	-0,05
Stelmet S.A.	Wooden garden sheds	0,07	0,14	0,14

Source: authors' own study based on (Wanat et al., 2018a, 138-146)

Based on TOPSIS guidelines, a synthetic variable was used as the development indicator for different wood and paper industry enterprises (Wanat et al., 2018b). All characteristics surveyed were found to have a stimulating effect. This is justified by the fact that as the indicator grows, so does the development level. The characteristics were normalized using the zero unitarization procedure. After the value of the synthetic development indicator was calculated for each enterprise, the development types were identified.

The results of the analysis of impact of funds raised under the initial public offering (IPO) on the development of the wood-based industry enterprises are shown in Table 3.

Table 3

Values of the synthetic indicator of development; identification of development types for the wood-based industry companies listed at the Warsaw Stock Exchange

Company	Value of the synthetic development indicator	Identification of development type
BSC Drukarnia Opakowań S.A.	0,60	High
Barlinek S.A.	0,56	Medium-high
Arctic Paper S.A.	0,44	Medium-high
Drewex S.A.	0,36	Medium-low
Stelmet S.A.	0,27	Low

Source: authors' own study based on (Wanat et al., 2018a, 138-146)

Four types were determined, which measure (strength) the level of development of enterprises as follows: high, medium (respectively: high or low) and low. If it is to ignore the outlier observations, it can be seen that the surveyed companies have an medium (average) level of development (Okupniak et al., 2017; Wanat et al., 2018a; Wanat et al., 2018c).

5. CONCLUSIONS

The analysis of financial data of enterprises surveyed resulted in the following conclusions:

- each of the companies surveyed was successful in preparing their public offering and having their stock admitted for trading at the Warsaw Stock Exchange;
- as a consequence of their initial public offering, all companies surveyed considerably improved their financial standing.

These observations clearly suggest that the decision to raise funds in the capital market was reasonable for each company from the perspective of corporate development. However, the companies were found to differ in development levels. Obviously, this study was restricted in that it only addressed three variables (characteristics), *ceteris paribus*. In the real world, business development is impacted by many more factors. Furthermore, the values that define development types were calculated based on financial data of listed wood-based industry enterprises companies. Hence, they only reflect the development level in relation to the characteristics surveyed and only for the companies covered by this analysis. Despite these limitations, both the method used and the findings provide grounds for recommendations which encourage the wood-based industry enterprises to seek capital through IPOs. So far, only a few companies have relied on this form of financing of their development, and the identified development opportunities faced by this industry remain largely untapped.

REFERENCES

- Boot, A. W., Thakor, A. V., 1997, *Financial System Architecture*, The Review of Financial Studies, Vol. 10, No 3, 693-733.
- Chudobiecki, J., Kielar, S., Wanat, L., 2009, *The risk of financing energy innovations in Poland - legislative proposal for the elimination of several barriers*, Intercathedra 25, ISSN 1640-3622, 14-17.

- Hwang, C. L., Yoon, K., 1981, *Multiple attribute decision making. Methods and applications*, Springer, Berlin.
- Jin, Y., McConomy, B. J., Xu, B., 2017, *The Impact of IFRS Adoption on an Agribusiness Company's Financial Statements*, *Accounting Perspectives*, 16(4), 429-434.
- Jonsson, R., 2012, *Econometric Modeling and Projections of Wood Products Demand, Supply and Trade in Europe*, Geneva Timber and Forest Discussion Paper 59. United Nations Publication: Geneva, Switzerland.
- Kaputa, V., Paluš, H., Vlosky, R., 2016, *Barriers for Wood Processing Companies to Enter Foreign Markets: a Case Study in Slovakia*, *European Journal of Wood and Wood Products*, 74(1), 109-122.
- Levine, R., 2002, *Bank-based or Market-based Financial System: Which is Better?*, *Journal of Financial Intermediation*, 11 (4), 398-428.
- Mikołajczak, E.; Wanat, L.; Kusiak W., 2017, *Criteria for evaluating profitability of processing sawmill wood by-products into wooden briquettes and pellet - selected examples from the Polish wood market*, [in:] *Innovations in forestry, wood processing and furniture manufacturing*, Scientific book / Ed. by Denis Jelacič, Zagreb: WoodEMA, 129-139.
- O'Brien, M.; Bringezu, S., 2018, *European Timber Consumption: Developing a Method to Account for Timber Flows and the EU's Global Forest Footprint*, *Ecological Economics*, 147, 322-332.
- Okupniak, M., Wanat, L., Mikołajczak, E., Sarniak, Ł., Dolacińska-Śróda, A., 2017, *Selected Outlier Identification Methods in the Wood-Based Sector Competitiveness Potential Research*, *Intercathedra*, 33 (4), 82-88.
- Sarniak, Ł., 2012, *Rola marketingu w procesie IPO*, *Studia Doktorantów*, 11, Wydawnictwo Uniwersytetu Ekonomicznego w Poznaniu, Poznań, 373-384.
- Sarniak, Ł., 2018, *Rozwój działalności maklerskiej w Polsce*, CeDeWu, Warszawa, ed. 2.
- Sarniak, L., Wanat, M., 2017, *Anomalie pierwszych ofert publicznych spółek sektora drzewnego w Polsce*, *Przegląd Leśniczy*, 12, 20-22.
- Wanat, L.; Klus, S., 2015, *Sytuacja konkurencyjna branży i mezoekonomiczne aspekty polityki sektorowej państwa na przykładzie rynku drzewnego w Polsce*, *Rynek-Społeczeństwo-Kultura*, 1(13), 41-45.
- Wanat L., Lis W., Chudobiecki J., 2013, *Sector Specific Sources of Competitiveness on the Polish Wood Market - Perspective of the Elimination of Several Barriers*, *Fórum Manažera*, No 2, ISSN 1336-7773, Institute of Industrial Engineering and Management Faculty of Materials Science and Technology in Trnava, Slovak University of Technology in Bratislava, Trnava, 56-60.
- Wanat L., Majchrzak L., Sarniak Ł., Mikołajczak E., 2018a, *The effect of the initial public offerings of wood-based industry and agribusiness companies in Poland - a comparative analysis*, [in:] *Increasing the use of wood in the global bio-economy. Proceedings of scientific papers*, Glavonjic B. (ed.), September 26th-28th, 2018, University of Belgrade - Faculty of Forestry, Belgrade, Republic of Serbia, 138-146, University of Belgrade, Belgrade; WoodEMA i.a
- Wanat, L., Mikołajczak, E., Chudobiecki, J., 2018b, *The Value and Profitability of Converting Sawmill Wood By-Products to Paper Production and Energy Generation: The Case of Poland*, [in:] *Pulp and Paper Processing*, S.N. Kazi (ed.), IntechOpen, London, 109-130, DOI: 10.5772/intechopen.80044.

- Wanat, L.; Potkański, T.; Chudobiecki, J.; Mikołajczak, E.; Mydlarz, K., 2018c, *Intersectoral and Intermunicipal Cooperation as a Tool for Supporting Local Economic Development: Prospects for the Forest and Wood-Based Sector in Poland*. *Forests*, 9(9), 531, <https://doi.org/10.3390/f9090531>.
- Wysocki, F., 2010, *Metody taksonomiczne w rozpoznawaniu typów ekonomicznych rolnictwa i obszarów wiejskich* [The methods of taxonomy for recognition of economic types in agriculture and rural areas], Wydawnictwo Uniwersytetu Przyrodniczego w Poznaniu, Poznań.
- *** Act of July 29, 2005 on Public Offering, Conditions Governing the Introduction of Financial Instruments to Organized Trading, and Public Companies (Journal of Laws of 2016, item 1639), Poland.
- *** Commission regulation (EC) No 809/2004 of 29 April 2004 implementing Directive 2003/71/EC of the European Parliament and of the Council as regards information contained in prospectuses as well as the format, incorporation by reference and publication of such prospectuses and dissemination of advertisements (accessed: 30.04.2019).
- *** www.gpw.pl , Warsaw Stock Exchange, (accessed: 30.04.2019).
- *** www.knf.gov.pl (accessed: 30.04.2019).