



## Teaching case study: Entrepreneurship and innovation in woodworking

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### Abstrakt:

The case study deals with the company LESS & TIMBER, which is an important entity on the Czech and European woodworking market. Currently, the company is the most modern plant for the processing of reinforced wood not only in the Czech Republic, but also in the whole of Europe. It presents the market, legislative, international, but developmental specifics of business in this area. The key source of information for the creation of the teaching case study was an interview with the company's management and a research case study of this company. The case study is divided into four basic parts, which are the introduction of the company, access to opportunities, the introduction of new and innovative products and operations in international markets, and the impact of covid-19. These parts also represent the main professional focus of the case study. Each section ends with questions for elaboration and discussion.

**Keywords:** wood processing industry, reinforced wood, sawmill products, glued prism

### Company presentation

The company LESS & TIMBER, a. s. is a company whose main activity falls within the sector of the wood processing industry. The company was established by entry into the commercial register on 7/28/2010, however, as a modern continuation of the long history of five smaller sawmills. Currently, the company is the most modern plant for the processing of reinforced wood not only in the Czech Republic, but also in the whole of Europe. LESS & TIMBER operates two sawmills (in Čáslav and Dlouhá Ves near Sušice) and one plant for the production of glued prisms and furniture semi-finished products. The main products of the company are sawmill products - slats, joinery lumber with relevant by-products (sawdust, chips, bark) and glued prisms with relevant by-products (wood pellets, building prism). The company is also the owner of 100 % of the business share in LESS & ENERGY, p. r. o., managing in Čáslav one of the most modern power plants in Europe with a cogeneration unit, producing electricity and heat from solid wood biomass and a partner with a 50 % share in the subsidiary LESS & BIOMAC PELLETS, p. r. o., where the partner with also a 50 % share is the company BIOMAC s. r. about. The basis of the success of LESS & TIMBER, a. with. are modern technologies in

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Výuková případová studie byla vypracována v rámci projektu *Výzkumné a výukové případové studie jako nástroj transferu aktuálních poznatků z podnikatelské praxe do akademické sféry* (2020-1-CZ01-KA203-078348). Projekt byl podpořen programem ERASMUS+ (KA203 – Strategická partnerství v oblasti vysokoškolského vzdělávání).

Výuková případová studie je jednou ze čtyř výukových případových studií. Na základě analýzy jednotlivých výukových případových studií je vypracována metodika tvorby a využití výukových případových studií při transferu poznatků z podnikatelské praxe do akademické sféry. Teoretický a metodologický rámec tvorby případových studií je uveden ve vícečetné případové studii, která byla zpracována na základě tvorby a zkušeností s tvorbou výzkumných případových studií.

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which the company has invested, a certified quality management system (QMS) with a range of quality certificates of international significance, energy independence, historical continuity and an ideal location in the centre of the Czech Republic with excellent accessibility both for securing inputs (wood sources) and for distribution finished products.

The way to this position today was not easy. In the years 2007-2010, the largest investment in the history of the company was realized in the total volume of 1.65 billion. CZK. Six months after the start of construction, the sawmill was successfully put into operation in June 2009, and since the start of production, it processes up to a thousand cubic meters of wood every day. The investment also included the construction of one of the most modern cogeneration units for burning wood biomass in Europe, which is operated by the subsidiary LESS & ENERGY s. r. about. Although this investment was the beginning of the modern development of the wood processing complex based in Čáslav, the level of indebtedness also contributed to the company's financial problems. The year 2015 was a turning point, not only for the sawmill in Čáslav, but also for other plants of the LESS & TIMBER company (then LESS) in Dlouhá Ves near Sušice and in Klášterec nad Orlicí, in which, in connection with economic restructuring, it became LESS & TIMBER part of JET Investment, a private equity fund. At the time of its operation, Jet Investment focused on stabilizing, revitalizing and strengthening the position of the wood processing company on the market, so in less than four years the Čáslav company was not only cleaned of unnecessary assets, but another investment was made, namely in a new hall right on the Čáslav campus. The key sawmill operation and the production of glued prisms were thus concentrated in one place. The year 2018 marked another change in ownership relations for the company. It was bought into his portfolio by a strategic investor with a long-term vision – the Prosperita Holding, a. with. (Silvarium.cz, 2018)

LESS & TIMBER operates two sawmills. One is situated directly in Čáslav and the other in Dlouhá Ves near Sušice. Reinforced logs (spruce 80 %, pine 15 %, larch 5 %) are processed in the Čáslav plant with an annual capacity of 310,000 m<sup>3</sup> of logs, for which this sawmill is a specialist. The main products here are joinery lumber and radial lumber for the production of glued window and door prisms.

The plant in Dlouhá Ves near Sušice is the company's second sawmill operation and its annual cutting capacity is approximately 40,000 m<sup>3</sup>. Cut-outs of 3, 4 and 5 meters in length are processed here, mainly spruce (approx. 85 %) and pine (approx. 10 %). The rest is made up of larch, oak, and a small proportion of other deciduous trees are also represented here.

In the Čáslav area, next to the sawmill, there is also a glued prism plant. The glued prism plant in Čáslav has an annual capacity of up to 20,000 cubic meters, making it the largest production of carpentry blanks for the production of wooden windows and doors in the Czech Republic and one of the largest in Europe. With its production, the plant follows the sawmill operations of LESS & TIMBER and is also their significant customer of radial and semi-radial lumber (slats). It processes both spruce, pine and larch lumber.

An important prerequisite for the production of the entire company is a sufficient source of quality logs. The company LESS & TIMBER has been one of the most important processors of quality and reinforced conifer logs in Europe for the past few years. Spruce has the largest share in the cut, about 70 %, pine and larch reach about 20 and 10 %, respectively. The company's intention is to further increase the share of these types of wood. The sawmill in Dlouhá Ves also processes oak logs.

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Due to the company's focus on quality, great emphasis is placed on communication with suppliers when purchasing logs. Thanks to building good relations with suppliers, LESS & TIMBER is contractually guaranteed a regular supply of high-quality wood, built on a sophisticated wood purchase system. For the sawmill in Čáslav, the company buys spruce, pine, fir and larch cuttings, and for the sawmill in Dlouhá Ves then cuts of spruce, pine, fir, larch and oak.

According to the publicly accessible register of contracts of the Czech Republic, among the less important wood suppliers of the company are the Krkonoše National Park Administration, Lesy České republiky, s.p., Vlašimské městě lesy s.r.o., Šumava National Park Administration, Městské lesy Liberec, p.o., Lesy města Písku s.r.o., Forest Office Děčín p.o., Městské lesy Prachatice, s.r.o., Městské lesy Vimperk s.r.o. (Ministry of the Interior of the Czech Republic, 2021)

The focus on quality in the entire process of purchase, processing and production of final products is, in addition to modern technological equipment, an important prerequisite for success on the markets.

Nowadays, LESS & TIMBER is an exemplary processor of wood material, not only from an ecological point of view. During the production process, it makes maximum use of all generated waste and the wood biomass obtained in this way is used to produce electricity and own heat for the dryers of the company's products. In addition to the existing technological synergy within the plant, this power plant has great potential, especially for the future. Thanks to considerable variability in the conversion of energy into electrical or thermal energy, optimal management in different modes can significantly improve the economic results of not only the operation itself, but because the owner of 100 % of the business share in the company LESS & ENERGY, s.r.o. is the company LESS & TIMBER, a. s., so this benefit is and will be reflected in the economy of the entire company, belonging to the group PROSPERITA Holding, a.s. Also important for the future development of the company is the fact that even the eventual expansion of the Čáslav complex with new drying facilities or production halls would not pose any problem for the capacity of LESS & ENERGY, as it still has reserves in production. (LESS & TIMBER, a. s.)

In 2017, the company LESS & ENERGY started construction of a heating plant on the premises of LESS & TIMBER, a.s. in Dlouhá Ves near Sušice, capable of using waste wood biomass to produce renewable heat that can be used for drying wood. It is also a modern heating plant with an output of 800 kW with automatic cleaning, automatic ash removal, with central monitoring, control and regulation, continuous and automatic feeding and dosing of fuel. The purity of TZL flue gases meets the standards of 2018, i.e. emission limit 100/mg/Nm<sup>3</sup>. (LESS & TIMBER, a. s.)

### Questions

- **What are the advantages and disadvantages of the woodworking market in terms of market and customer access?**
- **How can the supplier relationships of the company be described and characterized? What are the main factors influencing this relationship?**
- **Can the level of indebtedness endanger even a very successful company and why?**
- **What economic, marketing, or social advantages can be identified in the company's ecological approach in the use of production waste?**

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### Přístup k příležitostem

The company LESS & TIMBER, a.s. in its approach to opportunities, it is based on a long-standing "timber" tradition, which followed the modern, technically, and technologically fundamentally innovated through investments in the years 2007-2010 and subsequently in the years 2015-2018 and in 2015, the company was economically restructured by acquiring a strategic owner in 2018 (Prosperita Holding, a. s.), with whom he actively continues to work on development activities.

The company, especially due to customer requirements, applies a certified quality management system (QMS), which is checked annually through external control audits. LESS & TIMBER is also certified for the conformity of the C-o-C (PEFC) forest products consumer chain process and is authorized to use the marking of conformity with the requirements of EU regulations (CE) on its products. Since 2014, it also has a newly introduced certificate for lamellar and galvanized prisms to produce wooden windows by the German test laboratory in Rosenheim. LESS & TIMBER applies and meets the requirements of the consumer chain of forest products in accordance with the CFCS 2002:2013 directive. (LESS & TIMBER, a. s.)

The long-term experience of the management team and their good cooperation also create conditions for a healthy combination of intuition and rationality in the management of the company and its subsidiaries (LESS & ENERGY and LESS & Biomac Pellets).

The basis of identification and perception of opportunities generated in the external environment of the company is primarily a high-quality team of workers, using system elements (the company's information system, communication with partners and clients) and not resisting changes. This is also the case of the company LESS & TIMBER.

As a rule, the form of ownership and the owner himself play an important role here. Today, the team is Prosperita holding, a. s., acting in the role of a strategic investor, able to create the necessary suitable conditions for the activities of the management, which in the company LESS & TIMBER is the main bearer of the company's business management in accordance with the owner's requirements. It is the erudition and many years of experience of the company's management team that create good conditions for the further development of business activities.

### Questions

- **How do you evaluate the company's activities in the area of quality assurance and reliability?**
- **What other activities would you recommend to the company?**
- **In your opinion, is the search and formulation of opportunities solely in the hands of the company's management? Who else is possibly participating?**
- **In which procedures (approaches) of the company do you see elements of a causal approach and in which, on the contrary, elements of an effectuation approach?**

## Introduction of new and innovative products

The traditional industry, production, and nature of the market in which the company operates – B2B market, size and strength of the company – these are all important parts of the framework of innovation potential. The last significant product innovation was the introduction of glued prism production in addition to sawmill production. At the beginning of 2017, the trial operation of the new hall began, which, with its production program, follows the sawmill operations and is an important customer for them of radial and semi-radial lumber (slats). (Annual reports of LESS & TIMBER, a. s. for the years 2015–2021, undated)

Since the restructuring in 2015, the company has been characterized by continuous investment in processes and modernization of technologies that keep moving it forward. These innovations created and are creating prerequisites for increasing the efficiency of the entire company and for meeting the needs of clients in a better quality.

Currently, the company has invested in digitization as a tool for managing and organizing the company's activities, to which it was also guided by the experience of the first lockdowns associated with the Chinese COVID-19 virus pandemic. In the process of implementation, there is also a motivational system to support the innovativeness of employees and the creation of positive "stories", which can be used not only in the production and business activities themselves, but also in the field of marketing communication. The first proposals are expected by the company's management during the first quarter of 2022.

LESS & TIMBER is a typical representative of a company operating on the so-called B2B market. That is, a company not selling its products to the final consumer. The company has 2 main target groups of customers:

- processors of semi-finished products (lumber, prisms), i.e. mainly window manufacturers
  - merchants – wholesale/retail merchants, distributors, reselling sawmill products (especially roof battens, prisms etc.) to smaller customers.
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The company does not carry out retail sales to the final consumer, because it was not effective for it, even in view of past experiences.

The main tools of the company's communication with clients are personal contacts and negotiations, led by businessmen from the department under the section of the company's commercial director. in the sales department - i.e. personal sales, personal contact with clients.

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B2B companies did not do very well last year 2020. The decline in the market was also reflected in lower marketing budgets. However, they fell not only due to the savings themselves, but also due to the shift from expensive off-line activities to cheaper online marketing. In this way, tools that are more typical for consumer markets are entering the online mix in B2B.

From the point of view of the field of business, the company maintains a corporate image, which is created mainly by emphasizing the quality of production and reliability of deliveries. It maintains its corporate identity; it is its visual way of identification. According to the type, it ranks among companies with so-called a monolithic identity, because the entire company presents itself visually, as well as through communication and behaviour. The company LESS & TIMBER is known for its only product category, which is products from processed wood.

The structure of online marketing activities is changing rapidly, and this also applies to B2B markets. While static web presentations and e-mail marketing dominated a few years ago, social media and corporate videos are currently the trend.

The structure of offline B2B marketing activities is relatively stable compared to online marketing. For a long time, personal meetings in the form of personal sales, events, fairs, and exhibitions have been in the foreground, and PR also maintains its place. The most significant changes in B2B marketing in 2021 were recorded by the two most expensive activities – ATL advertising (over-the-line communication using media) and active participation in fairs and exhibitions. Approximately 14 % of businesses cancelled these activities in 2021, or 9 % of companies operating in B2B markets.

### Questions

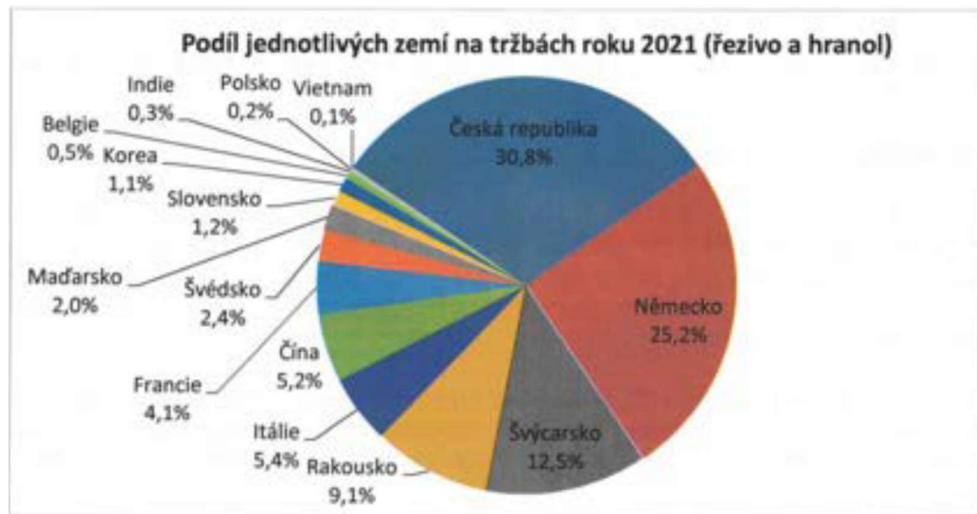
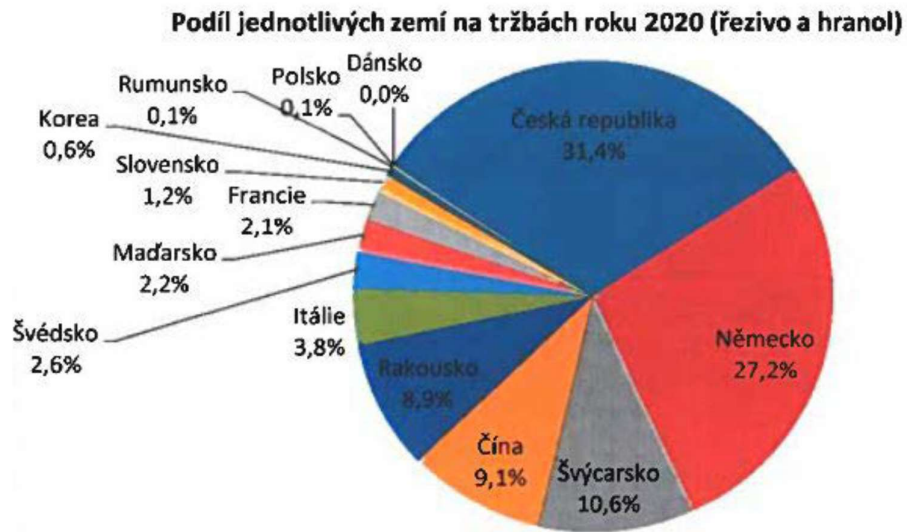
- **What are the limitations and possibilities of innovation of traditional fields of business, among which we can include the woodworking industry?**
- **How do you evaluate innovation processes in the company based on the examples given in the text of the study?**
- **Do you consider the use of modern marketing tools to be important in B2B markets? Why?**
- **What obstacles can be the reason for ineffective involvement of the company in B2C markets?**
- **In which of the company's procedures do you see elements of a causal approach and in which, on the contrary, elements of an effectuation approach?**

### Operation on international markets

The level of globalization in the world has reached its peak in recent years, and this has manifested itself and is also manifesting itself within the woodworking industry and its markets. The majority of significant wood processing companies in the Czech Republic belong to transnational chains (and therefore the behaviour of companies on the markets in the Czech Republic and abroad, especially in Europe and the EU, which are strategic targets for LESS & TIMBER markets (see Figures no. 1-3), especially for glued prisms, do not differ in any fundamental way.

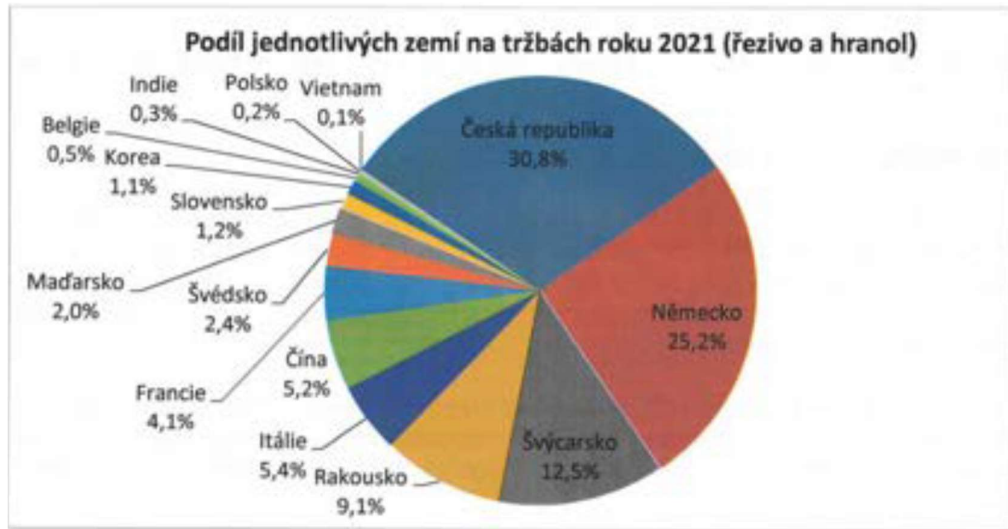
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Figures 1-3: Share of individual countries in sales in 2020 and 2021 (lumber and prism)



Source: (Annual reports of LESS & TIMBER, a. s. for the years 2015–2021, undated)

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Zdroj: (Výroční zprávy LESS & TIMBER, a. s. za léta 2015 - 2021, nedatováno)

In 2021, the company worked its way up to deliveries to the Indian market. The Indian client found the company through the Internet and the website of LESS & TIMBER.

In accordance with its values, it pays attention to building long-term stable business relationships both on the input side – the purchase of raw materials from log suppliers, and on the output side – sales to clients from the ranks of manufacturing companies and traders. Due to the pandemic, the possibility of acquiring new customers was limited in 2020 and 2021. The consequence of the anti-pandemic measures was not only the limitation of personal contacts and thus work meetings, but above all the complete limitation and cancellation of fairs, exhibitions and business events with permanent partners. However, due to the establishment of the company LESS & TIMBER and their long-term ties to suppliers and customers, the company was able to quickly react to the situation and switch to forms of remote communication (telephone, internet – web, e-mail, social media).

As a result of the COVID-19 pandemic, it was assumed that there would be an increase in unemployment in the Czech Republic, especially after the end of compensation programs such as Antivirus, etc. This could be expected in almost all sectors of the Czech economy.

Despite the negative expectations associated with the effects of the Chinese COVID-19 pandemic on the woodworking industry sector, it can be stated that this did not come true in the case of LESS & TIMBER. From the point of view of the volume of realized production, measured in m<sup>3</sup> of wood material, on the contrary, the year 2020 showed some of the best results in history (see figure no. 4) and the year 2021 was similar. The economic results associated with sales of own products and services (see figure no. 5), which is mainly due to the global increase in the prices of wood and wood products (see figure no. 6).



Figure 4: Production volume of LESS & TIMBER by individual plants in 2017-2021

v m <sup>3</sup>	2017	2018	2019	2020	2021
<b>pořez na pilách</b>					
ZZD Čáslav	236 988	237 402	236 494	244 692	236 701
ZZD Dlouhá Ves	33 114	29 270	30 684	32 505	31 479
<b>výroba řeziva</b>					
ZZD Čáslav *	124 180	124 458	122 216	127 504	126 436
ZZD Dlouhá Ves *	18 441	16 325	17 382	18 479	17 614
<b>výroba lepeného hranolu</b>					
Závod Klášterec / ZLH	11 783	14 099	14 153	12 266	16 323

\* včetně lamel zpracovávaných následně v Klášterci / ZLH

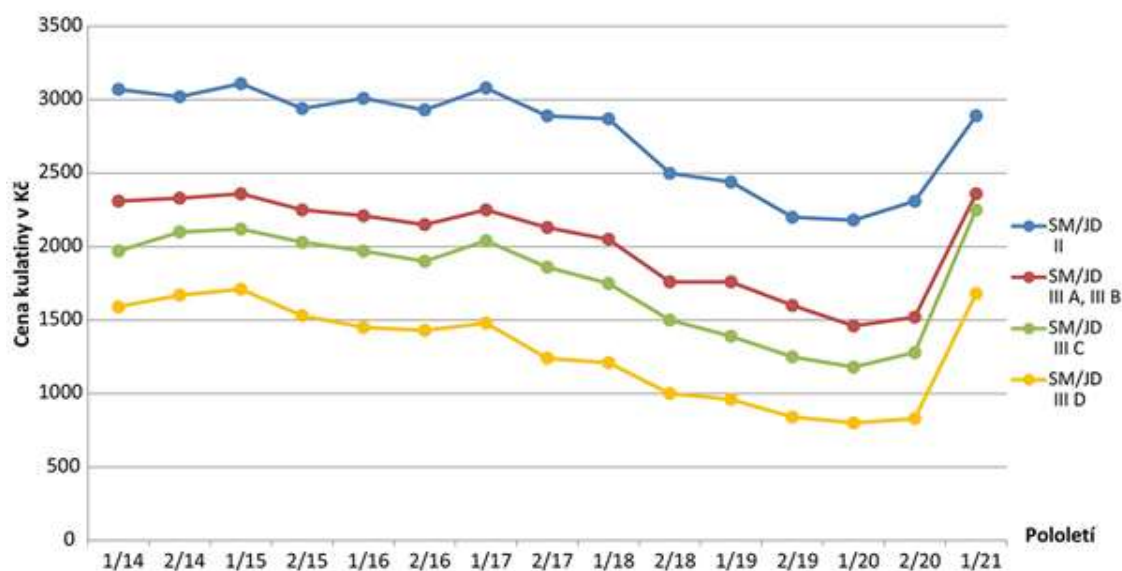
Source: (Annual reports of LESS & TIMBER, a. s. for the years 2015–2021, undated)

Figure 5: Economic results of LESS & TIMBER in 2018-2021

	2018	2019	2020	2021
Tržby za prodej zboží	11 536	40 132	101 712	9 650
Tržby za prodej vlastních výrobků a služeb	907 116	850 857	867 579	1 209 470
Tržby z prodeje dlouh. majetku a materiálu	13 058	5 952	11 051	1 673
<b>Celkem</b>	<b>931 710</b>	<b>896 941</b>	<b>980 342</b>	<b>1 220 793</b>

Source: (Annual reports of LESS & TIMBER, a. s. for the years 2015 - 2021, undated)

Figure 6: Price development of spruce logs in 2014-2021



Source: (Dřevařský magazín, 2021)

Questions:

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- Evaluate the possibilities and limitations of LESS & TIMBER's entry into foreign markets?
- Does the company actively use modern marketing tools?
- How do you assess the effects of the epidemic situation on the timber industry and specifically on LESS & TIMBER?
- What measures could the company have taken to minimize negative impacts?
- Which aspects of the specific epidemic situation was the company able to use to its advantage?

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