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Diploma thesis abstract

Economic aspects of setting up a microbrewery

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Summary

The diploma thesis is concerned with the attributes of various microbrewery business models, e.g. brewpubs, community supported brewing, nanobreweries, contract brewing, packaging microbreweries etc. Especially, their advantages and disadvantages are elaborated. Further, the sources of barriers to entry into microbrewing subsector in Czech Republic are described, e.g. the economies of scale, product differentiation, capital requirements, access to distribution channels etc. Then, the SWOT analysis, PEST analysis and financial analysis of the microbrewing subsector in Czech Republic are performed. In total, 38 microbreweries' financial statements are utilised and financial benchmarks for brewpubs and packaging microbreweries are calculated. Subsequently, a sample financial plan for a packaging microbrewery is developed, including the start-up plan, pricing, sales forecast, pro-forma financial statements, break-even analysis and key business ratios, which are compared with the microbrewery financial benchmarks. The aim is to assess the profitability of setting up a microbrewery.

Keywords

beer, microbrewery, craft brewery, SWOT, PEST, financial analysis, financial plan

Introduction

Currently, we are witnessing a growing number of microbreweries in the Czech Republic but also in other countries. The trend of setting up these small-scale brewing facilities, which many call "the boom of microbreweries," began in the western world in the second half of the twentieth century and gradually spread elsewhere, even into areas that are normally dedicated to other alcoholic beverages such as wine and spirits. When trying to define a "microbrewery", however, one may face some difficulties, stemming from the fact there is no universally applicable nomenclature and, therefore, what is considered a microbrewery in Czech Republic does not have to be necessarily considered a microbrewery elsewhere. Apart from the differences between large and smaller brewing facilities, there are also many differences between the microbreweries themselves. It is associated with the range of possible business models which are employed, e.g. the contract brewing, brewpub, packaging microbrewery etc. Of course, every microbrewery business model has its own advantages and disadvantages and all wannabe brewers should take them into consideration before developing a thorough business plan. After preparing the pro-forma financial statements, which are part of every proper business plan, one should calculate the basic financial ratios and compare them with the industry or key competitors' financial indicators. Nevertheless, such benchmarks are not always available, e.g. for the microbrewing subsector, expensive or difficult to ascertain.

The goal and methodology

The underlying goal of the thesis is to develop a sample microbrewery financial plan, which includes all the necessary financial information for potential investors and possibly those interested in establishing a microbrewery in Czech Republic. In order to achieve the main goal, several partial goals were set. One of the partial goals is an analysis of the business models utilised by microbrewers. The second partial goal is associated with the barriers to entry, e.g. the economies of scale, product differentiation and switching costs. The third partial goal is the analysis of microbrewing subsector in Czech Republic via SWOT, PEST and financial analyses.

In order to reach the goals, I firstly collected appropriate literature, including books, magazines and essays related to economics of beer, demand for beer, production of beer, traditional production, brewing industry, opening and running a microbrewery, homebrewing, history of brewing etc. Apart from the literature, I also used various on-line articles, e.g. the articles provided by microbreweries' websites. I analysed the literature, compared it and synthesised the retrieved knowledge. When possible, I enriched the text with my empirical knowledge I gained via visiting the breweries in person and with information I obtained from discussions with brewmasters, beer geeks, owners and operators of hospitality and retail units (beer shops, beer bars, brewpubs etc.) and fellow homebrewers. I gathered financial statements of a selected number of Czech microbreweries, copied the data into a spreadsheet and calculated liquidity, solvency, profitability and activity financial ratios (financial benchmarks). As regards the financial plan, I followed the template provided by the Faculty of Management from the University of Primorska, Slovenia. I estimated the initial investment in a microbrewery, performed the break-even analysis, prepared the pro-forma financial statements, calculated the basic financial ratios and compared them to the subsector financial benchmarks.

Structure

First of all, the term "microbrewery" is explained and various classifications of breweries are provided in "The nomenclature" part. Also, the relationship between "craft", "traditional" and "micro" is elaborated in this part. Afterwards, the microbrewery business models are described in the "Business models" part, e.g. the nanobreweries, community supported brewing, contract brewing, brewery incubators, brewpubs, brewpub chains etc. In the "Barriers to entry" part, the sources of barriers to entry into microbrewing subsector are characterised, e.g. the learning or experience curve. In the "Analyses" part, the SWOT, PEST and financial analyses are performed. In the "Financial plan", a sample packaging microbrewery financial plan is developed, followed by the "Conclusion". After the list of resources, abbreviations, tables and charts, the "Appendix" follows. The "Appendix" contains the financial benchmarks and all the tables related to the financial plan.

Conclusion

In addition to brewery categorization by absolute values, i.e. annual production in hectolitres, turnover, total balance sum and number of employees, the relative values can be used as well, i.e. the market share. In this way, one can partially mitigate the effects of different market sizes in different countries. Regarding the microbrewery business models, the most popular ones are contract brewing, brewpubs and packaging breweries. However, there are some less common business models as well, e.g. the CSB (community supported brewing) and fermentation pubs. All of them have their advantages and disadvantages, e.g. through contract brewing, a brewery can easily gain access to additional capacity but at the same time, it loses absolute control over the production process.

Complying with the results of financial analysis, one has to conclude the majority of analysed microbreweries in Czech Republic (38) are not profitable. Actually, only 26% of the companies can be considered profitable (average positive net income). The profitable microbreweries tend to achieve higher receivables and inventory turnovers and their liquidity is higher. The average Czech microbrewery's net profit margin is 7.9%, average return on assets (ROA) is 10.5% and median return on equity (ROE) is 16%. The packaging breweries tend to have higher liquidity, whereas the brewpub model appears to be relatively more profitable (at least according to ROA and ROE).

In the sample microbrewery financial plan, I calculated the initial capital expenditures and prepared the basic pro-forma financial statements. The break-even analysis revealed I need to brew at least nine 5 hl batches of top fermented beer a month in order to break even. Therefore, the annual production of 480 hectolitres would not be enough to make the venture profitable. Provided the production will gradually increase, the first years will not be profitable and the internal rate of return (IRR) will rapidly decrease. However, if the capacity of the cold block (fermenting capacity) is extended, the IRR significantly increases and leads to positive net present value even for the less optimistic scenario. I used either the weighted average cost of capital (5% and 7%) or desired level of return (12%) to discount the stream of cash inflows.

List of resources

- [1] Bruning, Ted. 2011. *The Microbrewers' Handbook*. 3rd ed. Norwich: Paragraph Publishing.
- [2] Oliver, Garrett. 2012. *The Oxford Companion To Beer*. New York: Oxford University Press.
- [3] Hindy, Steve. 2014. *The Craft Beer Revolution*. New York: Palgrave Macmillan.
- [4] Cantwell, Dick. 2013. *The Brewers Association's Guide to Starting Your Own Brewery*. 2nd ed. Boulder: Brewers Publications.
- [5] Woodske, Dan. 2012. *A Brewers Guide to Opening a Nano Brewery*. CreateSpace Independent Publishing Platform.
- [6] Hindy, Steve, and Tom Potter. 2005. *Beer School*. Hoboken, N.J.: Wiley.
- [7] Calagione, Sam. 2005. *Brewing Up a Business*. Hoboken, N.J.: John Wiley.
- [8] Grossman, Ken. 2013. *Beyond The Pale*. Hoboken: John Wiley & Sons, Inc.
- [9] Hennessy, Tom. 2012. *Brewery Operations Manual*. Ridgway: Tom Hennessy
- [10] Swinnen, Johan F. M. 2011. *The Economics of Beer*. Oxford: Oxford University Press.
- [11] Čapková, Veronika, Petr Janík, and Václav Potěšil. 1999. *Restaurant Microbreweries In The Czech Republic*. Prague: Výzkumný ústav pivovarský a sladařský, a.s. (Research Institute of Brewing and Malting).
- [12] Porter, Michael E. 1980. *Competitive Strategy*. New York: Free Press.
- [13] Pelsmacker, Patrick de, Maggie Geuens, and Joeri van den Bergh. 2010. 4th ed. *Marketing Communications*. New York: Financial Times/Prentice Hall.
- [14] *The Vital Role Of Contract Manufacturing In Supply Chain Management And Optimization*. 2008. Ebook. 1st ed. MK Precision.
- [15] Boulton, Chris. 2013. *Encyclopaedia Of Brewing*. Hoboken: John Wiley & Sons.
- [16] Henkes, David. 2008. 'Capturing Craft Beer Opportunities On-Premises'. *The New Brewer*