



Biomass Terminals as Businesses

- What associates with good (or bad) performance?

When forest biomass terminals are approached as businesses, the question of their financial performance becomes central. Our survey that investigated various aspects of Nordic bioterminals' business models also covered the issue of performance. This infosheet presents the essential findings.

TERMINAL'S FINANCIAL PERFORMANCE

Biomass terminals, in addition to being important technical and logistical operations in the forest product value chain, form economic entities that need to focus on financial measures in order to remain vital and add value to their stakeholders. This study investigates terminals' financial performance as perceived by the representatives of the terminals. This subjective measure of performance is studied in relation to the choices embedded in the business model of each terminal. The ultimate target of the study is to enhance key actors' interest in professional management of biomass terminals.

QUESTIONNAIRE TO TERMINAL REPRESENTATIVES

The data concerning biomass terminals' business models and financial performance were collected through a questionnaire that was delivered to the representative of each terminal during site visits. The respondents could either complete and return the questionnaire instantly or after the visit. The questions related to the business model and performance were multiple-choice type. The business model part consisted of aspects of activities, customers, competences, competitive factors, earnings logic, and the goals of the owner/entrepreneur (Luoma & Claydon 2018).

Performance of the terminal was measured by offering three alternatives:

- Weaker than that of other corresponding terminals
- Similar as that of other corresponding terminals
- Better than that of other corresponding terminals.

So the performance measure was based on the respondent's subjective evaluation. This method was chosen, because all the operations were not limited companies or similar, whose financial statements could be collected from official sources. Researchers have found subjective

performance measures to be a valid way to collect profitability data in strategy research (e.g., Vij & Bedi, 2016). The data were analyzed with the help of statistical methods (such as crosstabs, the analysis of variance, and post-hoc tests) by using the SPSS software.

PERFORMANCE DRIVERS OF BIOMASS TERMINALS

Performance of a business entity can be understood as a result of the deployment of various resources and strategic decisions made by the management. On the other hand, the level of performance also affects its strategic decisions, so performance is at the same time an outcome of past decisions as well as an input for new decisions (Luoma, 2015).

Based on the background information collected, the terminals typically represent small and medium sized enterprises (SMEs). SMEs performance in general has been studied less than the performance of larger organizations. Factors that possibly associate with the performance of an SME include, for example, the individual characteristics of an entrepreneur, competence of human resource, innovativeness, and financial sustainability (Anggadwita & Mustafid, 2014). This study assumes that the above-mentioned aspects of the business model cover these factors in a valid way, and additionally include some other, potentially significant drivers of profitability.

When analyzing the data, each aspect of the business model was individually contrasted with the three alternative levels of business performance.

RESULTS

According to the analysis of variance, the number of activities carried out by the terminal does not associate significantly with different performance levels. The most usual activities of the terminals are storing, refining, and transportation (to further refining or to end users), and

a terminal that employs this or other combination of activities can belong to any performance category.

The same applies with the number of customer segments served. The width or narrowness of the customer base does not associate with performance.

Instead, the number of competences held by the terminal appears to associate with the profitability levels to some extent. The terminals that reported the weakest level of performance also report an exceptionally high

number of competences. With the average performers, the number of competences is lower and with the highest performing terminals, it is again higher (see Fig. 1).

The same phenomenon demonstrates itself with the number of competitive factors. The weakest performing terminals report exceptionally many competitive factors, average performing terminals significantly fewer, and the best performing terminals for their part again more competitive factors (see Fig. 2).

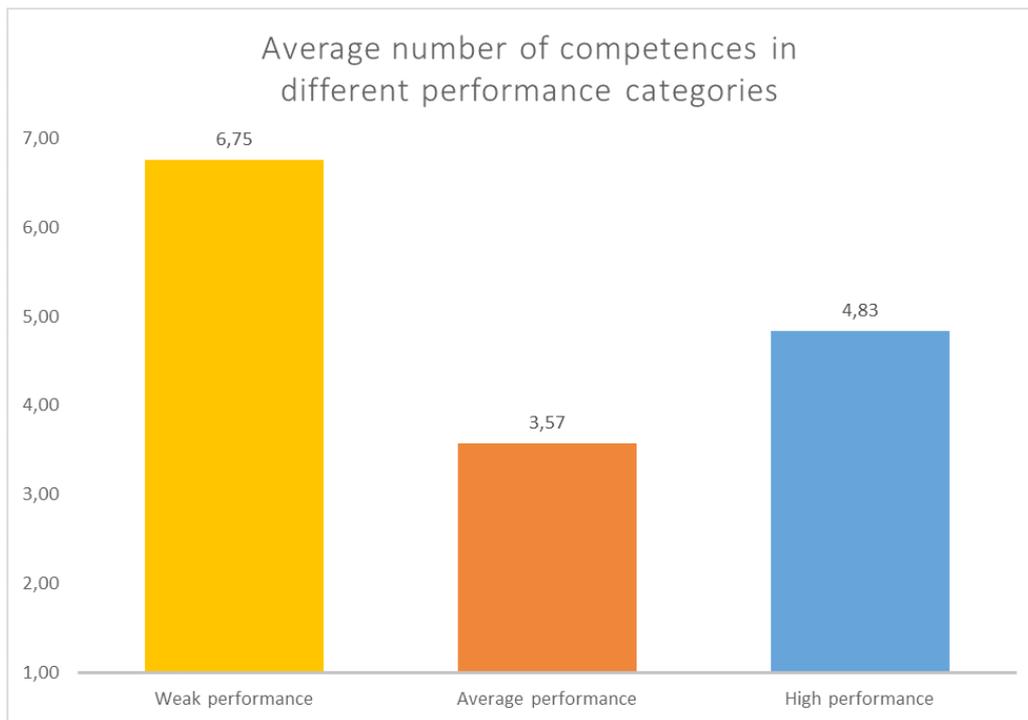


Figure 1. Average number of competences in different performance categories.

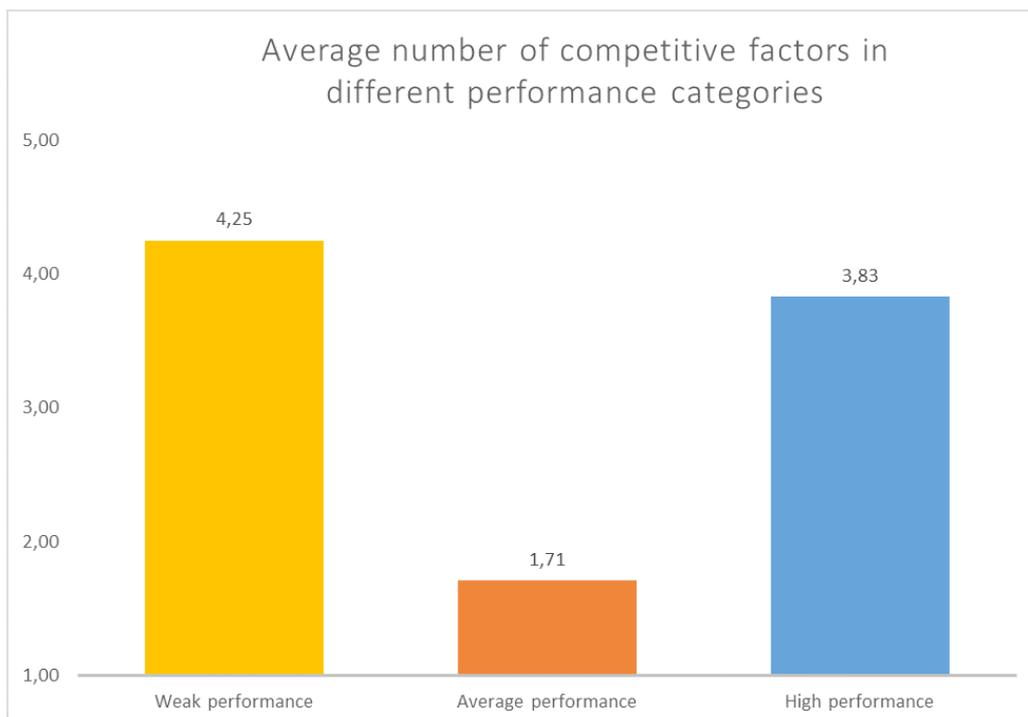


Figure 2. Average number of competitive factors in different performance categories.

The relative popularity of competences and competitive factors is shown in Table 1. In general, not any single competence or competitive factor possessed by the terminal appear to explain good or bad performance.

As regards the elements of the earnings logic or the intentions of an entrepreneur/owner, no significant connections with different performance categories can be found.

It was also studied, if the background factors, such as the size or the volume of the terminal, associate with different performance levels, but no statistically significant associations appear in this respect.

Table 1. Relative popularity of competences and competitive factors.

Most popular competences (% of all terminals)	
Transportation and/or treatment of raw material	85,7
Knowledge of refining stages and/or technology	76,2
Financial planning	61,9
Purchasing and procurement	57,1
Sales and marketing	47,6

Most popular competitive factors (% of all terminals)	
Location	90,5
Good relationships with raw material suppliers	57,1
Cost efficient operations	52,4
High quality of product and/or service	38,1
Production/refining process	33,3

IS THERE A SECRET TO BETTER FINANCIAL PERFORMANCE?

In our study, the differentiating factors behind better and worse performance appear to be scarce. The best explaining factors that the study revealed, relate to the competences and competitive factors of the terminals.

One would expect that more competences identified by the management associate with stronger performance, because competences are a sign of a wider and deeper resource base, which enables the terminal to respond richly to opening business opportunities.

Likewise, the number of competitive factors identified and maintained by the management normally associ-

ates with better performance, because they help build stronger foundation for the business.

Competitive factors, such as location, quality of operations, innovations, reputation, etc., give normally a long-lasting advantage for the business, and the more there are this type of factors, the stronger is the business. Both competences and competitive factors are time-consuming to build and require skillful management practices to maintain.

In the study, the weakest performing terminals actually reported the highest numbers of both competences and competitive factors as compared to better performing terminals. While there is no need to suspect the perception of the respondents concerning the number of competences and competitive factors, one can still hypothesize that the mental definition that the representatives of the weakest performing terminals apply to these concepts, would be much more liberal than that of the representatives of other terminals. In other words, competences and competitive factors of the weakest performing terminals would possibly not stand a critical evaluation of an outside observer.

In sum, based on the study, one can conclude that the use of subjective performance measurement appears to result in a plausible picture of the financial state of the biomass terminal sector. No simple and easily observable factors can be identified, which would differentiate better and worse performing terminals. Instead, the terminals' relationship to more abstract managerial concepts, such as competences and competitive factors, might well offer a valid explanation for differences in performance. The best performing terminals have developed a realistic view of what they can (competences) and on what enduring strengths (competitive factors) they build their business. The weakest performing terminals appear to approach these concepts in a liberal and uncritical manner, which does not help make use of them.

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