

Common Structure of a Business Valuation Report: Evidence from the Czech Commercial Register

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Abstract: This paper presents a typical structure of a business valuation report based on a sample of more than 180 valuation reports published during the year 2017 through the Czech Commercial Register. With the use of a content analysis, the structure of the assessed reports is categorized into several pre-determined sections, which were based on valuation standards so that the entire process of business valuation is captured. For each section, we observe the length in terms of page count and the character of the information provided. The findings are then compared to an expected, valuation standard-compliant structure of a business valuation report. The results point out an abundance of theory and formal disclosures, while many valuation practitioners may tend to underestimate the analytical part of the process, as compared to initial expectations.

Points for Practitioners: The paper is a part of an ongoing research focused on the issue of quality of business valuation reports. Public institutions play a vital part in this debate since they very often deal with valuations in their decision-making processes. The potential benefits for practitioners are as follows: a) the paper helps the professionals better understand the process of business valuation in its entirety, b) the criteria presented in the paper can assist to evaluate valuation reports, c) it contributes evidence to the ongoing discussion regarding the quality and potential regulation of the experts in the country.

Key words: Business Valuation, Experts, Quality of Valuation, Valuation Report

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1 INTRODUCTION

Quality of business valuation is an abstract, to a certain extent a subjective term since the theory does not provide a universal definition of all its components. Still, a quality business valuation report is a premise for a correct decision in many instances. The ordering parties, most notably public institutions, often lack economic background and struggle to differentiate between quality and poor valuations even though they are responsible for decisions based on the results of the reports. The logic behind the valuation model and its application is at least equally as important as the value estimate (Newell, 2010), thus it is not generally desirable to accept the conclusion of a valuation at its face value.

In recent years, we can see a constant increase in the number of valuation reports delivered for various legal or business-related reasons. At the same time, authors around the globe note these reports exhibit significant differences in quality. Quality of business valuation does not mean just the correctness of the underlying calculations. Valuation of equities, even more than other disciplines related to valuation, is specific due to its strong reliance on estimates and future projection of key value drivers, not just observable facts (Mielcarz & Osiichuk, 2017). In an ideal scenario, these projections and predictions are thoroughly justified and based on analytical conclusions that support all conclusions and that are clearly explained in the valuation report.

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Numerous authors have dealt with common problems of DCF-based valuations (Fernandéz, 2010; 2013; 2020; Damodaran, 2009). These authors mostly address technical problems on an individual basis, extracted from the context of the entire process of valuation. Green et. al. (2016) notice that analysts' valuations very often fail to follow the "textbook framework", which, according to their study, results in several valuation errors on average per a single report. Similarly, Bancel & Mittoo (2014) found that valuation analysts use diverse approaches when valuing businesses. The caveat is that divergence may lead to distortion, and potentially misconceptions in the underlying processes. Kantšukov & Sander (2016) claim that the problem is rooted in the lack of clearly formulated guidelines addressing the structure of valuation. In their series of articles, Mařík & Maříková (2011a; 2011b) notice that many valuations exhibit poor quality due to the fact that certain analyses mostly serve to increase page count. In other words, they suggest some valuations only mimic the professionalism and erudition.

Even though not being mandatory, guidelines for the structure of a business valuation report have been, in fact, long in existence. For several decades, the International Valuation Standards Committee has been pursuing the International Valuation Standards (IVS) of global relevance. The latest edition (IVS, 2020) devotes its IVS 200 standard to valuation of businesses and business interests. The existence of the IVS ensures that international investors in cross-border transactions are guaranteed a comparable level of quality in the valuation (McParland et. al. 2002). Furthermore, the IVS allow for local standards to build upon their foundations and interpret the rules in greater detail. Similarly, The European Group of Valuers' Associations issues the European Business Valuation Standards (EBVS) with a slightly more regional focus (TEGoVA, 2020). General framework for equity valuations is therefore broadly available and widely accepted. For this reason, many valuation analysts claim to follow these standards in order to signal the quality of their work.

Conclusions formulated in the aforementioned papers sparked the idea of this research. One of the key premises of how one can identify a quality valuation is to understand its structure. The central question of this study is whether the practice does follow the framework laid down by the theory, in this case expressed by the valuation standard-compliant report. Even though most studies do not deal with the process of business valuation in its entirety, the few authors that do suggest the practice of business valuation might diverge from the theoretical norm.

In this study, we will first attempt to define the expected structure of a valuation report, based on the two dominant valuation standards. This idea is based on the notion that certain analyses and procedures are required in order to value a business entity. Subsequently, we will test our hypotheses on a sample of over 180 real valuation reports, produced by the Czech valuation experts.

This article is a part of an ongoing long-term research, dealing with the topic of quality of business valuation reports. Dear reader should be aware that there are more components to a truly quality valuation, our study focuses on a portion of the big scheme. Thus, this study should be from the very beginning viewed as a starting point of a deep dive into the topic, which will be built upon in subsequent studies.

2 METHODOLOGY

2.1 Research questions and research design

This study is centered around three research questions:

1. What are the main components of a business valuation report in terms of its structure, according to the valuation standards?
2. What is the expected structure of a business valuation report in terms of these main components?
3. What is the common structure of publicly accessible recent business valuation report in the Czech Republic?

Regarding the theoretical framework, there are numerous publications or schools available. Valuation standards, for instance the IVS or the EBVS, serve as recommendations to valuation practitioners and experts worldwide. While being widely cited by many practicing experts, these standards mostly express the universally applicable economic theory behind valuation, not just viewpoints of a sovereign entity or an individual, so that they arguably reflect the contemporary *best practice*. For this reason, valuation standards were selected to be the benchmark for our study.

The standard-based framework is based on the premise that all steps required in the guidelines are necessary to ensure the quality of the valuation, i.e., the structure and the depth of the analyses are key components of quality. Certain steps can only be committed should the expert properly justify and clarify reasons for such omission.

With the use of a logical analysis, we will first compile a comprehensive list of steps and procedures that will reflect this standard-based framework. Subsequently, we will define the expected proportions of each section, which will serve as hypotheses for our empirical study. Since this research is empirical in nature, our hypotheses will be tested on actual valuation reports. Empirical data is based on real-life publicly accessible valuation reports from the Czech Commercial Register. At this point, the study presented in this paper has strictly regional focus, limited to the market in the Czech Republic, mostly due to author's convenience and language limitation.

The structure of these reports will be classified and segmented with the use of the document analysis method. For the purpose of our study, we measure the length of each component in terms of the respective page count. Instead of the total page count, defined as the sum of all components, in this study, we will be using the adjusted page count defined in Equation 1. The logic behind such adjustment is that we will exclude other (non-income) valuation methods from our considerations as well as all appendices since these measures would distort the picture of the core income valuation process.

$$\text{Adjusted page count} = \text{Total page count} - (\text{Other valuation methods} + \text{Appendices}) \quad (1)$$

2.2 Data collection

All valuation reports were gathered from the public online database of the Czech Commercial Register (CCR, 2018). The selection included reports published during the year 2017 (data was collected during the year 2018). Dear reader should be aware that our sample is not fully representative of the entire population of business valuation reports in the country since valuation reports for specific purposes (such as criminal proceedings) are not publicly available. In fact, some valuation reports are virtually inaccessible due to strict confidentiality limitations, thus, excluded from our considerations completely.

All documents labeled as “valuation report” were downloaded. The initial search yielded 1688 documents. Subsequently, we excluded all a) duplicities, b) non-business valuations, c) business valuation with non-income methods only. The latter were excluded due to the fact that these mostly overlap with other disciplines of valuation (like, say, property valuation), and therefore are outside of our circle of competence. The final selection contained 183 business valuation expert reports. These reports were subject to further evaluation.

2.3 Limitations of the study

At this point, we would like to emphasize that the research design of such study necessarily bears significant limitations:

- regional focus: at this point, we are only dealing with the data from the Czech Commercial Register, albeit international comparison is possible, even desired in further studies,
- the study reflects a framework defined by the valuation standards, which are not mandatory to most appraisers; moreover, the framework has been compiled through subjective logical analysis, compiled by the author,

- the findings are based on publicly accessible data only, due to strict confidentiality measures in some cases; still, this is the best representation of the population we can realistically obtain at this point,
- we are dealing with income-based valuations only, since other methods of business valuation are outside of our scope of expertise, mostly due to overlap to other disciplines, such as property valuation,
- please note there are more components of a quality valuation; in this study, we only focus on a part of the bigger picture; this study is just a component of a broader, more complex series of research papers,
- and finally, the results only can provide implications about the structure of the reports, they have no explanatory power regarding the correctness or accuracy of underlying calculations.

3 RESULTS AND DISCUSSION

3.1 Key components of a business valuation report

The structure of a valuation report in terms of the required components is expressed in the valuation standards cited above. For our analyses, two of the major valuation standards relevant for the domestic market - International Valuation Standards (IVS) and European Business Valuation Standards (EBVS) - were selected and interpreted. Not only are these standards widely cited by many practitioners in the country, in the author's opinion, they accurately reflect the fundamental economic theory of the valuation process.

Table 1 is an overview of the key components of a business valuation process with reference to relevant paragraphs of the standards. With the use of a logical analysis and extensive interpretation, the valuation process can be broken down into ten key steps as featured in the table. These steps were not compiled arbitrarily, as apparent from the table. The general structure of a valuation is common to both of the major standards as well as to the more general "textbook framework" cited by some previous studies.

Table 1 - Key components of a business valuation report

Component	Reference to valuation standards	
	IVS	EBVS
1. Introduction, basis of value	IVS 200, 30.1	EBVS 3, 7.5
2. Theory of valuation	N/A	N/A
3. Macroeconomic analysis	IVS 200, 110.1	EBVS 4, 3.2.2.5
4. Strategic analysis (market + competitive position)	IVS 200, 110.1	EBVS 4, 3.2.2.5
5. Financial analysis	IVS 200, 110.2	EBVS 4, 3.2.2.6
6. Value drivers' projection and financial plan	IVS 200, 60.8	EBVS 3, 6.3
7. Discount rate estimation	IVS 200, 130.1	EBVS 2, 4.5.9
8. Application of income-based valuation meth.	IVS 105, 50.2	EBVS 3, 6.3.1.10
9. Other methods, reconciliation	IVS 105, 10.4	EBVS 3, 7.1
10. Appendices	IVS 102, 20.2	EBVS 4, 3.1

Source: IVS (2020), EBVS (2020), authorial compilation

The process of compiling the list of key components was, however, iterative in its nature. This means it also reflects the actual structure discovered during the analytical part of our process. Most notably, none of the two major standards requires the valuation includes a recap of the theory of valuation. Still, many valuations in the analyzed

sample included such theoretical section, and therefore it was included in the list of key components, even though it lacks the support from the standards.

First of all, each valuation should clearly state its purpose, basis of value and other information relevant to the valued entity and/or the user of the report, e.g., formal disclosures (component 1). This, combined with the theoretical recap (component 2), form a *theoretical background* of the valuation report.

Subsequently, each report should contain a substantial *analytical section*, comprised of macroeconomic analysis (component 3), analysis of the relevant market/industry and the competitive position of the enterprise within the industry (component 4) as well as the analysis of its financial position (component 5). During the analytical phase, the valuer should consider an exhaustive panel of data, which will help to support further projections. We believe the analytical section to be one of, if not the most important part of the entire process, which ought to be reflected in the volume or proportion of this section.

The *application of the valuation method* should be based on a projection of the key value drivers, ideally translated into an elaborated financial plan (component 6). The use of an income-based valuation method (component 8) gives rise to the need of a discount rate estimation (component 7). So far, all of these components are crucial to income-based business valuations.

Furthermore, the standards assume the use of multiple valuation methods, which should be subsequently evaluated and reconciled (component 9). Finally, all other relevant documents, information, and supporting materials may be included in the appendices (component 10). Please note that since other valuation methods are not subject to this study, components 9 and 10 are not considered in the Adjusted page count, as clearly expressed in Equation 1 above.

3.2 Expected structure of a quality valuation report

For obvious reasons, the theory does not provide much indication with regards to the desired structure of a business valuation report. The valuation should always reflect the individual nature of each enterprise, not the other way around. Thus, it is neither possible nor desirable to state the ideal proportion of each component. This, however, does not prevent us from being able to study the structure of the reports in practice. Expected proportions (= page count of each component / adjusted page count) were defined in the form of a hypothesis, rooted in practical expertise of the author. Empirical findings are to be compared to the initial hypothesis.

The expected proportions of each section are stated in Table 2 below:

Table 2 - Expected structure of a business valuation report (income method only)

Component	Expected proportion
1. Introduction, basis of value	7%
2. Theory of valuation	3%
3. Macroeconomic analysis	5%
4. Strategic analysis (market + competitive position)	25%
5. Financial analysis	20%
6. Value drivers' projection and financial plan	25%
7. Discount rate estimation	5%
8. Application of income-based valuation method	10%

Source: authorial compilation

Note: expected proportion = page count of component_i / adjusted page count

The logic behind our hypothesis is as follows. The theoretical background (components 1 and 2) is expected not to exceed 10 % of the adjusted page count on average. The theory of valuation should play a minor role in the

valuation report as it adds little value to the user. On the other hand, the analytical section (components 3 to 5) should probably have a dominant position within the valuation, as all findings, considerations and premises must be explicitly formulated. Thus, our expectation is at least 50 % of the adjusted page count.

Finally, the method application (sections 6 to 8) ought to be complemented by a financial plan along with necessary projections of key value drivers. Our hypothesis expects approximately 40 % of the adjusted page count.

3.3 Empirical findings

Table 3 below presents the actual proportions of components on the adjusted page counts as determined from our sample along with basic statistic parameters. The difference measures the gap between the expected and the mean values of individual components.

Table 3 - Actual proportions of components on the adjusted page counts

Component	Mean	Median	Min	Max	StDev	Expected	Difference
1. Introduction, basis of value	25%	24%	9%	58%	11%	7%	18%
2. Theory of valuation	16%	16%	0%	52%	10%	3%	13%
3. Macroeconomic analysis	6%	6%	0%	24%	6%	5%	1%
4. Strategic analysis	8%	5%	0%	39%	10%	25%	-17%
5. Financial analysis	11%	8%	0%	40%	9%	20%	-9%
6. Financial plan	12%	11%	0%	43%	11%	25%	-13%
7. Discount rate estimation	6%	5%	0%	39%	6%	5%	1%
8. Method application	16%	13%	2%	58%	10%	10%	6%

Source: authorial compilation

Note: data based on a sample of 183 business valuation reports from the Czech Commercial Register

The introduction represents on average 25 % of the adjusted page count, while minimum value was 9 % and maximum stood for 58 %. This is significantly more than the expected 7 %, resulting in a gap of 18 percentual points.

The theory of valuation shows a mean value of 16 % of the adjusted page count, which is significantly more than the expected 3 %. Quite surprisingly, maximum value was 52 %, which means that in some cases, over 50 % of a valuation report just summarized the theoretical concepts. It is fair to say that on average, the theoretical background is overrepresented in the reports, compared to the remaining components.

The macroeconomic analysis takes up about 6 % of the adjusted page count, which is basically in line with our expectation of 5 %. The range, however, is quite wide between 0 and 24 % of the total. The strategic analysis is clearly the most underrepresented section as compared to our initial expectations with the mean value of just 8 % (compare to 25 % expected) and the median value of just 5 %. Financial analysis shows just a slightly more optimistic mean value of 11 % in terms of the mean value, which is 9 percentual points below our initial expectation. To sum up, with the exception of the macroeconomic summary, all analyses are significantly underrepresented when compared to our initial hypotheses.

The financial plan has a mean proportion of 12 %, with the values ranging between 0 a 43 %. This is, on average, significantly less than our initial expectation of approximately 25 %. Discount rate estimates take about 6 %, which is in line with our expectation of 5 %. Quite interestingly, these estimates can take up to 39 % of the total adjusted page count. Finally, the method application represents about 16 % of the adjusted page count, which is more than expected. The reason for this phenomenon is that some valuations simply neglect most of the steps in valuation and jump right into the method application, which, in turn, boosts the relative significance of this component.

Figure 1 below graphically depicts the differences between the expected and actual values.

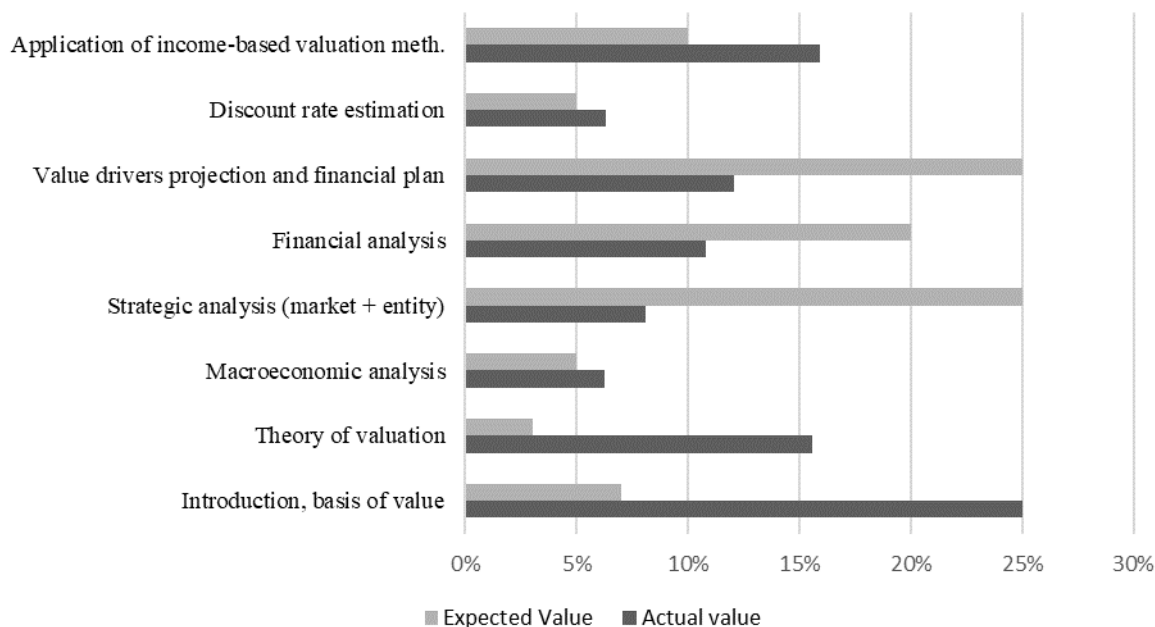


Figure 1 - Expected structure vs. actual structure - mean values (source: authorial computation)

Even though our hypothesis was formed largely by practical experience and expected values were, in fact, set arbitrarily, certain implications can be drawn. The general introduction and the theory of valuation both represent significantly larger portion of valuation reports than initially anticipated. Combined, they make up over 31 % of the income-valuation page count. In many instances, valuation reports seem to substitute textbooks, mostly due to the sheer mass of theory included in them. Moreover, because the theoretical recap mostly includes a superficial overview of widely accepted concepts, it adds little value to the end user who requires the valuation to be entity specific. Contrarily, from the perspective of a valuation expert, the theoretical section is arguably the least challenging as it can be mostly reused (recycled) in numerous valuation reports with little or no changes required.

The same logic applies to the macroeconomic analysis, which is mostly time and country specific, not entity specific. For this reason, it is the only analytical component that was not underrepresented in the context of our initial expectations. On the other hand, the strategic analysis is significantly underrepresented. In an ideal scenario, this is supposed to be the creative part of the entire valuation process, when data and materials are gathered from various sources. In reality, we found these analyses tend to be more on the brief side, mostly dealing with shallow and universally applicable information. It is not surprising that the analytical sections represent on average just 25 % of the entire valuation. One of the shortcomings of such approach is a relatively strong reliance on historical performance in the method application, because the expert may fail to provide data points other than recent financial statements. This claim is supported by the fact that the financial planning is also underrepresented compared to our expectations.

Findings can be tied to some previous studies. On many occasions, the experts do not follow the theory compliant framework (see Green et. al. 2016), in our case defined by the predominant valuation standards. There is a material risk of business valuations being poorly justified in key elements. We could observe weak links between analyses and future projections (see Mařík & Maříková 2011a; 2011b). Quite interestingly, with the exception of components 1 and 8, all remaining components showed minimum values of 0 %, which means these were completely excluded in some cases. Methodologically perfect calculations and models are at risk of being supported by weak data points

and fallacies. For this reason, the author believes that further studies on quality of valuation (in general) ought not to be limited to technical matters of valuation. Instead, the structure of valuation, the depth of the analyses and the absence of logical errors should be in center of focus by both practitioners and academicians. This should be reflected already in the formal education of the valuation experts or appraisers, as expressed by Wilson (1996).

Due to the extremely specific and individual nature of businesses, it is almost impossible to say what an ideal structure of a valuation report should be. For this reason, the author would like to emphasize that the results presented in this study allow us to make no generally applicable conclusions with regards to the overall quality of valuations. Understanding the structure of valuation is just the first step to its evaluation. The most important message of this paper is that there is a publicly available material on what information should a quality business valuation include and that valuations in practice do not always follow such guidelines. Should the valuation lack substantial information, it is the right of the user to demand further explanation and the responsibility of the expert to provide proper explanation.

4 CONCLUSION

The purpose of this study is to help the users of business valuation reports who may lack the formal education and experience to better understand the process and structure of the discipline. Our first research question asked what the main components of a business valuation report in terms of its structure are, according to the valuation standards. The first contribution of this paper is that it defines the standard-compliant structure of a valuation report, created with the use of a logical analysis, applied on the two predominant valuation standards. The structure was broken down into ten components, which form three main sections - a) theoretical background, b) analytical part, and c) application of the method.

Due to the extremely specific and individual nature of businesses it is almost impossible to say what an ideal structure of a valuation report should be. The imperative goes that the information included needs to be complex and sufficient. The expected structure of a valuation report in terms of adjusted page counts of the respective components was arbitrarily set based on the practical experience of the author, with the consideration of contribution of each component to the overall process.

Finally, we performed a deep dive into the common structure of over 180 publicly accessible business valuation reports obtained through the Czech Commercial Register. Our findings showed that on average, valuation practitioners tend to underestimate the analytical part of the whole process of valuation. Even though at this point we can make no definite conclusions with regards to the quality, there is a material risk of analyses being too shallow, which in turn may potentially hurt the reliability of the subsequent projections. By contrast, the theoretical background often comprises a substantial portion of the report, albeit not being explicitly prioritized by the valuation standards. One of the possible explanations is that the experts generally tend to include sections that can be recycled within multiple valuation reports, which helps them achieve better efficiency. The shortcoming of such approach might be too much reliance on historical financial performance, with too little attention to the current state of the business.

Understanding the structure of business valuation is only a starting point in assessing its overall quality. Therefore, this study is just an initiation of a more robust dive into the topic. While we believe the results of this study have significant importance to the entire industry, we would like to remind the readers that just a fraction of our findings and impressions from the time-consuming content analysis could be communicated through charts and figures at this point.

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