

Business Valuation Process & Algorithm

BIZEQUITY WHITEPAPER

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The BizEquity Business Valuation Process and Algorithm

The patented “BizEquity Online System and Valuation in the Cloud Service” represents an innovative step forward towards the “democratization” of financial knowledge for all small and midsize businesses through its proprietary business valuation online system and service.

Based on an investment of more than \$8 million and over 400,000 man hours of development effort during a seven year period, BizEquity has created an operating system and cloud-based platform for doing business valuations on private companies located around the globe. In support of this effort, BizEquity has filed over 61 patents and inventions, and has been granted 7 patents currently. It streams data from multiple data sources for use within its patented business valuation algorithm. Referred to as “VaaS” or “Valuation as a Service”, the many unique features of this system include:

Key Process and Algorithm Attributes

1. Use of business valuation “best practices” and based on generally accepted business valuation principles and procedures. The BizEquity model incorporates methods from each major valuation approach (income, asset and market) and utilizes market data (comparable sales), financial data (benchmarking) and industry data (risk assessment) from a diverse, growing and global collection of resources.
2. Designed by leading business valuation practitioners with decades of experience in valuing privately-held companies. Rigorous testing and constant monitoring of value estimates ensure consistently reliable estimates.
3. Proprietary valuation algorithm created in order to value businesses of all types and sizes around the globe, featuring a unique blend of a “return on owner’s labor” perspective based on “seller’s discretionary earnings” (preferred metric for valuing smaller, tax efficient businesses) and a “return on investment” perspective based on a discounted cash flow paradigm. It is unique in its hybrid approach in its proportion based utilization of DCF if the company valued is a growth company and its proportion based utilization of SDE if a more traditional tax efficient business being valued.
4. Technology platform and service unrivaled in the world which feeds off of primary and secondary data sources in as close to real-time as possible. Leverages Big Data technologies and a flexible architecture to seamlessly integrate third party tools and partner technologies in an open API environment.
5. Valuation results which are based on user-generated data gathered through a 7-step process which captures firm-specific attributes (both qualitative and quantitative) that are compared to relevant peer companies and industries from our database of more than 30 million privately-owned businesses in the US, UK and Singapore.
6. Estimates of value are based on current industry-specific benchmarking comparisons and actual historical “real world” and “size-adjusted” transaction multiples from dozens of data sources including those most commonly used by professional business appraisers.
7. Overall, BizEquity has gathered financial and operational data for more than 29 million private businesses and several hundreds of thousands of market-based “deal multiples” from throughout the world. In addition, our

system has garnered more than 1.2 million pieces of data in the form of algorithm hits, making us the largest real-time database of primary and curated comparables.

8. Generates a dozen Key Performance Indicators (KPI's) and four distinct estimates of fair market value including asset sale value, equity value, enterprise value and liquidation value.

Introduction to the BizEquity Valuation Process

A business valuation is an investigation into the law of probabilities with respect to business value. Revenue Ruling 59-60 (in Section 3, "Approach to Valuation") recognizes the fact that appraising is not an exact science: "[a] sound valuation will be based upon all the relevant facts, but the element of common sense, informed judgment and reasonableness must enter into the process of weighing those facts and determining their aggregate significance".

Based on years of investment, testing and improving the BizEquity algorithm, we are able to project the activities of buyers and sellers in the marketplace into an estimation of fair market value. In reaching a conclusion, comparison of businesses usually involves adjustments due to the individuality and uniqueness of each business.

The full spectrum of potential normalization process is vast, but for classification purposes the following categories capture the majority of such adjustments and are accounted for within the BizEquity valuation process:

1. Officer/Owner, Shareholder or Family Member Compensation
2. Unusual, Nonessential or Nonrecurring Events
3. Non-Operating Asset-Related Expenses and Revenues

According to Ray Miles, founder of the Institute of Business Appraisers and author of "Basic Business Appraisal", the term "Economic Financial Statements" refers to financial statements whose nature and content reflect the appraiser's viewpoint toward a business that is being appraised. Mr. Miles points out that the "accountant's" financial statements reflect certain other viewpoints including:

1. Tax-related orientation, specifically with a view towards minimizing taxes payable
2. A high degree of conservatism
3. Basically a historical orientation

The economic financial statements, on the other hand, have the primary purpose of "providing the appraiser or other user with an understanding of the financial aspects of the business to aid in estimating its value", i.e. they are geared towards financial benefits as opposed to net income and "fair market value" as opposed to "book value". The aforementioned "normalization adjustments" are fully captured via the BizEquity system, adding greatly to the credibility of the algorithm and the calculation of SDE.

A business valuation opinion or estimate of value cannot be guaranteed, nor can it be proven. The opinion of value can, however, be substantiated and the final opinion is the result of a thorough professional analysis of a large amount of data. A valuation must not be considered absolute but should be used as a basis of negotiations between concerned parties, whatever their interests.

Similar to the work of professional business appraisers, the valuation process as followed in the preparation of the BizEquity report is an orderly procedure for arriving at an estimate of value. Once the data has been collected, a systematic approach is taken to analyzing the data and selecting appropriate valuation methodologies.

There are three generally accepted approaches to determining the value of any asset:

1. The market data approach, which values the business based on current sales in the marketplace for the same or similar business. Many professionals believe that the market data approach will always yield the most accurate results. It is a true representation of the current marketplace because it is what the market is paying for the same or similar asset. However, using public or private comparable sales price-to-earnings or income-to-sales ratios requires the proper identification of “comps”. The market data approach can be very useful when analyzing data drawn from the market as to what “Price to SDE” or “Price to Revenue” ratios that buyers are willing to pay in order to purchase a certain type of business. Use of the market approach has increased over time due to important improvements involving the quantity and quality of “market comp data” and new insights into proper technique. This approach is the most pragmatic of all, especially when the goal is to estimate a firm’s “fair market value”. It has long been favored by the IRS and is increasingly accepted within the court system (if properly implemented, of course). Fair value accounting places a premium on the use of “market comps” when properly utilized. BizEquity is unique among the valuation world due to the ability to access virtually all of the known available sources of market transaction data around the world.
2. The income approach, which is a financial analysis consisting of discounting, capitalizing or “multiplying” an income stream based on the cost of money and a risk rate that reflects current market conditions. The income approach is especially meaningful if assets are used to produce income, such as in the valuation of a business. As noted, BizEquity relies on multiple measures of income in reaching a conclusion of value.
3. The cost or asset approach, which considers the cost of purchasing or producing the business. In considering the cost approach, it is noted that the cost of something does not necessarily determine its value or selling price. This is true in a rapidly changing market, which is highly affected by technological changes or variances in supply and demand. This is especially true if a company is very young and has not yet established enough of a track record to make a confident analysis of the future performance.

The end goal is a supported conclusion that reflects all major influences on the value of the company being appraised. The various valuation approaches are interrelated, and each involves gathering and analyzing specific pieces of data relating to the company being analyzed. To complete the valuation process, the BizEquity system integrates the information drawn from market research, analysis of data, and from different valuation techniques to form a conclusion. This conclusion may be an estimate of value or a range in which the value may fall, with the BizEquity report providing four different “types of value” in the form of point estimates.

Principles of Valuation

Every valuation method and technique must comply with and is limited to the following principles if the final results are to be considered significant.

Principle 1

What a reasonable buyer will pay a reasonable seller. The term “reasonable” in this context is used in the economic sense. The buyer and seller are each assumed to be comparing alternative investments and when the economic incentive to purchase is equal to the economic incentive to sell, a deal is made.

Principle 2

For valuation purposes, a business is defined as an organized method of producing revenues routinely over a period of time.

The value of a business is generally divided into two (2) components:

1. The asset value represents the value of machinery, equipment, buildings and land, usable stock and other legal rights.
2. The business value or goodwill value of a business represents the premium value a buyer will pay the seller for organization and historically recorded cash flows.

Additionally, when comparing alternative investments, there is no economic incentive to invest capital in a business which has not or is realistically not capable of producing a net income in excess of the operator's salary plus a reasonable return on investment.

Principle 3

Accuracy depends upon the standard use of terms, methods, and disclosure of information. The BizEquity report is only as good as the data it is based upon. The online interface prompts users to make adjustments for minor mistakes in judgment or interpretation of questions; however, accounting or financial data is generally taken at face value.

Principle 4

All estimated values are limited by time. Any business value estimate is subject to change as the market conditions change. Therefore, the value conclusion is valid only for a short time relative to the size and scale of a given business, in a given industry, and in a given market.

More about the BizEquity Approach

Mirroring the processes utilized by professional appraisers, the BizEquity valuation process commences with the gathering or “imputing” of as many as 150 different data fields throughout the 7-Step online framework. Up to 3 years of historical and/or projected financial data related to revenues, expenses, profits, assets and liabilities is gathered in a format designed to facilitate the application of valuation methodologies from the three major valuation approaches and to provide the information needed to produce four estimates of value, formatted financial statements (income statement and balance sheet) and a series of 19 different key performance indicators or KPI's.

Key Performance Indicators

The diverse array of data entered by the user allows for meaningful comparisons and benchmarking from both a valuation and operational performance perspective. Each individual piece of data plays a role in determining the magnitude of key valuation metrics ranging from the amount of profits and the profit margin to the relevant size, growth and risk-adjusted multiples. Using dozens of professional data sources (far more than what the typical business appraiser could access) which are continuously updated, the user is guaranteed a valuation report which is based on an unprecedented compilation of industry data.

The system gathers data entered by the user from financial statements or tax returns which are processed for both valuation and KPI purposes. The various KPI's address the major financial areas of liquidity, solvency, activity and profitability with comparisons made to refined peer groups or industry cohorts of similar size. The subject firm's KPI's are then classified as below, near or above the industry norm, providing valuable insight into historical operations. Certain KPIs such as the cash flow to revenues margin play a major role in directly affecting business value.

All KPI's are calculated based on the analysis of company-specific data entered by the user and compared to various industry-specific averages and quartiles reflecting the market dynamics of literally millions of other businesses. These KPI's are useful measures of the overall financial and operational health and growth of the business and they should be checked regularly in order to identify meaningful trends or "red flags" which require corrective action. These same measures are commonly utilized not only by business appraisers, but also by business coaches, financial professionals and potential business acquirers in a variety of real world settings.

Overall, BizEquity has gathered financial and operational data for more than 29 million private businesses and several hundreds of thousands of market-based "deal multiples" from throughout the world. In addition, our system has garnered more than 1.2 million pieces of data in the form of algorithm hits, making us the largest real-time database of primary and curated comparables.

Hybrid Model Featuring Both SDE and DCF Components

Specifically, the proprietary algorithm incorporates the all-important financial metric known as "seller's discretionary earnings" as well as a forward looking variant of "net cash flows to invested capital" and discounted cash flow analysis. This dual paradigm is necessary in order to properly value both the typical owner-operated business on "Main Street" and the less common "high tech or high growth" enterprise. The algorithm also distinguishes between smaller, single owner-dependent businesses and larger, middle-market businesses with layers of management, i.e. a distinction is made between a "return on owner's labor" perspective and a "return on investment" perspective. In the former case, owner compensation is a "financial benefit" available to the hypothetical buyer whereas management compensation in the latter case is a "financial cost" to the hypothetical buyer.

For the majority of businesses, the BizEquity valuation methodology revolves around the firm's (owner's) ability to generate "discretionary earnings" within a "return on owner's labor" context, i.e. those cash flows remaining for the benefit of the primary owner-operator after all expenses and normalization adjustments have been addressed through the 7-step process. As noted, larger companies are treated differently to reflect the differential between the treatment of owner compensation as a financial benefit or a financial cost.

Known commonly as ‘seller’s discretionary earnings” or SDE, this precise and generally accepted measure of income is commonly utilized by both business appraisers and business brokers for estimating business value. Also referred to as “adjusted cash flow” or simply “discretionary earnings”, SDE is calculated as the sum of pretax income and a series of addbacks such as owner’s salary and payroll taxes, owner’s perks, depreciation and amortization expense, interest expense and any one-time, non-recurring expenses (as elaborated upon in earlier sections).

Not only is SDE utilized directly within the income approach by way of a “risk-adjusted multiple or capitalization rate”, it is also used indirectly in both rules of thumb and with market comparable sales data. The BizEquity system encompasses all of these uses with an emphasis on market-based multiples which are adjusted to reflect size, profitability and growth (among other factors captured through the use of online “sliders” related to customer concentration, importance of owner, etc.).

The major market comp databases present the historical transactions based in large part on “price to SDE” multiples, making this measure “required” for most valuation assignments wherein the “return on owner’s labor” perspective is at hand (as opposed to the “return on investment” perspective associated with larger, middle-market firms).

As a necessary compliment to the use of revenue and SDE multiples within the income and market approaches, the BizEquity system also identifies and treats uniquely various high tech and high growth industries. In addition, companies which are generating or are expected to generate high profit margins and high rates of growth are also treated uniquely Vis a Vis our discounted cash flow modeling.

The BizEquity Valuation Report

After the user has finished the 7-Step process, the BizEquity Business Valuation Report is generated in real-time and can be downloaded immediately. The 29 page report incorporates the following sections:

Contents		Sample Report
About Your Valuation Report	2	
About Business Valuation	3	
BizEquity Methodology	5	
Your Valuation	6	
Financial Summary	7	
Key Performance Indicator Overview	9	
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Value Map	25	
About BizEquity	26	
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Besides the KPI's and four estimates of value, the written report also addresses the BizEquity methodology and introduces the user to a "Value Map" which illustrates the importance of size and growth in determining business value.

Through the procedure of “Discover, Monitor and Optimize”, entrepreneurs are urged to take a proactive position with respect to understanding and influencing the value of their most valuable asset.

The “Heart” of the Valuation Report: Four Estimates of Value

The “heart” of the valuation report is the four distinct estimates of value that are provided to the user. Different situations require knowledge of different types of value and the BizEquity algorithm has been constructed to be able to produce the most important types of value including the asset sale value and the equity value. Both enterprise value and liquidation value are also relevant in select circumstances, but understanding the difference between an asset sale value and an equity value is key to effectively interpreting and utilizing estimates of value.

Asset Sale versus Equity Sale

When valuing the entire company (100% control interest), it is typically necessary to distinguish between the value of “assets” (asset sale) and the value of “equity” (stock sale). In practice, owner-operated businesses are either sold on an “asset sale basis” or on a “stock sale” basis with the purchase agreement reflecting the unique aspects of each scenario. A variety of factors will determine the chosen mode of sale, with buyer and seller negotiating price and an array of other “terms and conditions” including the type of sale. Other “value types” exist such as enterprise value and liquidation value, but it is the asset sale and equity sale framework which accompanies actual business transactions.

The majority of smaller, owner-operated private firms are sold as asset sales while the majority of middle-market transactions involve the sale of equity. The “asset sale” value will always differ from the “stock sale” value due to the specific group of assets and liabilities that are included or excluded in each format. Business brokers and owners most commonly value businesses under the “asset sale” scenario through multiples of discretionary earnings while valuations for divorce or estate taxes or a middle-market merger will typically be based on the “equity sale” scenario.

In general, the goals of the buyer and seller are typically at odds with respect to the choice of deal structure. The rationale for selecting one over the other is complex and worthy of legal and tax advice.

The seller prefers a “stock sale” due to application of capital gains tax (sale price versus current “basis” in stock) rather than combination of capital gains and higher ordinary income tax rates. The buyer prefers an “asset sale” due to the avoidance of liabilities (known and unknown) and the ability to re-depreciate the fixed assets based on the “allocation of purchase price” per IRS Form 8594.

In some cases, licenses, contracts, or other key rights that belong to the corporation and cannot be easily transferred will dictate the use of a stock sale so that key rights remain with the new owner. For example, a corporation with a hard to obtain FDA license would likely be structured as a stock sale so that the FDA license is maintained by the corporation and transferred to the new owner(s).

The general differences between the asset and equity transaction structure are summarized next.

Asset Sale

Includes ONLY inventory/supplies, fixed assets and all intangible assets. Excludes all liquid financial assets and all liabilities. Buyer operates from newly formed legal entity.

Equity Sale

Includes the assets listed above PLUS liquid financial assets LESS all liabilities (ST/LT). Involves the full transfer of the legal entity including current tax attributes.

Enterprise Value

In middle-market transactions, it is also helpful to distinguish between equity value and enterprise value. Enterprise value is a reflection of the firm's value as a functioning entity and it is helpful in that it facilitates the comparison of companies with varying levels of debt.

Which Business Value Conclusion is Most Important?

The answer to this question depends chiefly upon the purpose for the valuation engagement. If you are negotiating the sale/purchase of a business via an asset sale, then it is the asset value which is most relevant. If you are filing an estate/gift tax return, it is the equity value which is most important. When evaluating middle-market companies for M&A purposes, both equity and enterprise value will be useful. If your business is rapidly deteriorating and you are contemplating a reorganization, then liquidation value may be of most relevance.