Methods for Valuing Customer Relationships: Use of the Multi-Period Excess Earnings Method or the Distributor Method?

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The income approach is a common approach used in the valuation of customer-related intangible assets. Within the income approach, the multi-period excess earnings method is a common method to value customer relationships. In recent years, valuation analysts have used the distributor method, also an income-based approach, as an alternative method to valuing the customer relationship intangible asset. This discussion describes the two valuation methods and provides guidance on the appropriate use of each method.

INTRODUCTION

Companies may devote significant human and financial resources to develop, maintain, and upgrade their customer relationships. More broadly, customer-related intangible assets consist of the information collected from repeat transactions, with or without underlying contracts. Companies can lease, sell, buy, or otherwise trade such information, generally organized as customer lists or customer databases.

Although customer lists are often sold, licensed, or rented, there are relatively few transactional reasons for analyzing customer intangible assets. Customer intangible assets are typically sold as part of a going-concern business enterprise. This is because it is unusual for the owner/operator to sell the customer relationships outright and then continue to operate the business without the established customer relationships.

Therefore, there are relatively few fee simple interest sales of customer relationship assets between a willing buyer and seller. The owner/operator either uses its customer relationships or sells the business including the relationships to a new owner/operator. As such, valuation analysts may be called on to value customer relationships for financial accounting, taxation, or litigation purposes.

The analyst may need to value customer relationships for the following purposes:

1. Financial accounting, which may arise in acquisition accounting, impairment testing, and fresh start accounting
2. Tax planning and compliance, which may include cancellation of debt income solvency analysis, transfer price analysis, property tax value of exempt or taxable intangible assets, and valuation of intangible assets to establish the tax basis of assets contributed in a formation or the gain/loss on assets distributed in a dissolution
3. Forensic and litigation reasons, such as lost profit or economic damages related to a breach of customer or supplier contract or noncompetition agreement; family law disputes; shareholder disputes; condemnation or eminent domain actions; or income, gift, estate, or property tax disputes

All three generally accepted valuation approaches (cost, market, and income) may be applicable in
the valuation of customer-related intangible assets. Based on the type of customer-related intangible asset and the purpose of the valuation analysis, some valuation approaches and methods may be more applicable than others.

The income approach is a common approach used in the valuation of customer-related intangible assets. Within the income approach, the methods typically used to value customer relationships include the multi-period excess earnings method (MPEEM) and the distributor method (DM). While the MPEEM is a common method used to value customer relationships, the DM has been recognized in recent years as an alternative method.

This discussion summarizes the use of the MPEEM and the DM in the customer relationship valuation and the strengths and weaknesses of each method. Considering the MPEEM and the DM, the analyst may select all appropriate methods for valuing the customer relationship asset based on the facts and circumstances of the subject asset and the availability of required data.

**COMMON ELEMENTS OF CUSTOMER RELATIONSHIPS**

When determining if a customer relationship asset exists, the analyst should consider several elements that create that intangible asset.

**Information**

For a customer relationship asset to exist, it should have an informational component, or factual information about the customer that is important and useful to the company.

This information may include such attributes as name, address, telephone number, email address, social security number, customer account number, credit rating, insurance information, or other third-party payer information. It may also include account information, date of first and last purchase, accounts receivable balance, trends, the amounts purchased (last year, greatest, etc.), customer payment record, and other account information.

Further, the informational element may include information relating to the customer’s purchase preferences, frequency, seasonality, trends, purchase responses to sales, promotions, solicitations, and price changes, and purchase responses to new offerings. It takes time and money to assemble, maintain, and use the customer account information. The company maintains this information in order to manage its customer relationships and motivate its customers to continue purchasing the goods or services offered by the company.

**Expectation**

The company has the expectation of repeat patronage from its customers based on the customers’ historical purchase activity, which creates value for customer-related intangible assets. This expectation translates into the expectation of future revenue, income, and cash flow.

Customer contracts formally codify the expectation of future transactions from customer relationships. Even in the absence of contracts, companies will seek to build on past interactions with customers in order to sell them products and services in the future.

There are two traits of repeat patronage that are important in valuing customer relationships. First, every customer contact will not lead to an expectation of repeat patronage. For example, the quality of interaction with a walk-in retail customer is typically not considered adequate enough to lead to reliable expectations of recurring business.

Second, even when adequate information is present, not all expected repeat patronage may be attributable to customer-related intangible assets. This is because some companies may operate in monopolistic or near-monopolistic industries, where repeat business can be directly attributable to a deficient availability of acceptable alternatives to the company’s products or services.

In addition, recurring patronage may also be more appropriately attributable to the strength of the company’s trade names or brands. However, typically, if the company continues to provide satisfactory products or services and use the customer information effectively, it may expect reasonable continued patronage.

**Lifespan**

Customer-related intangible assets create value over a finite period of time. Without efforts to continually reinforce the customer relationship, customer lists will decrease over time due to customer mortality, the effects of competition, or the emergence of alternate products and services. In addition, the concept of present value further erodes the economic benefits of sales to existing customers in the distant future.

As a result, customer relationships are assets whose economic value decreases with the passage of time.

**Dependence**

Customer-related intangible assets are often dependent on the existence of several other assets.
to generate value for the company. Typically, most assets of a company, including fixed assets and intellectual property, are essential in creating products or providing services to its customers. Through the sale of the products or services, the company is able to develop relationships and collect information from its customers.

Consequently, the value of the customer relationships depends on the company's ability to sell products and services in the future. As a result, in order for companies to extract value from customer-related intangible assets, they must have other assets in place.

**Components**
The customer base is the sum of the (1) customer list, (2) customer account information, and (3) expected future business with the customer. The customer list, which typically includes just the customer name or identification and contact information, is a tangible component of the customer base and the physical manifestation of the intangible asset. Companies may rent or license customer lists for noncompeting purposes.

The customer account information component, typically contained within a database, includes purchase history and trends, as well as customer preferences and responses to promotions. This information allows the company to maintain and develop a relationship with the customer. This information typically has a greater value-in-use than value-in-exchange to the company.

Expected future business that the company anticipates with the customer is a function of the age and expected remaining useful life of the relationship. The customer's purchase history and the company's ability to influence the customer's future purchases also influence the expected future business component. Customer relationship value depends significantly on this component of the customer base.

The customer base typically includes all of the existing customers as of the valuation date. For some purposes, the analyst may define the customer base as both the current customer relationships with a finite life and the goodwill component of future relationships (all expected future customer relationships from new customers replacing current customers as they retire).

Some customers may enter into specific contracts with the company. Many types of customers do not enter into contracts but typically continue to do business with the company as long as they are satisfied. The company expects the satisfied customer to continue purchasing goods or services. For example, although a physician does not have a contract with the patient, he expects the patient to return to his office when the patient needs medical care. This intangible asset is typically called the "customer relationship asset."

Order or production backlogs are also considered to be customer-related intangible assets. While a customer list can be sold or exploited, an order backlog or a contract has a confirmed income stream associated with it.

In the customer relationship analysis, it is important to determine if the subject is a single customer, the sum of all individual customers, or the assembled collection of all customer relationships. Customers are typically categorized by the type of product or service they buy. Commonly, customers of the same type or in the same industry will be influenced by similar factors, exhibit similar consumption patterns, have similar risk factors, and be similarly affected by competitive influences.

**Factors to Consider in the Valuation of Customer Relationships**

Although all three generally accepted approaches may be used in the valuation of a customer relationship intangible asset, some may be more applicable than others.

The cost approach is frequently used to value customer databases or related intangible assets and to estimate the informational content value of the customer or customer database. However, the cost approach may not be feasible if replacement or recreation periods for an asset are long. This approach does not value the business expectation value of the customer relationship. Thus, it is used infrequently in valuing customer relationship assets.

The market approach may generally be used to value customer lists because there are sufficient data regarding the sale or license of customer lists. However, the analyst should note that these transactions provide data regarding the rental or sale of the customer lists for noncompetitive purposes, and that companies continue to own their customer relationships.

Further, intangible assets are typically unique and are frequently sold with other components of a business enterprise. Therefore, the market approach is frequently untenable in the valuation of customer relationship intangibles due to lack of transactional data for sufficiently comparable assets.

Therefore, the income approach is frequently used to estimate the value of customer-related
intangible assets. When valuing intangible assets using an income approach, the analyst typically selects an appropriate valuation method for each of the assets based on its characteristics and significance in generating revenue for the company.

The income approach methods commonly used to value customer relationship intangible assets are as follows:

- Multi-period excess earnings method
- Distributor method
- Relief from royalty method
- “With and without” method
- Greenfield method
- Differential cash flow method

Generally, the primary asset of a company is valued using the MPEEM, while a secondary intangible asset is valued using one of the other methods. The majority of acquired, going-concern companies own at least one asset that would be expected to be valued using the MPEEM.

The asset most responsible for the revenue and income-generating ability of a company is generally considered a primary asset. The primary asset often varies depending on the nature of a company and its industry. The primary asset of most service businesses is their customer relationships.

However, customer relationships are an important intangible asset for companies in many different industries. Customer-related intangible assets are a common type of intangible personal property. This is because nearly every company has recurring customer relationships.

**Multi-Period Excess Earnings Method**

The MPEEM is commonly used to value the primary income-generating asset of a company or of a segment of a company. The MPEEM estimates value based on the expected future excess earnings stream attributable to a particular asset. Typical intangible assets identified as primary income-generating assets include customer-related intangible assets and other so-called “enabling intangible assets.”

**Application of the MPEEM**

In the MPEEM, the analyst estimates revenue and cash flow derived from the subject intangible asset, such as customer relationships, and then deducts portions of the cash flow that can be attributed to supporting, or contributory, assets. These contributory assets include trademarks and trade names or tangible assets that contributed to the generation of such cash flow. The resulting excess cash flow attributable to the subject asset is then discounted at a rate of return commensurate with the risk of the subject asset.

In applying the MPEEM, the analyst should perform the following procedures:

- Identify the asset(s) to be valued
- Identify the stream of revenue associated with the subject asset
- Estimate attrition rates for the subject asset
- Estimate expenses and cash flow associated with the subject asset
- Estimate and deduct contributory asset charges
- Estimate the rate of return for the subject asset
- Discount the remaining cash flow to present value
- Add any tax amortization benefit, if applicable

The analyst should identify the expected lifespan, or the remaining economic life of the subject asset. The analyst also should identify the revenue stream, or the cash flow, associated with the particular group of assets (including the subject asset and any contributory assets necessary to support the earnings associated with the subject asset), over the expected lifespan of the subject asset. This future revenue stream and cash flow are most commonly estimated using prospective financial information (PFI) prepared by company management.

For intangible asset valuations prepared for fair value accounting purposes only, the analysis should rely on market participant assumptions. Further, the analyst should consider that the appropriate growth rate to use for the revenue associated with the subject asset may be different than the consolidated company growth rate and may require stratification based on the customer mix or product mix.

**Attrition**

When valuing customer-related assets using the MPEEM, the analyst should identify the portion of revenue expected to be generated through repeat customers existing as of the valuation date. The estimated future revenue is derived from the revenue per customer and the number of retained customers. Because customer relationship assets
derive value within a finite period, the number of customers providing repeat business is expected to decrease over time.

Attrition is the measurement of the rate of decay or loss of existing customers. The analyst may have to conduct statistical analysis of historical customer turnover and revenue growth rates to estimate the expected attrition. However, historical customer data may not be available and the analyst may have to rely on management estimates or industry data to develop customer attrition rates. Once estimated, the attrition rate or factor is then applied to the projected revenue stream in order to separate the revenue into existing and future customer revenue.

There are two factors that may affect attrition: inherent advantage and the nature of the business.

An inherent advantage exists when a customer gains a specific advantage in purchasing one company's products or services over another (e.g., if a company has a unique product or there are high switching costs). Further, the company business model may be the principle driver of customer retention. For example, companies working on an engagement basis over long periods of time typically have lower attrition rates than companies without stable recurring revenue generating customer relationships.

In addition, geographical reach, expected competitive environment, and the state of the industry may have an impact on customer attrition. If the company operates in an industry that is moving toward obsolescence, customer retention could potentially decrease. If competition is expected to increase, but the number of customers in the industry is not expected to increase significantly, customer retention can potentially decrease as well.

The type of analysis used to estimate the attrition rate may have a significant impact on the indicated attrition factors and the customer relationship value. In a constant rate attrition analysis, an attrition rate is identified for each period for which prior period customer purchase information is available. The analyst then concludes a single rate based on the attrition rates indicated for each period that is held constant throughout the remaining useful life of the subject customer relationship asset. This analysis focuses on the attrition of relationships or the revenue attributable to the relationships.

Although the constant rate attrition analysis requires only limited information about whether a customer made a purchase during each period, no distinction is made between customer relationships based on the size of the purchase or the age of the relationship.

Frequently, this factor may have a direct impact on the expected attrition rate and a significant impact on the customer relationship value. This is because revenue may be concentrated in a certain group and may not necessarily be reflected in the number of relationships that have been lost. For example, a company may lose only 2 customers but 20 percent of revenue, or on the contrary, lose 100 customers but only 1 percent of revenue.

An actuarial attrition analysis or a variable attrition rate analysis considers variations in attrition rates based on the age of the customer relationship. This analysis results in an indicated attrition rate for each relationship age. The use of this analysis typically requires at least five to seven years of purchase information to ascertain the relationship between age and attrition. The variation in attrition rates based on customer size can be incorporated in both the actuarial attrition analysis and the constant rate attrition analysis by focusing on revenue rather than on the customer relationships.

Once projected revenue attributable to the customer base existing as of the valuation date has been identified, the earnings can be estimated based on the expected profitability of the business. The analyst should consider only the operating costs relevant to the existing customer base from a market participant perspective.

Existing customer relationships may be more profitable than the company's average profitability or future customer relationships because the company may have to incur expenses in developing new customers.

Expected sales and marketing costs necessary to acquire new customers and company-specific cost synergies are not relevant and should not be considered in projecting the earnings from existing customers. Typically, it is expected that near-term revenue and earnings would be generated by the existing assets for most companies.

In addition, increases or decreases in working capital should not be deducted from the customer relationship cash flow. Further, backlog revenue should be subtracted from the customer relationship revenue after applying any attrition factors.

Contributory Assets

As discussed previously, there are other assets that need to be in place for companies to be able to extract value from customer-related assets. If the earnings from the customer relationship asset depend on other assets, the analyst needs to estimate the contributory asset charges to isolate the “excess” cash flow attributable to the customer relationship asset from the estimated earnings.
Possible contributory assets may include working capital; machinery, equipment, land, and buildings; assembled workforce; and other intangible assets, such as brand name, trademark, technology, and noncompete agreements. Excess assets, such as excess land or capacity, that do not contribute to the projected cash flow associated with the customer relationships should not be considered as contributory assets.

In order to estimate the contributory asset charges, the analyst should:
- identify and value all contributory assets,
- determine the revenue base,
- estimated the rate of return for each contributory asset, and
- subtract the earnings attributable to the contributory assets to estimate excess earnings attributable to the customer relationships.

Any costs associated with the other “supporting” assets that could contribute to the income from the customer relationship asset should be deducted. The amount that should be deducted is typically the alternative costs for the contributory assets or the income such assets would generate in a different use if they were not used in connection with the customer relationship asset.

In essence, the contributory asset charge represents the economic “rent,” or a charge equivalent to the return on and the return of, an asset necessary to produce the goods or services of the company. The analyst should, therefore, reduce the cash flow attributable to the customer relationship intangible asset by the required return on the contributory assets.

The contributory assets should be at market participant levels. In order to reflect market participant levels, the analyst may analyze the fundamentals of guideline publicly traded companies and industry peer group ratios, such as the working capital to sales ratio or fixed asset ratio.

To the extent that the projected cash flow reflects excess or deficit levels of contributory assets, the analyst should adjust the cash flow to reflect a normalized level. For example, if the company has negative or low working capital, but a market participant would need working capital as a contributory asset, the analyst may have to estimate a reasonable working capital charge based on the working capital of an industry peer group or guideline companies. The appropriate level of fixed assets should be determined for each year of the projection.

The required levels for some contributory assets, such as working capital, fixed assets, and workforce, are likely to scale with revenue. However, to estimate the contributory asset charge on the other intangible assets, such as trade name, the analyst may have to rely on an alternative valuation approach or method.

The return on and the return of assets used in the contributory asset charge should reflect the appropriate risk for each asset, with financing rates for the property and equipment and higher rates for intangible assets. The analyst should consider the level of debt and equity financing that can be obtained on an asset.

When more than one asset can be identified as a primary asset and the analyst chooses to apply a dual MPEEM to value both of the primary assets, there are several methods the analyst can use to estimate the contributory asset charges to be applied to both primary assets.

These methods include the hierarchy method, the cross-charge method, the partial separation method, and the separation method. However, to avoid using a dual MPEEM and the related contributory asset charge issues, the analyst may apply the MPEEM to one primary asset and an alternative valuation method, such as the relief from royalty method or the “with and without” method, to the other primary asset.

After adjusting the projected cash flow for contributory asset charges, the remaining “excess” cash flow is attributable to the customer relationship intangible asset. This “excess” cash flow is then discounted to a present value using an appropriate rate of return to estimate the market value of the customer relationship intangible asset. The analyst should determine whether a tax amortization benefit adjustment is appropriate in the analysis.

When estimating an appropriate discount rate, the analyst should consider the risk in the customer relationship asset. The analyst should consider such risk factors as switching costs, product/service differentiation, barriers to entry, level of customer purchasing power, customer concentration, and competitive rivalry.

The analyst should reconcile the internal rate of return with the discount rate as the reconciliation may highlight asset cost of capital issues, as well as allocation issues. If the internal rate of return exceeds the discount rate, there may be optimistic cash flow, unique synergies in the cash flow, or an inadequate risk assessment in the discount rate.

**Strengths and Weaknesses of the MPEEM**

There are several advantages and disadvantages in using the MPEEM to value the customer relationship...
intangible asset. Some of the advantages include the following:

- The MPEEM is useful as a check on the reasonableness of a purchase price allocation.
- The MPEEM allows analysts to understand the relationship between revenue and earnings generated by existing assets, as well as revenue and earnings attributable to unidentified assets.
- The MPEEM provides analysts with the ability to reconcile to the entity value and demonstrates that the calculation of contributory asset charges does not create or destroy the aggregate asset value.

There are also several disadvantages or challenges when relying on the MPEEM that the analyst should consider. These include the following:

- Reasonable remaining useful life may be difficult to estimate.
- The use of a finite remaining useful life for the customer relationships may significantly understate the value of the customer relationship intangible asset (effectively indicating that a thriving business will have no customer relationships in the future), thereby overstating the value of residual goodwill.
- The MPEEM is dependent on the reasonable estimation of expected cash flow.
- Future assets may also be included by management in estimating the expected cash flow and excess income.
- The value of cash flow beyond the projection period is not taken into consideration, as it is with a typical discounted cash flow analysis, due to attrition and the assumed finite remaining useful life of the intangible asset.
- Attrition rates may be difficult to estimate due to lack of historical data, erratic buying patterns, and difficulty in determining when a customer is considered to be lost.
- The MPEEM suffers from the inability to recognize all relevant going-concern components in the contributory assets charges.
- All “excess” income is attributed to an amortizable intangible asset and/or goodwill.
- When multiple intangible assets exist, “excess” income needs to be allocated amongst the intangible assets.

**Distributor Method**

The DM is not as commonly used as the MPEEM to value the customer relationship asset, even though the DM is simply one application of the MPEEM. The main theory behind the DM is that “a business is composed of various functional components (such as manufacturing, distribution, and intellectual property) and that market-based data may be used, if available, to reasonably isolate the revenue, earnings, and cash flow related to these functional areas.”

The DM assumes that the returns to a customer-related asset are comparable to the economic profits generated by a hypothetical intermediary (i.e., the distributor).

The DM is appropriate to use when another intangible asset (i.e., a technology or trademark) other than the customer relationship asset is determined to be the primary asset of the company, while the customer relationship asset is determined to be the secondary asset. The DM is used most frequently in valuations where the brand is the primary asset.

The DM is also appropriate to use when relevant market data is available. In the DM, a royalty rate is determined for the customer relationship asset based on the profit margins of comparable distribution companies operating in the same industry and applied in a MPEEM. The determination of the appropriate royalty rate includes a downward adjustment for contributory asset charges.

When a company has strong-branded and recognizable products, retailers and distributors (i.e., the company’s customers) want to sell the company’s products due to consumer demand, not due to the customers’ relationship with the company. The relationship with the distributors is based on the company’s ability to provide the desired products in a timely and efficient manner, analogous to the distributor’s relationship with its customers in providing the products in a timely manner.

The distributor’s operating margin reflects the importance of the intellectual property relative to the customer relationship. The distributor earns lower margins on more unique or proprietary products, which reduces the value generated by the customer relationship function. For products that are less unique, the customer relationship adds more value, which increases the distributor’s margins.

The initial inputs, revenue, growth, and attrition rates, used in the DM are similar to the inputs used in the MPEEM to value the customer relationships. After the initial inputs in the DM, the fundamentals (i.e., the margin and contributory asset charges) of a distributor in the same industry are applied to the resulting revenue stream associated with the customer relationship.
Since the margin and contributory asset charges are based on those of the distributor, the DM may be viewed as a profit split method. The margin of the distributor is already reduced by the cost of any other intellectual properties (e.g., technology and brands) captured within the distributor’s cost of goods sold.

Since the cost of other intellectual properties is already included in the distributor’s cost of goods sold, contributory asset charges should include only charges for working capital, tangible assets, and assembled workforce. These contributory asset charges are expected to be low for distributors.

Distributors often have rapid turnover in assets, thus reducing the amount of working capital requirement. Tangible asset requirements are also expected to be low. This is because distributors typically do not manufacture any products and, thus, do not own such capital assets. The contributory asset charge for assembled workforce is expected to be lower as well, as only the contributory asset charges on the employees involved in the sales and distribution need to be accounted for.

Exhibit 1 provides a simplified illustrative example of how the DM may be applied. To simplify the Exhibit 1 example, many of the valuation variables are unrealistically simple and are presented for illustrative purposes only. For example, the annual attrition rate and the remaining revenue percentage after annual attrition calculation is deliberately simplified compared to a typical customer relationship valuation.

On June 5, 2012, the Appraisal Practices Board (APB) issued a Discussion Draft of Best Practices for the Valuation of Customer-Related Assets. Following the Discussion Draft, the APB issued an Exposure Draft—The Valuation of Customer-Related Assets, on December 5, 2013. In the Discussion Draft and the Exposure Draft, the APB describes and explains the DM application.

The Discussion Draft also discusses several advantages to using the DM to value customer relationships, including the following:

- The DM uses market evidence (i.e., the profit margins of distributing companies in the same industry) to develop the expected return from customers.
- The use of the DM to value the customer relationship asset allows the use of the MPEEM to value the other intangible assets of the business (e.g., the technology or trademark) and avoids the challenges caused by multiple applications of the MPEEM, such as cross circular contributory asset charges.

- Using the distributor’s margin directly isolates the cash flow attributable to the customer relationship asset.

In response to the APB Discussion Draft, the Committee on Corporate Reporting (CCR) of Financial Executives International agrees that the DM should be an acceptable alternative method if information on comparable distribution companies is available. In fact, some analysts have argued that finding a suitable market proxy for the subject company may be challenging. This is because there are many different types of distributors with different business models.

Further, the DM is applicable to companies that sell directly to the end user. The method is not applicable for companies that sell primarily to distributors, particularly smaller companies that do not have the resources to support a supply chain that extends to end users.

Finally, the contributory asset charges used in the DM do not consider the possible existence of goodwill (e.g., reputation or market position of the distributor) or the existence of other intangible assets such as supplier relationships or preferential contracts that provide the distributor the right to sell certain products or to sell to specific territories.

**Conclusion**

There are a number of methods to value customer-related assets. In the past, the MPEEM was the common method to value customer relationships. However, in recent years, the DM has received attention as an acceptable alternative method in certain circumstances, to value customer relationship assets.

Both the MPEEM and the DM have strengths and limitations. Between the MPEEM and the DM, the selection of the best method for valuing the customer relationship asset will depend on the facts and circumstances specific to the asset being valued and the availability of market data.

**Note:**


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