Functional Analysis In The Intellectual Property Valuation, Damages, Or Transfer Price Measurement

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Introduction

Intellectual property owners and operators often need to know a value opinion, a damages measurement, or a transfer price determination regarding their intellectual property. Owners and operators may need to know these conclusions for transaction, taxation, licensing, financing, financial accounting, litigation, strategic planning, and other purposes. To develop these valuation, damages, or transfer price conclusions, owners and operators often retain, work with, and rely upon specialists who perform these analyses. Such specialists may include economists, forensic accountants, valuation analysts, licensing experts, industry consultants, and other professionals. For purposes of this discussion, these professionals are referred to collectively as "analysts."

In litigation matters, legal counsel may become involved with the intellectual property valuation, damages, or transfer price analysis. In financial accounting matters, independent accountants and regulatory auditors may become involved with the intellectual property analysis. In taxation matters, taxing authority and other government regulators may become involved in the intellectual property analysis. That is, many parties may be interested in the development of—and the conclusion of—the intellectual property valuation, damages, or transfer price analysis.

There are generally accepted approaches, methods, and procedures related to intellectual property valuation, damages, and transfer price analyses. These approaches and methods will be introduced in this discussion. However, a detailed discussion of such approaches and methods is beyond the scope of this discussion. Rather, this discussion will focus on one procedure that is an important component of a valuation analysis, a damages measurement, and a transfer price determination: the functional analysis. That is, this discussion will focus on the development of, documentation of, and reporting of the functional analysis as one component of the intellectual property analysis.

A functional analysis is one important component of a transfer price analysis. A functional analysis is one component of any transfer price analysis related to the intercompany transfer of tangible property, intangible property, or services. The typical intercompany transfer involves a transfer of property or services between entities that are under common control. Such entities are often referred to as related parties. Such entities are sometimes also referred to as associated parties. A typical example of entities that are under common control would be two wholly-owned subsidiaries (say, one domestic and one foreign) of the same multinational parent corporation. Such transfer price analyses may be performed for federal (for multinational taxpayers) or state (for multistate taxpayers) tax planning, compliance, or controversy purposes.

A functional analysis is often applied for purposes of assessing the comparability of the subject entity (*i.e.*, the intellectual property owner/operator) to selected guideline or benchmark entities. These selected guideline or benchmark entities could be comparable companies, securities, or properties (including tangible property and intangible property). Many observers immediately think of a functional analysis within the context of the allocation of income and deductions among taxpayers for federal income tax purposes. The performance of a functional analysis is relevant in that context. As will be described, the regulations related to Internal Revenue Code Section 482 explain the application of a functional analysis for purposes of determining reliability. And, the Organization for Economic Cooperation and Development (OECD) regulations describe the application of a functional analysis within the context of an intercompany transfer of tangible property or intangible property between two OECD countries. As will be discussed, a functional analysis is certainly relevant to an intercompany transfer price determination made for purposes of U.S. Internal Revenue Code Section 482 compliance (or OECD regulations compliance).

In addition to transfer price analysis, a functional analysis is also relevant within the context of a value estimation and a damages measurement. For purposes of this discussion, a value estimate includes the valuation of a subject entity owner/operator, tangible property, and intangible property (including intellectual property). Such a valuation may be developed for taxation planning, compliance, and controversy (*i.e.*, litigation) purposes. And, such taxation reasons may include income tax, gift tax, estate tax, property tax, or sales and use tax. In addition, such a valuation may be developed for transaction, financing, taxation, accounting, litigation, or other purposes. For purposes of this discussion, a damages measurement includes the quantification of economic damages related to business entities, business ownership interests, tangible property, and intangible property (including intellectual property). Such a damages measurement could relate to an injured party's damages sustained with regard to a tort claim or a breach of contract claim.

This discussion considers the following topics:

1. What is included as an intellectual property
2. What is included as an intangible property or intangible asset
3. What is (and what is not) a functional analysis
4. The reasons for the analyst to perform a functional analysis—within the context of a valuation, damages, or transfer price analysis
5. The functional analysis impact on valuation estimates
6. The functional analysis impact on damages measurements
7. The functional analysis impact on transfer price determinations
8. The 12 steps of a functional analysis
9. Who should perform the functional analysis
10. Documentation of the functional analysis

This discussion summarizes the principal considerations regarding a functional analysis within the context of developing an intellectual property valuation, damages, or transfer price opinion.

Intellectual Property Categories

For purposes of this discussion, intellectual property includes the following four categories of property: trademarks and trade names, patents, copyrights, and trade secrets. In the United States, trademarks and trade names, patents, and copyrights are protected by federal law. In the United states, trade secrets are usually protected by state law. Unless otherwise described, this discussion considers the fee simple interest—or the total bundle of legal rights—related to each intellectual property category. And, for purposes of this discussion, each intellectual property category includes the associated intangible property mentioned below.

Trademarks and Trade Names and Associated Intangible Property

This category of intellectual property includes the following:

- Trademarks
- Trade names
- Service marks
- Service names
- Logos
- Trade dress

In addition, third-party sales, licenses, and other transfers of trademarks often include the following related intangible property:

- Brand names
- Advertising programs
- Brochures and marketing materials
- Name-related goodwill

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Copyrights and Associated Intangible Property

This category of intellectual property includes copyrights related to the following:

- Literary works
- Musical works
- Dramatic works
- Pantomimes and choreographed works
- Pictorial, graphic, or sculptural works
- Motion pictures and audiovisual works
- Sound recordings
- Architectural works
- Computer software (including both object code and source code)

Third-party sales, licenses, and other transfers of copyrights may include the following types of associated intangible property:

- Engineering drawings
- Blueprints
- Manuals and procedures
- Training films

Patents and Associated Intangible Property

This category of intellectual property includes the following types of patents:

- Utility patents
- Design patents
- Plant patents
- Process/method patents

In addition, third-party sales, licenses, and other transfers of patents often include the following types of intangible property:

- Patent applications
- Technology sharing agreements
- Unpatented proprietary technology

- Regulatory approvals and licenses (*e.g.*, FDA approvals, OSHA approvals)
- Technology development rights
- Engineering drawings and designs
- Schematics and technical documentation

Trade Secrets and Associated Intangible Property

This fourth category of intellectual property includes the following trade secrets and related documentation:

- Customer information
- Books and records
- Product formulas and recipes
- Procedures and know-how
- Pricing and cost information
- Accounting documentation

To maintain their confidentiality, trade secrets are rarely licensed or otherwise transferred to third parties. However, when they are transferred, the trade secrets sales or other transfers may include the following types of associated intangible property:

- Employee training manuals
- Position or station manuals
- Safety and procedures manuals
- Process flow charts and product build charts or blueprints
- Facility operations diagrams or schematics

In addition to the above-mentioned intellectual property categories, there is a broader category of property that is typically called intangible property or intangible assets. The above-listed intellectual property categories would be considered a subset of intangible property or intangible assets. A functional analysis is typically a component of a valuation, damages, or transfer price analysis of both intellectual property and the broader category of intangible property.

Intangible Property Categories

In the United States, Internal Revenue Code Section 367 includes a description of the term intangible property. Section 367 may apply when a U.S. corporation transfers its intangible property in exchange for the stock of a foreign (usually subsidiary) corporation. Section 367(d) is titled "Special Rules Related to Transfers of Intangibles" and Section 367(d)(4) provides the following description of the term "Intangible Property":

(A) Patent, invention, formula, process, design, pattern, or know-how,

(B) Copyright, literary, musical, or artistic composition,

(C) Trademark, trade name, or brand name,

(D) Franchise, license, or contract,

(E) Method, program, system, procedure, campaign, survey, study, forecast, estimate, customer list, or technical data;,

(F) Goodwill, going concern value, or workforce in place (including its composition and terms and conditions (contractual or otherwise) of its employment; or

(G) Any item the value or potential value of which is not attributable to tangible property or the services of any individual.

Obviously, the Section 367(d) listing of intangible property includes, but is more comprehensive, than the four categories of intellectual property.

The regulations related to Section 482 also provide a listing of intangible property. Regulation 1.482-4 relates to "methods to determine taxable income in connection with a transfer of intangible property." The Regulation 1.482-4 listing of intangible property is similar to the Section 367(d) listing of intellectual property. And, the Regulation 1.482-4 listing is similar to the OECD listing of the type of property to be considered in the intercompany transfer of intangible property between OECD countries. Regulation 1.482-4(b) provides the following definition of intangible property:

For purposes of section 482, an intangible is an asset that comprises any of the following items and has substantial value independent of the services of any individual.

(1) Patents, inventions, formulae, processes, designs, patterns, or know-how;

(2) Copyrights and literary, musical, or artistic compositions;

(3) Trademarks, trade names, or brand names;

(4) Franchises, licenses, or contracts;

(5) Methods, programs, systems, procedures, campaigns, surveys, studies, forecasts, estimates, customer lists, or technical data; and

(6) Other similar items. For purposes of section 482, an item is considered similar to those listed in paragraph (b)(1) through (5) of this section if it derives its value not from its physical attributes but from its intellectual content or other intangible properties.

Obviously, the Regulation 1.482-4(b) listing of intangible property includes, but is not limited to, the four above-described categories of intellectual property.

In addition to taxation-related listings of intangible property, there are financial accounting listings of intangible assets. The word "property" is a legal term. The word "asset" is an accounting term. For purposes of this discussion, those two terms are considered to be synonymous.

The Financial Accounting Standards Board (FASB) provides a listing of identifiable intangible assets in its Accounting Standards Codification (ASC) Topic 805. ASC Topic 805 is entitled "Business Combinations" and it provides the U.S. generally accepted accounting principles (GAAP) guidance for the acquisition accounting for merger and acquisition transactions. ASC Topic 805-20-55 provides the following categories of identifiable intangible assets that may be recognized in the acquisition accounting for a business combination:

- Marketing-related intangible assets
- Customer-related intangible assets
- Artistic intangible assets
- Contract-related intangible assets
- Technology-related intangible assets

ASC Topics 805-20-55-14 through 19 provide the following examples of marketing-related intangible assets:

- Newspaper mastheads
- Trademarks, service marks, trade names, collective marks, and certification marks
- Trade dress
- Internet domain names
- Noncompetition agreements

ASC Topics 805-20-55-20 through 28 provide the following examples of customer-related intangible assets:

- Customer lists
- Customer contracts and related customer relationships
- Noncontractual customer relationships
- Order or production backlogs

ASC Topic 805-20-55-29 provides the following examples of artistic-related intangible assets:

- Plays, operas, ballets
- Books, magazines, newspaper, and other literary works
- Musical works such as composition, song lyrics, and advertising jingles
- Photographs, drawings, and clip art
- Audiovisual material, including motion pictures, music videos, television programs

ASC Topics 805-20-55-31 through 37 provide the following examples of contract-based intangible assets:

- License, royalty, standstill agreements
- Advertising contracts
- Lease agreements
- Construction permits
- Construction contracts
- Construction management, service, or supply contracts
- Broadcast rights
- Franchise rights
- Operating rights
- Use rights
- Servicing contracts
- Employment contracts

And, ASC Topic 805-20-55-38 provides the following examples of technology-based intangible assets:

- Patented or copyright software
- Mask works
- Unpatented technology
- Databases
- Trade secrets

The International Financial Reporting Standards (IFRS) include International Accounting Standard (IAS) 38 "Intangible Assets." IAS 38 provides the criteria for the international GAAP recognition of—and measurement of—intangible assets. The IFRS also includes IFRS 3 "Business Combinations." IFRS 3 provides the international GAAP guidance for the acquisition accounting related to merger and acquisition transactions. IFRS 3 provides a listing of the identifiable intangible assets that may be recognized in the acquisition accounting for a business combination. That IFRS 3 listing of identifiable intangible assets is identical to the FASB ASC Topic 805 listing.

The FASB listing and the IFRS listing of intangible assets include, but are not limited to, the above-described four categories of intellectual property. The purpose of presenting these listings is to indicate that all of these intellectual property assets and the associated intangible property assets are subject to valuation, damages, or transfer price analysis—for taxation, accounting, and other purposes. And, all of these intellectual property (and intangible property) analyses incorporate the functional analysis component.

What is Functional Analysis?

As mentioned above, many observers initially think of a functional analysis within the context of an intercompany transfer price determination between the controlled entities of a taxpayer (often a multinational taxpayer) for Section 482 (or for OECD) compliance purposes. While there are broader applications of a functional analysis, the Section 482 (and the corresponding OECD) regulations do provide a definition of a functional analysis that is generally applicable for this discussion.

Regulation 1.482-1(d)(3)(i) relates to comparability issues related to the allocation of income and deductions among taxpayers. Specifically, this regulation section deals with the factors for determining comparability of transactions and companies. This regulation section describes a functional analysis as follows:

> (i) Functional analysis. Determining the degree of comparability between controlled and uncontrolled transactions requires a comparison of the functions performed, and associated resources employed, by the taxpayers in each transaction. This comparison is based on a functional analysis that identifies and compares the economically significant activities undertaken, or to be undertaken, by the taxpayers in both controlled and uncontrolled transactions. A functional analysis should also include consideration of the resources that are employed, or to be employed, in conjunction with the activities undertaken, including consideration of the type of assets used, such as plant and equipment, or the use of valuable intangibles. A functional analysis is not a pricing method and does not itself determine the arm's-length result for the controlled transaction under review. Functions that may need to be accounted for in determining the comparability of two transactions include:
>
> (A) Research and development;
>
> (B) Product design and engineering;
>
> (C) Manufacturing, production, and process engineering;
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> (D) Product fabrication, extraction, and assembly;
>
> (E) Purchasing and materials management;
>
> (F) Marketing and distribution functions, including inventory management, warranty administration, and advertising activities;
>
> (G) Transportation and warehousing; and
>
> (H) Managerial, legal, accounting and finance, credit and collection, training and personal management services.

While this regulation section lists eight functions, it does not imply that the eight-item list is exhaustive. Rather, the regulation section indicates that the factors to consider *include* the eight listed functions. In addition, the regulation does not imply that the eight listed factors cannot be disaggregated or rearranged.

For the subject entity (*e.g.*, the intellectual property owner/operator), a functional analysis basically considers the following topics:

1. What products and services are offered to customers or clients (and how are those products and services designed or developed).
2. What is the source of supply of the materials, labor, and overhead that is needed to produce those products and services (including sourcing dependence and sourcing logistics issues).
3. How the products and services are manufactured or otherwise produced.
4. How the products and services are differentiated, promoted, priced, and sold (including advertising and branding issues).
5. How the inventory of products and services (including raw materials, work in process, and finished goods/services) are created, packaged, and stored;.
6. How the products and services are delivered (including shipping, transportation, and other delivery logistics issues);.
7. What assets are utilized to perform the functions within the business entity (including working capital assets, tangible assets, and intangible assets).
8. How profits are earned in the business enterprise (including the cost/volume/profit relationships with regard to both (a) production/service creation cost of sales and (b) production/service delivery revenue recognition);.
9. How the accounting, finance, human resources, management information, marketing, sales, and other administrative activities operate within the subject entity.
10. How the subject entity is organized, managed, and capitalized (legally and administratively), including both (a) the relationship between the entity owners and the entity operators/managers and (b) the relationship between the entity and its sources of capital.

There are various financial, competitive, and operational analyses that may be components of the functional analysis. There are also some types of financial, economic, and industry analysis that are not really components of the functional analysis. These considerations of what are components—and what are not components—of the functional analysis are summarized next.

Considerations That Are Components of the Functional Analysis

Exhibit 1, on page 227, presents a listing of the typical considerations in the performance of a functional analysis. This Exhibit 1 list is not intended to disagree with or to replace the eight factors listed in Regulation 1.482-1(d)(3)(i). Rather, the Exhibit 1 list of considerations is intended to expand on and to clarify the Regulation 1.482-1(d)(3)(i) list. Exhibit 1 is presented so as to serve as a checklist of functional analysis considerations for any analyst who is developing an intellectual property valuation, damages, or transfer price opinion.

Depending on the objective of the analysis, the Exhibit 1 considerations may be used to develop an understanding of the subject entity or intellectual property. The Exhibit 1 considerations may also be used to compare the functions performed, assets employed, and risks assumed between two controlled entities under common ownership. Also, the Exhibit 1 considerations may be used to compare the functions performed, assets employed, and risks assumed between a controlled transaction and an uncontrolled transaction—particularly within the context of an intercompany transfer price determination.

Considerations That Are Not Substitutes for a Functional Analysis

As Exhibit 1 implies, there may be many components to the assessment of the subject entity's functions performed, assets employed, or risks assumed. The following analyses may also be performed as part of an intellectual property valuation, damages, or transfer price analysis. And, the following analyses may be considered as a part of—or a component of—a functional analysis. However, the following analyses are not a substitute for a functional analysis of the subject entity or intellectual property:

1. Historical financial statement ratio or trendline analysis
2. State of the regional or national economy analysis
3. State of the subject industry analysis
4. Acquisition due diligence analysis
5. Quality of earnings analysis
6. SWOT analysis
7. History and description of the subject entity or intellectual property
8. Selection (and analysis) of guideline public companies or guideline merger and acquisition transactions or guideline license royalty rates

Each of the above analyses have a place in an intellectual property valuation, damages measurement, or transfer price analysis. However, each of the above analyses is different than a functional analysis of the subject intellectual property.

Reasons to Perform a Functional Analysis

Whether the analysis objective is an intellectual property value estimate, a damages measurement, or a transfer price determination, the reasons for conducting a functional analysis are pretty much the same.

The first reason to conduct a functional analysis is to familiarize the analyst with the subject entity or intellectual property. The research required and the diligence necessary to conduct the functional analysis results in the analyst developing both a broad and a deep understanding of the subject of the analysis. By performing the functional analysis, the analyst better understands how the intellectual property works.

The second reason to conduct a functional analysis is to allow the analyst to assess comparability. The comparability assessment may allow the analyst to:

1. Identify and select comparable companies, comparable transactions, comparable licenses, or other comparable transfers.
2. Compare and contrast the functions of two related party (or associated) entities that are under common ownership (*i.e.*, two controlled parties).
3. Compare and contrast a controlled transaction with one or more uncontrolled (*i.e.*, arm's-length) transactions.
4. Make normalization adjustments to comparable companies, transactions, and licenses to make them more comparable to the analysis subject, and
5. Make comparisons of the conditions in transactions between related parties—that is, the controlled transactions—with the conditions in comparable transactions between unrelated (or arm's-length) parties—that is, the uncontrolled transactions.

The third reason to conduct a functional analysis is to allow the analyst to assess the relative contribution of the various functions performed either (1) within the subject entity or intellectual property or (2) between the related (or associated) parties in a controlled transaction.

The fourth reason to conduct a functional analysis is to allow the analyst to identify the various assets that are used (1) in the operation of the subject entity (intellectual property owner/operator) or (2) in the conduct of the controlled transaction. These assets are employed to perform the various functions associated with the subject entity. The assets considered in the functional analysis may include working capital accounts, tangible assets (real estate and tangible personal property), and intangible assets.

The fifth reason to conduct a functional analysis is to allow the analyst to identify the risks that are being assumed by the subject entity (the intellectual property owner/operator). A significant portion of the return earned by the entity's operations is due to the risks assumed by the entity. The functional analysis allows the analyst to compare these risks (1) within the subject entity; (2) between the subject entity and the selected comparable companies, transactions, and licenses; and

(3) between related party (or associated) entities in a controlled transaction.

Each of these five reasons assists in the development of the intellectual property valuation, the damages measurement, or the transfer price determination.

Functional Analysis Impact on the Valuation Estimate

The functional analysis allows the analyst to understand the value creation within the subject entity (the intellectual property owner/operator). While the functional analysis is primarily considered to be a procedure for assessing—and adjusting for—comparability, the functional analysis does not only impact the market approach to business or intellectual property valuation. There are comparability considerations in all generally accepted valuation approaches.

The three generally accepted approaches to value the intellectual property owner/operator business entity are the income approach, the market approach, and the asset-based approach. The three generally accepted approaches to value an intellectual property are the income approach, the market approach, and the cost approach.

In the income approach, the functional analysis informs the analyst with regard to:

1. Revenue projections
2. Expense projections
3. Investment projections
4. Present value discount rate components
5. Expected long-term growth rate considerations.

In the market approach, the functional analysis informs the analyst with regard to:

1. Normalizing the historical financial or operational results of the subject entity or intellectual property
2. Selecting comparable (or guideline or benchmark) companies, transactions, or licenses
3. Adjusting/normalizing the historical financial or operational results of the comparable companies, transactions, or licenses
4. Selecting the adjusted pricing multiples that were extracted from the comparable companies, transactions, or licenses, and
5. Applying the selected market-derived pricing multiples to the subject entity or intellectual property.

In the asset-based approach, the functional analysis informs the analyst with regard to:

1. The valuation of tangible assets
2. The existence of identifiable intangible assets
3. The applicable valuation variables (including useful economic life) to apply to the identifiable intangible assets
4. The capitalized excess earnings method valuation of goodwill, and
5. The valuation of liabilities—and, particularly, contingent liabilities.

In the cost approach, the functional analysis informs the analyst with regard to:

1. The measurement of useful economic life for the intellectual property
2. The identification and measurement of functional obsolescence (including the technological obsolescence component) of the intellectual property
3. The identification and measurement of economic obsolescence of the intellectual property
4. The normalization of the property owner/operator's financial and operational metrics—particularly with regard to the intellectual property, and
5. The selection of the valuation variables to perform the capitalized income loss method to measure economic obsolescence for the intellectual property.

As indicated above, the functional analysis has applications to all of the generally accepted business valuation approaches and intellectual property valuation approaches.

Functional Analysis Impact on Damages Measurements

Analysts may be asked to identify and measure damages related to intellectual property. These damages are often caused by a wrongful action. The wrongful action could relate to (1) a breach of a license, development agreement, commercialization agreement, or some other type of contractual agreement or (2) a tortious action—such as an infringement or the breach of some type of duty. The contract could include any type of use license, development license, manufacturing license, nondisclosure agreement, non-competition agreement, or other commercial contract. In addition to an infringement, the tort could include a breach of a trustee's, or a lender's, or some other party's fiduciary duty.

In the measurement of the intellectual property damages, analysts may apply these generally accepted damages measurement methods:

1. Lost profits
2. Reasonable royalty rate
3. Cost to cure (including lost business or property value)

The functional analysis informs the analyst throughout the damages measurement assignments. First, the functional analysis helps the analyst identify the component of the subject entity or intellectual property that was damaged. The functional analysis may not identify the damages event or the party who conducted the wrongful action. But, the functional analysis should help to identify (1) what entity/intellectual property functions were damaged, (2) the relative importance of those damaged functions to the subject entity/intellectual property, and (3) the value creation due to the functions—or, in this case, the value destruction due to any damage to those functions.

Second, the functional analysis should help to identify the entity/intellectual property's normal financial or operational variables—that is, the entity/intellectual property's metrics "before" or "without" the damages event. The analyst can compare those normal financial or operational variables to the entity/intellectual property's current metrics—that is, "after" or "with" the damages event. The differences in these metrics before and after (or without and with) damages is one measure of lost profits.

In particular, the functional analysis may help to develop (and to test the reasonableness of) any damages projection variables—including revenue, expenses (fixed and variable), investments, and other prospective financial variables.

Third, the functional analysis may help to identify (1) when the damages impact started (*i.e.*, the beginning of the damages period), (2) the term of the damages period, and (3) when the damages impact ended—if it did end (*i.e.*, the end of the damages period).

Fourth, the functional analysis may help to identify and measure the impact of any mitigation efforts in response to the damages event.

Fifth, the functional analysis may help to identify, compare, normalize, select, and apply arm's-length license agreement royalty rates in a reasonable royalty rate damages analysis.

Sixth, the functional analysis may help to identify the costs to cure the impact of the damages event. This is because such an analysis may identify the particular entity/property functions that were damaged—to allow the analyst to estimate the cost to cure (*i.e.*, repair) the damaged function.

Seventh, the functional analysis may inform the selection of the historical valuation variables to develop the "before" business or intellectual property valuation. The current (post-damages event) application of the functional analysis may inform the analyst's selection of the post-damages valuation variables to develop the "after" business or intellectual property valuation. The difference in the "before" value and the "after" value is one indication of the lost business value or lost intellectual property value.

The development of the functional analysis may also help to identify all of the subject entity's operational components and intellectual property that were impacted by the damages event. And, the performance of the functional analysis may help the analyst to quantify the lost profits, reasonable royalty rate, or cost to cure related to the business or intellectual property damages.

Functional Analysis Impact on Transfer Price Determination

As mentioned above, a functional analysis is an important procedure in an intercompany transfer price analysis. The transfer price analysis helps to identify the value chain. A value chain separates a business into a series of value-generating functions. This value chain helps provide the analyst with a foundation from which to identify (1) the functions performed, (2) the assets employed, and (3) the risks assumed. This foundation helps the analyst to understand the activities that create value in the subject entity or intellectual property.

As mentioned above, Regulation 1.482-1 provides an introduction to the allocation of income and deductions among taxpayers. Regulation 1.482-1(d)(3)(i) describes a functional analysis within the context of the factors for determining the comparability of transactions.

Regulation 1.482-2 includes guidance related to the determination of taxable income in specific situations. These specific situations include:

1. Loans or advances
2. The performance of services for another
3. The use of tangible property
4. The transfer of property

Regulation 1.482-3 describes the methods to determine taxable income with a transfer of tangible property. These methods for determining an arm's-length transfer price with regard to tangible property include:

1. The comparable uncontrolled price method
2. The resale price method
3. The cost plus method
4. Unspecified method

Regulation 1.482-3(c)(3)(ii)(A) discusses functional comparability with regard to the resale price method. Specifically, this regulation section deals with comparability and reliability considerations within the application of the resale price method.

Regulation 1.482-3(d)(3)(ii)(A) discusses functional comparability with regard to the cost plus method. Specifically, this regulation section deals with comparability and reliability consideration within the application of the cost plus method.

Regulation 1.482-4 describes the methods to determine taxable income with regard to the transfer of intangible property. First, as mentioned above, this regulation provides a description of what is intangible property. Second, this regulation describes the following methods for determining an arm's-length transfer price with regard to intangible property:

1. Comparable uncontrolled transaction method
2. Unspecified methods

Regulation 1.482-5 describes the comparable profits method. Specifically, regulation 1.482-5(c)(2)(ii) discusses functional, risk, and resources comparability. This regulation section presents these factors within the context of comparability and reliability considerations in the application of the comparable profits method.

Regulation 1.482-6 describes the application of the profit split method. This regulation provides guidance with regard to:

1. The comparable profit split method
2. The residual profit split method

Regulation 1.482-7 relates to cost sharing arrangements. Regulation 1.482-8 provides examples of the application of the best method rule.

Regulation 1.482-9 relates to the determination of an arm's-length transfer price related to controlled services transactions. Regulation 1.482-9(d)(3)(ii)(A) describes functional comparability. This regulation section discusses comparability and reliability considerations within the context of the application of the gross services margin method. Regulation 1.482-9(c)(3)(ii)(A) also describes functional comparability. This regulation section discusses comparability and reliability considerations within the context of the application of the cost of services plus method.

In all cases, the regulations discuss the functional analysis within the context of assessing—and adjusting for—comparability. These assessments—and adjustments—are made (1) to the subject entity or intellectual property or (2) between the related (or associated) parties to the controlled transaction. These assessments and adjustments are based on:

1. The relative contribution of the various functions performed
2. The assets (both tangible and intangible) used to perform these functions
3. The risks assumed by the subject entity or the related parties

The 12 Steps of the Functional Analysis

As mentioned above, there are many considerations related to the development of a functional analysis. These many considerations are equally relevant whether the functional analysis is developed for intellectual property valuation, damages, or transfer price purposes. Exhibit 1 is intended to present only a partial listing of typical analyst considerations. Exhibit 1 does not present a comprehensive list of all considerations. However, all of the considerations or procedures may be categorized into what this discussion refers to as the 12 steps of the functional analysis.

These 12 steps do not necessarily have to be performed in the order or sequence presented below. However, the following listing of steps is presented in a logical sequence. Some of the steps may be performed simultaneously. Some of the steps may be performed out of order. However, this discussion recommends that all of the 12 steps should be developed, to a greater or lesser extent, before the functional analysis is considered to be complete.

It is important to recognize that each so-called step represents a category or grouping of many procedures and investigations. These categories of procedures are called "steps" to remind the analyst to proceed from the initial understanding of the subject entity to the final assessment of the risks assumed by that subject entity. After completing all of these 12 steps, the analyst should have developed—and documented—an understanding of the subject entity's functions performed, assets employed, and risks assumed.

These 12 steps—or categories or groupings of analyst procedures—are listed in Exhibit 2 on page 230.

The first 10 steps on Exhibit 2 primarily relate to the functions performed at the subject entity. Step 11 on Exhibit 2 primarily relates to the assets employed at the subject entity. And, step 12 on Exhibit 2 primarily relates to the risks assumed by the subject entity.

For purposes of this discussion and for purposes of applying Exhibit 2, the phrase "subject entity" encompasses an individual owner/operator entity, the intangible property of such an entity, or two related parties performing associated functions (and controlled transactions) as part of a common ownership entity.

The Type of Analyst to Conduct the Functional Analysis

There is no specific guidance or limitation as to what type of professional should perform the functional analysis. Similarly, there is no specific guidance or limitation as to what type of professional should perform an intellectual property valuation analysis, damages measurement, or transfer price determination. Some observers have referred to the functional analysis as an economic analysis. It is true that the functional analysis includes the consideration of the inputs and the outputs of a subject entity. Similarly, the functional analysis includes the consideration of the cost/volume/profit relationships of a subject entity. And, these considerations involve the application of microeconomics principles. But, by that general definition, all valuation, damages, and transfer price analyses involve the application of microeconomics principles.

The *Internal Revenue Manual* doesn't address the question of what type of professional should perform the functional analysis. However, the *Internal Revenue Manual* does provide perspective on the various types of professionals who may be involved in the transfer price analysis related to intangible property. Section 4.61.3.4.6 of the *Internal Revenue Manual* relates to "Transfers of Intangible Property" and provides the following perspective related to intangible property comparable uncontrolled transactions and arm's-length license royalty rate analyses:

Determining arm's-length royalty amounts for controlled transfers of intangibles may require the support of the following specialists:

1. Economists
2. Engineers
3. Industry experts
4. Experts in the field of licensing intangibles
5. Marketing experts
6. Other inside and outside experts

The fact that economists are mentioned first in the above listing may be one reason why some observers associate economists with intercompany transfer price analyses. While the above list specifically relates to intangible property transfer prices, it is reasonable to conclude that any of the above-mentioned categories of professionals could perform a functional analysis.

In addition to the *Internal Revenue Manual* listing of types of professionals, accountants—and particularly forensic accountants—have particular experience and expertise with regard to all three disciplines of valuation, damages measurement, and transfer price determination. All three of these disciplines require a thorough understanding of generally accepted accounting principles, income tax accounting principles, accounting systems and procedures, and the analysis of financial statements and other financial documents. In addition, most forensic accountants have a breadth and depth of experience related to business operations, data gathering and special investigations, and due diligence procedures and associated documentation.

Although not specifically mentioned in the *Internal Revenue Manual*, valuation analysts have specialized training and experience that would qualify them to perform the functional analysis. Valuation analysts routinely apply microeconomics principles. Valuation analysts have to understand both GAAP accounting and income tax accounting. And, most valuation analysts are skilled at data gathering, interviewing and investigative techniques, and due diligence procedures. Most importantly, valuation analysts have to develop both broad and deep skills with regard to performing, interpreting, and applying comparability analyses.

That is, most valuation analysts are experienced with regard to identifying, adjusting, normalizing, extracting pricing data from, and applying pricing multiples derived from comparables. Such comparables could include comparable companies and comparable intangible property. The comparable transactions could include sales, leases, licenses, or other types of transfers.

Valuation analysts have experience and expertise in assessing and adjusting for comparability—a fundamental component of the functional analysis. In addition, like certified public accountants, valuation analysts pursue specialized training based on a standardized body of knowledge, are tested and credentialed based on that standardized body of knowledge, maintain continuing professional education requirements, and comply with documented ethics standards and other professional standards. Many of the other types of professionals included in the above *Internal Revenue Manual* list do not meet these various qualifications.

Overall, and more important than a particular professional credential or academic benchmark, the appropriate type of professional to perform the functional analysis is a professional who understands how that functional analysis can be applied in the development of the value estimate, the damages measurement, or the transfer price determination.

Documentation of the Functional Analysis

As with the type of professional who performs the functional analysis, there is no specific guidance or requirement related to the documentation of the functional analysis. The following recommendations are presented as best practices (and not as professional standards or professional organization requirements) related to functional analysis within the context of an intellectual property valuation or a damages measurement or a transfer price analysis. This best practices guidance assumes that the analyst prepares some type of written or oral report to document the development and the conclusion of the subject analysis.

As a general best practice, both the analyst's work papers and the analyst's report (whether for valuation or damages or transfer price) should include documentation of:

1. The selection of—and the rejection of—all relevant considerations and steps—and the reasons for that selection and/or rejection.
2. The data gathering process applied with regard to all of the selected considerations;.
3. The selection of (and the rejection of—and the reasons therefor) all data sources.
4. A listing of all documents generally considered and of all documents specifically relied on in the functional analysis, including a description of the source of each document; copies of all of the documents relied on by the analyst should be included in the work paper file.
5. All due diligence procedures performed (including the conduct of any subject entity management interviews or any third-party interviews);
6. The schedules and exhibits prepared to summarize all of the quantitative comparability and other analyses performed.
7. The analyst's assessment of each consideration developed—documented with a commentary, description, flowchart, or other explanation.
8. The analyst's conclusion related to each of the 12 steps (or the 12 categories of procedures)—documented with a commentary, description, flowchart, or other explanation.
9. A listing of each of the qualitative or quantitative factors leading up to the analyst's conclusions regarding these functional analysis components:
    a. The functions performed by the subject entity—and the relative importance thereof,
    b. The assets employed by the subject entity—both tangible assets and intangible assets, and
    c. The risks assumed with regard to the subject entity's operations.
10. A narrative summary and conclusion describing the analyst's functional analysis opinion, including a conclusory discussion of (a) functions performed, (b) assets employed, and (c) risks assumed.

Also as a general best practice, analysts may become familiar with the analysis documentation and reporting procedures described in:

1. *The Mandatory Performance Framework and*
2. *The Application of the Mandatory Performance Framework.*

These best practices documentation guidelines were developed for the Certified in Entity and Intangibles Valuation (CEIV) professional credential program developed by the Corporate and Intangibles Valuation Organization, LLC. These best practices guidelines are only "mandatory" for CEIV credential holders when they are performing fair value measurement valuations. While not mandatory for non-CEIV analysts, these guidelines do provide "best practices" guidance with regard to the analysis documentation and reporting. Such best practices guidance with regard to the functional analysis may also be applied generally to all aspects of the intellectual property valuation, damages, or transfer price analysis.

There are various checklists available with regard to the performance of a functional analysis—particularly within the context of an intercompany transfer price determination. For example, the *Internal Revenue Manual* includes a "Transfer Pricing Functional Analysis Questionnaire" as Exhibit 4.61.3-4 of the manual. The use of such a checklist is a convenient resource for the analyst, particularly for purposes of completing a functional analysis with regard to Section 482 compliance.

Any checklist or questionnaire only documents what the analyst did—that is, the procedures the analyst performed. While such a listing of procedures performed is an important component of the functional analysis documentation, it does not provide a complete set of the functional analysis documentation. The work papers and the report should not only describe the procedures that the analyst performed—but also what conclusions the analyst developed after performing those procedures. In other words, the work papers and the report should document the analyst's thought process and rationale.

Ideally, the functional analysis work papers and report should be sufficient to allow another analyst (or the report reader) to:

1. Replicate the data gathered, the procedures performed, and the considerations made,
2. Duplicate the analyst's thought process and decision-making and
3. Recreate the analyst's opinions and conclusions.

A well-documented set of work papers and a well-documented report (written or oral) will accomplish these objectives related to the functional analysis. These documentation objectives apply equally to the intellectual property valuation, a damages analysis, or a transfer price analysis.

Summary and Conclusion

Intellectual property owners and operators often need to know the value of, damages to, or transfer price for their intellectual property. These issues arise in the context of sale or licensing transactions, taxation planning and compliance, financial accounting, financing collateralization, strategic planning, breach of contract and tort litigation, and other reasons. These intellectual property owner/operators often retain, work with, and rely upon specialists to perform these valuation, damages, or transfer price analyses.

There are generally accepted approaches, methods, and procedures related to the development, documentation, and reporting of these various analyses. However, there is one procedure that is a component of all three types of intellectual property analyses: the functional analysis. This discussion focused on the conduct of the functional analysis with respect to intellectual property—and to the various associated categories of intangible property.

Many observers initially associate a functional analysis with a transfer price determination, and particularly with a transfer price analysis performed for Section 482 (or for OECD) compliance purposes. Section 482 relates to the allocation of income and deductions related to the intercompany transfers of tangible property, intangible property, or services.

Certainly, a functional analysis is one important component of a transfer price analysis. However, experienced analysts understand that a functional analysis is also an important component of an intellectual property valuation estimate and a damages measurement. In fact, a functional analysis is relevant any time the analyst needs to thoroughly understand the owner/operator subject entity—and particularly to understand the value drivers that impact the subject entity.

A functional analysis is relevant when the analyst needs to understand (1) both the various functions that are performed at the subject entity and the relative importance of these functions, (2) the various assets employed at the subject entity—including the working capital assets, the tangible assets, and the intangible assets, and (3) the various risks assumed by the entity's operations—including operational risks, financial risks, dependence risks, litigation risks, and other risks. And, all of these factors are important to any analyst performing an intellectual property valuation, damages analysis, or transfer price analysis.

This discussion considered what is (and what is not) a functional analysis, and this discussion considered the reasons to perform the functional analysis. This discussion summarized the applications of a functional analysis within an intellectual property valuation, damages, or transfer price determination. And, this discussion summarized the many considerations typically made by the analyst into what was called the 12 steps of conducting the functional analysis.

Finally, this discussion considered the various types (or categories) of professionals who may be involved in developing the functional analysis. And, this discussion described documentation guidelines related to the functional analysis. These documentation guidelines relate to both the analyst's work papers and the analyst's report—both written and oral.

That is, this discussion summarized what intellectual property owners and operators need to know about the functional analysis within the context of developing an intellectual property valuation, damages, or transfer price opinion. ■

Available at Social Science Research Network (SSRN): *https://ssrn.com/abstract=3658634*

Exhibit 1: Functional Analysis Considerations Related to Intellectual Property Valuation, Damages, or Transfer Price Analyses	
1. Organization Considerations	
A. Type of Owner/ Operator Entity	1. Description of whether the subject is a business entity or intellectual property. 2. Description and documentation of ownership of the subject entity. 3. Description of legal structure of the subject entity. 4. Description of tax structure of the subject entity. 5. Description of any ownership relationships with related parties, applicable parties, or other common ownership. 6. Description of corporate governance (e.g., board of directors). 7. Description of operational executive or management structure (e.g., management organization chart). 8. Description of operational functions structure (e.g., departmental organization chart). 9. Description and locations of owned tangible property. 10. Description and locations of leased tangible property. 11. Description of owned or licensed patents. 12. Description of owned or licensed trademarks. 13. Description of owned or licensed copyrights. 14. Description of owned or licensed trade secrets. 15. Description of owned or licensed other types of intangible property. 16. Description of owned or licensed intangible value in the nature of goodwill.
B. Owner/Operator Entity Documents	1. Organization documents (e.g., articles of the corporation). 2. Operational documents (e.g., partnership agreements, member agreements). 3. Entity ownership documents (e.g., shareholder agreements, buy/sell agreements). 4. Asset ownership documents (e.g., deeds, legal descriptions, licenses, leases). 5. Entity transferability documents (e.g., franchise agreement restrictions, regulated industry considerations). 6. Ownership interest transferability considerations (e.g., security puts and calls). 7. Recent board of directors or executive/management committee minutes. 8. Copies of any business or operating permits or certificates. 9. Copies of any inbound or outbound intellectual property licenses. 10. Copies of any joint venture, joint development, joint commercialization, etc., agreements. 11. List of registrations of all intellectual property, including domestic and international patents, copyrights, and trademarks. 12. Copies of documents that illustrate the entity's use of domestic and international patents, copyrights, trademarks, and trade names. 13. Copies of documents that illustrate the entity's use of other types of intangible property. 14. Copies of documents that illustrate the entity's use of intangible value in the nature of goodwill.

Exhibit 1: Continued

2. Operations Considerations	
A. Operational Functions	1. Description of products produced and services provided. 2. Description of how products and services are designed, developed, or engineered. 3. Description of raw materials inputs (sources, costs, and logistics of supply and supply chain risks). 4. Description of labor inputs (sources, costs, and logistics of supply and supply chain risks). 5. Description of overhead (operating expense inputs) (sources, costs, and logistics of supply and supply chain risks). 6. Description of product manufacturing or services production process. 7. Description of production scheduling and quality control procedures. 8. Description of product warehousing and in-process services storage. 9. Description of product warranty and product return risk elements. 10. Description of products and services shipping and delivery logistics. 11. Description of how intellectual property (patents, copyrights, trademarks, and trade secrets) are developed, documented, and registered. 12. Description of how intellectual property (patents, copyrights, trademarks, and trade secrets) are commercialized and protected. 13. Description of how other types of intangible property are commercialized and protected. 14. Description of how intangible value in the nature of goodwill is commercialized and protected.
B. Administrative Functions	1. Description of accounting functions. 2. Description of receivables/cash collection function and payables/cash disbursement function. 3. Description of treasury (cash management and banking relationship) function. 4. Description of capitalization, capital structure, and financing functions. 5. Description of products/services design and engineering function. 6. Description of production engineering/services delivery efficiency function. 7. Description of advertising and market research function. 8. Description of packaging and branding function. 9. Description of human resources, recruiting, training, and benefits function. 10. Description of general counsel function. 11. Description of information technology, management information and data processing function. 12. Description of regulatory compliance and other compliance functions.
C. Competition and Competitive Position Functions	1. Listing and description of principal competitors. 2. Approximate size of principal competitors. 3. Ranking of principal competitors by market share and by relative market share. 4. Products/services features differentiation with competitors. 5. Products/services pricing differentiation with competitors. 6. Products/services distribution differentiation with competitors. 7. Products/services intellectual property differentiation with competitors. 8. Description of total market size. 9. Description of total market growth rate. 10. Description of how customers use the owner/operator entity's products/services.

Exhibit 1: 2. Operations Considerations (continued)

D. Risk/ Expected Return Considerations	1. Description of materials source of supply risk. 2. Description of labor source and supply risk. 3. Description of operating leverage (fixed costs coverage) risk. 4. Description of financing leverage (debt service coverage) risk. 5. Description of tangible property risk. 6. Description of environmental risk. 7. Description of litigation risk. 8. Description of intellectual property risk. 9. Description of customer concentration risk. 10. Description of executive concentration risk. 11. Description of regulatory change risk. 12. Description of products/services liability risk.

3. Financial Considerations

A. Accounting Principles and Financial Statements	1. Descriptions of current accounting principles applied. 2. Comparison of owner/operator entity accounting principles to competitor accounting principles. 3. Description of recent changes in accounting principles applied. 4. Discussion of revenue recognition principles. 5. Discussion of expense recognition principles. 6. Discussion of taxation accrual and deferred tax principles. 7. Discussion of tangible asset capitalization and depreciation principles. 8. Discussion of intangible asset recognition principles. 9. Discussion of liability recognition principles. 10. Discussion of any adjustments to capital accounts. 11. Discussion of cash flow statement working capital adjustments. 12. Discussion of cash flow statement noncash revenue and expense account. 13. Discussion of cash flow statement investment adjustments. 14. Discussion of cash flow statement financing adjustments.
B. Financial Statement Projection Considerations	1. Description of the term (time period) of any financial projections. 2. Description of the level of detail included in any financial projections. 3. Description of financial projections internal development procedures. 4. Description of financial projections internal review procedures. 5. Comparison of financial projections to historical financial statements. 6. Comparison of financial projections to guideline company financial projections. 7. Comparison of financial projections to industry financial projections. 8. Comparison of historical financial projections to historical financial statements for prior projections periods. 9. Copies of any strategic plans or competitive analyses. 10. Copies of any debt service payment projections (including any considerations of liquidity or solvency).

Exhibit 1: 3. Financial Considerations (continued)

C. Valuation Considerations	1. Description of the process for selecting guideline public companies. 2. Procedures for assessing the subject entity's comparability to selected guideline public companies. 3. Procedures for adjusting the financial data of guideline public companies. 4. Description of the process for selecting guideline M&A transactions. 5. Procedures for assessing the subject entity's comparability to selected guideline M&A transactions. 6. Procedures for adjusting the financial data of selected guideline M&A transactions. 7. Description of any recent offers to buy the owner/operator entity or the entity's securities. 8. Description of any recent sales (or other exchanges) of the subject entity or the entity's securities. 9. Descriptions of any value indications (including historical development costs) of tangible real property and tangible personal property. 10. Descriptions of any value indications (including historical development costs) of intellectual property or associated intangible property.

4. Assets Employed and SWOT/Risks Assumed Considerations

A. Assets Employed	1. Description of—and use of—cash and marketable securities. 2. Description of—and use of—accounts receivable. 3. Description of—and use of—prepaid expenses. 4. Description of—and use of—inventory accounts. 5. Description of—and use of—other current asset accounts. 6. Description of—and use of—land and buildings. 7. Description of—and use of—tangible personal property. 8. Description of—and use of—other tangible assets. 9. Description of—and use of—intellectual property assets. 10. Description of—and use of—other identifiable intangible assets. 11. Description of—and use of—intangible value in the nature of goodwill. 12. Description of—and use of—nonoperating or investment assets. 13. Description of—and use of—current liabilities. 14. Description of—and use of—long-term interest-bearing debt. 15. Description of—and use of—other long-term liabilities. 16. Description of—and use of—contingent liabilities.
B. SWOT and Risks Assumed Considerations	1. List of the principal competitive strengths. 2. Description of how competitive strengths affect the owner/operator entity's operating results. 3. Description of how competitive strengths affect the entity's risks. 4. List of the principal competitive weaknesses. 5. Description of how competitive weaknesses affect the entity's operating results. 6. Description of how competitive weaknesses affect the entity's risks. 7. List of the principal competitive opportunities. 8. Description of how competitive opportunities affect the entity's operating results. 9. Description of how competitive opportunities affect the entity's risks. 10. List of the principal competitive threats. 11. Description of how the principal competitive threats affect the entity's operating results. 12. Description of how the principal competitive threats affect the entity's risks.

Exhibit 2: 12 Steps In The Performance Of A Functional Analysis Related To An Intellectual Property Valuation, Damages, Or Transfer Price Conclusion

1. Gather and review all relevant owner/operator subject entity legal documents.
   (This step includes documents regarding organization structure, legal firm, tax status, and owners—*e.g.*, shareholder, partnership, LLC member—agreements)
2. Gather and review all relevant owner/operator subject entity organization charts.
   (This step includes both personnel reporting charts and functional relationship clients and considers both entity governance procedures and quality, quantity, tenure, and experience of entity/function leaders.)
3. Understand and document the products/services design, R&D, and products/services differentiation functions.
   (This step includes the assessment of how the subject entity's products or services are developed and how these products or services are intended to address their competition in the relevant marketplace.)
4. Understand and document the materials, labor, and overhead procurement function.
   (This step includes consideration of how and when the owner/operator entity procures all of its materials, labor, and overhead inputs—for entities in every type of industry or profession.)
5. Understand and document the products/services production function.
   (This step includes the assessment of how the owner/operator entity processes all of its material, labor, and overhead components to produce a product or a service—including the quality control of the product or service production.)
6. Understand and document the inventory and products/services storage function.
   (This step includes both the in-process and finished inventory of goods and the in-process and finished inventory of services.)
7. Understand and document the sales and marketing function.
   (This step includes the assessment of the products or services pricing, packaging, advertising, promotional, trademark development and protection, and other branding—on a stand-alone basis and in response to competitive products and services.)
8. Understand and document the shipping and distribution logistics function.
   (This step includes consideration of how the products or services are delivered to the customer or the client—including freight, insurance, returns, warranty and repairs, and other expenses.)
9. Understand and document the accounting, finance, information systems, human resources, legal, and other administration functions.
   (This step includes the assessment of how (a) information is generated and used throughout the organization, (b) human resources are developed and administered, (c) financial statements and operational documents are prepared and used, (d) how cash management and treasury operations are performed, and (e) how the entity is capitalized with debt and equity capital sources.)
10. Assess and document the owner/operator entity's strategic position in comparison to competitors in the relevant industry or profession.
    (This step includes (a) measurement of the entity's market share/selective market share, market size, and market growth rate; (b) evaluation of the entity's customer or client needs; and (c) assessment of the entity's competitive strengths, weaknesses, opportunities, and threats.)
11. Describe and document the assets used by the owner/operator entity to perform the functions.
    (This step includes a listing, description, and assessment of relative importance/contribution of (a) all working capital accounts, (b) all tangible property types and accounts—owned and leased, and (c) all general intangible property types and accounts—owned and licensed, and (d) all intellectual property types and accounts—owned and licensed.)
12. Evaluate and document the risks assumed by the owner/operator entity to perform the functions.
    (This step includes a listing, description, and assessment of all products/services liability, operating language, financial leverage, environmental, supply dependence, customer dependence, technology dependence, employee dependence, intellectual property dependence, tax litigation, commercial litigation, credit and collection, inventory control, property and casualty, foreign exchange, market/competitor, and other risks.)