

# Multiattribute Utility Model (MUM)

## Sample Report



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# Multiattribute Utility Model

The **Multiattribute Utility Model (MUM)** is an allocation model for distinguishing enterprise goodwill from personal goodwill. MUM utilizes a well-defined method applied in many disciplines — economic, political, and scientific — to establish decision support for subjective problems. MUM lends itself to consistency, introduces objectivity into an otherwise subjective assignment, and provides for sensitivity analysis of the outcome.

**MUM's objective** is to determine the value of the two elements of goodwill, personal and enterprise, from the total goodwill, such that a reasonable, well-founded basis for the allocation can be formed and communicated.

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## About the MUM Workbook and Report

To analyze a specific case, you use a MUM Excel Workbook. The Workbook contains the following:

1. Input Sheet for Objective
2. Input Sheet for Alternatives
3. Input Sheet for Utility of Importance
4. Input Sheet for Utility of Existence
5. Input Sheet for Personal Goodwill Attributes
6. Input Sheet of Enterprise Goodwill Attributes
7. Input Sheet for Fitting Alternative
8. Input Sheet for Goodwill Allocation
9. Analysis Sheet for Sensitivity Analysis (Page One)
10. Analysis Sheet for Sensitivity Analysis (Page Two)
11. Report Sheets for Links to Word Report Template
12. Three Tables of Alternative Ranges
13. Chart of Utility of Importance
14. Chart of Utility of Existence
15. Existence and Importance of Utility Weights
16. Personal Goodwill Attributes Attribute Assessment and Outcomes
17. Enterprise Goodwill Attributes Attribute Assessment and Outcomes
18. Goodwill Allocation Outcome

Once you have completed using the MUM Excel Workbook to analyze your case, you can automatically generate a report in Microsoft® Word.

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## Sample Report Content

The rest of this document contains a sample report that was automatically generated in Microsoft® Word from the MUM Excel workbook used to analyze a specific case.

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## How to Order

To obtain the benefits available from MUM, contact ValuSource today:



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# GOODWILL ALLOCATION

Goodwill is an intangible asset of an enterprise. It is the essence of a business that makes it more than just a collection of other assets, like real estate, equipment, inventory, receivables, and cash. Goodwill is a concept based in old English law dating from the early 1800's. Goodwill "is the probability that customers will return to the old stand." In the early 1900's in the United States, Justice Cardozo captured the essence that goodwill was the tendency for customers to return to the same location or company because of its name or other reasons, regardless of its location.<sup>2</sup>

Goodwill is defined as the total value of an enterprise less those other assets, such as current assets, investments, and fixed assets, whose value can be determined through other means. Goodwill can be separated into two parts: personal goodwill and enterprise goodwill. They are defined as follows:

Personal goodwill is the value of earnings or cash flow directly attributable to the individual's characteristics or attributes. Personal goodwill, sometimes referred to as professional goodwill, is a function of the earnings from repeat business that will patronize the individual as opposed to the business, new consumers who will seek out the individual, and new referrals that will be made to the individual.

Enterprise goodwill is the value of earnings or cash flow directly attributable to the enterprise's characteristics or attributes. Enterprise goodwill, sometimes referred to as practice goodwill, is a function of the earnings from repeat business that will patronize the business as opposed to the individual, new consumers who will seek out the business, and new referrals that will be made to the business.<sup>3</sup>

## I. Multiattribute Utility Model ("MUM")

The Multiattribute Utility Model is an allocation model for distinguishing enterprise goodwill from personal goodwill.<sup>4</sup> MUM is a well-defined method used in many disciplines — economic, political, and scientific — to establish decision support for subjective problems. MUM lends itself to consistency, introduces objectivity into an otherwise subjective assignment, and provides for sensitivity analysis of the outcome.

MUM's objective is to determine the value of the two elements of goodwill, personal and enterprise, from the total goodwill, such that a reasonable, well-founded basis for the allocation can be formed and communicated.

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<sup>1</sup> Cruttwell V. Lye, 34 Eng. Rep 129, 134 (1810).

<sup>2</sup> In re Brown, 242 N.Y. 1, 6, 150 N.E. 581, 582 (1926).

<sup>3</sup> "Goodwill Attributes: Assessing Utility," *The Value Examiner*, David Wood, January/February, 2007, Edition.

<sup>4</sup> "An Allocation Model for Distinguishing Enterprise Goodwill from Personal Goodwill." *American Journal of Family Law*, Volume 18, Number 3, David Wood, Fall 2004.

There are seven steps in the development of an allocation using MUM. They are as follows:

- 1) Define an Objective
- 2) Establish Alternatives
- 3) Define the Attributes
- 4) Measure the “Utility” of Each Attribute
  - a. Importance Utility
  - b. Existence Utility
- 5) Aggregate the Results
- 6) Evaluate the Alternatives
- 7) Express an Opinion

### 1. Define an Objective

The objective is to form a conclusion of value of the separate elements of total goodwill that represent personal goodwill and enterprise goodwill.

### 2. Establish Alternatives

The alternatives define the possible outcomes resulting from the application of MUM. The alternatives are defined as a range of percentages of personal goodwill. The enterprise goodwill is the reciprocal percentage of the personal goodwill outcome. The analysis determines the selection of the appropriate alternative.

**[HELPER TEXT:** Three tables are presented below. Delete two of three tables. Keep the table (five, seven, or ten) that reflects your selection in the Excel MUM template.]

<b>Five Alternative Ranges</b>			
	From	To	Outcome
1	0%	20%	10%
2	20%	40%	30%
3	40%	60%	50%
4	60%	80%	70%
5	80%	100%	90%

<b>Seven Alternative Ranges</b>			
	From	To	Outcome
1	0%	20%	10%
2	20%	40%	30%
3	40%	60%	50%
4	60%	80%	70%
5	80%	100%	90%
6			
7			

<b>Ten Alternative Ranges</b>			
	From	To	Outcome
1	0%	20%	10%
2	20%	40%	30%
3	40%	60%	50%
4	60%	80%	70%
5	80%	100%	90%
6			
7			
8			
9			
10			

### 3. Define the Attributes

MUM is used to assess the attributes, both personal and enterprise, to determine which is the appropriate alternative selected in Step 2. MUM divides the attributes selected into the two elements of goodwill. The attributes are selected based on the underlying characteristics of each component and how the attributes relate to the enterprise and the individual.

The fundamental issue in defining the attributes and determining the impact on the allocation between personal and enterprise goodwill is the impact on the earnings. The valuator must assess the attributes' contribution to the earnings of the business and whether that impact is more associated with the individual or the enterprise.

A fundamental characteristic of personal goodwill is that it is more difficult to transfer to a buyer. The contrary is true for enterprise goodwill. The ease or difficulty of the transfer of goodwill is a characteristic common to each of the attributes discussed below. Thus, the valuator must understand this characteristic when defining and assessing each attribute.

**[HELPER TEXT: THE ATTRIBUTES BELOW ARE TAKEN FROM THE ENCLOSED ARTICLE, "GOODWILL ATTRIBUTES: ASSESSING UTILITY." THIS ARTICLE APPEARS IN THE JANUARY/FEBRUARY, 2007 EDITION OF "THE VALUE EXAMINER."]**

NOT ALL OF THE ATTRIBUTES DISCUSSED ARE REQUIRED. YOU MAY ADD OR SUBTRACT ATTRIBUTES AS YOU DETERMINE. ATTRIBUTE SELECTION IS DEPENDENT ON THE VALUATION FACTS AS WELL AS YOUR UNDERSTANDING OF THE CONCEPTS AFFECTING GOODWILL. HOWEVER, IT IS STRONGLY RECOMMENDED TO HAVE AN EQUAL NUMBER OF ATTRIBUTES IN EACH CALCULATION.]

### **a. Personal Goodwill Attributes (“PGA”)**

A personal goodwill attribute is one that is indicative of goodwill directly associated with an individual. Assessment of these attributes are a direct reflection of the consumers that seek out the individual, are referred to the individual, or repeat patronage due to the attributes of the individual as opposed to other attributes that are reflective of the business.

To better understand the source and impact of the attributes, the personal attributes are grouped by Personal, Business, and Industry.

#### **Personal Group**

The personal group attributes are those that specifically and directly relate to the individual whose goodwill is being allocated. They reflect the efforts of the individual, or are inherent to the individual. For example, extensive professional education and certification with a governing body of the industry.

**[HELPER TEXT: YOU MAY WISH TO EXTEND THE DISCUSSION OF EACH ATTRIBUTE BY INCLUDING REFERENCES TO THE FACTS IN THE VALUATION, AND EVEN THE REASONS FOR YOUR CHOICES FOR THE UTILITY. YOU MAY WISH TO INCLUDE YOUR UTILITY ASSESSMENTS OF IMPORTANCE AND EXISTENCE FOR EACH ATTRIBUTE.]**

### **1. Ability, Skill, and Judgment**

The individual’s ability, skill, and judgment demonstrate the personal traits that increase personal goodwill by helping to satisfy consumers. The analyst must determine the relevance of these traits to the consumer’s decision to patronize the business. The stronger the relationship of these attributes to the consumer’s patronage, the greater the likelihood that the goodwill is personal.

### **2. Work Habits**

The individual’s work habits can directly affect the business’s revenues. A regular schedule of long hours, commitment to continuing training and education, and other positive work habits that increase earnings are analyzed as factors that may increase personal goodwill.

### **3. Age and Health**

The age and health of the individual whose personal goodwill is being assessed helps the analyst consider the likely longevity of the continuing goodwill. This could be particularly important if the individual's health is poor and/or the age is advanced.

### **Business Group**

Business attributes are the result of decisions made by management, including the individual whose goodwill is being allocated, that affect the organization, its operations, finances, quality of the product or service, or the image of the business. An example is the decision by the business to use a name that is closely associated with the founder of the business.

#### **1. Personal Reputation**

If the reputation of the individual whose personal goodwill is being assessed is positive and strong then the likelihood increases that the resulting goodwill is personal.

#### **2. Personal Staff**

Personal staff employees work for the business because of the personal reputation or knowledge of the individual whose personal goodwill is being assessed. If employees of a business chose to work for the business specifically to have the opportunity of working with and learning from this individual, they are more inclined to leave if this individual is no longer associated with the business.

#### **3. Personalized Name**

If the name of the business carries the name of the individual, there may be a greater level of personal goodwill present. The goodwill may be more difficult to transfer, particularly if a name change is anticipated.

#### **4. Marketing and Branding**

Name recognition for the individual, as opposed to the product or service, that is established through marketing efforts to tie the individual's name to the business may indicate a higher level of personal goodwill. This might involve the individual's direct involvement in media advertisements and other marketing efforts.

### **Industry Group**

Industry attributes are defined by the characteristics of the industry, as opposed to actions taken by the individual or the business's management. Closeness of



contact is generally determined by the industry, for example, the close contact between a dentist and a patient.

### **1. In-bound Referrals**

A personal in-bound referral is defined as a referral from an outside source, such as a patient or a referring physician, that has been made to a particular individual. The person making the referral is aware of some trait that makes the individual an appropriate referral. Typically, referrals are made because an individual has a specialized skill, talent, or reputation, and has inspired confidence in the referral source. Thus, personal in-bound referrals usually indicate a greater level of personal goodwill.

### **2. Closeness of Contact**

When a service is performed or product is offered by the individual, the closeness of contact generally increases the likelihood that the goodwill generated will be personal. For example, an anesthesiologist may have little or no personal contact, while a podiatrist can have substantial personal contact.

### **3. Important Personal Nature**

This attribute is based on the premise that consumers generally are more concerned with the level of service when that service is of a very important personal nature. For example, while nearly all physicians deliver an especially personal service, the personal intensity of the service may be very different. Seeing a general practitioner about a chest cold is much different and less intense than seeing an ophthalmologist about a cornea replacement.

## **b. Enterprise Goodwill Attributes ("EGA")**

An enterprise goodwill attribute is one that is indicative of goodwill directly associated with the business. Assessment of these attributes is a direct reflection of consumers that seek out the enterprise, are referred to the enterprise, or repeat patronage due to the attributes of the enterprise as opposed to other attributes that are reflective of the individual.

To better understand the source and impact of the attributes, the enterprise attributes are grouped by Business and Industry.

### **Business Group**

Business attributes are the result of decisions made by management, including the individual whose goodwill is being allocated, that affect the organization, its operations, finances, quality of the product or service, or the image of the business. An example is the decision by the business to have multiple locations.

## **1. Business Reputation**

The reputation of the business is always a factor in determining the attraction of new business and a consumer's likelihood to return for future business. If the reputation is more directly related to the business in general, as opposed to the individual providing the service, then the goodwill is more likely enterprise goodwill.

## **2. Business Staff**

A staff or workforce that is in place, properly trained, and effectively managed is an indication of enterprise goodwill. In many businesses, the employees keep the customers returning.

## **3. Business Name**

If the business has a name that is not personal, there may be a greater level of enterprise goodwill present and it may be easier to transfer. Businesses that have potential for personal goodwill will tend to have more enterprise goodwill when the name includes the more generic references, such as clinic, institute, or group. When the business name is selected for broader market appeal and is disassociated with individual recognition, enterprise goodwill is more likely.

## **4. Business Location**

A business that is easily accessible and an ideal location may have more enterprise goodwill. Convenience and recognition may be important factors to a particular business. Alternatively, a hard-to-find location may indicate that consumers are returning for other reasons, such as personal attention, price, or customer support.

## **5. Multiple Locations**

If a business has multiple locations, it may mean that the goodwill is more associated with the enterprise, and less with the individual. The individual cannot be in all locations at the same time and consumers' satisfaction is more likely to be associated with factors other than personal.

## **6. Marketing and Branding**

Name recognition for a product or service that is established through a marketing program and has achieved significant branding may indicate a higher level of enterprise goodwill. Marketing of the clinic, institute, etc., as opposed to the individual, helps to establish the enterprise as the source of the satisfaction.

## **7. Systems and Organization**

The systems and organization attribute refers to all of the decisions made by management that create the structure of the business. It is broader than computer systems, and encompasses policies, manuals, procedures, methodology, and forms and documents developed to support the operations.

### **Industry Group**

Industry attributes are defined by the characteristics of the industry, as opposed to actions taken by the individual or the business's management. A repeating revenue stream, such as fees from annual income tax preparation, may be beneficial to all businesses, but it naturally exists in some businesses and is absent in others.

#### **1. In-bound Referrals**

A business in-bound referral is defined as a referral from an outside source, such as a patient or referring physician that has been made to the business for a particular reason, but not to the specific individual whose goodwill is being allocated. The person making the referral is aware of some trait that makes the business an appropriate referral. Referrals made to a business may be made for a wide variety of reasons, such as price, convenience, referral programs, quality of service or product, and the success of marketing.

#### **2. Repeating Revenue Stream**

The nature of some businesses is that the consumer finds a need for the service on a regular or even scheduled basis. Vaccinations of pets, routine dental cleanings, and annual physicals are examples of specific services that generate repeat business. A consumer relationship that generates revenues through the year or years, although not necessarily on a scheduled basis, could also generate repeat business.

#### **3. Copyrights, Patents, Processes, Etc.**

While these intangibles may have a separate value, the existence of the intellectual rights that are transferable in a sale of a business tend to demonstrate a business that may have enterprise goodwill. If these rights are separately valued, the valuator must take the separate valuation into account. Regardless, the valuator must determine if the rights are directly connected to earnings. They may even be similar to a repeating income stream, which should increase enterprise goodwill.

#### 4. Measure the “Utility” of Each Attribute

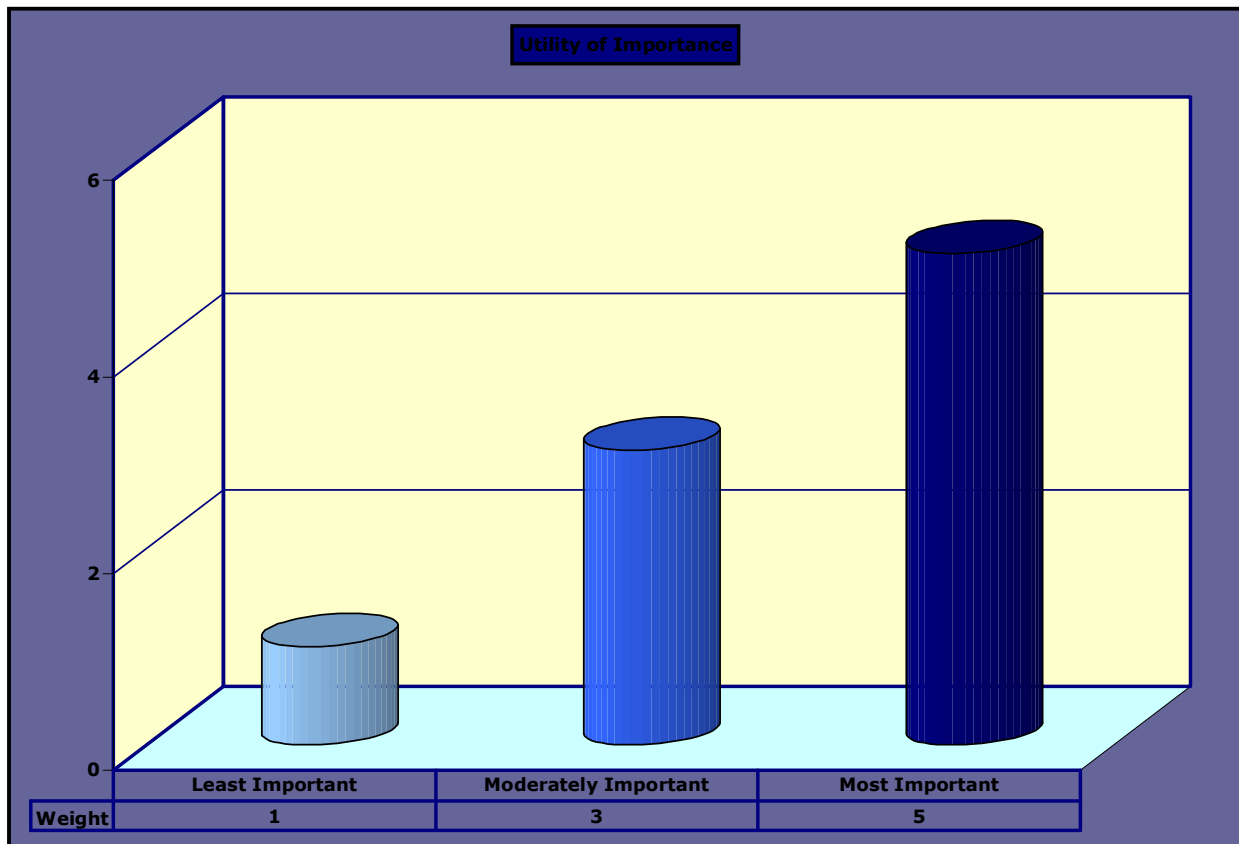
“Utility” as used in MUM is an assessment of each attribute. There are two utilities assessed in this step – the “importance utility” and the “existence utility.” The importance utility is a relative measurement of each attribute’s importance to the valuator. Each attribute has some measure of importance, since it has been selected as an attribute, therefore, the attribute must have a weight greater than zero.

##### a. Importance Utility

Each attribute’s relative importance is determined by the valuator and weighted according to a scale. The scale is a weighted scale with each attribute in relative importance from a “least important” to a “most important” attribute. The assessment and weighting of the importance of each attribute results in the Utility of Importance.

The following is the Utility of Importance:

**[HELPER TEXT:** If you have altered the IU WEIGHTS IN THE MUM EXCEL TEMPLATE, you may need to change THE scale of the EXCEL Chart below and then update the link.]

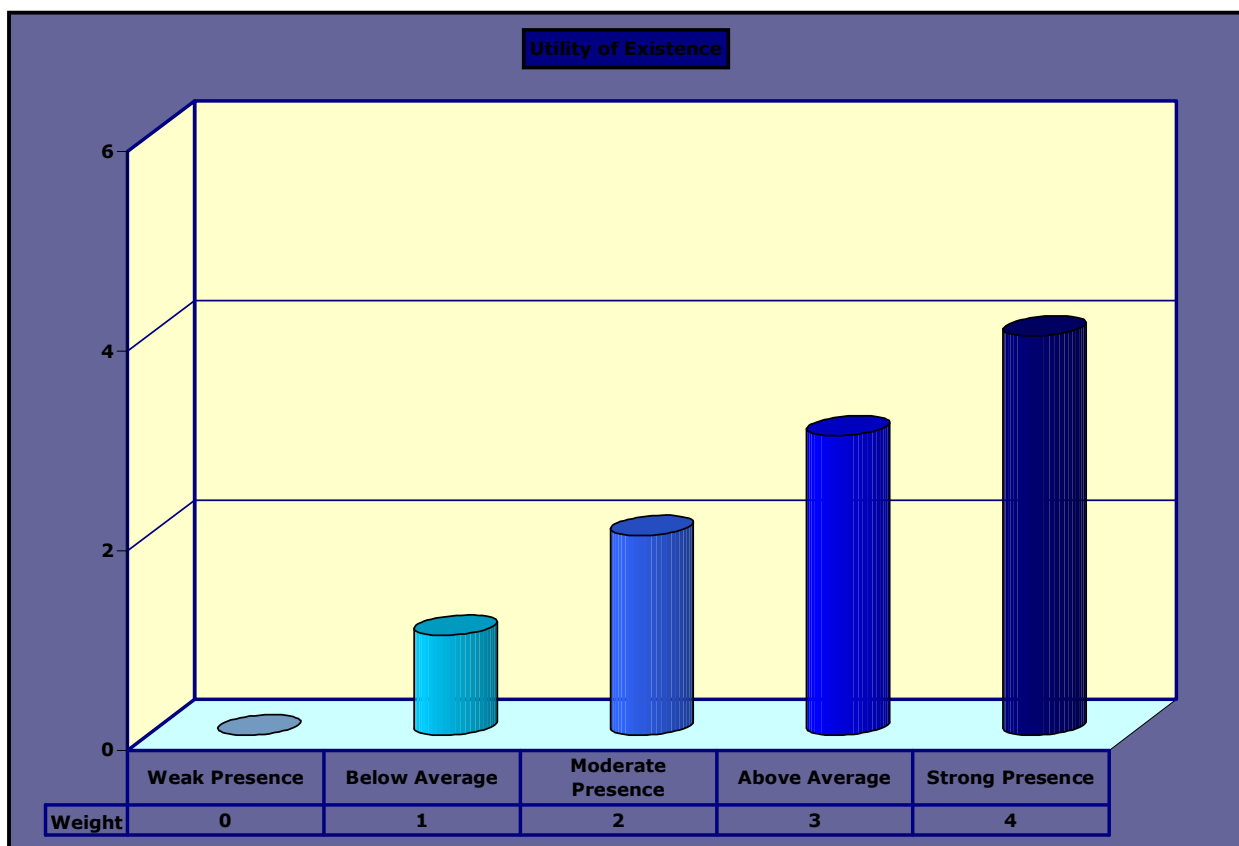


## b. Existence Utility

The valuator examines the business to determine the existence of each attribute. The scale is a weighted scale, similar to the weighted scale for the importance utility. The existence utility weights are continuous with unit weights beginning at zero. This scale allows the valuator to score an attribute with a zero if its presence is weak or absent. The assessment and weighting of the existence of the attributes result in the Utility of Existence.

The following is the Utility of Existence:

**[HELPER TEXT: If you have altered the EU WEIGHTS IN THE MUM EXCEL TEMPLATE, you may need to change the scale of the EXCEL Chart below and then update the link.]**



## 5. Aggregate the Results

Aggregating the results is essentially performing MUM's math. The math underlying the use of MUM in the allocation of goodwill is multiplicative. The attributes are divided into the two groups – personal and enterprise. The importance utility is multiplied by the existence utility for each attribute to determine the multiplicative utility of each attribute. The two groups, personal and enterprise, are subtotaled to provide the PGA Utility and the EGA Utility. The total of the two groups is referred to as the “total multiplicative utility” (“TMU”).

The results for both groups are converted to a percent of the TMU. This represents the relative percentage of the personal goodwill attributes and the enterprise goodwill attributes to the total goodwill to be allocated. This forms the basis for the next step – evaluating and fitting the results to the alternatives.

The following table represents the aggregation of the attribute assessment outcomes:

Personal Goodwill Attributes (PGA) Attribute Assessment and Outcomes					
Personal Goodwill Attributes (PGA)		Importance Utility (IU)	Existence Utility (EU)	Multiplicative Utility (MU)	Percent
Personal	Ability, Skills, and Judgment	Most Important	Strong Presence	20	10%
	Work Habits	Most Important	Strong Presence	20	10%
	Age and Health	Most Important	Strong Presence	20	10%
Intangible	Management/Supervision	Most Important	Strong Presence	20	10%
	Management/Staff	Most Important	Strong Presence	20	10%
	Management/Financial System	Most Important	Strong Presence	20	10%
	Marketing, Sales/Promotion	Most Important	Strong Presence	20	10%
Intangible	Customer Relationships/Retention	Most Important	Strong Presence	20	10%
	Customer Acquisition/Retention	Most Important	Strong Presence	20	10%
	Supplier Relationships/Retention	Most Important	Strong Presence	20	10%
Total Intangible Attributes (Personal + Intangible)				200	100%
Total Intangible Attributes (Enterprise + Intangible)				200	100%

Intentionally Blurred



## II. Conclusion of Value – Goodwill

Based on the assumptions, facts, and circumstances as expressed in this report, and my analysis of the entirety of these factors as set forth in this report, it is my opinion that the fair market value of the personal and enterprise goodwill of [COMPANY], as of [INSERT VALUATION DATE], is as follows:

<b>MUM Goodwill Allocation Outcome</b>		
	Amount	Percentage
Personal Goodwill	\$ -	50%
Enterprise Goodwill	<u>-</u>	<u>50%</u>
Total Goodwill	<u>\$ -</u>	<u>100%</u>

[END OF REPORT]