

Every so often a new case comes down from the Court and causes a stir. *Marriage of Alexander*¹ is one of those cases. Valuation people are scouring to find out about MUM. Divorce attorneys want to make sure that their appraiser is familiar with MUM. What is all the fuss about MUM?

Recently, a case came out of the Appellate Court where a valuation professional successfully used the multi-attribute utility model theory for his allocation of personal and enterprise goodwill.

James and Valery Alexander were married on August 10, 1985. The parties separated in July 1999 and on November 6, 2001, James filed a petition to dissolve the marriage. The evidence presented at the dissolution hearing revealed that James graduated from medical school in 1988. In 1997, he opened his own medical practice as a family practitioner. At the time of the dissolution, James had offices in Harrisburg and Marion and employed two physician assistants.

According to his 2003 tax return, the practice grossed approximately \$950,000. James reported his gross business income at \$201,841. His 2002 tax return reported his practice grossed approximately \$842,000, of which James reported his personal gross business income at \$325,416.

The first issue raised by James on appeal is whether the circuit court erred in admitting the expert testimony of David Wood, CPA/ABV, CVA (appraiser for Valery). In its order, the circuit court noted the extremely "different evaluations" that each party had placed on the value of James's medical practice. The circuit court noted that James claimed the practice was worth \$20,000 and that Valery claimed that the practice was worth \$581,000. The first issue raised by James strictly pertains to the value of enterprise and personal goodwill in the practice.

Goodwill Overview

Personal goodwill is that goodwill that attaches to the persona and the personal efforts of the individual. Enterprise goodwill is the goodwill that attaches to the business enterprise.²

The most widely cited case which indicates the factors to be considered when valuing professional (i.e., personal) goodwill is Lopez v. Lopez (113 Cal. Rptr. 58 (38 Cal. App. 3d 1044 (1974))). The factors determining the amount of personal goodwill were:

- Age and health of the professional
- Professional's demonstrated earning power
- Professional's reputation in the community for judgment, skill and knowledge

¹ In Re Marriage of Alexander, Appellate Court of Illinois (5th District) No. 5-05-19, September, 2006.

² Hitchner, James, Financial Valuation Application and Models, 2003, p.621.

- Professional's comparative professional success
- Nature and duration of the professional's practice, either as a sole proprietor or as a contributing member of a partnership or professional corporation

In addition, these factors can be relevant in determining enterprise goodwill and thus in allocating the goodwill between personal and enterprise:

- Marketability of the practice
- Types of clients and services
- Location and demographics
- How the fees are billed
- Source of new clients
- Individual practitioner's amount of production
- Workforce and length of service
- Number of other professionals in the community competing in the same service or specialty

At the dissolution hearing, Valery's appraiser testified that, in his opinion, James's medical practice had a total goodwill value of \$350,000, of which \$245,000 consisted of enterprise goodwill and \$105,000 consisted of personal goodwill. In reaching his conclusion, he testified to utilizing an approach called the multi-attribute utility model (MUM). On appeal James argues, as he did before the circuit court, that the appraiser's testimony pertaining to the value of enterprise and personal goodwill should not have been admitted because the MUM used by the appraiser to form his opinion is a novel and scientific methodology that is not generally accepted in the relevant scientific community. Accordingly, James argues the appraiser's opinion on the amount of the total goodwill that constituted enterprise goodwill was inadmissible under *Frye v. United States*, 293 F. 1013 (D.C. Cir. 1923).

After considering James's arguments, the circuit court specifically found, "Mr. Wood's approach, though not scientific, was thoughtful and persuasive." Although the circuit court admitted his testimony, it rejected his proposed total goodwill figure of \$350,000 and found James's medical practice had a total goodwill value of \$240,000. The circuit court then employed Wood's opinion to the extent that he suggested approximately two-thirds of the total goodwill in the practice consisted of enterprise goodwill. The circuit court then found that \$160,000 of the total value of goodwill in James's medical practice constituted enterprise goodwill.

On appeal, James does not challenge Wood's qualifications as an expert. James also does not contend that his testimony would not aid the Trier of fact in understanding the evidence. James's argument is simply that Wood's methodology used to determine the allocation of enterprise and personal goodwill, is

a novel scientific methodology not accepted by the relevant scientific community and therefore his opinion derived from this methodology is inadmissible under *Frye*.

Illinois has adopted the Frye standard for use when courts are faced with a question of the admissibility of novel scientific evidence. *People v. Basler*, 193 III. 2d 545 (2000). The *Frye* test is also known as the general-acceptance test. This brings us to the theory the appraiser used for his allocation of personal and enterprise goodwill.

Multi-attribute Utility Model (MUM) ■ ■

Multi-attribute utility models are mathematical tools for evaluating and comparing alternatives to assist in choosing among them. They are designed to answer the question, "Given the factors we care about, what's the best choice?" MUMs are based on the assumption that the desirability of a particular alternative depends on how well its attributes measure up against key evaluation factors. For example, if you are shopping for a new car, you will prefer one over another based on how well each one scores on the factors you think are important, such as price, reliability, safety ratings, fuel economy, and style. These models can be applied in all kinds of decision situations and are often used in the technical and programmatic parts of procurement evaluations.

MUMs offer a structured way to weight, evaluate, and compare possible alternatives. They offer a quantifiable method for choosing among options. MUMs can also be used to explore the consequences of changing the attributes, their weights, or the scores they receive. Since the model usually is embodied in a simple spreadsheet, it is possible to make any number of changes and review the results. For example, if it appears that some attribute is too important in determining the results, the weights can be adjusted to produce different overall scores and to see if those differences really matter to the final decision.

One of the most useful benefits of using MUMs is that it makes clear to all involved the basis on which the alternatives are being evaluated. Some choices need to reflect evaluation of many criteria. MUMs help model that complexity by converting the evaluation to a numerical score while still presenting the logic behind the score.

In the following tables, Wood defines a seven-step guide that can offer reasonable support against evidentiary challenges.³

The steps are as follows:

1 Define an Objective

Determine the value of personal and enterprise goodwill from total goodwill in a well founded basis to be used effectively in the support for the opinion of value.

³ Wood, David, "Goodwill Attributes: Assessing Utility", The Value Examiner, January/February 2007, page 20-29.

2 Establish the Alternatives

The alternatives define the possible outcomes. The alternatives are selected as a range of percentages of personal goodwill. The outcome for each range is a specific personal goodwill percentage within the range. Enterprise goodwill is the reciprocal percentage. See Table 1 below.

	Table 1 – Five Alternative Ranges					
	From	То	Outcome			
1	0%	20%	10%			
2	20%	40%	30%			
3	40%	60%	50%			
4	60%	80%	70%			
5	80%	100%	90%			

3 Define the Attributes

Divide the attributes into the two categories, personal attributes and enterprise attributes.

4 Determine the Attribute's Importance and Existence Utilities

The importance utility is an assessment of how important the attribute is in making an allocation between enterprise and personal goodwill. MUM presumes that an attribute selected has some merit, and thus, has a weight greater than zero. See Table 2 below.

Table 2 – MUM Importance Utility Weights

	Weight	
Least Important	1	
Moderately Important	3	
Most Important	5	

To determine the existence utility, you assess the presence of the specific attribute. An important attribute would not have as much impact on goodwill if the attribute exists only in small quantities. Each attribute is assessed to determine its existence, and then is weighted accordingly. An example of the existence utility weights is shown in Table 3.

Table 3 – MUM Existence Utility Weights

	Weight
Weak Presence	0
Below Average	1
Moderate Presence	2
Above Average	3
Strong Presence	4

5 Aggregate the Results

Divide the attributes into the two groups, enterprise and personal. Then multiply the importance utility by the existence utility to determine the attribute's multiplicative utility. Establish the respective percentages of each attribute for personal and enterprise goodwill. The following table shows the attributes and the computed utilities for a business with significant personal goodwill.

Table 4							
Ir	nportance Utility	Existence Utility		Percentage			
Personal							
Goodwill Attributes							
Ability, Skill and Judgment	5	3	15	22.4%			
Work Habits	3	3	9	13.4%			
Age and Health	1	2	2	3.0%			
Closeness of Contact	5	2	10	14.9%			
Important Personal Nature	5	3	15	22.4%			
Total Personal Utilities	19	13					
Total Multiplicative (PGA) U	tility		51	76.1%			
Enterprise							
Goodwill Attributes							
Enterprise Staff	3	1	3	4.5%			
Business Reputation	5	2	10	14.9%			
Business Name	3	1	3	4.5%			
Marketing and Branding	3	0	0	0.0%			
Repeating Revenue Stream	5	0	0	0.0%			
Total Enterprise Utilities	19	4		0.0%			
Total Multiplicative (EGA) Ut		16	23.9%				
Total Multiplicative Utility (TMU)				100%			

6 Fit the Results to the Alternative and Analyze the Outcomes

Fit the goodwill attributes utility and the enterprise goodwill attributes utility outcome percentage (see table above) into an alternatives table such as Table 1. The outcome is expressed as a percentage of personal goodwill. The difference between total goodwill and personal goodwill is the enterprise goodwill.

In Table, 4, the resulting multiplicative personal goodwill attribute was calculated to be 76.1%. In Table 1, the resulting outcome would be rounded to 70% as the 70 percent personal goodwill. Next, you would review and analyze the outcome using sensitivity analysis on the attributes to challenge and confirm assessments.

7 Express an Opinion

Assessing the attribute's utilities and fitting the outcomes to the alternative provides the basis for the opinion of the allocation between personal and enterprise goodwill. This opinion may be expressed as an opinion of value or as an estimate of value.

Conclusion

Principally, MUM has some merit. It is easily readable by the Court to discover how the valuation professional determined the allocation of goodwill. Many times appraisers will simply put a percentage allocation together commenting on his reasoning. Others may attempt to value the intangible assets associated with a business, claiming that these identifiable intangible assets are enterprise goodwill. Some appraisers simply ignore distinguishing between personal and enterprise claiming it is an all or nothing circumstance.

It is commonly said, "Valuation is more art than science". That being said, there are certainly some generally accepted methods in valuation which have a certain amount of scientific theory. However, there is also a fair amount of subjectivity.

So don't be fooled by thinking that this method is a complex scientific equation that will give you a magic number. MUM is just math. As with many mathematical equations, the accuracy of the result depends a great deal on the input variables used.

Ultimately, I must agree with the court when it cited that MUM, "although not scientific, it is thoughtful and persuasive."

Conventionally, elements of a MUM characterizing a decision maker's preferences, such as attribute weights and attribute utilities, are treated as deterministic, which may be unrealistic because assessment of such elements can be imprecise and erroneous, or differ among a group of individuals.

Thus, the attack on MUM is no different than what cross-examiners have done in the past. Mr. Appraiser, why did you put x amount of weight on this attribute and y amount of weight on that attribute? The attack of valuation people will continue to be on the subjectivity of the opinions they use in their appraisals, no matter what theory is used.

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