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ALLOCATING GOODWILL LEARNING TO TRUST THE MULTI-ATTRIBUTE UTILITY MODEL (MUM)





HOW MUM WORKS

MULTIATTRIBUTE UTILITY MODEL (MUM) STEPS

- Establish Objective
- Establish Outcome Alternatives
- Define Attributes
- Assess Attributes' Utility
- Aggregate Results
- Fit Results to Alternatives
- Express Opinion

STEP 1 – ESTABLISH THE OBJECTIVE

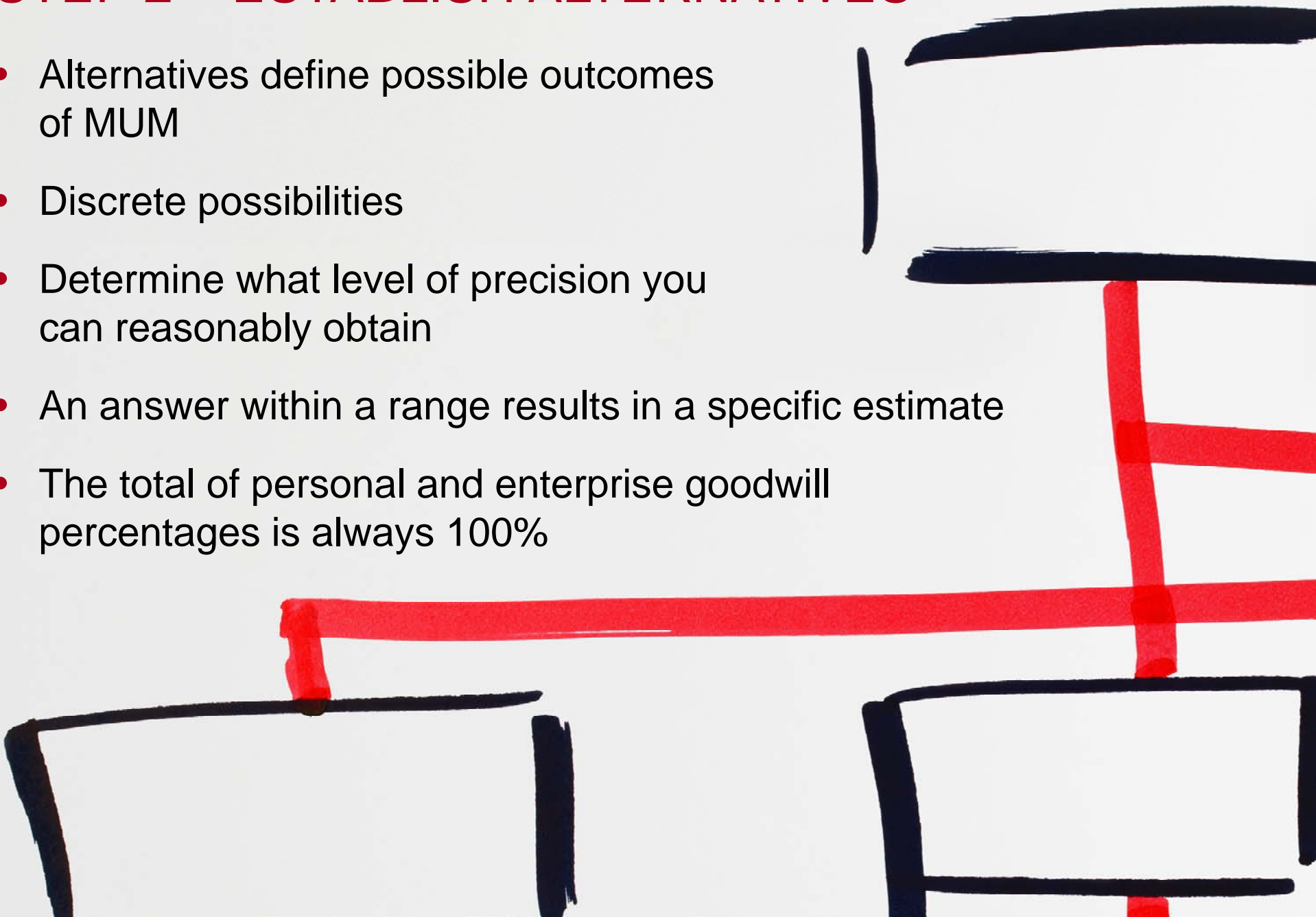
Determine the value of two elements of goodwill, personal and enterprise, such that a reasonable, well-founded basis can be communicated as the support for the opinion of value

Two equally important objectives

- What is the answer?
- How did we get there?

STEP 2 – ESTABLISH ALTERNATIVES

- Alternatives define possible outcomes of MUM
- Discrete possibilities
- Determine what level of precision you can reasonably obtain
- An answer within a range results in a specific estimate
- The total of personal and enterprise goodwill percentages is always 100%



EXAMPLE - ALTERNATIVES

Based on 10 scenarios, the possible allocations would be anywhere from 5% personal goodwill to 95% personal goodwill in 10% increments

Scenario	Personal Goodwill			Enterprise Goodwill		
	Minimum	Maximum	Result	Minimum	Maximum	Result
1	0%	10%	5%	90%	100%	95%
2	10%	20%	15%	80%	90%	85%
3	20%	30%	25%	70%	80%	75%
4	30%	40%	35%	60%	70%	65%
5	40%	50%	45%	50%	60%	55%
6	50%	60%	55%	40%	50%	45%
7	60%	70%	65%	30%	40%	35%
8	70%	80%	75%	20%	30%	25%
9	80%	90%	85%	10%	20%	15%
10	90%	100%	95%	0%	10%	5%

STEP 3 – DEFINE THE ATTRIBUTES

- Attribute (noun) – a quality, property, or characteristic
- Attribute (verb) – a feature taking on the qualities of causation
- We are interested in the characteristics and features that cause earnings, so we use both definitions
- We'll discuss these in detail later

STEP 4 – ASSESS ATTRIBUTES' UTILITY

- Assess the utility of each attribute as it relates to personal and enterprise goodwill
- Start with a balance of personal and enterprise attributes
- Importance Utility – How important?
- Existence Utility – How prevalent?

STEP 4 – IMPORTANCE UTILITY

Focus is on cash flow and earnings

- Attract new customers?
- Keep existing customers in the fold?
- Make it more likely to get referrals?

MUM presumes that the attribute must have some merit, so all weights are greater than zero

- Important (1)
- More Important (3)
- Key (5)

The importance utility is based on the industry

STEP 4 – EXISTENCE UTILITY

Focus is still on cash flow and earnings

- Does the attribute's presence add to earnings?
- Does its absence detract from earnings?

How prevalent is the attribute?

- 0 – no/weak presence
- 1 – below average
- 2 – moderate
- 3 – above average
- 4 – strong presence

Existence is determined by management interviews, observations, research, and intuition

STEP 5 – AGGREGATE RESULTS

- Do the math
- $\text{Multiplicative utility} = \text{Importance} \times \text{Existence}$
- Provides a framework to distill your industry research and specific company research into one place
- Determines relative weight of personal goodwill and enterprise goodwill, as a percentage

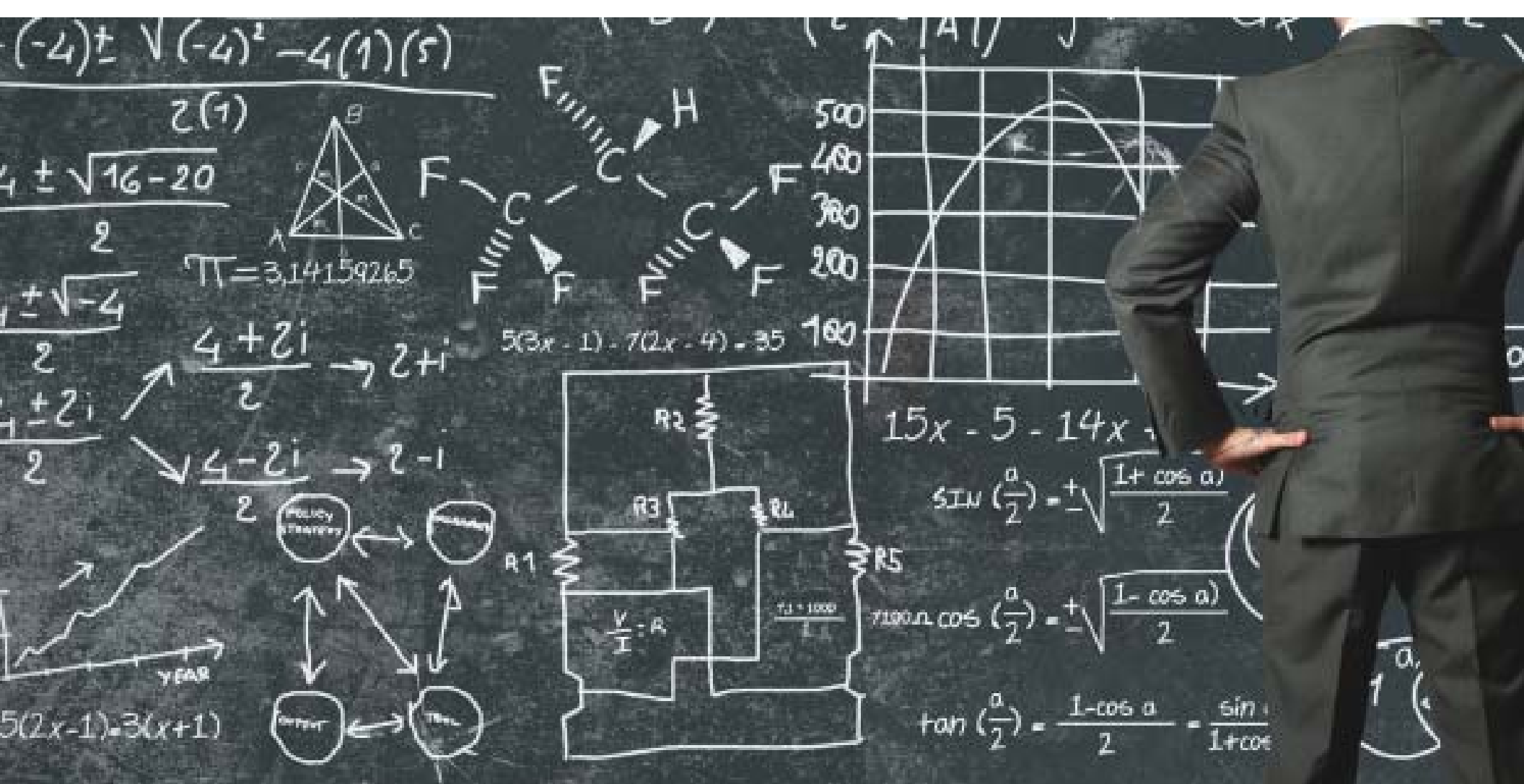
STEP 6 – FIT RESULTS

- Determine the scenario based on results
- Test sensitivity
 - What if analysis on high impact utilities
 - What would it take to shift scenarios?
 - What if you overestimate (or underestimate) management's abilities?
- Finalize opinion

STEP 7 – EXPRESS CONCLUSION

Develop a conclusion of value in accordance with whatever report writing standards are required. As it relates to MUM, explain:

- What the objective was
- How MUM works
- How you determined importance
- How you determined existence
- What your resulting opinion of the allocation was
- Any external reference points / checks to the allocation



DEFINING ATTRIBUTES

DEFINING ATTRIBUTES

There are 20 total attributes

- 10 personal
- 10 enterprise

Within each category, a farther breakdown

- Personal
 - Business
 - Industry

You have choice of which attributes to include, but you must start with a balance

PERSONAL GOODWILL ATTRIBUTES

Personal Group

Individual efforts, inherent to the individual

Business Group

Management decisions affecting operations, finances, service, or image

Industry Group

Industry characteristics, as opposed to actions of individuals or management

PERSONAL GROUP (PGA)

- Ability, skills, and judgment
- Work habits
- Age and health

BUSINESS GROUP (PGA)

- Personal reputation
- Personal staff
- Personalized name
- Marketing and branding

INDUSTRY GROUP (PGA)

- In-bound referrals
- Closeness of contact
- Important personal nature

ENTERPRISE GOODWILL ATTRIBUTES

- No personal group
- Business group
- Industry group

BUSINESS GROUP (EGA)

- Business reputation
- Business staff
- Business name
- Business location
- Multiple locations
- Marketing and branding
- Systems and organization

INDUSTRY GROUP (EGA)

- In-bound referrals
- Repeating revenue streams
- Copyrights, patents, processes, other intellectual property

CASE STUDY

A black and white photograph of a coiled cable on a tiled floor. The cable is dark and glossy, forming a series of overlapping loops that curve from the bottom left towards the top right. The floor is made of light-colored square tiles with dark grout lines. The lighting creates highlights on the cable's surface, emphasizing its texture and the curve of the coils.

HOW DOES THIS ALL WORK?

Case study

Assumptions:

- We're in a state that uses fair market value (FMV) as a definition, but wants to exclude any personal goodwill from the marital estate
- We've already arrived at FMV and the parties stipulated as to the Net Asset Value of the company

BACKGROUND

- Animal hospital
- Founder/sole owner (husband, DVM)
- Located in affluent suburb of major metropolitan area
- Wife (attorney and CPA) wants her due

What is she due?

THE STARTING LINE

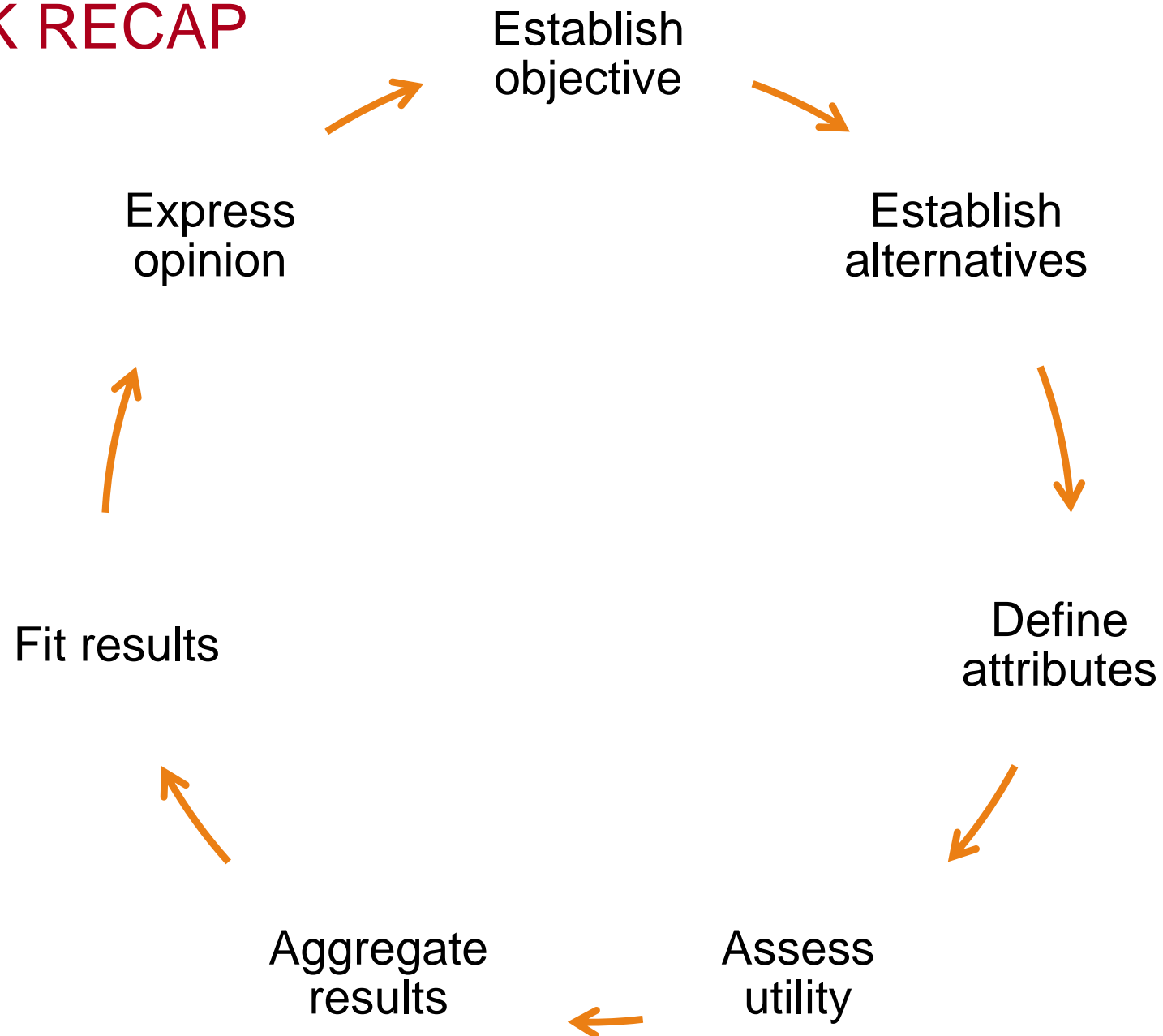
Husband's position

- I founded it
- It exists because of me
- It's mine

Wife's position

- I ran the household so you could found it
- I handled all the business decisions
- It's ours

QUICK RECAP



STEP 1 - ESTABLISH OBJECTIVE

- Determine the allocation of goodwill between enterprise and personal goodwill
- Add enterprise goodwill to net asset value to determine the fair market value of the company without regard for any elements of personal goodwill

STEP 2 – ESTABLISH ALTERNATIVES

- Choose how many bins for possible outcomes

Scenario	Personal Goodwill			Enterprise Goodwill		
	Minimum	Maximum	Result	Minimum	Maximum	Result
1	0%	25%	13%	75%	100%	88%
2	25%	50%	38%	50%	75%	63%
3	50%	75%	63%	25%	50%	38%
4	75%	100%	88%	0%	25%	13%

- Allows for flexibility
- You need to make a decision

Scenario	Personal Goodwill			Enterprise Goodwill		
	Minimum	Maximum	Result	Minimum	Maximum	Result
1	0%	10%	5%	90%	100%	95%
2	10%	20%	15%	80%	90%	85%
3	20%	30%	25%	70%	80%	75%
4	30%	40%	35%	60%	70%	65%
5	40%	50%	45%	50%	60%	55%
6	50%	60%	55%	40%	50%	45%
7	60%	70%	65%	30%	40%	35%
8	70%	80%	75%	20%	30%	25%
9	80%	90%	85%	10%	20%	15%
10	90%	100%	95%	0%	10%	5%

STEP 3 – DEFINE ATTRIBUTES

- Basic framework has 20 attributes
- As discussed, there is flexibility
- We've substituted multiple service providers for intellectual property
- Have to start with a balance
- Do you have to always use the same attributes?

THE STORY SO FAR...

- We're allocating goodwill between personal and enterprise goodwill for the purposes of equitable division
- We're going to use 10 possible scenarios – Personal goodwill can range from 5% to 95% in 10% increments
- We're using 20 attributes – Having substituted multiple service providers for IP

STEP 4 – ASSESS UTILITY

- Establish importance – How important is this particular attribute to generate profits in this particular industry?
- Establish existence – Is this particular attribute represented at this particular company?



ESTABLISH IMPORTANCE

Industry research forms the foundation

- IBISWorld, First Research, etc.
- Public companies in the same space
- Trade/Industry associations
- Knowledgeable sources

INDUSTRY RESEARCH ON VETS

Key Success Factors

IBISWorld identifies 250 Key Success Factors for a business. The most important for this industry are:

Ability to quickly adopt new technology

The rate of technology change in the industry is quick. Operators must adopt new diagnosis equipment and tests in order to remain competitive.

Proximity to key markets

Proximity to an area with a high level of pet ownership and personal income is significant in order to ensure a flow of customers. Operators may also choose to locate nearby to agricultural areas where livestock is raised.

Provision of appropriate facilities

Facilities can influence how well a company can serve its clients. In some areas, it is important to provide a 24-

hour service to clients. The care of production animals requires distinct equipment from the treatment of domestic animals.

Convenient access

Convenient location and hours are one of the principal factors in a pet owner's decision as to which veterinarian to use.

Maintain license and regulation requirements

Veterinarians must be licensed in order to operate in the United States. With a limited number of veterinary schools and high education costs, gaining a license is a significant first step to competing in the industry.

Having competitive prices and a good reputation

Most clients pay for veterinary services out of pocket. Customers do not use insurance networks. As such, industry operators must have a positive reputation and offer affordable services.

MAPPING INDUSTRY RESEARCH

Ability to adopt new technology → Systems and organization

Proximity to key markets → Business location

Provision of appropriate facilities → Abilities, skill, and judgment

Convenient access → Business location

Regulatory req'ts → Abilities / Systems

Competitive prices / Good reputation → Abilities / Business Reputation

INDUSTRY RESEARCH ON VETS

VCA Antech 10-K Industry Overview

According to American Pet Products Association, Inc's. ("APPA") *2011-2012 APPA National Pet Owners Survey* , the United States population of companion animals is approximately 189 million, including about 165 million dogs and cats. APPA estimates that over \$30 billion was spent in the United States on pets in 2012 for veterinary care, supplies, medicine and boarding and grooming. The survey indicated that the ownership of pets is widespread with approximately 73 million, or 62%, of U.S. households owning at least one pet, including companion and other animals. Specifically, 46 million households owned at least one dog and 39 million households owned at least one cat.

This goes on for another page or two – and it's free!

MORE FROM THE PUBLIC MARKETS

Animal Hospital Industry (VCA Antech 10-K)

According to the American Veterinary Medical Association, the US market for veterinary services is highly fragmented with more than 52,000 veterinarians practicing at the end of 2012. We have estimated that there are over 22,000 companion animal hospitals operating at the end of 2012. ***Although most animal hospitals are single-site, sole-practitioner facilities, we believe veterinarians are gravitating toward larger, multi-doctor animal hospitals that provide state-of-the art facilities, treatments, methods and pharmaceuticals to enhance the services they can provide their clients.***

INDUSTRY RESEARCH – WHAT DID WE LEARN?

Important

Personalized name

Multiple locations

Age/health of vet

Personalized
marketing/branding

Need to have vet in every
appointment

More Important

Everything else

Key Success Factors

Ability, skills, judgment

Location

Multiple providers

Business Reputation

Systems and
Organization

Recurring revenue
stream

THE STORY SO FAR...

- We're allocating goodwill between personal and enterprise goodwill for the purposes of equitable division
- We're going to use 10 possible scenarios
- We're using 20 attributes
- Based on industry research, we have identified key success factors, as well as attributes aren't expected in the industry

IMPORTANCE UTILITIES

Professional Goodwill Attributes (PGA)	Importance Utility	Enterprise Goodwill Attributes (EGA)	Importance Utility
Ability, Skill and Judgment	5	Business Location	5
Personal Reputation	3	Business Reputation	5
Work Habits	3	Repeating Revenue Stream	5
Closeness of Contact	3	Systems and Organization	5
In-bound Personal Referrals	3	Multiple Service Providers	5
Staff, Personal	3	Business Name	3
Age and Health	1	Inbound Referrals	3
Important Personal Nature	1	Staff, Enterprise	3
Marketing and Branding	1	Marketing and Branding	3
Personalized Name	1	Multiple Locations	1

ESTABLISH EXISTENCE

Existence is evaluated based on the individual company

- Management interviews
- Site visits
- Interviews with key employees, vendors, customers
- Marketing surveys
- Additional company research

WHAT DID WE LEARN?

- Excellent location
- Practice was accredited by the American Animal Hospital Association
- Owner was well-regarded and had built an impressive practice

Owner had stepped away from the practice for 18 months – and profitability had improved

- Practice had a number of recurring revenue streams

EXISTENCE UTILITIES

Professional Goodwill Attributes (PGA)	Existence Utility	Enterprise Goodwill Attributes (EGA)	Existence Utility
Ability, Skill and Judgment	4	Business Location	4
Personal Reputation	3	Business Reputation	4
Work Habits	3	Repeating Revenue Stream	4
Closeness of Contact	2	Systems and Organization	4
In-bound Personal Referrals	2	Multiple Service Providers	3
Staff, Personal	2	Business Name	3
Age and Health	4	Inbound Referrals	3
Important Personal Nature	2	Staff, Enterprise	3
Marketing and Branding	1	Marketing and Branding	1
Personalized Name	-	Multiple Locations	-

STEP 5 – AGGREGATE RESULTS

Do the math

Multi-Attribute Utility Model

Professional Goodwill Attributes (PGA)	Importance Utility	Existence Utility	Mult. Utility	Percent	Enterprise Goodwill Attributes (EGA)	Importance Utility	Existence Utility	Mult. Utility	Percent
Ability, Skill and Judgement	5	4	20	10.64%	Business Location	5	4	20	10.64%
Personal Reputation	3	3	9	4.79%	Business Reputation	5	4	20	10.64%
Work Habits	3	3	9	4.79%	Repeating Revenue Stream	5	4	20	10.64%
Closeness of Contact	3	2	6	3.19%	Systems and Organization	5	4	20	10.64%
In-bound Personal Referrals	3	2	6	3.19%	Multiple Service Providers	5	3	15	7.98%
Staff, Personal	3	2	6	3.19%	Business Name	3	3	9	4.79%
Age and Health	1	4	4	2.13%	Inbound Referrals	3	3	9	4.79%
Important Personal Nature	1	2	2	1.06%	Staff, Enterprise	3	3	9	4.79%
Marketing and Branding	1	1	1	0.53%	Marketing and Branding	3	1	3	1.60%
Personalized Name	1	-	-	0.00%	Multiple Locations	1	-	-	0.00%
Total Multiplicative Utility (PGA)			63	33.51%	Total Multiplicative Utility (EGA)			125	66.49%
Personal Goodwill Allocation (Rounded)				35%	Enterprise Goodwill Allocation (Rounded)				65%
Total Multiplicative Utility (PGA+EGA)			188	100.00%					

(1) Importance Utility is ranked in three categories - key (5), more important (3), important (1).

(2) Existence Utility is weighted from 0-4. 0 indicates no presence, 4 indicates strong presence.

WHAT IF I'M WRONG?

What if her reputation and work habits are strong?

What if the reputation is more personal and less enterprise?

Multi-Attribute Utility Model									
Professional Goodwill Attributes (PGA)	Importance Utility	Existence Utility	Mult. Utility	Percent	Enterprise Goodwill Attributes (EGA)	Importance Utility	Existence Utility	Mult. Utility	Percent
Ability, Skill and Judgement	5	4	20	10.58%	Business Location	5	4	20	10.58%
Personal Reputation	3	4	12	6.35%	Business Reputation	5	3	15	7.94%
Work Habits	3	4	12	6.35%	Repeating Revenue Stream	5	4	20	10.58%
Closeness of Contact	3	2	6	3.17%	Systems and Organization	5	4	20	10.58%
In-bound Personal Referrals	3	2	6	3.17%	Multiple Service Providers	5	3	15	7.94%
Staff, Personal	3	2	6	3.17%	Business Name	3	3	9	4.76%
Age and Health	1	4	4	2.12%	Inbound Referrals	3	3	9	4.76%
Important Personal Nature	1	2	2	1.06%	Staff, Enterprise	3	3	9	4.76%
Marketing and Branding	1	1	1	0.53%	Marketing and Branding	3	1	3	1.59%
Personalized Name	1	-	-	0.00%	Multiple Locations	1	-	-	0.00%
Total Multiplicative Utility (PGA)			69	36.51%	Total Multiplicative Utility (EGA)			120	63.49%
Personal Goodwill Allocation (Rounded)				35%	Enterprise Goodwill Allocation (Rounded)				65%
Total Multiplicative Utility (PGA+EGA)			189	100.00%					
(1) Importance Utility is ranked in three categories - key (5), more important (3), important (1).									
(2) Existence Utility is weighted from 0-4. 0 indicates no presence, 4 indicates strong presence.									

STEP 6 – EXPRESS OPINION

Based on our analysis, it is our opinion that

35%

of the goodwill is personal in nature

THE STORY SO FAR...

- We're allocating goodwill between personal and enterprise goodwill for the purposes of equitable division
- We used 10 possible scenarios and 20 attributes
- Based on industry research, we identified key success factors, as well as attributes aren't expected in the industry
- Based on interviews with various parties, we evaluated the existence of the attributes at the Company

THE STORY SO FAR...

- With this information in hand, we analyzed the allocation of goodwill between personal and enterprise elements
- It is our opinion that 35% of the goodwill is personal in nature and should be excluded from any equitable distribution

STEP 6 – EXPRESS OPINION

Write up what was done. Cover the following:

- MUM as a decision tool
- What scenarios were selected
- What research led to importance selections
- What research led to existence selections
- What opinion was reached

IS IT ONE SIZE FITS ALL?

Once I've done one vet
practice, have I done
them all?

Let's see...



SMALL VET PRACTICE

- Strong vet, everyone comes to work with her
- Poorly organized, doesn't stay on top of vaccination schedules
- Location is pretty good, not great
- Importance is identical to our case

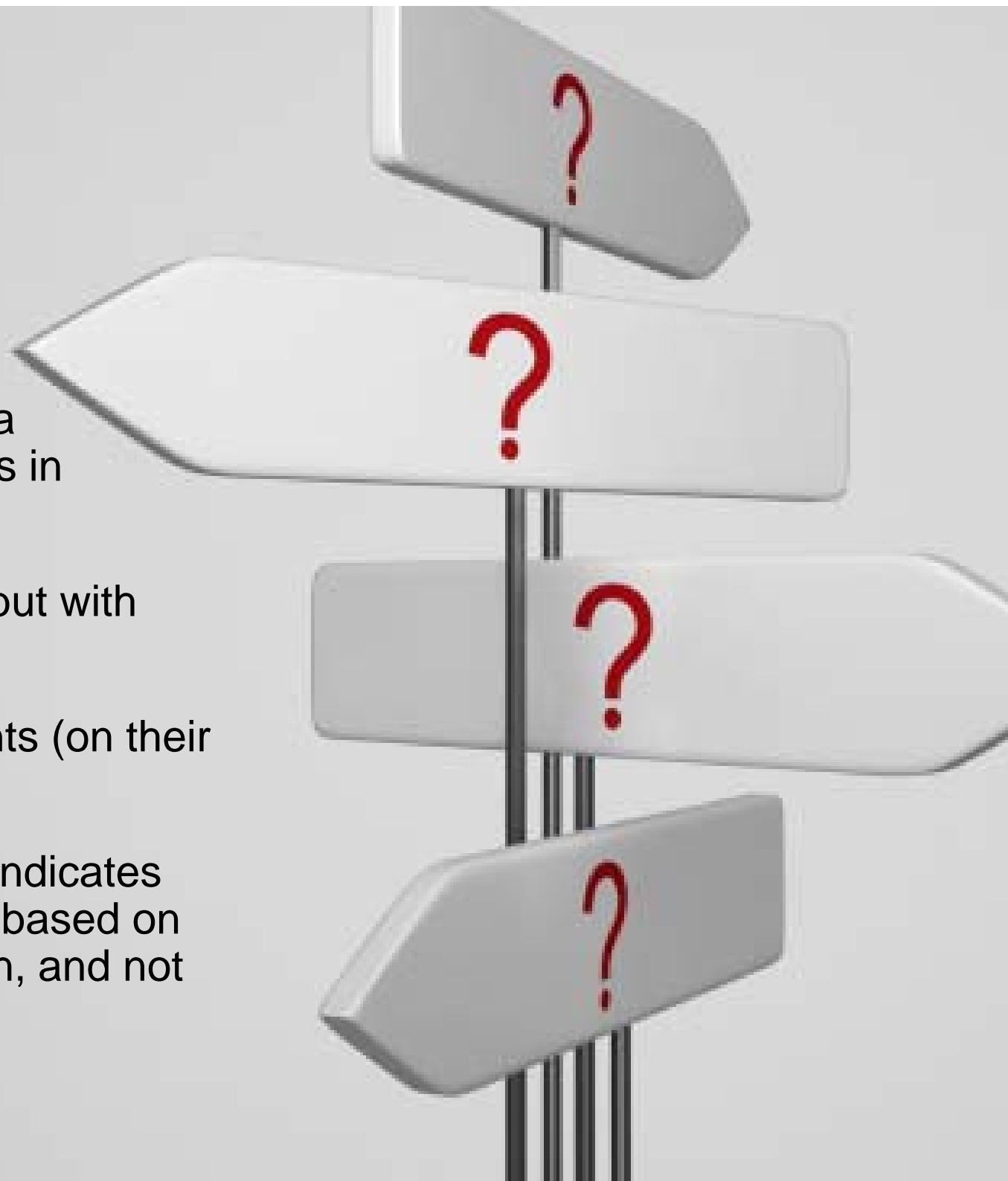
DIFFERENT RESULT BASED ON SITUATION

Looks like 55% personal, not 35% personal for this situation

Multi-Attribute Utility Model									
Professional Goodwill Attributes (PGA)	Importance Utility	Existence Utility	Mult. Utility	Percent	Enterprise Goodwill Attributes (EGA)	Importance Utility	Existence Utility	Mult. Utility	Percent
Ability, Skill and Judgement	5	4	20	13.07%	Business Location	5	2	10	6.54%
Personal Reputation	3	4	12	7.84%	Business Reputation	5	2	10	6.54%
Work Habits	3	4	12	7.84%	Repeating Revenue Stream	5	2	10	6.54%
Closeness of Contact	3	3	9	5.88%	Systems and Organization	5	2	10	6.54%
In-bound Personal Referrals	3	3	9	5.88%	Multiple Service Providers	5	1	5	3.27%
Staff, Personal	3	4	12	7.84%	Business Name	3	3	9	5.88%
Age and Health	1	4	4	2.61%	Inbound Referrals	3	2	6	3.92%
Important Personal Nature	1	2	2	1.31%	Staff, Enterprise	3	2	6	3.92%
Marketing and Branding	1	4	4	2.61%	Marketing and Branding	3	1	3	1.96%
Personalized Name	1	-	-	0.00%	Multiple Locations	1	-	-	0.00%
Total Multiplicative Utility (PGA)			84	54.90%	Total Multiplicative Utility (EGA)			69	45.10%
Personal Goodwill Allocation (Rounded)				55%	Enterprise Goodwill Allocation (Rounded)				45%
Total Multiplicative Utility (PGA+EGA)			153	100.00%					
(1) Importance Utility is ranked in three categories - key (5), more important (3), important (1).									
(2) Existence Utility is weighted from 0-4. 0 indicates no presence, 4 indicates strong presence.									

WHAT IF?

- We are looking at a vet who specializes in race horses
- Solo vet practice, but with helpers
- Travels to the clients (on their jets, often as not)
- Industry research indicates that vets are hired based on personal reputation, and not on location



FACTS AND CIRCUMSTANCES RULE THE DAY

It's not hard to envision a solo practice that has some enterprise goodwill, but the majority is personal goodwill

Multi-Attribute Utility Model

Professional Goodwill Attributes (PGA)	Importance Utility	Existence Utility	Mult. Utility	Percent	Enterprise Goodwill Attributes (EGA)	Importance Utility	Existence Utility	Mult. Utility	Percent
Ability, Skill and Judgement	5	4	20	14.93%	Business Location	3	2	6	4.48%
Personal Reputation	5	3	15	11.19%	Business Reputation	3	1	3	2.24%
Work Habits	3	4	12	8.96%	Repeating Revenue Stream	5	4	20	14.93%
Closeness of Contact	3	4	12	8.96%	Systems and Organization	5	2	10	7.46%
In-bound Personal Referrals	3	4	12	8.96%	Multiple Service Providers	5	-	-	0.00%
Staff, Personal	3	4	12	8.96%	Business Name	3	-	-	0.00%
Age and Health	1	4	4	2.99%	Inbound Referrals	3	-	-	0.00%
Important Personal Nature	1	4	4	2.99%	Staff, Enterprise	3	-	-	0.00%
Marketing and Branding	1	4	4	2.99%	Marketing and Branding	3	-	-	0.00%
Personalized Name	1	4	4	2.99%	Multiple Locations	1	-	-	0.00%
Total Multiplicative Utility (PGA)			95	70.90%	Total Multiplicative Utility (EGA)			39	29.10%
Personal Goodwill Allocation (Rounded)				75%	Enterprise Goodwill Allocation (Rounded)				25%
Total Multiplicative Utility (PGA+EGA)			134	100.00%					

(1) Importance Utility is ranked in three categories - key (5), more important (3), important (1).
 (2) Existence Utility is weighted from 0-4. 0 indicates no presence, 4 indicates strong presence.

WRAP-UP

MUM is a decision tool: Provides a repeatable approach to examine, identify, and analyze elements of goodwill

The basic approach:

- Determine what drives profitability in the industry
- Determining how well the specific company performs compared to the industry expectations
- Determine how much of that performance attaches to the person and how much attaches to the enterprise

The results will vary based on the facts and circumstances of the individual company