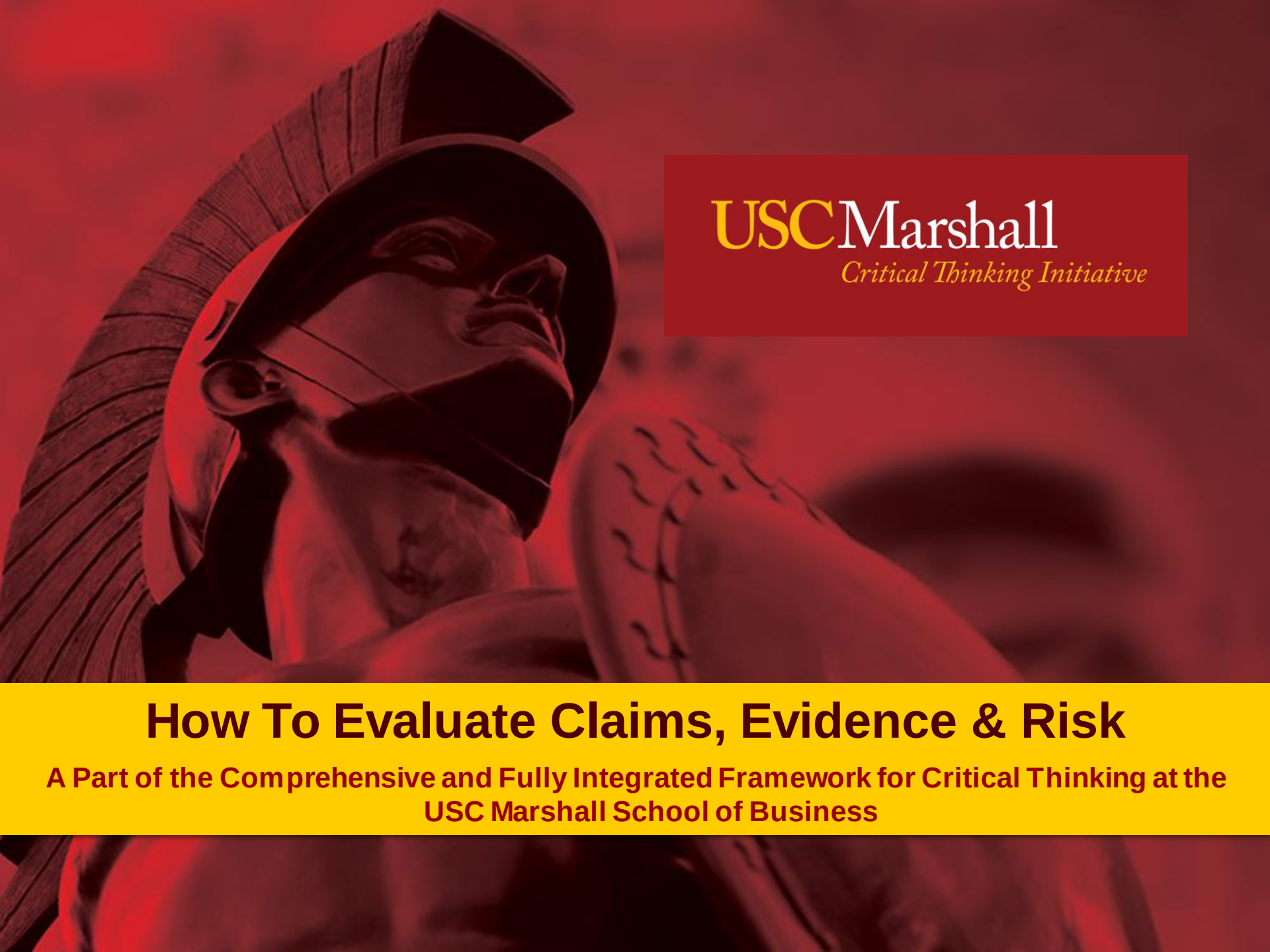


How To Evaluate Claims, Evidence & Risk

A Part of the Comprehensive and Fully Integrated Framework for Critical Thinking at the USC Marshall School of Business

USC Marshall Critical Thinking Initiative

- The *USC Marshall Critical Thinking Initiative* is an on-going school wide effort to enhance our students' critical thinking skills in order to make them more successful problem solvers. Its key components include…
  - ✓ The 5 Step **USC-CT** Problem Solving Process which is designed to help students tackle ambiguous, ill-defined challenges.
  - ✓ The **START** Concept Analysis which is designed to teach fundamental concepts/formulas that are utilized within the USC-CT Process.
  - ✓ **Learning Modules** which are designed to enhance specific skills such as how to reduce biases, how to enhance creativity, and how to evaluate claims & evidence.
- The lesson in this document focuses on **Evaluating Claims, Evidence, and Risks**

Evaluating Claims, Evidence, and Risks

(Note: This document is meant as an introduction to the subject. More in-depth coverage will occur in supplemental readings and classroom exercises)

Evaluating Claims, Evidence, and Risks

- **Objective:** This module is designed to help students critically and skeptically evaluate claims and evidence because business decisions depend upon accurate information well interpreted.
- **Approach:** The Socratic approach is used to help students delve deeper into the assumptions and data that underlie beliefs in order to distinguish between valid and invalid arguments.

Evaluating Claims & Evidence

- **Arguments, Claims and Evidence**

✓ The Argument: An "argument" is a statement that others are trying to convince you is true in order to persuade you. The argument contains two elements…

- The Claim: This is a conclusion that someone is attempting to get you to believe.
- The Evidence: This is the information used to support the claim.

✓ Examples:

- Our new advertising campaign is ineffective (the claim) because sales fell by 20% when the new campaign was introduced (the evidence).
- Our company's new sexual harassment seminars are not working (the claim) because reported sexual harassments are up 50% ever since the seminars began (the evidence).
- Our company's desire to buy its closest competitor is misguided (the claim) because its price/earnings ratio (P/E) is 50 and well above the average P/E (the evidence).

But are these arguments valid?

Evaluating Claims & Evidence

- **Key Elements to Consider:**
  - ✓ Look for alternate explanations for the claim
  - ✓ Realize that correlation is not the same as causation
  - ✓ Avoid being misled by “hard facts”
  - ✓ Consider the credibility of the source of the claim
  - ✓ Don’t be misled by the presenter’s spin & exaggerations
  - ✓ Don’t be misled by your own biases

Evaluating Claims & Evidence

Look For Alternate Explanations for the Claim. Examples…

- Our new advertising campaign is ineffective (the claim) because sales fell by 20% when the new campaign was introduced (the evidence).
  - ➢ Perhaps sales declined because competition introduced a new product at the same time, or the economy went into recession, or the product became counter-trend.

- Our company's new sexual harassment seminars are not working (the claim) because reported sexual harassments are up 50% ever since the seminars began (the evidence).
  - ➢ Perhaps reported harassment went up because the seminars gave employees the courage to finally register complaints that had previously gone unreported due to fear.

Conclusion: Consider all possible explanations, and do research to ascertain which is the most likely root cause.

Evaluating Claims & Evidence

Realize that Correlation Is Not the Same As Causation. Examples…

- Just because sexual harassment claims went up after the seminar does not mean that the seminar *caused* sexual harassment.

- Just because a great many people die in hospitals (deaths correlate high with hospital stays) does not mean that hospitals *cause* deaths.

Conclusion: Don't assume high correlation = causation. Look for 3rd party causes.

Evaluating Claims & Evidence

Avoid Being Misled by "Hard Facts". Examples…

- ✓ Averages:
  - The average salary for the Acme Company's 100 employees is $75,000! But deeper inspection reveals that 99 of them make $10,000 and the CEO makes $6.51 million.
  - The "average" consumer of your product is age 45. But deeper inspection reveals that none are age 45. They divide into two segments; ages 25-35 and age 55-65.

- ✓ Bases:
  - "Sales are up by 75%!" But deeper inspection reveals that the base was only $10,000 to begin, giving a total of $17,500, far short of a $50,000 goal.
  - "It's the #1 brand" could mean it has the highest market share, but it's not much if the share is only 7%.

Conclusion: Dig deeper into numbers. Find the missing/hidden data.

Evaluating Claims & Evidence

Avoid Being Misled by "Hard Facts". Examples…

- ✓ Indices:
  - A consumer segment indexes high for your product (index=500) suggesting it should be a prime target. But deeper inspection reveals that the segment represents only 1% of population that consumed 5% of product. High index, but too small overall.

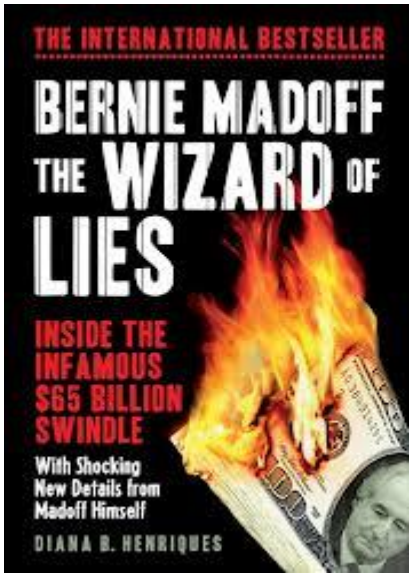
- ✓ Samples:
  - The average starting salary for graduating MBAs at a particular school is $100K. But the sample may be among only those who responded to the survey (who likely had jobs), and those who responded may not be truthful.
  - Projecting that a candidate is likely to win the presidency does not mean much if it is based on a small sample or a non random one.
  - A projected sales of $100 million can vary greatly if the probability of it being accurate at the 90% confidence level is +/- 20%.

Conclusion: Dig deeper into numbers. Find the missing/hidden data.

Evaluating Claims & Evidence

Consider the credibility of the Source of the Claim. Examples…

- ✓ Is the source really an expert?
- ✓ Is the source unbiased?
- ✓ Is the sample small/invalid?



Conclusion: If the source is not an expert, or has a vested interest, or is based on an invalid sample, look for a neutral 3rd party analysis.

Evaluating Claims & Evidence

Don't Be Misled By the Presenter's Spin and Exaggerations

- ✓ Spin/Framing: "A whopping 40% of consumers agree" vs. "Only 40% of consumers agree". A "used car" vs. a "pre-owned car"

- ✓ Exaggerating:
  - "He's always wrong"
  - "Sales are through the roof"
  - "As everyone knows"

Conclusion: Ignore the spin and exaggerations. Draw your own conclusions.

Evaluating Claims & Evidence

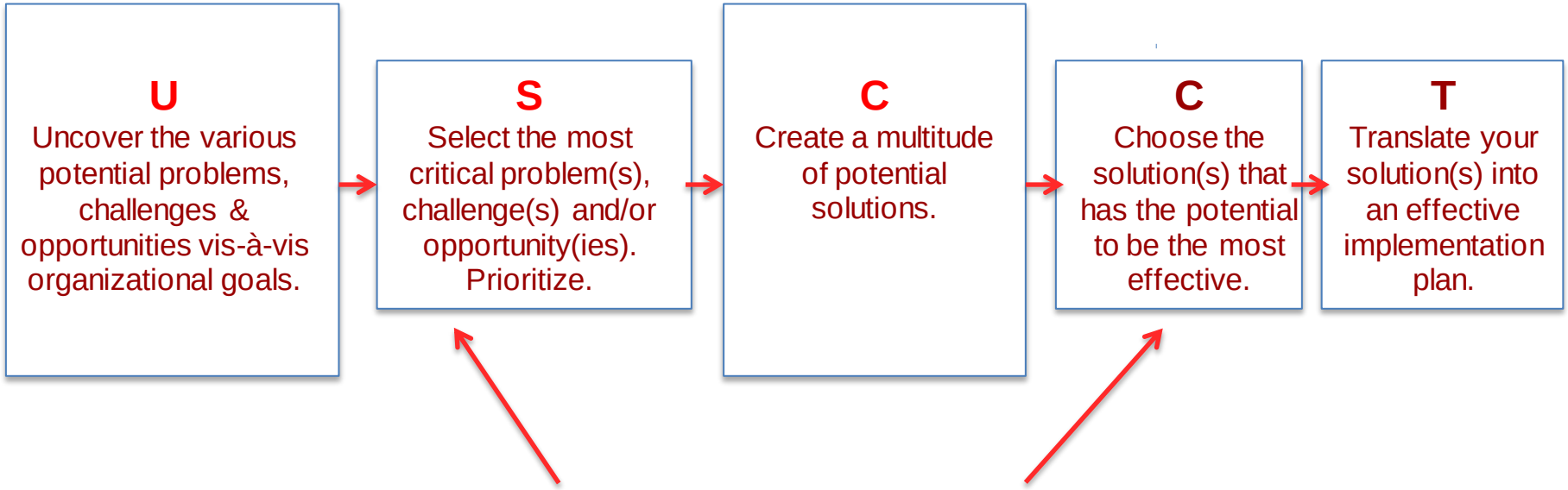
Don't Be Misled By Your Own Biases. Examples…

- ✓ Confirmation Bias: Accepting, ignoring, and /or rejecting information because it supports or doesn't support a preexisting opinion.
- ✓ Self-Serving Bias: Selecting info/solutions to further personal goals, not organizational ones.
- ✓ Availability Bias: Relying upon knowledge that is readily available rather than examining other alternatives or procedures.

Plus many more that are in a separate critical thinking module.

Conclusion: Need to first recognize and then eliminate your own biases.

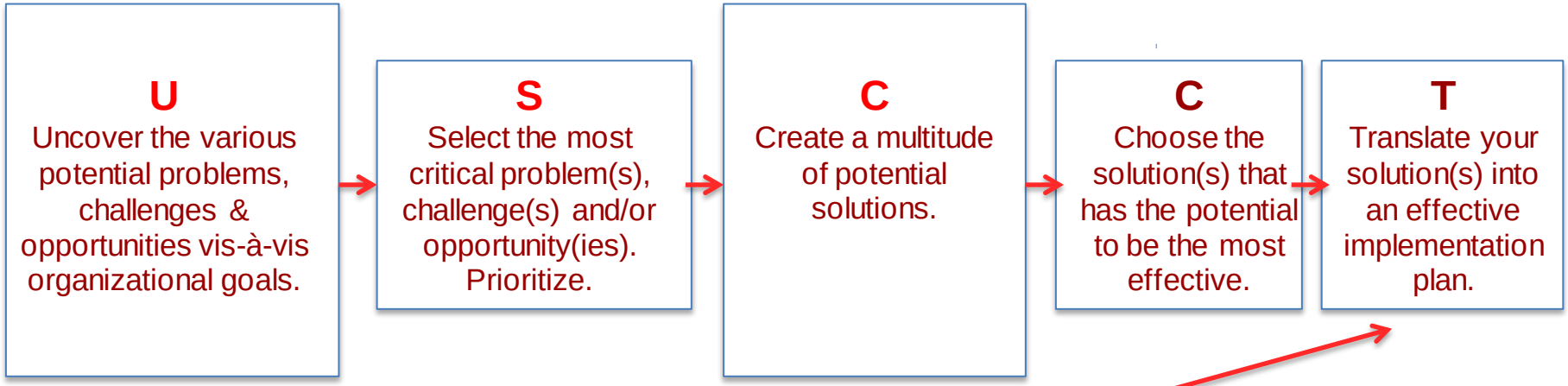
Evaluating Claims & Evidence



Evaluating Claims & Evidence

If you are using the 5 Step USC-CT Problem Solving Process, evaluating claims and evidence is particularly important when selecting the most critical problem, challenge and opportunity, and when choosing the solution that has the most potential of being effective.

Evaluating Risks

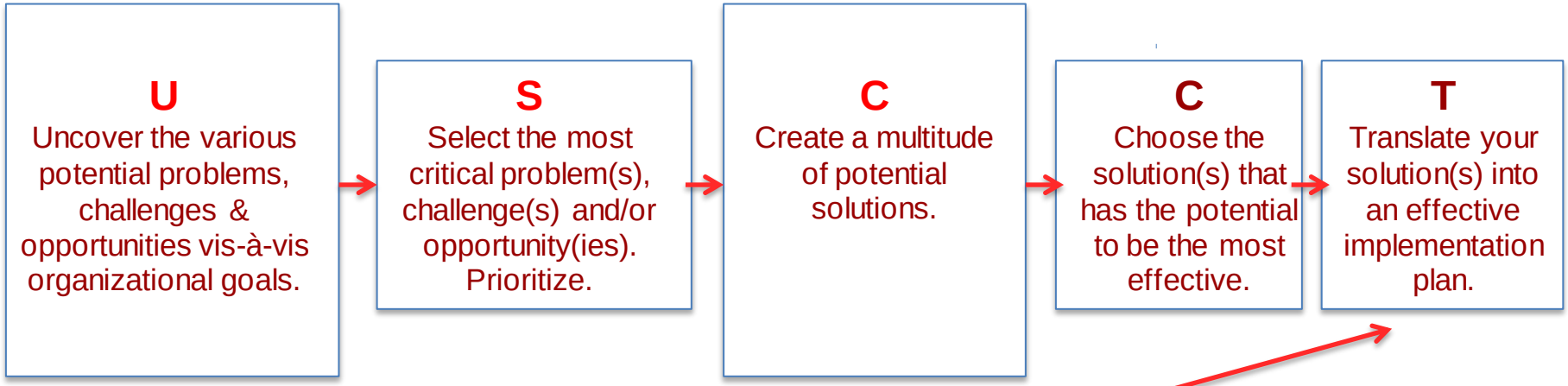


Evaluating Risks

Identifying/evaluating risks of each recommendation is critical when implementing solutions

- ✓ This gives you the downside of each potential solution.
- ✓ You may rethink your decision because of the potential impact on the bottom line.
- ✓ It might bring out other areas to consider before taking actions.

Evaluating Risks



Evaluating Risks

- Positioning lightly carbonated fruit flavored water as a water beverage vs. a carbonated beverage could be perceived incorrectly without market acceptance thus causing new product failure and damage to the brand.
- Using the brand name of a product in a new category could cause confusion and lack of association with the new category resulting in a new product failure.
- Distributing a new product in inappropriate retail stores or in areas of stores that are not where the items are typically found will result in missed sales goals and losses.

Conclusion

In order to make sound decisions and recommendations to address any business challenge, issue, and/or problem:

- ✓ Evaluate all of the facts, including claims or evidence.
- ✓ Always question any claims made with additional questions to ensure evidence is accurate and unbiased.
- ✓ Evaluate each priority issue/challenge/problem before making final recommendations with a risk assessment. Assess the magnitude of the risk associated with each recommendation.

Make your recommendations to address the top priority problems with more confidence and a higher degree of success by following the rigor of the USC-CT Framework!

USC Marshall Critical Thinking Initiative Recap

USC Marshall Critical Thinking Initiative

- The *USC Marshall Critical Thinking Initiative* is an on-going school wide effort to enhance our students' critical thinking skills in order to make them more successful problem solvers. Its key components include…
  - ✓ The 5 Step **USC-CT** Problem Solving Process which is designed to help students tackle ambiguous, ill-defined challenges.
  - ✓ The **START** Concept Analysis which is designed to teach fundamental concepts/formulas that are utilized within the USC-CT Process.
  - ✓ **Learning Modules** which are designed to enhance specific skills such as how to reduce biases, how to enhance creativity, and how to evaluate claims & evidence.

Check them all out!