



USC Marshall
Critical Thinking Initiative

The 5 Step USC-CT Problem Solving Process

**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 the **5 Step USC-CT Problem Solving Process**.



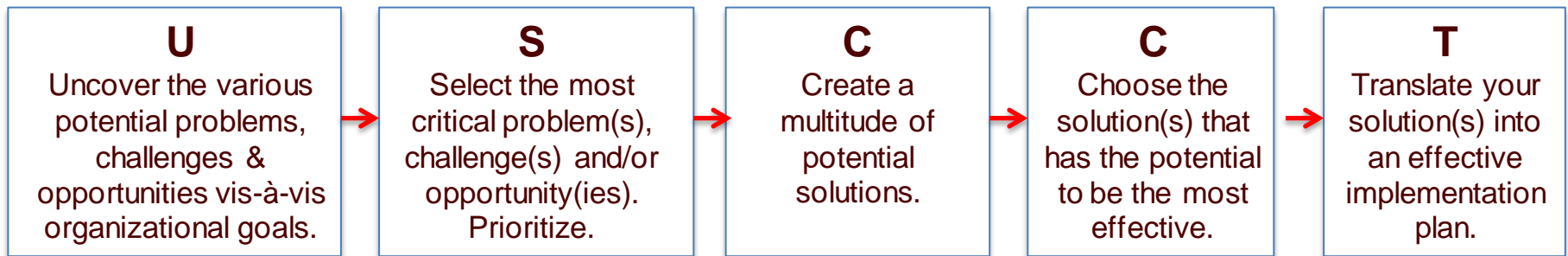
The 5 Step USC-CT Problem Solving Process

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

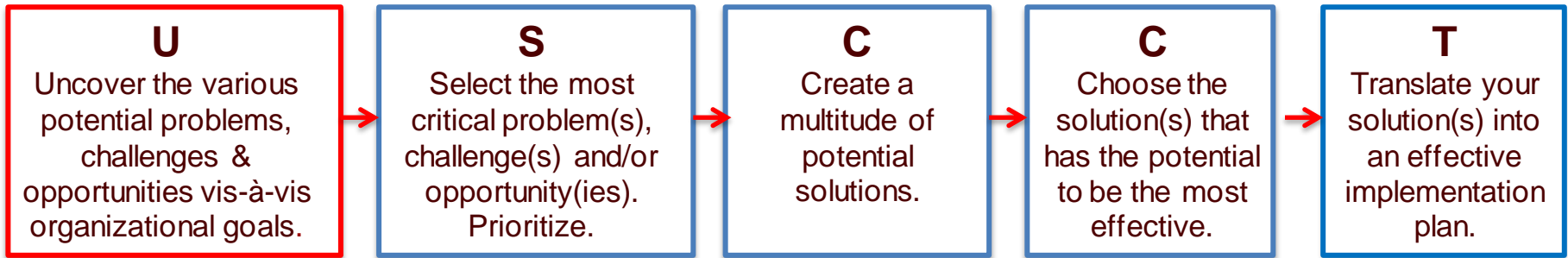
The 5 Step USC-CT Problem Solving Process



- **Objective:** This is designed to help students tackle ambiguous, ill-defined, and/or vague challenges, particularly when little direction is provided.
- **Approach:** The approach uses 5 critical steps that entail **U**ncovering business problems, challenges and opportunities, **S**electing the most critical, **C**reating many potential solutions, **C**hoosing the one with the most potential, and then **T**ranslating it into an effective implementation plan.



The 5 Step USC-CT Problem Solving Process

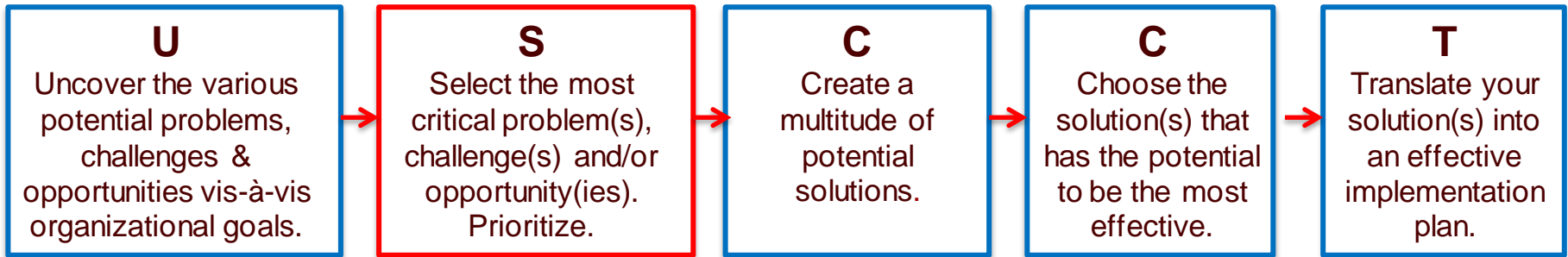


When the goal is to solve complex problems, begin by uncovering an array of potential problems and/or opportunities relative to the organizational goal/mission. Then clearly and concisely state each while providing relevant, analytical support showing evidence and assumptions.

Students should examine issues through instructor led probes, such as....

- What is the situational context? Outline the relevant issues related to global, national, regional, company, consumer, government, regulatory, and competitive environments.
- What is the nature of problems, challenges or opportunities within this context, and how does that relate to the overall goal/mission of the organization?
- Who are the stakeholders? Are there differing views on problems, challenges and opportunities?
- How did this situation arise? Is this a random event or systemic? Root cause vs. symptoms? Interrelated?
- Why is this important? What's at stake? (e.g. Revenue? Profit? Brand image? Goals?)
- Where does this issue reside? (e.g. Marketing? Sales? Accounting? Finance? Combination?)
- When did the situation occur, when must it be resolved, is there a window of opportunity?

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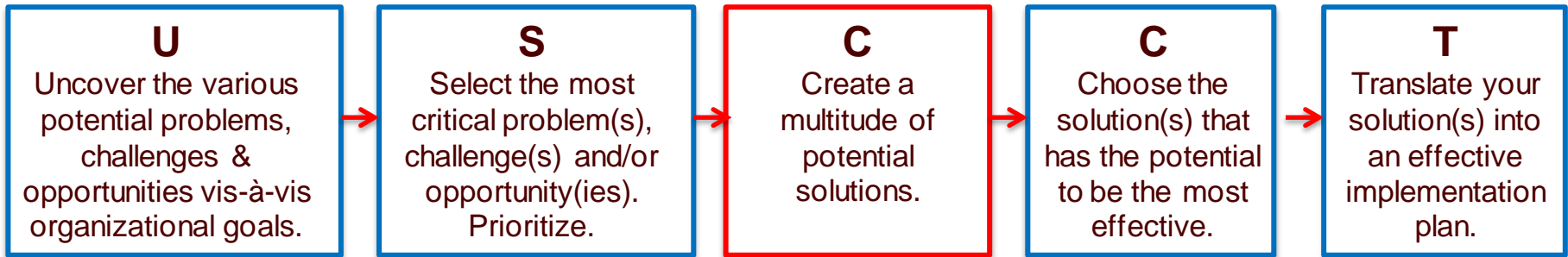


After uncovering the potential problems, challenges and opportunities, we can narrow them down to the most significant. The objective is to prioritize while providing relevant, analytical support. The student should clearly & concisely explain reasoning.

Students should consider...

- ✓ Magnitude: Have you identified/evaluated how big each problem/challenge is vis-à-vis your goal?
- ✓ What's Quantifiable: Can we quantify their impact through some metric? What data would help to quantify this impact? Have you assessed data needs, sought info, & applied the appropriate analytics?
- ✓ What's Non-Quantifiable: Are there non-quantifiable issues we need to consider (e.g. gains and losses in brand image, PR, stakeholder psychological commitment?)
- ✓ Interrelationships: Are these issues potentially interrelated? Might one (e.g. today's promotions) impact another one (e.g. tomorrow's brand image)? Cause & effect?

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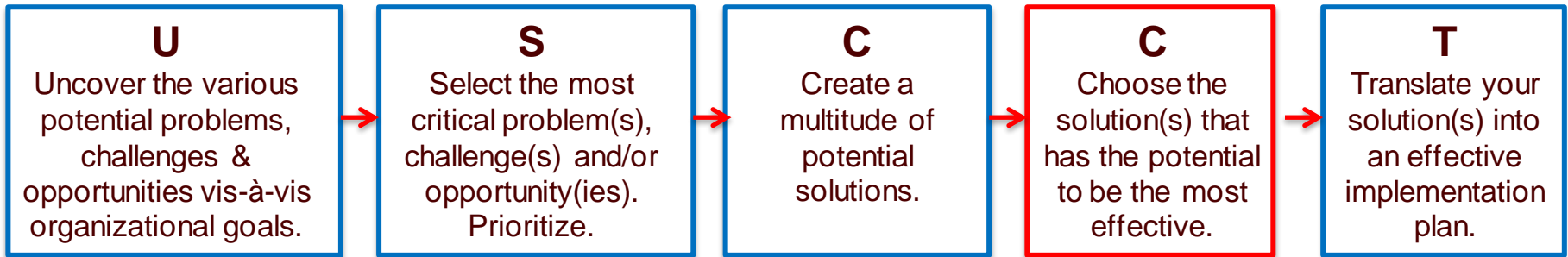


Now that we have narrowed down the problems, challenges and/or opportunities to the most significant ones, it is time to generate an array of potential solutions. Then clearly and concisely state each solution while providing relevant analytical evidence & assumptions.

Students should...

- ✓ Gather Solutions: Which solutions might different stakeholder groups see as viable? What makes them viable from this stakeholder's perspective? Is this a marketing, accounting, finance solution or some other? Combo?
- ✓ Look for Unique Solutions: Consider what motivates stakeholders/audiences and develop unique solutions. (Note: Tools to generate creative approaches are available)
- ✓ Find Interrelationships: Are some solutions interrelated? Are some more viable in the short vs. long-term?

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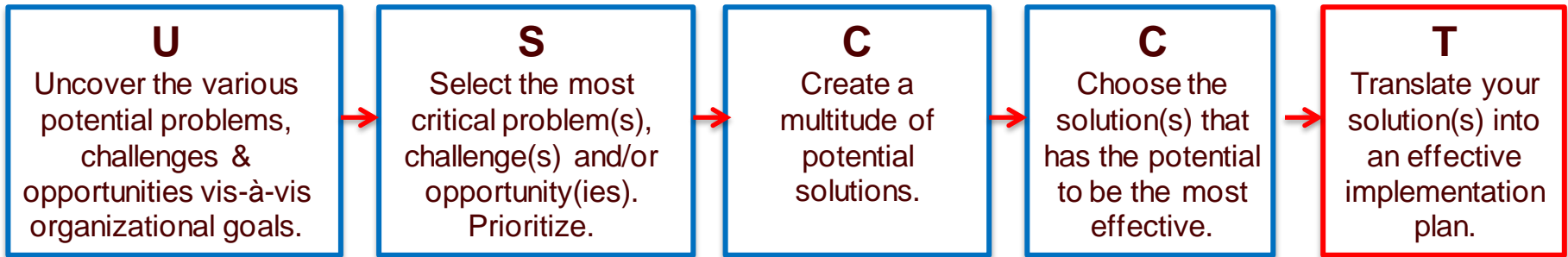


After generating ideas for many potential solutions, we can narrow them down to those that are likely to be the most effective. The solutions should be prioritized using relevant, analytical support, and the reasoning should be clearly & concisely explained.

Students should consider...

- ✓ Magnitude: What is the potential impact of each solution?
- ✓ What's Quantifiable: What tangible gain/loss does each solution represent in revenue, profit, other? Have you assessed data needs, sought info, and applied the most appropriate analytical method?
- ✓ What's Non-Quantifiable: Do solutions have intangible gains/losses or consequences? (e.g. Image).
- ✓ Resources: What resources might each solution require? (e.g. money, time, people).
- ✓ Pros/Cons: What are the pros/cons for each in the short vs. long term? Are they interrelated? How would you handle a rebuttal?

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After choosing the most effective solution(s), it is important to translate it into an effective implementation plan in order to identify potential hurdles and unintended consequences. Then adjust plans if needed and clearly and concisely explain rationale.

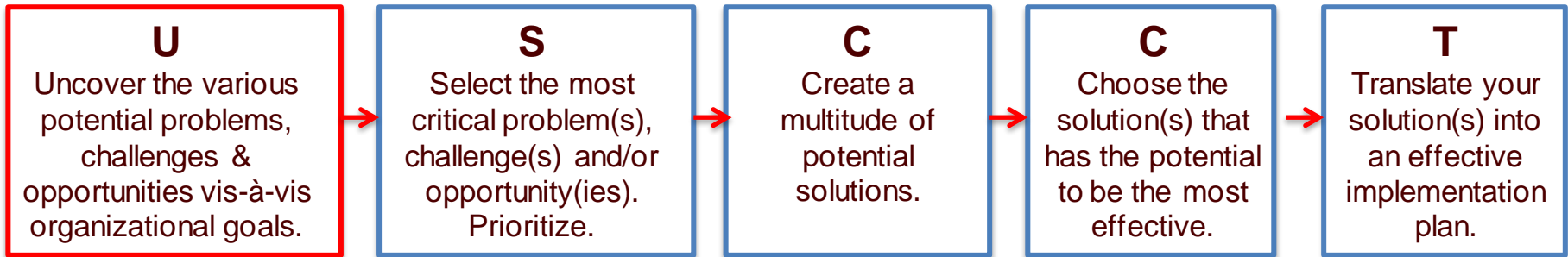
Students should...

- ✓ ID Steps: Have you identified the key steps toward implementing the solution(s)?
- ✓ ID Hurdles: Have you identified potential implementation hurdles (e.g. lack resources) and a remedy?
- ✓ Consider Unintended Consequences: Have you identified potential events that may result? What's the potential domino effect due to the complexity of the situation, error, or bias? Are you prepared for them?
- ✓ Do a Final Check: Have you conducted a final check/critique of problem/solutions/implementation, looking for logic flaws? Have you considered a third party review?



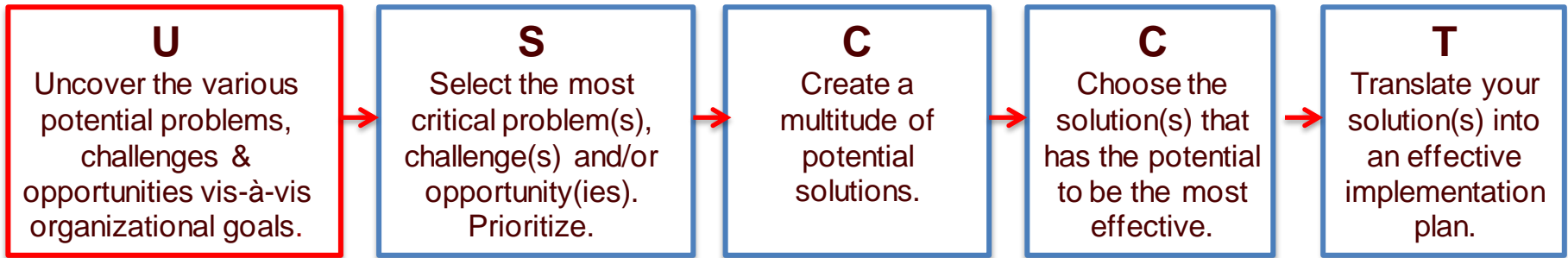
Example

The 5 Step USC-CT Problem Solving Process



The Situation: A new product was launched. Though 1st year sales expectations were pegged at \$50 Million, it achieved only \$35 Million. Management wanted to know what went wrong and how to fix it.

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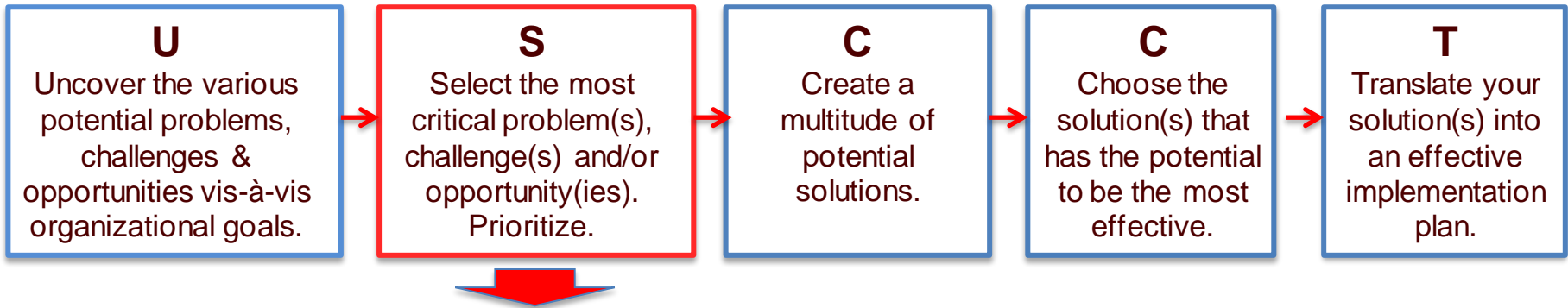


Uncovered Potential Problems/Causes: We listed various potential problems/causes that might have contributed to lower than expected sales.

Potential Causes

- Low Awareness?
- Poor Image/Ads?
- Pricing?
- Low Trial?
- Product Quality?
- Low Repeat?
- Poor Distribution?
- Competitive activity?
- Economy/Trends?
- Other?

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Selection: We conducted store checks to evaluate distribution/competition while an awareness, attitude and usage study was conducted w/consumers. We found that low trial resulting from low awareness was the cause of poor sales.

Rank Causes

Awareness = only 10% of target consumers aware of brand (poor)

Trial = Only 5% of target tried brand (poor/tied to low awareness)

Positive image among those aware = 90% (good)

Pricing was competitive = 90% agree (good)

Product quality was positive among those that tried = 90% liked it (good)

Repeat = 80% of those who tried bought it again (good)

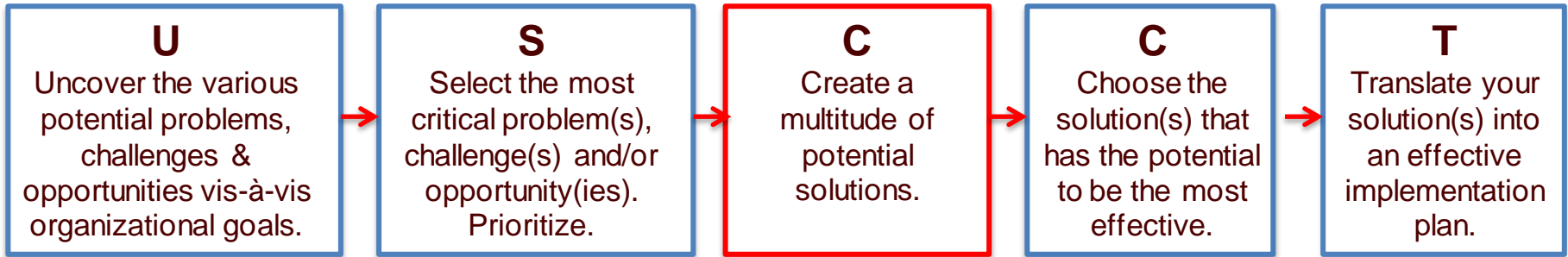
Distribution = 80% of stores stocked it (good)

Competitive activity = No new activity (good)

Economy/Trends = No significant issues (good)

Other = None found (good)

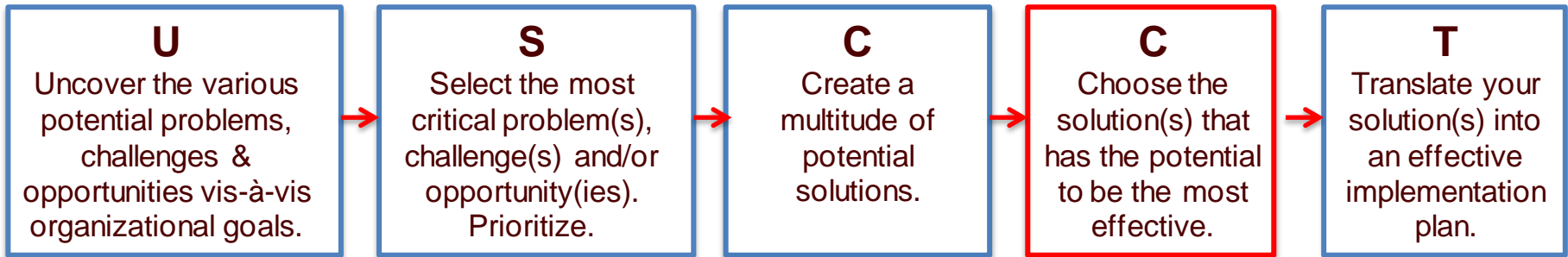
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Create Potential Solutions: We listed potential solutions that included increasing marketing dollars spent, changing the marketing mix (Ads vs. promotions vs. pr vs. direct vs. social media), changing the message, or changing the Ad campaign.

Possible Solutions
Spend more on marketing
Change marketing mix
Change marketing message
Change Ad campaign

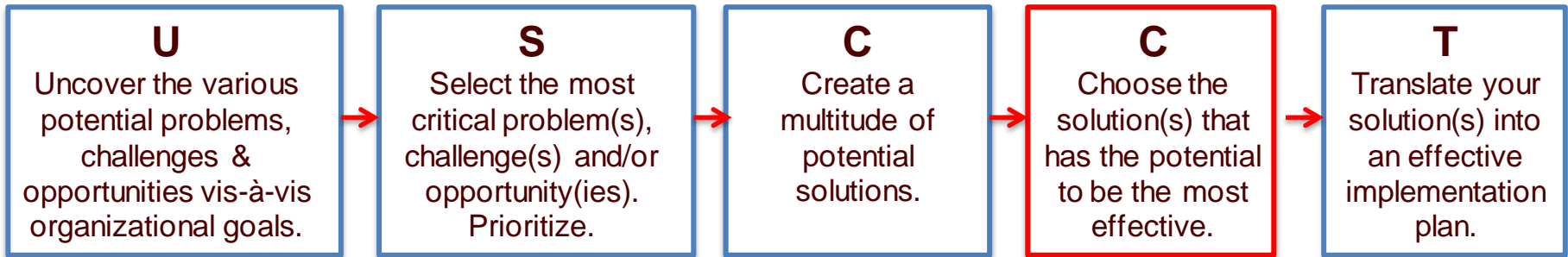
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Choose Solution: We conducted a competitive review to check spending levels and conducted more consumer research to understand the effectiveness of the marketing mix and the message. Spending, mix, and message were adequate, but the TV Ad campaign was weak.



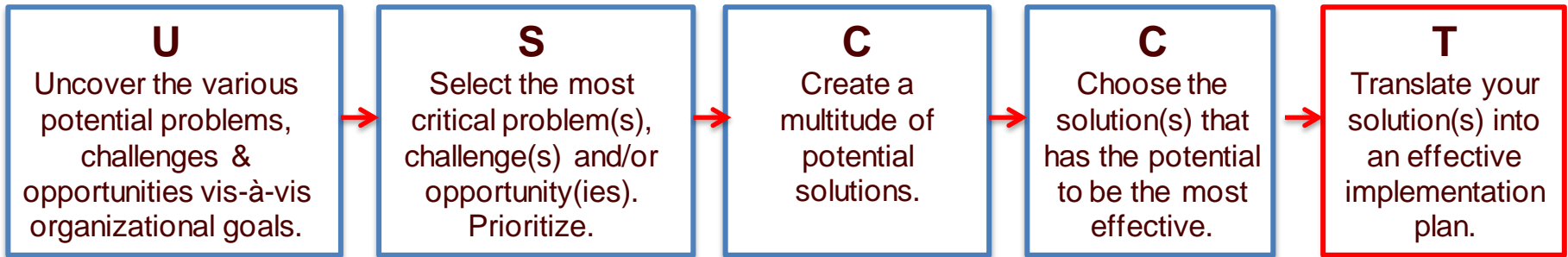
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Choose Solution: We developed new Ad campaign options in order to compare them against the current (ineffective) Ad. A new consumer research study was conducted and found that the celebrity option would be the most effective.



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Translated: The new Ad campaign was introduced and sales met expectations. But beforehand, we outlined/estimated potential consequences of using a celebrity campaign.

Implementation

Ad introduced and was successful

Considered Consequences

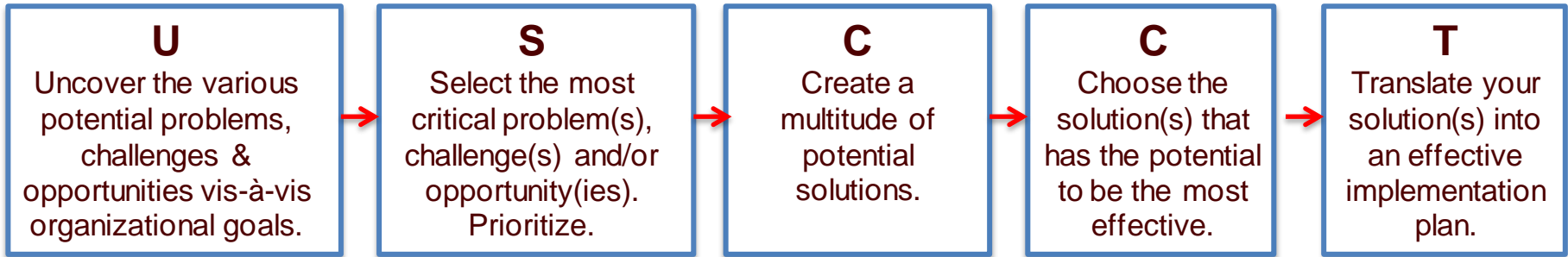
Celebrity dependence

Long term cost of using celebrity

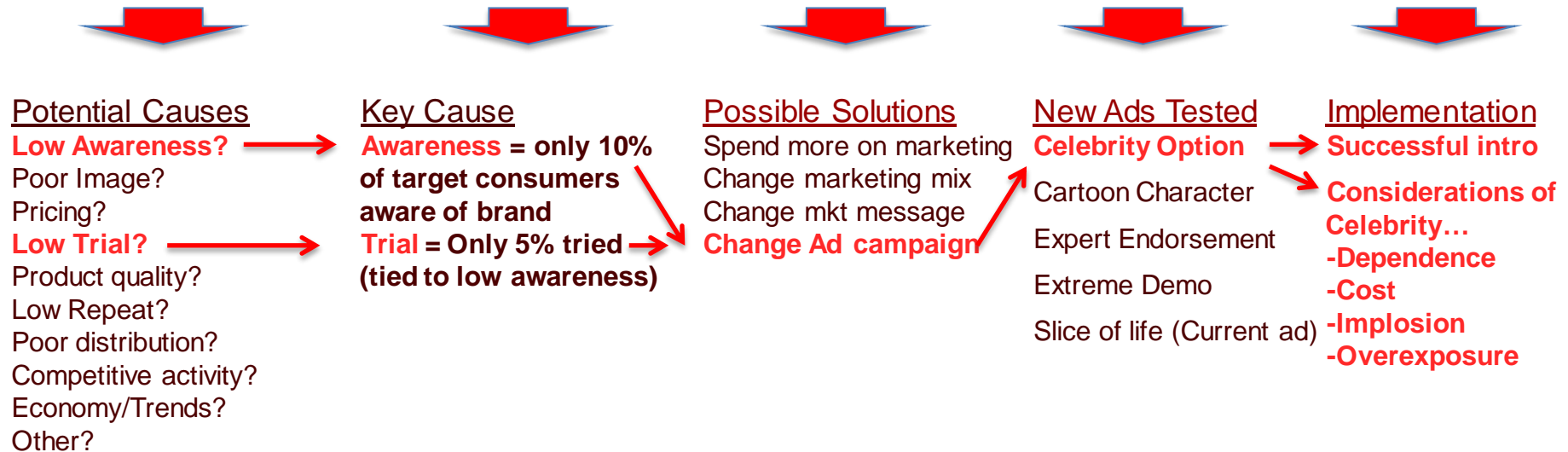
What if celebrity implodes (e.g. goes to jail?)

What if celebrity endorses too many other brands?

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USC Marshall Critical Thinking Initiative Recap

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Check them all out!