

Student: Lia Li, SCM 2022

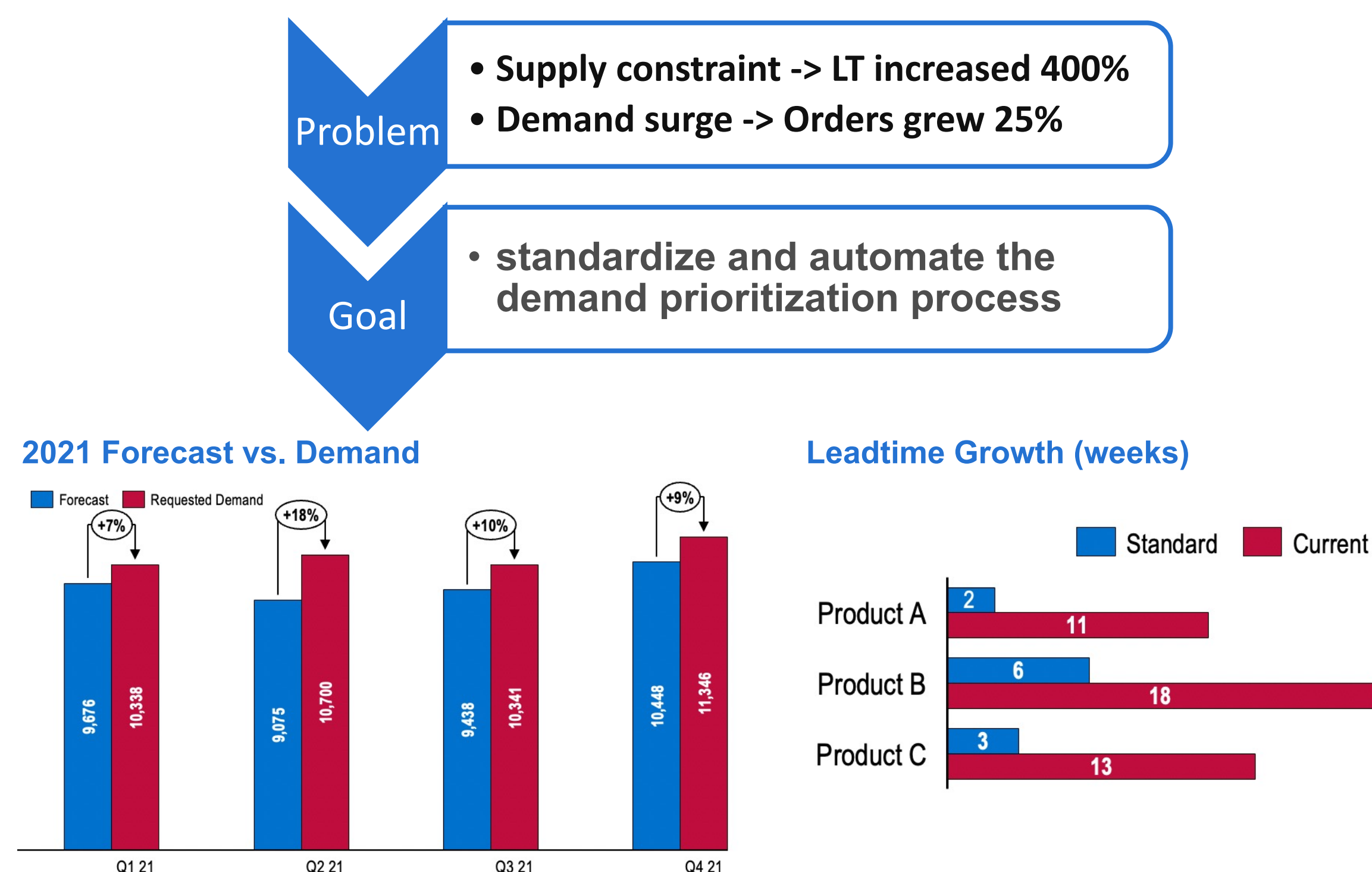
Student: Jennie May, SCM 2022

Advisor: Milena Janjevic

Sponsor: A Water Technology Company

Demand Prioritization: Pick Me First!

Motivation / Background



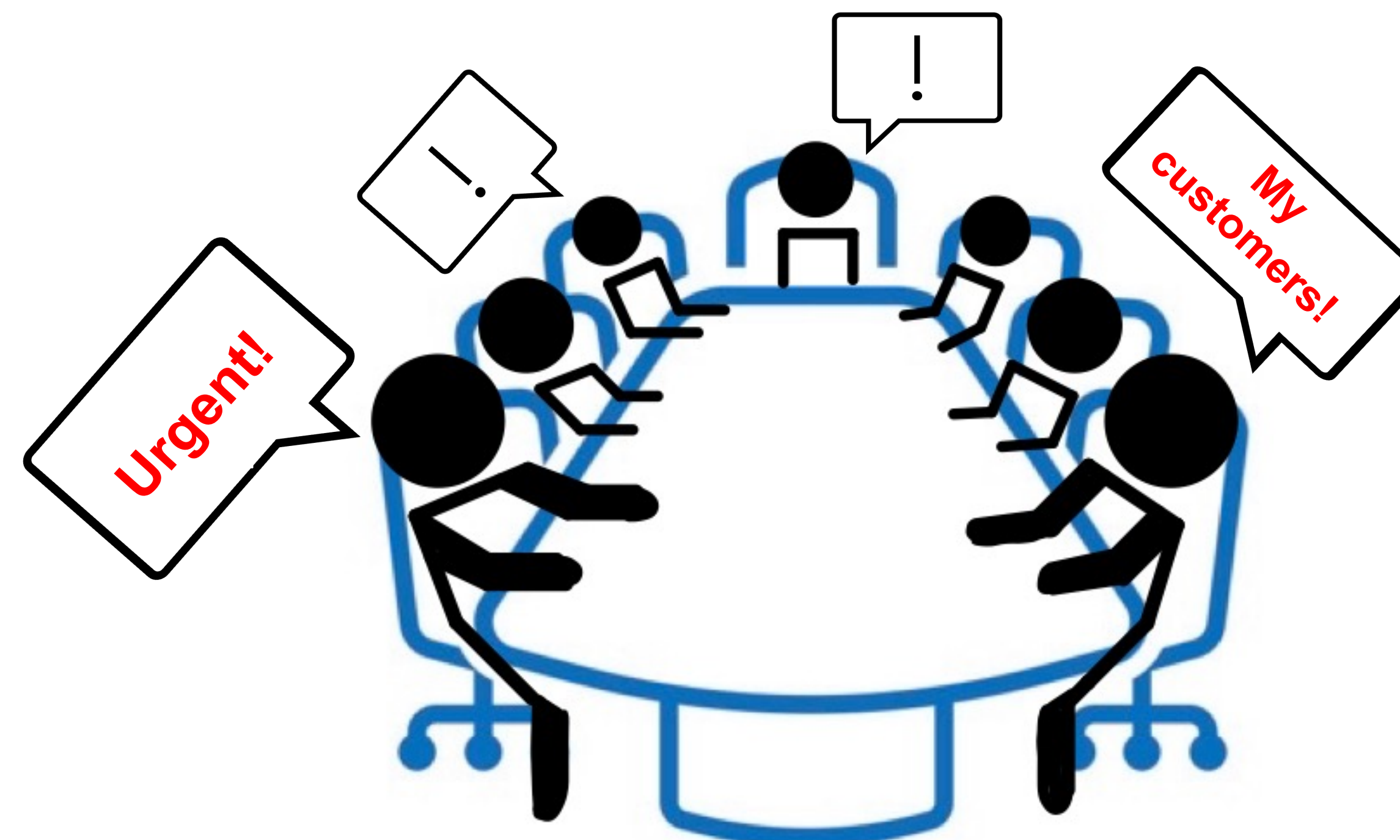
Research Question

Which key criterion can objectively prioritize orders?

How can we implement such criterion with existing information?

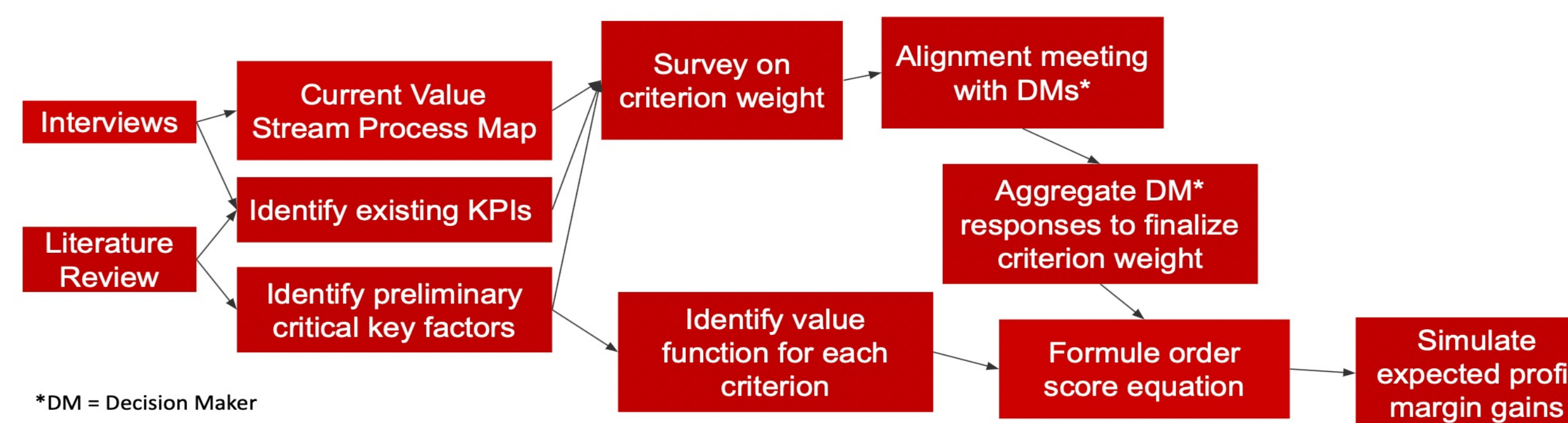
Relevant Literature

- Akyildiz, B., Kadaifci, C., & Topcu, I. (2015). A decision framework proposal for customer order prioritization: A case study for a structural steel company. *International Journal of Production Economics*, 169, 21–30.
- Saaty, T. L. (2008). Decision making with the analytic hierarchy process. *International Journal of Services Sciences*, 1(1), 83.



Methodology

- Interviews with subject matter experts to map out existing process.
- Literature review on industry prioritization methods and multi-criteria decision making tools (MCDM) such as Analytical Hierarchy Process (AHP), value function, and group aggregation methodology.



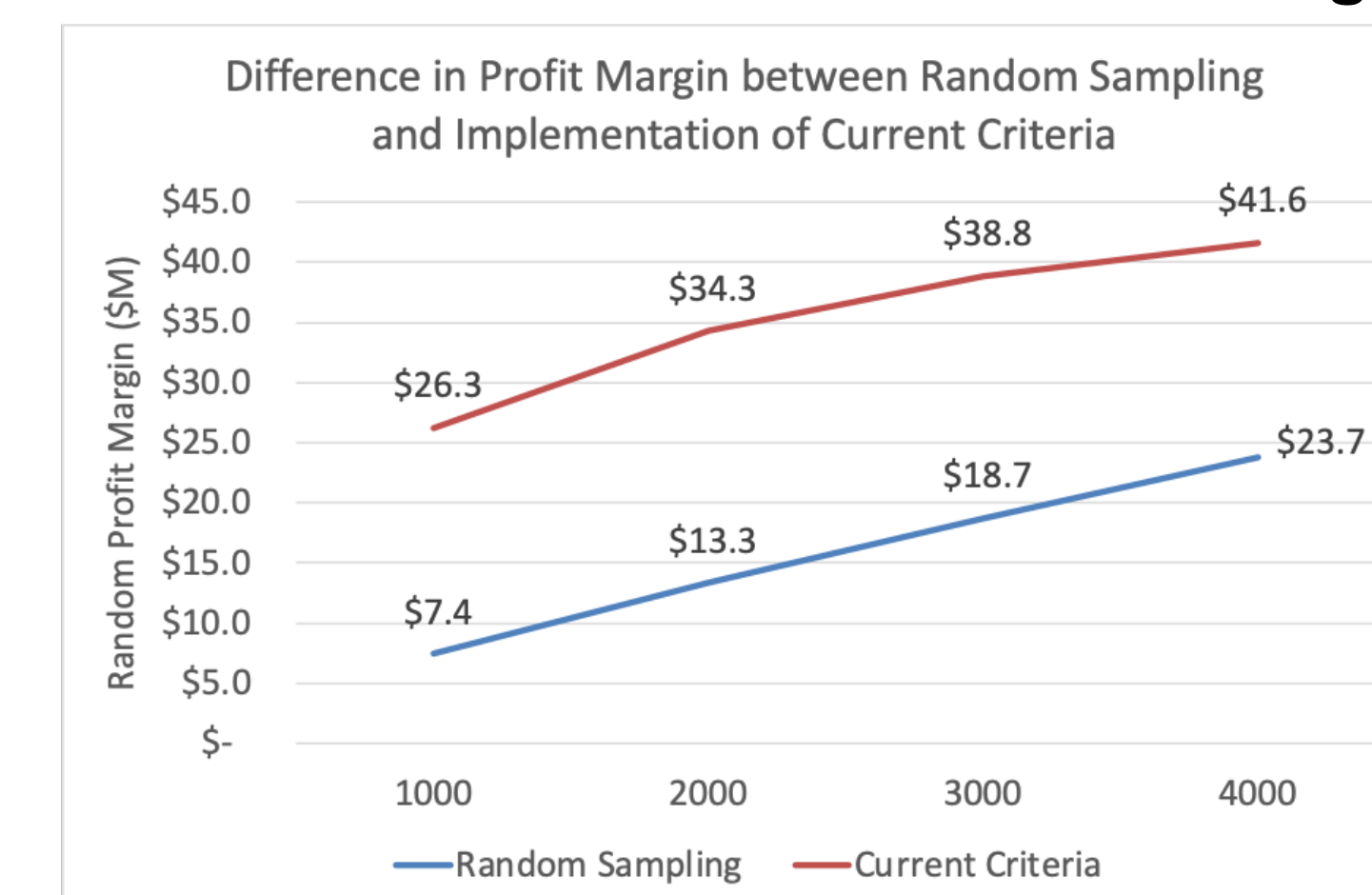
- Validation through back-casting historical orders to identify projected prioritization, resulted profit margin and customer satisfaction.

Results

Criteria Weight from Four Methods

	Method 1	Method 2	Method 3	Method 4
Customer Relationships	23.78%	29.17%	23.40%	30.39%
Order Urgency	19.69%	20.73%	20.64%	20.86%
Profit Margin	19.20%	14.73%	17.47%	13.26%
Penalty	14.03%	13.10%	16.20%	15.12%
Days to Delivery	14.67%	12.76%	13.16%	10.51%
Days to Customer Want	8.66%	9.51%	9.12%	9.86%

Impact of Prioritization Processes on Profit Margin



Contribution

- The diagram consists of four blue icons arranged in a 2x2 grid, each representing a benefit of the SAP S/4HANA Cloud solution. The icons are: a checklist, a network of nodes, a bar chart with an upward arrow, and four stylized human figures. Each icon is accompanied by a text label to its right.

 - Standardized, prioritization system**
 - Promote alignment between global teams**
 - Better informed, timely decisions**
 - Increase efficiency of order management process**

Lia Li



Jennie May

