

CHOOSING BY ADVANTAGES

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BACKGROUND

After meeting together Maria and I have decided ~~to~~ *work on*:

- **Choosing by advantages (CBA) Method**
- *Lean Construction Institute* **Defines** CBA as: "... a decision making method that helps team members make sound decisions in a group setting to ensure that the decision made yields the most value and leads to the best outcome for the stakeholders."
 - **In other words: A method in which a certain decision is reached through the different specs in an item as compared to those same specs in another similar item**

Factor	Alternative 1: Toyota Camry Hybrid	Alternative 2: BMW X5 SUV	Alternative 3: Mercedes C Class
Fuel Economy (mpg)	40 mpg	18 mpg	22 mpg
Trunk Space (liters)	5 liters	2 liters	5 liters
Reliability	reliable	Extremely reliable	reliable

Table 1. Summarizing attributes (Attributes were created for this example)

Example From: [Lean Construction Blog](#)

DETAILS OF RESEARCH



01 OBJECTIVE

Evaluate how good CBA method is for deciding —
-----in the City of
Madera Engineering
department.

03 RESULTS ANALYSIS

02 METHODOLOG Y

Phase 1, Phase 2, and
Phase 3

04 CONCLUSIONS

PHASE 01.

In this phase, objective: identify a decision taking situations (examples: selecting subs, selecting materials..) that might benefit the use of an structured approach to make the decision.



STUDY OBJECTIVES



METHOD

Interview
Need to select who is the best person for
giving you this information

—

[illegible]

[illegible]

PHASE 02.

objective: selecting the decision making situation that will be analyzed





METHOD

Expert panel
Researcher will meet with expert to
decide what option might be more
interesting to analyze.

STUDY OBJECTIVES

1	A	B	C	D	E	F	G	H	I	J
2	Decision-Making Situation		Type of project where the decision is taken	Area	Phase	Impact of the decision		Relevance of the decision in the project as a whole		
						Cost	Time			
3	1	Compile submittals for approval	Waste Water Plant Rehab	Materials	Pre-construction	Medium	High	Very Relevant		
4	2	Get approval for submittals	Fire Station 58	Materials	Construction	High	High	Very Relevant		
5	3	Provide certs and material warranties and extra material call for under contract	HVAC and Steam Retrofit VA Wilshire, Bldg	Materials	Project Close-Out	High	Medium - Could hold up final retention	Relevant in regards to final payment		
6	4	Identify equipment limitations set by contract	Emergency Generator for New Melones Power Plant/ Dam	Equipment	Pre-construction	Medium	High	Very Relevant		
7	5	Protection for Backup Diesel Gen for Dam within sub station, foundation for same, routing of conduit throughout dam, isolation switchgear, and Automatic Transfer Switch	New Melones Dam	Equipment	Construction	-	-	-		
8	6	provide Operation Manuals, Warranties and Training	New Melones Dam	Equipment	Project Close-Out	Low	High	Very Relevant		
9	7	Discuss with subs management the labor classification of crews being provided and critical task to be performed and how identified personnel perform to project	VA Hospital Whilshire	Labor/subs	Pre-construction	Medium	Medium	Relevant		
10	8	Meet with crew actually on site, as often crew discuss with management has changed and discuss task to be performed with owner, specify specific classification of work. Regarding labor typically, want to check closeout of Payroll Records and close out documents of any personal who did installation. Identify necessary Phases	ICU and Isolation Wing of VA Hospital	Labor/subs	Construction	High	High	Very Relevant	Choose this one	
11	9	Discuss terms of agreement. Identify necessary Phases	VA Facilities	Labor/subs	Project Close-Out	Low - other then statement	Low	Relevant		
			Removal of GSA Ground Floor DEA Floor							

Surve... Survey Prt 2 ▼

PHASE 03.

objective: apply CBA into the
decision-making situation
selected from phase 3



STUDY OBJECTIVES

10	8	Meet with crew actually on site, as often crew discuss with management has changed and discuss task to be performed with onsite crew specific to isolation of work. Regards to Labor typically, want to check closeout of	ICU and Isolation Wing of VA Hospital	Labor/subs	Construction	High	High	Very Relevant	Choose this one
						Low- other			



METHOD

Follow the specific CBA procedure

Conduct Workshop with key decision-makers

Deliver short questionnaire to the participants

8	Factor	Alternative 1: Don't meet up with crew	Alternative 2: Meet with crew once a week	Alternative 3: Meet with crew every weekday	L = Low, M= Medium, H=High	
9	Intel on who's on site	L	M	H		
10	Importance, and effectiveness of completing specific task	L	H	M		
11	Daily logs, backup documents	L	M	H		
12						

RESULTS/ CONCLUSIONS

PHASE I

Chose CBA Method

PHASE 2

Send out a survey

PHASE 3

Applied CBA method with
data collected



“Teamwork
Alone we can do so little.
Together
We can do so much.”

—HELEN KELLER

THANKS

Does anyone have any questions?

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Construction Mgmt Undergraduate Student



Sources

Lean Construction Blog

Lean Construction Management: Resources & Tools

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Finish in Five Grant



Through this method we know what will be able to move the project on budget and on schedule.