

# Conjoint Analysis Application in Healthcare



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**Gelb**  
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## Overview

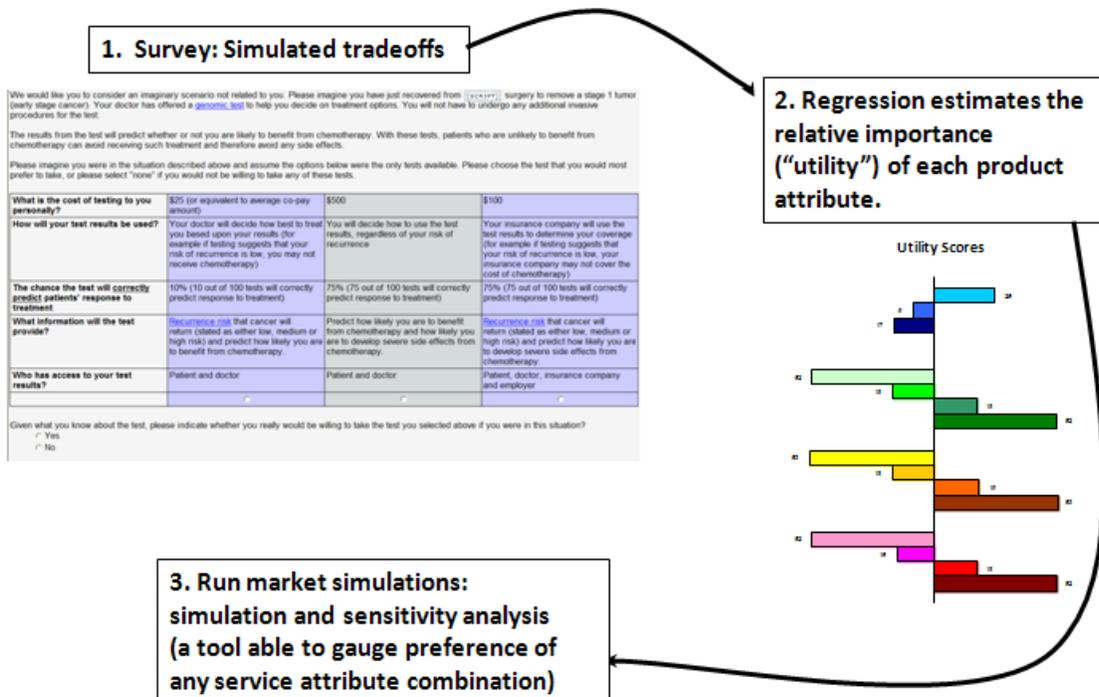
Given the complex nature of the healthcare industry and the challenges brought by healthcare reform, marketers in the healthcare industry need to better understand patients, physicians and other stakeholders to ensure that healthcare providers offer services that meet the needs of all.

When launching new services or initiatives to improve existing services, marketers are called on to find out how different stakeholders would respond to different service attributes such as cost, brand, service feature, deliverables, etc. Marketers could conduct surveys which ask respondents to rate all the service attributes, but this would often lead to data that indicates that all attributes are important. Moreover, respondents often make decisions in a way that they don't even realize.

Conjoint analysis is a widely-used and reliable multivariate technique that can be a very useful tool to obtain this type of information. By directing respondents to make trade-offs in simulated market scenarios, conjoint analysis helps to gain insight to stakeholders' preferences.

In a choice-based conjoint survey, each respondent is asked to choose the most preferable option among various combinations of service attributes. Respondents could also have an option of "none" when they don't see any option they prefer. Each respondent goes through a number of these "trade-off" evaluation tasks and each respondent would see a unique version of "trade-off" evaluation scenarios. A choice-based conjoint survey is a realistic representation of how stakeholders make their decisions and attribute preference could be calculated based on service choices respondents make.

## How does a conjoint analysis study work?



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## Conjoint Design

For example, a cancer research center has developed a ground-breaking technique to evaluate the benefit of a course of chemotherapy based on patient’s genetic characteristics. This innovation could prevent patients from unnecessary overtreatment and provide guidance for the best alternative treatment option.

The research center wants to explore the possibility of designing such a service and optimizing the patient experience. Several names have been proposed for the service and other key attributes have been identified. The marketing director wants to find out the most preferred service brand name and how cancer patients will react to these service attributes when facing the challenge of seeking the best cancer treatment.

Conjoint Attribute	Cost	Service Brand Name	Results Turnaround time	Result Deliverables	Benefit statement
Level 1	Co-pay (\$50)	XX	Within 24 Hr	Risk assessment	AAA
Level 2	\$500	XX-YY	1-3 working Days	Chemotherapy treatment benefit	BBB
Level 3	\$800	XYZ	1-2 Weeks	Full result & treatment planning	CCC
Level 4	\$1,200	XYZ-YY			DDD

This conjoint design includes five attributes, each with three or four levels. Different service configurations will be generated and a unique version of “trade-off” tasks would be carefully created by Sawtooth software for individual respondent. This efficient questionnaire design would enable respondents to answer only a subset of all possible service attribute combinations.

Usually a respondent would go through 12-18 trade-off evaluation tasks, each including three service choices and a “none” option. Instead of having respondents rate all possible service combinations (in this example,  $5 \times 4 \times 3 \times 3 \times 4 = 720$  combinations), a conjoint analysis survey significantly reduces the time for respondent to evaluate service offerings and effectively capture preference information from their choice selection.

## Market Simulation (What-if analysis)

Once respondents’ choice selections are captured, part-worth utilities scores could be calculated to indicate how preferable each level is within one service attribute. Additionally, importance scores for all service attributes would be presented to show relative preference.

The individual utilities scores would be imported into Sawtooth SMRT simulation software and the share of preference model built for “what-if” scenarios simulation. This simulation tool enables

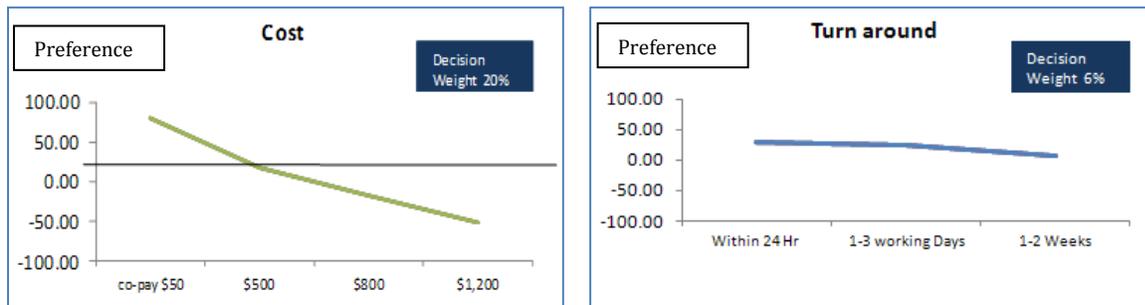
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marketer to see how changes in service attributes will influence the share of preference. Armed with that knowledge, we can identify the most promising service configuration that is most likely to be successful, before the healthcare provider commits to developing and marketing this new service.

## Values of Conjoint Analysis for your organization

The value of Conjoint Analysis can be seen as the following:

- Identify and prioritize service features that are important for healthcare service providers to consider
- Avoid service features that are insignificant to stakeholders



- Optimize the appeal of service features by testing different service combinations

Service Specifications					
	Attribute 1	Attribute 2	Attribute 3	Attribute 4	Attribute 5
Service 1	\$500	XX	1-3 days	Risk Assessment	AAA
Service Shares of Preference					
	Share	Std Err			
Service 1	72.86	7.37			
None	27.14	7.37			

- Evaluate price sensitivity and determine optimal pricing strategy (this technique holds all attributes constant except for price to see how change in price impacts preference)

Price sensitivity for Service 1	Co-pay (\$50)	\$500	\$800	\$1,200
Share of preference	80%	78%	74%	68%

- Segment the market based how individual appeal to different service attributes (individual part-worth utilities)
- Create effective communication messaging
- Provide guidelines for marketing strategy

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## Taking Action

Healthcare service providers need insightful market information they can rely on to make the right decisions and to identify the most promising market opportunities. Conjoint analysis can deliver great benefits in understanding the preferences and opinions of patients, physicians and other stakeholders.

## About Endeavor

Endeavor Management, is an international management consulting firm that collaboratively works with their clients to achieve greater value from their transformational business initiatives. Endeavor serves as a catalyst by providing pragmatic methodologies and industry expertise in Transformational Strategies, Operational Excellence, Organizational Effectiveness, and Transformational Leadership.

Our clients include those responsible for:

- Business Strategy
- Marketing and Brand Strategy
- Operations
- Technology Deployment
- Strategic Human Capital
- Corporate Finance

The firm's 40 year heritage has produced a substantial portfolio of proven methodologies, deep operational insight and broad industry experience. This experience enables our team to quickly understand the dynamics of client companies and markets. Endeavor's clients span the globe and are typically leaders in their industry.

Gelb Consulting Group, a wholly owned subsidiary, monitors organizational performance and designs winning marketing strategies. Gelb helps organizations focus their marketing initiatives by fully understanding customer needs through proven strategic frameworks to guide marketing strategies, build trusted brands, deliver exceptional experiences and launch new products.

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