Understanding the Choice Heuristic of Chinese long-haul outbound tourists

Chunxiao Li, Scott McCabe, Cees Van Der Eijk Nottingham University, UK







Theoretical context

Destination Choice





Theoretical context

Choice heuristic

Compensatory heuristics

Compensatory heuristic (Utility maximization) is taken for granted in most tourism research .

Non-compensatory heuristics

In reality, the most common non-compensatory decision making process is **lexicographic by aspects (LBA)** which include elimination by aspect (EBA) and accept by aspect (ABA).

(Abelson and Levi 1985; Bettman et al. 1991; Dieckmann et al. 2009)

includes and icvers (aspects)

Price	9000
1 1100	13000
	18000
Visa	esay
	risky
Shopping	yes
	No
Time schedule	full
	free time
Famous	famous
	not famous

LBA order: (RMB 13000, easy to get visa, more free time)

- Why "Choice heuristic"? (Theoretical context)
- •Why "Chinese long-haul outbound tourists"? (Empirical context)
- How to investigate? (Methodology)
- What have been found? ((Findings)
- So what? (Implication and contribution)





Empirical context

Why Chinese long-haul outbound tourists



- A huge emerging market
- Limited knowledge
- Getting a good reason going back China funded. :P



Research questions

Research questions

1. What are the evaluation criteria of Chinese outbound tourists when they selecting long-haul destinations?

2. What are the choice heuristics (evaluation rules) used by Chinese outbound tourists when they selecting long-haul destinations?





Methodology

Evaluation criteria is easy to investigate

Desk research +Interview

While

Choice heuristic is a hard to investigate

Questionnaire

Conjoint analysis+ Greedoid analysis



Choice heuristic investigation Data collection

Questionnaire (201 respondents)

Sampling

Quota sampling based on the interview (Bei jing- Tian jin area)

Design

Consider-then-rank task



Price: RMB9000 per personVisa: a bit risky to get a visaShopping: good for shoppingTime schedule: more free timeFamous: very well-known destination



Choice heuristic investigation

Conjoint analysis and modeling of compensatory choice heuristic

Conjoint analysis is a traditional method used in marketing research since 1970s (Green and Rao 1971) which is used to modeling consumers' compensatory choice huristic (preference).



Greedoid analysis and modeling of Non-compensatory choice heuristic

Greedoid analysis is an innovative method introduced in marketing research since 2007 (Kohli and Jedidi 2007, Yee et al 2007) which is used to modeling consumers' non-compensatory choice heuristic (preference).



Choice heuristic investigation

Greedoid analysis

What is Greedoid analysis

Method using greedy algorithm to infer non-compensatory choice heuristic so that the hierarchic preferred aspects order can be revealed

Implementation of Greedoid analysis

- (1) Fractional factorial design
- (2) <u>Greedoid-based dynamic programming (Finding the MIN LEX</u> <u>ERROR)</u>
- (3) Validation (Pearson and Kend all tau tests or hit rate)



Choice heuristic investigation

Greedoid analysis

Greedy algorithm

Find out the locally optimal choice at each stage until reaching the global optimal.

In this context, find out the most important aspect at each stage until the lexicographic aspect order can distinguish every choice profile.

Greedoid-based dynamic programming

Used to find out the best fitting (min errors) lexicographic orders and the minimum number of inconsistent errors.

- Why "Choice heuristic"? (Theoretical context)
 Why "Chinese long-haul outbound tourists"? (Empirical context)
- How to investigate? (Methodology)
- What have been found? (Findings)
- So what? (Implication and contribution)





Important Findings

In general, compansatory model estimated by traditional conjoint analysis has 95% hit rate on hold-out data while non-compansatory (LBA) model has 80% hit rate. But greedoid analysis require less efforts in data collection

Moreover, 70% (140) respondents used a LBA heuristic to form the consideration set based on only 1 or 2 aspects.

Important findings Conjoint analysis

		Utility score
price	9000	.688
	13000	.131
	18000	820
visa	esay	.511
	risky	511
shopping	yes	.015
	No	015
timeschedule	full	224
	free time	.224
famous	famous	.443
	not famous	443



Findings Conjont analysis

Young tourists prefer more free time during the travel while old tourists prefer more compacted schedule so that they can see more resorts.

Travelers go themselves have a negative attitude toward famous destinations while the other tourists prefer famous destinations.



Findings Greedoid analysis

Coming very soon...

The findings will be presented as:

- If the respondents can be predicted well by LBA heuristic, his lexicographic aspect order will be given.
- Summarize and differentiate their lexicographic aspect orders accordingly
- The most popular aspects used for form consideration set

- Why "Choice heuristic"? (Theoretical context)
- Why "Chinese long-haul outbound tourists"? (Empirical context)
- How to investigate? (Methodology)
- What have been found? (Findings)
- So what? (Implication)



SOWHAT?

So in theory choice heuristic can be considered in future study to perfect tourism decision making models.

So in methodology greedoid method can be applied to other preference data set in tourism context and to be modified accordingly

So in practice destination package design improvement, effective advertisement, accurate policy making....



Understanding the Choice Heuristic of Chinese long-haul outbound tourists

Chunxiao Li, Scott McCabe, Cees Van Der Eijk Nottingham University, UK

Thank you!

