

DELPHI method

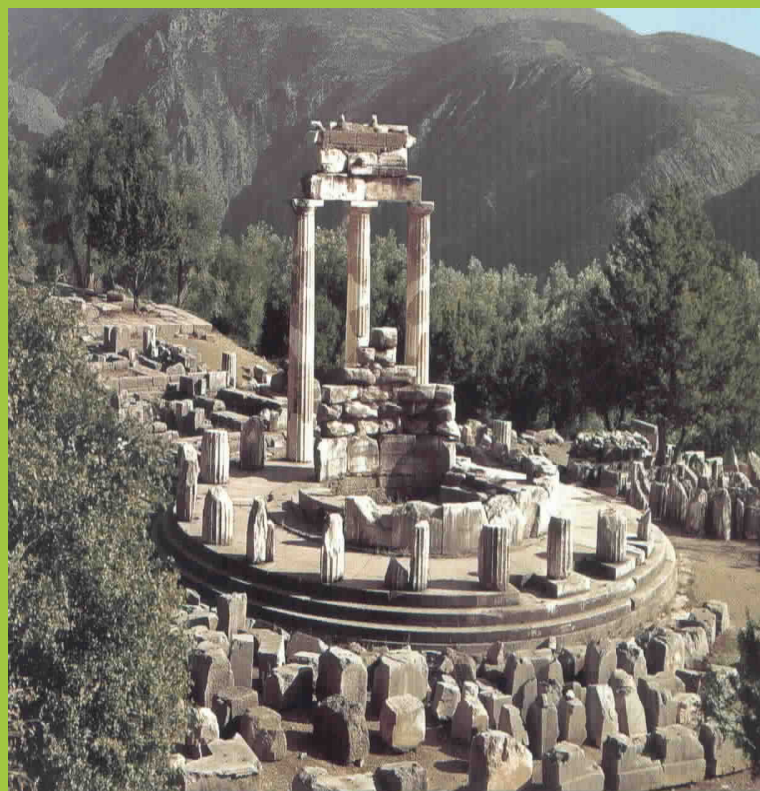
Nataša Renko & Ante Vuletić
Split, February 2010

Contents

- Delphi method
- 1975 definition
- Delphi – procedure
- Delphi – strenghts
- Delphi - disadvantages

Delphi method

- The Delphi Method is a group decision process about the likelihood that certain events will occur.
- Today it is also used for environmental, marketing and sales forecasting.
- The Delphi Method uses a panel of experts.
- Expert responses to a series of questionnaires are anonymous.
- Each round of questionnaires results in a median answer.
- The process guides the group towards a consensus.



FOCUS

FOOD CONSUMER SCIENCE IN THE BALKANS

Delphi method

- The Delphi technique was invented by Olaf Helmer and Norman Dalkey of the Rand Corporation in 1953 for the purpose of addressing a specific military problem.
- The object of the Delphi method is to obtain a reliable response to a problem from a group of experts.
- In a Delphi study, the participants do not interact with one another,
- Delphi technique is used today in business, education, and the social sciences

1975 definition

- Design of a group communication process structured/tailored around the nature of the application and the nature of the group
 - Original paper and pencil rounds
 - Anyone can change their view
 - Anonymity or pennames
 - Scaling theory to promote understanding
 - Voting to focus discussion
 - Select “knowledgeable” people
 - A round took a month – three to five rounds
 - Respondents 15 to 500
- Prediction, policy analysis, conditional forecasts, planning, significance of contributions, new product characteristics, etc, etc. (book has many examples)



- The Delphi method is an exercise in group communication among a panel of geographically dispersed experts (Adler and Ziglio, 1996).
- It allows experts to deal systematically with a complex problem or task.
- A series of questionnaires are sent either by mail or email to a pre-selected group of experts.
- According to Fowles (1978) anonymity, controlled feedback, and statistical response characterize Delphi.
- Interaction in Delphi is anonymous, comments, forecasts, etc are presented to the group in such a way as to suppress any identification

Delphi - procedure

Fowles (1978) describes ten steps for the Delphi method:

1. Formation of a Delphi team to undertake a Delphi on a subject.
2. Selection of expert panel(s).
3. Development of the first round questionnaire
4. Testing the questionnaire for proper wording.
5. Transmission to the panelists.
6. Analysis of 1st responses
7. Preparation of 2nd round.
8. Transmission of 2nd round questionnaires to the panelists
9. Analysis of the 2nd round responses (7 to 9 may be repeated to get consensus)
10. Preparation and presentation of report



Delphi - procedure

- 1st round, group introduced to the issue.
- Group provide individual opinions on this issue.
- Opinions collected and re-presented with statistical feedback on previous round response.
- Rounds continue until pre-determined consensus levels, stability of opinion, or the number of intended rounds have been reached.

Delphi - procedure

- Level of consensus often pre-set at 70% (range 50% - 100%)
- Stability of opinion - static level of agreement, or oscillation +/- 15% of mode
- Usually 3 or 4 rounds (reported range 2 - 25 rounds)
- Expert panel sizes frequently 12 – 20 (but panels sizes from 4 to over 2,500 reported previously)

Delphi - Strengths

- Can produce agreements when other methods may not be possible.
- Time for reflection, improving the strength of opinion.
- Greater acceptance of Delphi results than other consensus methods.
- Learning and motivating experience for participants.
- Highly cost-effective.
- Anonymity can be guaranteed.

Delphi - Strenghts

- Gives access to groups of widely dispersed experts .
- Studies have shown Delphi to produce more robust findings than nominal Group Techniques.
- Allow a high degree of flexibility in approach.
- Participants have an equal say.
- Through consensus, the agreeing participants have already signed up to the value of the findings.

Delphi - Disadvantages

- Lack of face to face interaction could be a disadvantage.
- Past validity debate.
- Can be extremely time consuming for participants.
- Can take long periods of time to complete.
- Real-time Delphi's difficult to perform in a single day.

Delphi - Disadvantages

- Ambiguity regarding panel size and consensus levels required.
- Fatigue tendency.
- Care needed avoid facilitator bias.

Important!

- The choice of expert is absolutely critical
- Consensus does not necessarily mean truth

- Literature attached.