

IfaD

Multivariate procedures

Effective methodologies for market research

Multivariate analysis and statistics



To optimally meet the needs of market research studies in all their aspects; this has been IfaD's guiding principle since its founding 33 years ago. This applies in particular to the analysis of data. Our name – "Institute for Applied Data Analysis" – is our manifesto. The challenges we meet every day, with survey data on the one hand and research objectives on the other hand, demonstrate how the classic procedures and their implementation in analysis programs have their limits.

Where routine procedures are inadequate to fulfil the required objectives, we have therefore continuously adapted or extended the standard methodologies or optimised their form of presentation. Where necessary we have developed variants on existing procedures, or even completely new methods.

The development of such tools, especially in the field of multivariate statistics, demands a deep understanding of their underlying mathematical algorithms. Our day-to-day work with these statistical procedures, combined with the long experience of IfaD staff in market research institutes, is the bedrock on which our professional competence in "applied data analysis" is based.

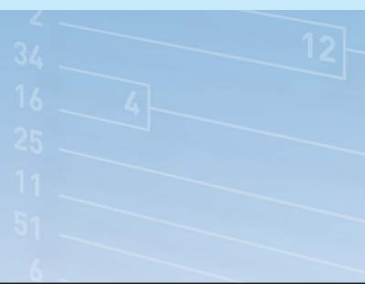


Segmentation “Sharpening the image”

Who are my customers? What are my employees like? Such questions can seldom be answered in a global way because individuals rarely correspond to the average. They deviate more or less strongly from the “norm”, and they do so in different degrees on different characteristics. This has the result that studies and approaches aimed at the “average” consumer or employee are often ineffective. Nobody feels that the message is really addressed to them.

Segmentation procedures make it possible to convert a diffuse and unclear global image into a series of sharp individual images. Usually the whole target group can be sub-divided into 3 to 6 sub-groups, which can then describe the population in a way which more accurately reflects the character of each individual.

It is often the case that simply presenting and describing these sub-group profiles gives rise to images which, for those familiar with a market or the structure of a company, have a high recognition value. This shows the practical relevance of such results. On the basis of just a few profiles, all the members of the target group are accurately captured.



Car drivers - typology

28

- prefer leisurely driving
- like to drive with open-top
- car must be environmentally friendly
- like to drive a car that stands out
- like to drive fast
- car must reflect my personality
- modern technology makes driving easier
- my car must be comfortable
- my car must be safe
- I depend on my own abilities
- electronics make driving safer

TYP 1

TYP 2

TYP 3





Mapping

“A picture says more than a thousand words”

A consumer survey produces a large number of ratings, both of your own brand and those of the competition. The results of an employee satisfaction survey can be broken down by department. But the tabulation of such results is often hard to read, because it is not easy to recognise the structures hidden within the forest of numbers.

Mapping procedures make it possible to obtain a clear overview. True to the motto, “a picture says more than a thousand words” (or in this case, figures). It is easy to see which products are similar, which products fill a niche, and how to characterise them. The presentation of employee results broken down by department clearly shows where problems may lie – and how serious they are.

supervisors are well trained •
supervisors are expe

modern conditio
supervisors

rvisors are respectable •
ny work is appreciated •

supervisors are always

pressure of work is often heavy •

Employee survey - department store X





Causal structures

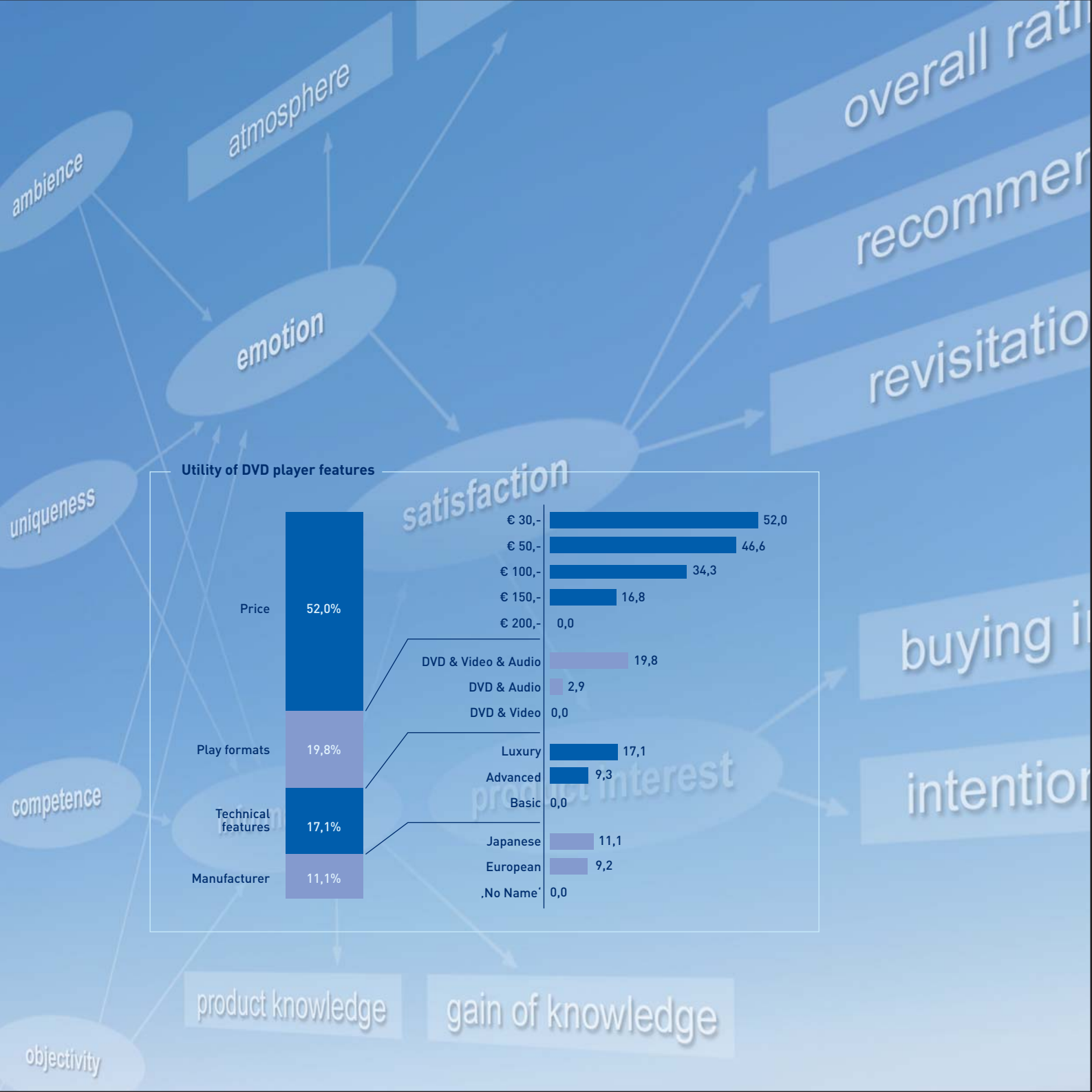
“Understanding what really counts”

A manufacturer's product has outstanding performance ratings on many of its features. Even better than those of its competitors. Yet market share is falling. Often, resources are wasted because the real causes cannot be identified. Products are optimised on the basis of features which, in the eyes of the consumer, are relatively unimportant.

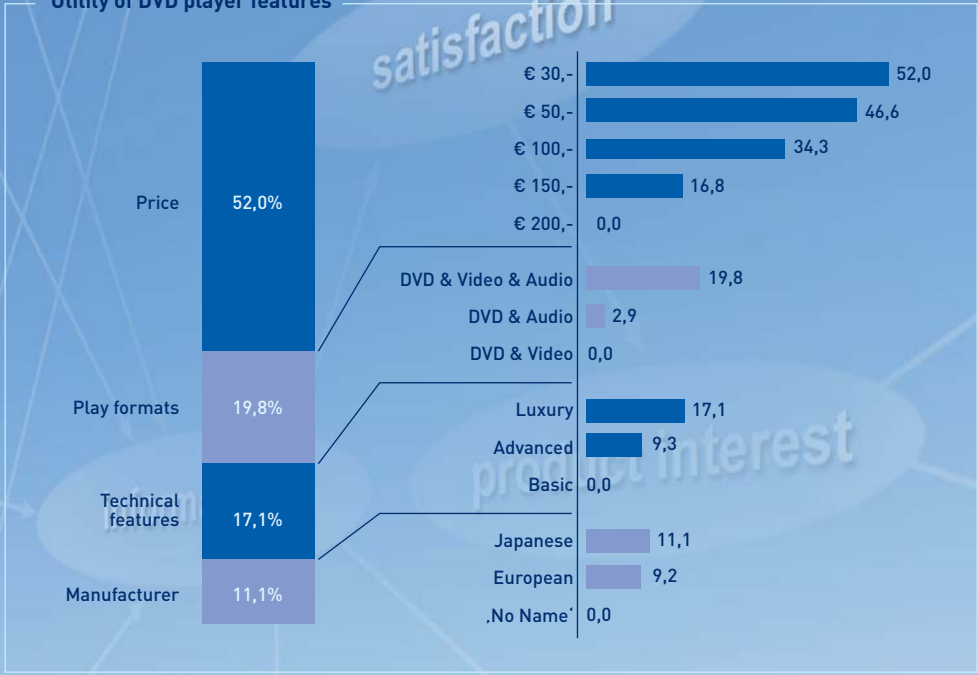
What really counts in the design of a product or service, or working in a firm, can rarely be measured by direct questions like: “How important to you is ...?”. Such questions merely address the cognitive level of a decision. The factors which really drive the decision can only be measured by procedures which take the underlying relationships into account.

Depending on the issue under investigation, conjoint, regression or discriminant analyses can be employed. Neuronal networks can also uncover non-linear relationships.





Utility of DVD player features



Overview of analysis methods

Topic



To investigate the structure of features

Optimisation of rating items

- Factor analysis
- Hierarchical cluster analysis

Example of application



To investigate the structure of a population

Segmentation of target groups

- Cluster analysis
- Neuronal networks
- Discriminance analysis
- CHAID analysis

Methods of analysis

Overview of analysis methods



To investigate decision-making behaviour

Identification of key influences on the purchasing decision

- Regression analysis
- Discriminance analysis
- Variance analysis
- CHAID analysis
- Structural equation modelling
- Neuronal networks
- Conjoint analysis
- MaxDiff Scaling



To investigate the significance of price

Determination of price elasticity and the market chances of a product

- Conjoint analysis with market simulations
- Brand Price Trade Off (BPTO)
- Price Sensitivity Measurement (PSM)
- Gabor Granger procedure



For clear presentation of results

Positioning of a client's product in the competitive environment

- Multidimensional scaling procedures
- Correspondence analysis
- Mapping the results of a factor analysis

Topic

Example of application

Methods of analysis

IfaD workshops

“Hands-on experience of statistical methods”

Statistical tools are becoming increasingly varied and more readily available. But this fact brings not only benefits, but also dangers. The same applies here as for all kinds of tools; only in expert hands can they achieve the desired results. Inexpert handling can produce results which are of limited value, or even misleading.

In our methodology workshops we pass on our long-standing experience to those who can profit from the application of statistical procedures. They are designed to create an awareness of the preconditions, possibilities and results of the techniques selected.

The workshops focus on the practical implementation of theory in day-to-day professional practice. They are based on case studies taken from real life.

Our workshops are aimed as much at the experienced market researcher as at the beginner. The first can refresh their knowledge, while the second can widen their access to practical experience. And we can demonstrate our competence to you on a face-to-face basis.

Workshop Day 1



Conjoint Measurement

We explain the most commonly used variants

- Classic Full-Profile Conjoint
- Interactive (adaptive) Conjoint
- Discrete Choice Modelling (Choice Based Conjoint)
- Adaptive Choice Based Conjoint

We discuss requirements and approaches to model-building.

The application is worked through with the aid of a practical example.

Workshop participants have the opportunity to implement simulation calculations on the basis of survey data.

Workshop Day 2



Multivariate procedures

We explain the procedures

- Cluster analysis
- Factor analysis
- Regression analysis
- Multidimensional scaling

The results of the analysis are explained with reference to practical examples.

We discuss data quality requirements and give tips on optimal questionnaire design.

The results are discussed in a plenary session.



Six departments for an all-round service in research support.

Multivariate and conjoint analysis

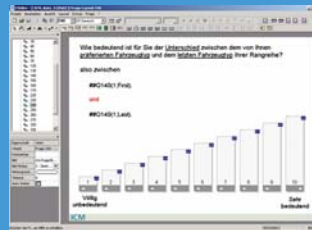
- Consulting, implementation and interpretation of multivariate and conjoint analysis



Data efficiency

CIS:

- interviewing software
Survey system for
CAPI / CATI / online projects



All the possibilities
of technology

CIS:

- CAPI / CATI / online service
Service package for
computer-aided surveys



Time for your job

CIS:

- CISnet server
Global
online project management



Internationalism,
hosted by IfaD

Data

- support
Data service for data entry, coding,
tabulation and data processing



The basis for your success

Individual solutions

- Customised tools for
exceptional tasks



The 20% advantage

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