

## Factor Analysis - Data reduction technique

Telmar Factor Analysis (TFA) provides a compelling tool for users to identify otherwise unobservable factors across a large set of variables. In other words, it helps to uncover hidden relationships across variables in a simplified manner.

In a real-world application, the results of a factor analysis could show that between cleanliness, friendly staff and waiting time they are three highly correlated variables of consumers resulting in the creation of one factor that could be titled "service quality." Or, when running TFA against media, one could determine the media habits of customer groups.

Users have multiple approaches to selecting a Factor solution. For example, one could use a Scree plot, a fixed number of Factors, a total cumulative % variance or a minimum % of variation for each factor solution.

TFA generates Factor scores "values of factors for each respondent" that may be used:

- a) As a replacement for a large set of variables for Correlation or Correspondence Analysis
- b) To classify respondents using Cluster

**Telmar's Factor Analysis** [Usage Guide](#) Welcome Demo Login SR

Survey : MRI 2013 Doublebase - M132Y (M132Y) Population : Women

**Selected Variables**

1. I regularly read financial news or financial publications.
2. I hate to borrow money. I would much rather save up in advance of a purchase.
3. My parents tend/tended to be savers.
4. I would be happy to use the Internet to carry out day to day banking transactions.
5. I often take the opportunity to discuss my knowledge of financial products or services with others.
6. I always know broadly how much is in my bank account at any one time.
7. There are one or two financial institutions that I always turn to first.
8. It is better for me to put my money in a low-risk investment, even if the return may not be as great.
9. The way I deal with my finances reflects how my parents dealt with theirs.
10. When I find a financial product or service that I like, I typically recommend it to people I know.

Choose your options and click on "Perform Factor Analysis"

**Variables Reductions**

Do you want to eliminate variables having small correlations with all others (recommended for factor analysis simplification)?

**Number Of Factors**

Would you like statistical suggestions? [Graphical Hints \(Scree Plot & others\)](#)

Fixed number of factors

Collectively, all factors explain at least  % of total variation.

Individually, each factor explains at least  % of the total variation.

**Factor loadings highlighting**

Largest loads exceeding  by absolute value

Moderate loads exceeding  by absolute value

[Perform Factor Analysis](#)

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TFA is integrated within Telmar's crosstab suite: the most comprehensive suite of analytical tools available in the media- and market-research marketplace, for use with both Syndicated and Custom datasets.

Please contact your Telmar representative for more information.