Reliability Analysis of Money Habitudes

Abstract
Use of the Money Habitudes exercise has gained popularity among various financial professionals. This article reports on the reliability of this resource. A survey administered to young adults at a western state university was conducted, and each Habitude or "domain" was analyzed using Cronbach's alpha procedures. Results showed all six domains had acceptable levels of reliability. Family finance and consumer science Extension agents can feel confident in using the Money Habitudes tool with individuals and couples.

Introduction
Many family relations and family finance Extension agents are looking for resources to aid in teaching individuals and couples how to manage their money more effectively. Ideally, Extension agents will depend on reliable tools. One instrument that could be used is Money Habitudes (St. Pierre, Richert, Routh, Lockwood, & Simpson, 2012). Money Habitudes is a game-like tool used by educators and financial professionals to investigate the financial habits and attitudes of individuals and couples. The main premise is that these "habitudes affect our decisions and actions related to money" (Solomon, 2009).

We present evidence of the reliability analysis of the Money Habitudes statements for young adults, before the Money Habitudes II for young adults (18-25) was released. Permission was requested from the original creator of the Money Habitudes to validate the items, but we did not receive any kind of compensation for taking on this endeavor. Because this tool is widely used, the motivation was purely academic: to test money habitudes cards as a statistically reliable tool.

The Money Habitudes exercise consists of going through a deck of cards with statements such as, "I rarely buy anything unless I can pay it off right away." Users then decide if they feel each statement is like them or not like them. There are 54 statements, nine in each Habitude. The six Money Habitudes are:

- Spontaneous,
- Targeted goals,
Data were collected from a survey that was available online to young adults in a western state university class. A total of 317 surveys were collected, which represented a response rate of 74.4%. Participants were asked to choose, on a five-point scale, if each statement was "not at all like me" up to "very much like me." The first wave of data collection was conducted in the spring 2012 semester. Institutional Review Board approval was secured before conducting the study.

The empirical pilot study measured the reliability of the domains and provided suggestions—to the creator—on how low alphas domains may be improved. For this purpose, Cronbach's alpha procedure was chosen for the reliability and item analysis of each domain. Cronbach's alphas provide a model of internal consistency, based on the average inter-item correlation (Field, 2005). In other words, it is a useful statistical procedure that provides information about the relationships between individual items in a scale.

Taken together, all six domains in the Money Habitudes passed the minimum standards for reliability acceptable in social sciences. Coefficient alphas for the six scales vary from .59 to .75. They are presented in Table 1. It has been amply indicated that an alpha value between 0.6-0.7 is acceptable, and above 0.7 is good or excellent; nevertheless, Cortina (1993) warns that such general guidelines need to be used with caution in the social sciences because the value of alpha depends on the number of items on the scale.

<table>
<thead>
<tr>
<th>Scale or Domain Old Name</th>
<th>Reported Alpha</th>
<th>Domain New Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spontaneous</td>
<td>0.745</td>
<td>--</td>
</tr>
<tr>
<td>Targeted Goals</td>
<td>0.710</td>
<td>Planning</td>
</tr>
<tr>
<td>Status</td>
<td>0.689</td>
<td>--</td>
</tr>
<tr>
<td>Free Spirit</td>
<td>0.652</td>
<td>Carefree</td>
</tr>
<tr>
<td>Selfless</td>
<td>0.593</td>
<td>Giving</td>
</tr>
<tr>
<td>Security</td>
<td>0.590</td>
<td>---</td>
</tr>
</tbody>
</table>
In view of the fact that two scales have alphas above .7 (Spontaneous and Targeted Goals) and Status gravitates near .7, efforts were concentrated on the Security, Selfless, and Free Spirit domains, which yielded lower alphas (.590, .593 and .652, respectively).

The first step in further analyzing these scales was to look at individual problematic items by using the alpha scores provided by the statistical software SPSS. Once again, the approach was not to delete the item that will increase the alpha but to make recommendations on how to improve it. On the security scale, one problematic item was "I want to be able to get to my money right away, so I like it to be very accessible." The reason why this item was problematic was that the statement encompasses an issue of accessibility rather than safety. The proposed change was "I like to put my money where it is as safe as possible."

For the Selfless scale, one problematic item was negatively stated: "I do not trust people who have an extravagant lifestyle." The recommendation was to structure the item positively. Steward and Frye (2004) investigated the use of negatively phrased survey items in medical education settings. In their studies, they concluded that negatively phrased items affect reliability and validity, and therefore, they recommend employing negative items with care. The proposed change for this particular item was "I think people who have a lot of money should give generously to help others."

Finally, on the Free Spirit, the old problematic item stated, "Since life is full of surprises I like to be able to respond in the moment and not be limited by long-term commitments." The recommendation was to word this item positively and simply: "I like to keep my options open."

It is important to note that the research reported here was conducted with an older version of the Money Habitudes. As a result of this analysis, and to standardize the names of the domains to match other versions (see new names listed in Table 1), the creator of the Money Habitudes released a new and improved product (Solomon, 2012). One big change in this revision was "rigorously improved readability. Now the [cards] are all written at or below a fifth-grade reading level. These revisions make Money Habitudes stronger, and more reliable" (Solomon, 2012).

**Conclusion**

The Money Habitudes exercise has gained popularity and use over the past several years by Extension agents, financial educators, counselors, and coaches. However, the reliability of the statements in the Money Habitudes exercise had not been evaluated. We examined the internal reliability of these statements. After reading this article, counselors, Extension educators, and other financial professionals working with individuals and couples on money issues can have confidence in knowing that the Money Habitudes tool is statistically reliable.

**References**


