Money Belief Indices of Young Professionals’ Financial Literacy Aspirations

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Abstract
Financial education is identified as one of the practical solutions to poverty alleviation because it is a grassroots empowerment approach encouraging individuals to actively take control of their financial situation regardless of the presence or absence of institutional support. However, results of contemporary financial literacy campaigns in the Philippines are lackluster due to particular embedded values and beliefs. Principal Component Analysis of money beliefs of 184 public high school teachers were regressed against their financial literacy aspirations. Four money-attribution indices surfaced, namely, Money as a Symbol of Success, Money as a Symbol of Misery, Money as a Symbol of Shame and Money as a Symbol of Corruption. Two of these indices (Misery Index and Corruption Index) were found to predict intention to undergo financial education. Consequently, these two indices turned out to be negative attributions towards money which could explain the dreary outcomes of current financial literacy campaigns.

Keywords: Financial education; Young professionals; Money beliefs; Mindset; Educators

Introduction
Financial education in the Philippines is still in its infancy, and contemporary financial literacy campaigns have had lackluster results (Lopa, 2014). Several non-academic publications attribute these dreary outcomes to cultural barriers inherent to Filipinos like religion, traditions, and embedded values and beliefs. Based on this allegation and with the relatively unproductive results of financial education programs in the country, it is essential to explore the influence of Filipino money attitudes on their aspirations or absence thereof at attaining financial literacy.

Financial education is promoted as a valuable safeguard against economic turbulence (Kiyosaki, 2013) and identified as a strategic means to the individual, family and societal prosperity (Gale & Levine, 2010). It is touted as one of the most practical solutions to poverty alleviation because it is a grassroots empowerment approach encouraging individuals to actively take control of their financial situation regardless of the presence or absence of institutional support (Fridman, 2010). Several studies have shown positive relationships between financial literacy and consequent financial behavior (Christelis et. al, 2008; Gerardi, Goette & Meier, 2010) but at the same time, it was found that financial literacy programs alone are not sufficient to elicit positive financial behaviors (Mandell & Klein, 2009). The financial mindset or money beliefs, aside from financial literacy, is acknowledged as a key influencer of financial behavior (Kiyosaki, 2013; Perry & Morris, 2005). Hence, there has been a recent rise in the number of research on people’s attitudes towards money. However, the majority of these studies were conducted in developed countries.
Research on the money attitudes of Filipinos and how it influences their aspirations at being financially literate is hugely lacking.

The Philippines is identified as one of the emerging economies in the world, ranking 113 in the global human development index (UNDP, n.d.) but according to local financial education advocates, the country’s inherent culture and predominantly Catholic religion hamper financial education interventions from effectively producing positive financial behaviors (Lopa, 2012). It is imperative that young Filipinos appreciate financial education for two reasons. First, they are the inheritors of the country; and a financially educated populace have a better chance of continuing the Philippines’ upward progress based on its robust economic fundamentals. Secondly, they are the ones best poised to take advantage of the country’s rapid economic growth as time is in their favor.

Teachers, in particular, Junior High School teachers, are in a very unique position to significantly influence the economy, as they serve a very volatile and sensitive audience – high school students, aged 13-18 years. The age range of 13-18 is the age when an individual is actively developing their emotional and psychological persona (Carnegie Council on Adolescent Development, 1983). This period in one’s life would be a very good period to undergo financial education as it comprises content and context, i.e. knowledge and mindset (Kiyosaki, 2013). While content is easily discoverable and impartable in today’s digital age, context is a slightly more complicated aspect of financial education, involving influencing and shifting the individual’s inherent money paradigms. This age is the ‘transitory’ age when the individual’s psyche is mature enough to comprehend complex financial education input yet malleable enough to shift when faced with paradigms that run in conflict with their childhood programming. Such programming may include the mental talk of ‘money does not grow on trees, entrepreneurship is risky, it’s better to be employed, etc. derived from their direct environment like parents, neighbors and primary school teachers, among others. It is thus important that educators tasked with delivering financial education to this particular audience be in the right context. Furthermore, Eccles et al. (1993) have found that adolescents are heavily influenced by adults outside of their home, i.e. their high school teachers.

By identifying the money beliefs of young Filipino professionals particularly the Junior High School educators, institutional financial education campaigns could be made more effective. This study seeks to inform and contribute to current and future financial education efforts in the Philippines, which has its own unique culture and hopefully be made more effective and efficient in their design. This study, thus, generally aims to determine the influence of money belief indices on young professionals’ financial literacy aspirations. Specifically, the study aspires to identify the money belief indices of young professional high school teachers and consequently determine the relationship between the derived money belief indices to young professionals’ intention to undergo financial education.

**Methodology**

**Conceptual Framework**

The study anchors on the Integrated Behavior Model (IBM) by Montano and Kasprzyk (2008), conceptualized to describe, explain, influence, and ultimately change behavior using constructs from the Theory of Planned Behavior (TPB) by Ajzen (1991) and other influential theories. The TPB is a further development of the Theory of Reasoned Action (TRA) which was conceptualized to better appreciate the correlation of attitude, intention, and behavior (Fishbein, 1967). According to the TRA, intention is governed by attitude (beliefs about the behavior) and subjective norm (beliefs of others about the
behavior). TPB expanded the TRA by incorporating perceived control over the act changing the behavior and the IBM further expanded the TPB to incorporate the possible influence that background variables have on the psychosocial factors that determine intention. Background variables include socio-demographic characteristics, culture, and core beliefs. The variables of this study were limited to such background variable, in the form of core beliefs about money – operationalized into Money Attribution and Intention, measured utilizing the Stages of Change in the Transtheoretical Model (TTM) by Prochaska and Di Clemente (1982).

Briefly, the TTM states that every behavior change goes through five stages, i.e. Pre-Contemplation (No intention to take action within 6 months), Contemplation (Intends to take action within 6 months), Preparation (Intends to take action within the next 30 days and has taken some behavioral steps in this direction), Action (Changed overt behavior for less than 6 months), and Maintenance (Changed overt behavior for more than 6 months), and often a sixth stage that is the Termination (No temptation to relapse and 100% confidence) or Relapse Stage (Reversion to old behavior). Based on the argument that financial education in the Philippines is lacking, however, the Termination or Relapse Stage can be safely eliminated from the model. The author conceptualized the model in an attempt to marry the principles and processes of change constructs of more than 300 fragmented psychotherapy theories (Prochaska, Redding & Evers, 2008). The model was effectively utilized to identify and properly categorize smokers who wanted to quit. It quickly gained popularity in the health industry and was applied to other health behaviors like condom use, cancer screening, HIV/AIDS prevention, medication compliance, among others.

Money Attribution refers to the symbols or representations that money poses for the participants. On this premise, Money Attribution was conceptualized to be a predictor of Intention to increase one’s financial literacy and served as the guide for this study (Fig. 1). This concept was derived from the money attitudes study of Lim, Teo and Loo (2003) which explored how Singaporeans perceive money, business and investing based on their survey answers. This study utilized a similar survey deriving the study participants’ perception and view about money, rechristened as Money Attribution(s).

Research Design and Ethics

The study utilized a one-shot survey method wherein data were inferred from a single survey instrument answered by the participants. Institutional consent was acquired through official communication with the Department of Education division where the participants are employed. Likewise, individual consent was acquired by incorporating a consent form in the survey instruments which the participants signed before answering the instrument. Additionally, the participants were oriented on the nature and purpose of the study before handing out the survey instruments.
Data Gathering

The public junior high school teachers were the participants of this study. They were identified using a snowball sampling and the school administrators helped in identifying the teachers who are within the study’s age bracket (22-35). Upon acquiring the institutional consent, all identified public junior high schools in the study area were visited and oriented about the study. A total of 184 participants answered the instrument.

Data Analysis

Money Attribution was measured by the participants’ agreement or disagreement to a 4-point Likert Scale, 24-item adapted from Lim, Teo, and Loo’s (2003) instrument and data acquired from in-depth interviews with young teachers. The questionnaire was subjected to reliability analysis after an initial run with young professionals in a local university, and returned with a Cronbach’s Alpha of 0.827, which is considered acceptable (Nunnally, 1978).

Intention was attributed to the participants’ current Stage of Change pertaining to financial literacy aspiration which ranged from 1-5 with Pre-Contemplation scored as 1 and Maintenance scored as 5. The data were encoded and analyzed using a statistical software.

A set of predictors for Intention was developed by subjecting the 24 Money Attribution variables to a test for multicollinearity utilizing Principal Component Analysis (PCA). Principal Component Analysis is a dimension reduction strategy to identify common data patterns and derive indices for easier predictive analysis, without compromising data integrity. This led to the elimination of variables that were highly collinear (Daguplo, 2017), thereby removing redundancy and paving the way for the best model possible. The resulting reduced dimensions were renamed into indices and predictive analysis between these Money Attribution indices and Intention then followed.

Results and Discussion

The result of the initial multicollinearity analyses revealed eight distinct Money Attitude items that were representative of their collinear counterparts (Fig. 1, Fig. 3). These were items 1, 3, 5, 7, 12, 21, 23 and 24. Four principal components were derived with 74% predictability (Table 1).

These eight variables were again subjected to Principal Components Analysis and loaded onto a factor structure for clustering. After PCA and utilization of the concept of variation to identify the number of factors, were identified (Table 2).

Careful scrutiny of the items that loaded onto the same Principal Components, yielded the four Money Attribution Indices, namely:

- Success Index = 0.398MA12 + 0.468MA21 + 0.505MA23 + 0.504MA24
- Misery Index = {0.491MA1 { 0.575MA3
- Shame Index = 0.826MA7
- Corruption Index = {0.697MA5

Legend: MA12-Money can solve many personal problems; MA21-Money is a symbol of success; MA23-Money earned is closely related to ability and effort; MA24-A person’s salary reveals their financial intelligence; MA1-Money is the root of all evil; MA3-Poor people are happier and more contented than rich people; MA7-It is better to say “I do not have money” than to say “I have money”; MA5-Rich people are usually cheaters.

Ordinal regression analysis of the four derived indices against Intention (Table 3) showed that none of these indices are significant predictors of financial literacy aspiration. Goodness-of-fit test (p>0.05) showed that the model is fit for the data, guaranteeing applicability of utilization in the prediction process. Furthermore, the proposed model has more concordant pairs (60.3%) than discordant pairs (39.0%),
showing that the model agrees with the data observed.

However, step-wise regression of the indices against Intention showed Misery and Corruption Indices as significant predictors to Intention (Table 4). Corruption Index (p=0.043) proved to be a significant predictor when regressed with Success and Shame indices. Misery (p=0.025) and Corruption (p=0.038) indices proved significant when regressed independently with the Money as a Symbol of Success index. Finally,
Table 2. Eigenvectors correlation scores

<table>
<thead>
<tr>
<th>Items</th>
<th>PC1</th>
<th>PC2</th>
<th>PC3</th>
<th>PC4</th>
</tr>
</thead>
<tbody>
<tr>
<td>MA1</td>
<td>-0.194</td>
<td>-0.491</td>
<td>-0.392</td>
<td>0.005</td>
</tr>
<tr>
<td>MA3</td>
<td>-0.004</td>
<td>-0.575</td>
<td>0.159</td>
<td>0.415</td>
</tr>
<tr>
<td>MA5</td>
<td>-0.268</td>
<td>-0.384</td>
<td>-0.239</td>
<td>-0.697</td>
</tr>
<tr>
<td>MA7</td>
<td>-0.071</td>
<td>-0.303</td>
<td>0.826</td>
<td>-0.164</td>
</tr>
<tr>
<td>MA12</td>
<td>0.398</td>
<td>-0.35</td>
<td>-0.217</td>
<td>0.38</td>
</tr>
<tr>
<td>MA21</td>
<td>0.468</td>
<td>-0.229</td>
<td>0.127</td>
<td>-0.287</td>
</tr>
<tr>
<td>MA23</td>
<td>0.505</td>
<td>-0.057</td>
<td>-0.137</td>
<td>-0.215</td>
</tr>
<tr>
<td>MA24</td>
<td>0.504</td>
<td>0.105</td>
<td>0.03</td>
<td>-0.207</td>
</tr>
</tbody>
</table>

Table 3. Ordinal regression analysis to identify financial literacy aspiration

<table>
<thead>
<tr>
<th>Predictor</th>
<th>Coef</th>
<th>SE Coef</th>
<th>Z</th>
<th>P</th>
<th>Odds Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>Success</td>
<td>-0.0749532</td>
<td>0.127703</td>
<td>-0.59</td>
<td>0.557</td>
<td>0.93</td>
</tr>
<tr>
<td>Misery</td>
<td>0.270626</td>
<td>0.195199</td>
<td>1.39</td>
<td>0.166</td>
<td>1.31</td>
</tr>
<tr>
<td>Shame</td>
<td>-0.260715</td>
<td>0.201097</td>
<td>-1.3</td>
<td>0.195</td>
<td>0.77</td>
</tr>
<tr>
<td>Corruption</td>
<td>0.414719</td>
<td>0.277475</td>
<td>1.49</td>
<td>0.135</td>
<td>1.51</td>
</tr>
</tbody>
</table>

Table 4. Stepwise regression analysis of indices against intention absent the misery index

<table>
<thead>
<tr>
<th>Predictor</th>
<th>Coef</th>
<th>SE Coef</th>
<th>Z</th>
<th>P</th>
<th>Odds Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>Success</td>
<td>-0.0876405</td>
<td>0.127178</td>
<td>-0.69</td>
<td>0.491</td>
<td>0.92</td>
</tr>
<tr>
<td>Shame</td>
<td>-0.314321</td>
<td>0.197249</td>
<td>-1.59</td>
<td>0.111</td>
<td>0.73</td>
</tr>
<tr>
<td>Corruption</td>
<td>0.53184</td>
<td>0.26309</td>
<td>2.02</td>
<td>0.043*</td>
<td>1.7</td>
</tr>
</tbody>
</table>

*Significant at p < 0.05

Table 5. Stepwise regression analysis of indices against intention absent the shame and corruption index

<table>
<thead>
<tr>
<th>Predictor</th>
<th>Coef</th>
<th>SE Coef</th>
<th>Z</th>
<th>P</th>
<th>Odds Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>Success</td>
<td>-0.0304623</td>
<td>0.125402</td>
<td>-0.24</td>
<td>0.808</td>
<td>0.97</td>
</tr>
<tr>
<td>Misery</td>
<td>0.404273</td>
<td>0.180269</td>
<td>2.24</td>
<td>0.025*</td>
<td>1.5</td>
</tr>
</tbody>
</table>

*Significant at p < 0.05

Misery (p=0.05) index proved significant when regressed independently with the Money as a Symbol of Shame index.

The models go thus:
- FLA = (5.02)SI + (2.03)ShI - (1.65)CI
- FLA = (5.02)SI - (2.54)MI
- FLA = (5.02)SI - (1.65)CI
- FLA = (2.03)ShI - (2.54)MI

Where:
- FLA - Financial Literacy Aspiration
- SI - Money as a Symbol of Success Index
- ShI - Money as a Symbol of Shame Index
- CI - Money as a Symbol of Corruption Index
- MI - Money as a Symbol of Misery Index

Financial literacy aspiration among junior public high school teachers in a rural municipality in the Philippines is therefore significantly affected by their money belief indices as indicated and dictated by the above models.

Out of the 24 items in the instrument, the indices that surfaced primarily have a negative inference towards money, with only one out of four indices viewing money in a positive light, i.e., Money as a Symbol of Success Index. Descriptive data showed that the mean score of the Corruption, Shame, and Misery Indices are relatively low compared to that of the mean score of Success Index. This means...
Table 6. Stepwise regression analysis of indices against intention absent the misery and shame index

<table>
<thead>
<tr>
<th>Predictor</th>
<th>Coef</th>
<th>SE Coef</th>
<th>Z</th>
<th>P</th>
<th>Odds Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>Success</td>
<td>-0.0782543</td>
<td>0.126857</td>
<td>-0.62</td>
<td>0.537</td>
<td>0.72</td>
</tr>
<tr>
<td>Corruption</td>
<td>0.541466</td>
<td>0.260892</td>
<td>2.24</td>
<td>0.038*</td>
<td>1.03</td>
</tr>
</tbody>
</table>

*Significant at p < 0.05

Table 7. Stepwise regression analysis of indices against intention absent the success and corruption index

<table>
<thead>
<tr>
<th>Predictor</th>
<th>Coef</th>
<th>SE Coef</th>
<th>Z</th>
<th>P</th>
<th>Odds Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>Misery</td>
<td>0.360765</td>
<td>0.184125</td>
<td>1.96</td>
<td>0.050*</td>
<td>1</td>
</tr>
<tr>
<td>Shame</td>
<td>-0.246607</td>
<td>0.201118</td>
<td>-1.23</td>
<td>0.22</td>
<td>0.53</td>
</tr>
</tbody>
</table>

*Significant at p < 0.05

that most of them strongly agreed or agreed to the negative Money Attribution statements, thereby resulting in low marks in these items. This is in consonance with the findings of Lim, Teo, and Loo (2003). These findings point that the study’s young professional teacher participants basically have a predominantly negative perception of money, business, and investing.

The Inferential analysis found that overall money attribution is non-predictive towards the participants’ intention to undergo financial education. However, looking at the odds ratio, the Misery Index and the Corruption Index are 1.31 and 1.51 times likely to influence their aspirations at financial literacy, though the odds do not guarantee significant effect to the latter. Stepwise regression reinforces these findings, however. Results of the stepwise regression indicated that these two indices, Money as a Symbol of Misery and Money as a Symbol of Corruption, are indeed significant predictors of Intention if the other indices are taken out. It simply means that the participant’s perception of money as a symbol of corruption and symbol of misery can affect their intention to undergo financial education.

Incidentally, their coefficients in the resulting regression models are negative relative to Intention. This inverse relationship suggests that as the perception of money as a symbol of misery and symbol of corruption increases, interest to undergo financial education decreases. Therefore, it can be implied that an average junior high school teacher aged 22-35 years old would most likely reject the idea of undergoing financial education if they attribute money to misery and corruption.

These findings correlate with the claims of prominent figures in corporate finance that the majority of Filipinos see money as a symbol of misery and a symbol of corruption. Specifically, public high school teachers believe that (a) having more money equals a more miserable life (Calub, 2012) and that (b) having more money means it must have been acquired through unscrupulous methods (Kiyosaki, 2013). This is allegedly why Filipinos would subconsciously rather be seen as poor or average.

Conclusion, Implications and Recommendations

The purpose of the research was to identify money beliefs of young professional teachers and determine its relationship to their intention undergo financial education. Several money attributions can significantly predict financial literacy aspirations of young public high school teachers in a rural municipality in the Philippines and it can be inferred that the prevailing perception of these individuals
towards money is negative. Specifically, it was found that young professional teacher participants predominantly see money as a symbol of success, misery, corruption, and shame. Furthermore, their attribution of money as a symbol of misery and corruption, unfortunately, lowers their aspirations at increasing their financial literacy. This could be the reason behind the lackluster results of contemporary financial education programs in the Philippines, but this claim is still subject to further verification. It is highly recommended that the study is replicated to other groups, and explore other psychosocial factors which were not included in this study like perceived norms, outcome beliefs, self-efficacy, personality, religion, and culture in assessing the predictability of young professionals’ financial literacy aspirations. Comparative studies involving several financial education interventions that take into account participants’ core beliefs i.e. money attributions are also highly recommended.

References Cited


