Changing lives of ordinary people through human and social sciences
Measuring Financial Literacy in Post-Apartheid South Africa: A Quantitative Examination of a Multi-Dimensional Concept

Steven Gordon, Benjamin J. Roberts a and Jarè Struwig

Funding for this study was provided by the South African Financial Services Board (FSB) under the project title Financial Literacy Project. For their support and encouragement, special thanks to Lyndwill Clarke and Andries Bester of the Financial Literacy Board.

ACKNOWLEDGEMENT

The views of the researchers did not necessarily reflect the views of the FSB.
INTRODUCTION

Financial literacy is less well understood in the developing world which has an impact on financial literacy programmes in developing countries.

**AIM**: develop and implement a survey of financial literacy of adults in South Africa consistent with emerging measurement best practice internationally

**ASSIST IN**:
- Identifying potential needs and gaps in terms of specific aspects of financial literacy, and groups at risk
- Developing a composite financial literacy score for monitoring purposes

Analysing financial literacy in South Africa will allow the determinants identified in developed world to be assessed in the developing, permitting a test of their salience in different economic contexts
The International Network on Financial Education (INFE) and a New Approach to Measuring Financial Literacy

Multidimensional approach: Four Components

OECD Financial literacy definition: “a combination of awareness, knowledge, skills, attitude and behaviours necessary to make sound financial decisions and ultimately achieve individual financial wellbeing”
Heterogeneous Middle Income Country with one of world’s highest income inequality levels

VAST INEQUALITIES THAT CHARACTERIZE BOTH ACCESS TO AND THE QUALITY OF EMPLOYMENT

Quarterly labour force survey (QLFS) for the second quarter of 2013:
In the months of April to June this year the official unemployment rate rose to 25.6%, while the broader rate of unemployment rose to 36.8%.
The number of unemployed people rose to 4.7-million and the number of discouraged work-seekers to 2.4-million.
- Between these two groups there are now over seven million people without work.

A 2012 Unicef report found that 1.4 million children live in homes that rely on often dirty streams for drinking water and 1.7 million live in shacks, with no proper bedding, cooking or washing facilities.
STUDY METHODOLOGY

Survey conducted by Human Sciences Research Council

Nationally representative of the population 16 years and older living in private households in the 9 provinces

– **Primary sampling units**: 500 census enumerator areas (EAs), stratified by province, geography type and majority population group

– **Secondary sampling units**: 7 household visiting points randomly selected per EA

– One respondent 16+ years randomly selected per household

Of 3,500 addresses issued 2,972 interviews achieved.

Responses to the survey voluntary and confidential, collected by face-to-face interview.

Data collection: September-October 2011
CONSTRUCTING COMPOSITE DOMAIN SCORES

**Standardisation of measures**
- Indicators made comparable through use of standardised 0-100 scaling

**Weighting and aggregation**
- Assumption of equal weighting of measures
- Aggregation: simple additive approach (standardised indicators added together and an average domain score produced)

**Constructing overall financial literacy score**
- In deriving the overall financial literacy score, each of the four domains were assigned equal weights
- This means that none of the four dimensions was treated as more important than the others.
- The four domain scores were averaged to create the final composite indicator
**QUESTIONNAIRE CONTENT**

<table>
<thead>
<tr>
<th>FINANCIAL CONTROL</th>
<th>FINANCIAL PLANNING</th>
<th>PRODUCTS CHOICE</th>
<th>FINANCIAL KNOWLEDGE</th>
<th>SOCIO-DEMOGRAPHIC</th>
</tr>
</thead>
<tbody>
<tr>
<td>8 QUESTIONS USED</td>
<td>5 QUESTIONS USED</td>
<td>12 QUESTIONS USED</td>
<td>8 QUESTIONS USED</td>
<td>Age</td>
</tr>
<tr>
<td>Personal Money Management</td>
<td>Financial Reserve Funds</td>
<td>Awareness of Products</td>
<td>Simple and Compound Interest</td>
<td>Gender</td>
</tr>
<tr>
<td>Meeting Financial Needs</td>
<td>Emergency Financial Planning</td>
<td>Holding Products</td>
<td>Inflation-time Value of Money</td>
<td>Education</td>
</tr>
<tr>
<td>Household Budgets</td>
<td>Propensity to Save vs Spend</td>
<td>Choosing and Using products</td>
<td>Risk, Diversification and Return</td>
<td>Work</td>
</tr>
<tr>
<td>Long-term Financial Goals</td>
<td>Retirement Planning</td>
<td>Selecting Advice Givers</td>
<td>Self-Rated Knowledge</td>
<td>Income</td>
</tr>
</tbody>
</table>
DETERMINANTS OF FINANCIAL LITERACY

Most studies have found that *poorer individuals* tend to have *low levels* of financial literacy. The relationship between financial literacy and wealth accumulation is *unclear*. *Reverse causality* may better explain this association.

**Hypothesis 1:** Economic position is positively associated with financial literacy, with those individuals in economically advantageous positions more likely to exhibit high financial literacy scores.

A common finding in the literature measuring differences in financial literacy is that *educational attainment* is associated with financial literacy. This may be linked to the *cognitive abilities* that are often acquired in the process of *formal education*.

**Hypothesis 2:** Educational attainment will be positively associated with financial literacy, with those less educated individuals more likely to have low financial literacy scores.
A number of scholars have investigated the relationship between age and financial literacy, finding evidence of an inverse U-shaped age profile.

**Hypothesis 3:** A non-linear relationship will be observed between age and financial literacy, with those in middle age exhibiting higher financial literacy scores than the young and the old.

The current research on financial literacy seems to suggest that differences exist between racial groups in those countries where ethnicity and financial literacy have been examined. A gender basis has also been noted in a number of studies on financial literacy.

**Hypothesis 4:** A racial hierarchy will be evident in financial literacy scores, with differences observed between racial groups in South Africa.

**Hypothesis 5:** A gender basis in financial literacy will be noted, being male will be positively associated with a high financial literacy score.
The majority of South Africans scored low on all domains measuring financial literacy. This is not surprising considering the challenges faced by many South Africans during the difficult financial climate of 2011.
INFE OECD FRAMEWORK

The use of the *INFE OECD framework* in South Africa provides a good example of what can be achieved.

– The work completed provides a *platform* to appreciate the *complexity of the financial literacy* in the context of the modern period.

Financial domain scores, designed by the OECD, are an *important instrument* that can be used to successfully capture the many *multidimensional aspects* of financial literacy.

– The INFE OECD measures constitute a powerful tool to understand and measure financially literacy.

A tool that can identify *financial vulnerable groups* and provide a context to campaign for greater consumer education. Measures are vital to the *scholarship* on financial literacy and will provide a *rich* source of data for scholars.
PRODUCT CHOICE

- Male
- Female
- Never Married
- Divorced/Widowed
- Married
- 16-19 years
- 20-29 years
- 30-39 years
- 40-49 years
- 50-59 years
- 60-69 years
- 70+ years
- Black African
- Coloured
- Indian
- White
- Junior Primary and Below
- Senior Primary
- Incomplete secondary
- Tertiary
- Other labour Inactive
- Employed
- Unemployed
- Student
- Retired
- ≤R499
- R500-R1499
- R5000-R9999
- R10000+
BIVARIATE RESULTS

Wealthy respondents were more likely than the poor to have high scores on the financial domain scores.

Educational attainment seems to show a strong correlation with all domains, with those less educated individuals having lower literacy domain scores than their more educated counterparts.

Age has an effect on financial literacy although the effect is somewhat weaker than expected on financial knowledge.

Substantial racial group differences were observed, with white and Indian South Africans scoring higher, on average, in all domains than their black African or coloured counterparts.

Men were found to be score higher on all domains but the gender difference noted was minor and the significance of the relationship smaller than anticipated (particularly on the financial control and financial planning domains).
<table>
<thead>
<tr>
<th></th>
<th>Financial Control</th>
<th>Financial Planning</th>
<th>Product Choice</th>
<th>Financial Knowledge</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Coef.</td>
<td>Sig.</td>
<td>Coef.</td>
<td>Sig.</td>
</tr>
<tr>
<td>Female</td>
<td>1.38</td>
<td>n.s</td>
<td>1.07</td>
<td>n.s</td>
</tr>
<tr>
<td>20-29 years</td>
<td>4.30</td>
<td>*</td>
<td>5.01</td>
<td>*</td>
</tr>
<tr>
<td>30-39 years</td>
<td>10.23</td>
<td>***</td>
<td>7.52</td>
<td>**</td>
</tr>
<tr>
<td>40-49 years</td>
<td>8.91</td>
<td>***</td>
<td>7.24</td>
<td>**</td>
</tr>
<tr>
<td>50-59 years</td>
<td>11.99</td>
<td>***</td>
<td>7.66</td>
<td>**</td>
</tr>
<tr>
<td>60-69 years</td>
<td>18.28</td>
<td>***</td>
<td>9.93</td>
<td>**</td>
</tr>
<tr>
<td>70+ years</td>
<td>20.60</td>
<td>***</td>
<td>8.82</td>
<td>*</td>
</tr>
<tr>
<td>Coloured</td>
<td>3.65</td>
<td>*</td>
<td>-4.03</td>
<td>*</td>
</tr>
<tr>
<td>Indian</td>
<td>-0.72</td>
<td>n.s</td>
<td>-0.78</td>
<td>n.s</td>
</tr>
<tr>
<td>White</td>
<td>4.03</td>
<td>*</td>
<td>-0.22</td>
<td>n.s</td>
</tr>
<tr>
<td>Junior Primary and Below</td>
<td>Ref.</td>
<td>Ref.</td>
<td>Ref.</td>
<td>Ref.</td>
</tr>
<tr>
<td>Senior Primary</td>
<td>6.58</td>
<td>**</td>
<td>6.58</td>
<td>**</td>
</tr>
<tr>
<td>Incomplete secondary</td>
<td>11.06</td>
<td>***</td>
<td>11.06</td>
<td>***</td>
</tr>
<tr>
<td>Matric or equivalent</td>
<td>15.63</td>
<td>***</td>
<td>15.63</td>
<td>***</td>
</tr>
<tr>
<td>Tertiary</td>
<td>20.99</td>
<td>***</td>
<td>20.99</td>
<td>***</td>
</tr>
<tr>
<td>R500-R1499</td>
<td>2.26</td>
<td>*</td>
<td>3.60</td>
<td>**</td>
</tr>
<tr>
<td>R1500-R4999</td>
<td>6.70</td>
<td>***</td>
<td>8.52</td>
<td>***</td>
</tr>
<tr>
<td>R5000-R9999</td>
<td>8.23</td>
<td>***</td>
<td>14.37</td>
<td>***</td>
</tr>
<tr>
<td>R10000+</td>
<td>9.08</td>
<td>**</td>
<td>17.94</td>
<td>***</td>
</tr>
<tr>
<td>Adj. R-squared</td>
<td>0.30</td>
<td>0.30</td>
<td>0.35</td>
<td>0.35</td>
</tr>
</tbody>
</table>
MULTIVARIATE RESULTS

**Economic status and labour market position** emerging as strong predictors on all domains

**Educational attainment** was found to be a strong predictor on all financial literacy domains

**Age** was found to be a significant predictor of financial control and financial planning but not product choice and financial knowledge

– An inverse U-shaped age profile was **not found** on any of the domains

**Race** was not a significant predictor of the financial planning and product choice domains

– White South Africans were found to be significantly different from their non-white counterparts on the financial knowledge domain

**Gender** was not a significant predictor on any of the domains and no evidence of gender basis was found
DISCUSSION

The South African economy is still recovering from the 2009 financial recession and the nation’s financial institutions are struggling to sustain robust economic growth in a difficult global market.

The results highlight the need for targeted interventions and consumer education programmes that will promote financial inclusion and improve awareness of financial services.

- The forthcoming national consumer financial education strategy must establish a set of adaptive interventions that target vulnerable groups.

Periodic multidimensional evaluations of financial literacy are required in order to identify target groups and their changing needs, as well as monitor the cumulative effect of interventions directed at producing a more financial capable citizenry.
Financial Education Policy: Survey data and measures has assisted by:
...identifying target groups
...provided comparable year-on-year measure

Evaluation approach:
Show which socio-demographic groups being reached and which messages are getting through to risk groups.
• Also understand the rate at which societal change is occurring

Future Financial Literacy Surveys: Intentions for the future research in South African Social Attitudes Survey (SASAS)...  
• Repeat core financial literacy core module year-on-year  
• Repeat every 3-5 years, full financial literacy module
ALL QUESTIONS WELCOME

THANK YOU FOR YOUR ATTENTION