“African Generation Y students’ personal finance behavior and knowledge”

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AFRICAN GENERATION Y STUDENTS' PERSONAL FINANCE BEHAVIOR AND KNOWLEDGE

Abstract

Personal financial management is important, given uncertainties in both financial and economic environment. However, published research on African Generation Y students' personal finance behavior and knowledge is limited. This study aimed to evaluate African Generation Y students' personal finance behavior in terms of their attitudes towards financial planning and whether this cohort believes that they have the skills to manage their finances successfully. In addition, this study sought to evaluate African Generation Y students' knowledge regarding personal finance. A convenience sample of 500 African students across the campuses of two South African public higher education institutions situated in the Gauteng province was surveyed using structured, self-administered questionnaires. The t-test results indicate that the sample deems the process of planning personal finances and managing credit, insurance, investment, and estate, as important. Moreover, the students scored low in the broad personal finance knowledge areas of basic finance, saving, spending, and debt, suggesting that this cohort is financially illiterate. The results also indicated that the students think they have the financial skillset to manage their personal finances. A high Pearson's correlation coefficient was noted between sampled participants' personal finance behavior and their observed personal finance management skillset regarding the relationship between the constructs. However, an insignificant relationship was found between attitudes towards personal finance and financial knowledge and between financial knowledge and African Generation Y students' apparent finance skills. Understanding African Generation Y students' personal finance behavior and knowledge, universities and financial institutions can more effectively identify gaps and deficiencies in students' personal finance endeavors.

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INTRODUCTION

Planning and managing personal finances is important, especially given the unpredictable and uncertain events that abound in the economic and financial environment (Swart, 2012). Economic threats such as unemployment, escalating interest rates and a diminishing buying power of money (Shim et al., 2009), as well as the constant increase in the aged population and longer life expectancy (Lai & Tan, 2009), accentuate the need for and importance of personal financial planning (Fünfgeld & Wang, 2009), and that everyone, students included, irrespective of individuals' level of income and personal wealth, should engage in personal financial planning (Gitman & Joehnk, 2008).

In South Africa, there is a dearth of published research on the African Generation Y market segment's personal finance behavior and knowledge. As such, the aim of this study was to assess African Generation Y students' personal finance behavior regarding their attitudes towards financial planning and whether this cohort believes that they have the

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skills to manage their finances successfully. Additionally, this study evaluated African Generation Y students' knowledge regarding personal finance. The relationship between these three constructs was then evaluated.

Understanding African Generation Y students' personal finance behavior and knowledge, financial institutions may be better positioned to transfer product and related financial information to this important segment of the market, and in doing so, improve financial service delivery. Furthermore, deficiencies in how effectively this target market manages its personal finances can be identified and addressed.

1. LITERATURE REVIEW

Personal financial planning involves establishing short, medium, and long-term financial objectives. These objectives are set by following a personal financial planning process. The process is generally based on the individuals' desired lifestyle, stage in the life cycle, opportunities, threats, and needs in the various personal financial planning areas to guarantee financial freedom when reaching retirement age (Swart, 2012). To successfully manage personal finance, financial knowledge about several financial aspects, areas, and financial planning process is necessary (Boon et al., 2011). This is because all-encompassing financial plan incorporates many financial factors that could have a financial impact on the individual (Swart, 2012). While there are many areas to consider in managing personal finances, this study included the areas of credit management, insurance planning, investment management, and estate planning.

Credit management denotes spending within your means and establishing whether something can be afforded or not. Managing credit signifies debt management to avoid potentially negative financial ruin (Swart, 2012). Planning for insurance means that an individual analyses potential financial risks and then takes the necessary measures to control and minimize the risks (Botha et al., 2011). Investment planning comprises investing financial resources in financial assets to generate an income (Van Gijsen, 2002). Individuals should save and invest sufficiently, early, and for a long period. In doing so, individuals can adequately fund their retirement years (Biehler, 2008). During estate planning, an individual's wealth is organized and managed to ensure that loved ones are provided financially after their death (Botha et al., 2012).

Although the management of one's finances is important, it is worrisome that many individuals, including the youth, do not plan and manage their personal finances. Australia and New Zealand Banking Group found that 37 percent of people between 18 and 70 years are unaware of how much savings are enough to retire with financial freedom (Louw, 2009). In South Africa, fewer than one in every ten individuals can retire comfortably. These findings infer that many people worldwide lack personal finance knowledge and do not embark on the personal financial planning process (Swart, 2012). Being financially illiterate makes personal financial planning difficult and leads to improper financial decision-making (Boon et al., 2011).

Financial knowledge represents the ability to appropriately understand and apply financial management skills (Vitt et al., 2005). Effective financial planning, debt management, accurately calculating interest rates, and understanding the power of compound interest are all characteristics of being financially knowledgeable. Besides, financially literate individuals are better positioned to recognize and understand aspects related to asset and money management (Swart, 2012). As such, financially knowledgeable individuals are likely to make proper financial decisions and behave financially responsibly. Responsible financial behavior includes the timely payment of credit card debt and prioritizing spending according to needs and not wants. Moreover, a financially responsible individual is likely to live within their means and is unlikely to exceed a credit limit. Therefore, through financial education, individuals can safeguard long-term financial health (Chinen & Endo, 2012).

The financial knowledge of individuals has been assessed in several international markets.

These international markets include the United Kingdom (Miles, 2004), several European nations (Christelis et al., 2005), and Japan (Lusardi & Mitchell, 2007). These studies found that the participants were financially illiterate, suggesting that poor financial knowledge is a global problem and phenomenon. Looking specifically at university students' financial knowledge, several studies (Danes & Hira, 1987; Volpe et al., 1996; Chen & Volpe, 1998) found that university students lack the necessary financial knowledge. Likewise, in South Africa, financial knowledge is a challenge. This country's educational system fails to educate and train personal finance to school children, university students, and adults, consequently leading to a financially illiterate society with little understanding of its financial dealings (Swart, 2012). In particular, university students lack financial knowledge because most university degrees have very little personal finance content (Swart, 2005). As such, it seems as if the lack of education on a global scale fails a generation of the future to manage their personal finances effectively.

Individuals should be financially knowledgeable to develop the skills necessary to manage personal finances successfully. Moreover, attitudes towards personal finance influence personal financial management skills (Leskinen & Raijas, 2006). Financial skill is an individuals' application of financial knowledge and insights when making important financial decisions and analyzing financial information (Kempson et al., 2006). To successfully manage everyday life activities, it is important that all spheres of society, including Generation Y students, develop a financial management skillset (Falahati et al., 2011). In doing so, Generation Y students can maintain low levels of debt, healthy savings, and exercise more prudent spending (Chinen & Endo, 2012).

Generation Y individuals were born between 1986 and 2005 (Markert, 2004). They are the upcoming economic generators and wealth accumulators (DeRogatis, 2013) with high possible aggregate spending (Cui et al., 2013) and high buying power (Bleedorn, 2013), making them a valuable market segment to a wide spectrum of financial organizations, such as insurance companies, retail banks, and investment management corporations. In South Africa, the African Generation Y cohort is a particularly rewarding market because they make up nearly 84 percent of the country's total Generation Y population (Stats SA, 2020). The African middle-class, referred to as Black Diamonds, is rapidly increasing and comprises financially well-off and highly educated individuals, individuals pursuing professional careers, and upwardly mobile younger individuals (Olivier, 2007). Future growth in this market is expected to come largely from individuals of the African Generation Y cohort who possess a tertiary qualification (Bevan-Dye et al., 2009).

2. METHOD

2.1. Sample

The sample comprised 18 to 24-year-old African Generation Y students enrolled at a South African public higher education institutions (HEIs). Of 26 registered South African HEIs, two HEI campuses were selected using judgment sampling. On each campus, 250 African Generation Y students were conveniently chosen to participate in the study.

2.2. Research instrument

A self-reporting survey questionnaire was designed and used to collect the study's data. The questionnaire comprised a cover letter outlining the main purpose of the study and guaranteed the participants' privacy. Following the cover letter, the questionnaire included a section about the demographics of the participants, a section comprising 27 adapted scaled-response items from the Boon et al. (2011) personal finance behavior study, a section containing 18 multiple-choice questions from the Symanowitz (2006) financial knowledge study and a section containing ten adapted scaled-response items from Falahati et al.'s (2011) financial skills study. The personal finance behavior constructs included the process of financial planning (5 items), credit management (5 items), insurance planning (5 items), investment management (8 items), and estate planning (3 items). The students' financial knowledge was assessed in four areas, namely basic financial knowledge (9 questions), savings measures (4 questions), managing spending (3 questions), and controlling debt (2 questions). A total of 10 scaled items assessed

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the students' financial skills. All scaled items were measured on a six-point Likert-type scale, ranging from strongly disagree (1) to strongly agree (6).

2.3. Research design

A descriptive research design and a single cross-sectional research method were used in this study.

2.4. Data collection procedure

The mall-intercept survey method was used to collect data at the two HEI campuses, whereby fieldworkers circulated the questionnaires to those participants willing to participate in the study.

2.5. Data analysis

To analyze the data, IBM's Statistical Package for Social Sciences (SPSS) version 26 was used. Descriptive statistics, internal consistency reliability, *t*-tests, and Pearson's product-moment correlation coefficient were included in the data analysis.

3. RESULTS

3.1. Sample description

Of 500 participants, 385 participants completed the questionnaire in full, giving this study a response rate of 77 percent. A description of the sample participants is summarized in Table 1.

Table 1. Sample description

Age	N (%)	Gender	N (%)	Year of study	N (%)
18	40 (10)	Male	144 (37)	1st year	161 (42)
19	79 (21)	Female	241 (63)	2nd year	94 (24)
20	94 (24)			3rd year	130 (34)
21	120 (31)				
22	52 (14)				

3.2. Personal finance behavior

Descriptive statistics were calculated to evaluate African Generation Y students' personal finance behavior in terms of attitudes towards the process of financial planning, credit management, insurance planning, investment management, and estate planning. The mean ($\bar{X}$) and standard deviation (SD) values for the five constructs are reported in Table 2. The internal consistency reliability of the scale was assessed by computing the Cronbach's alpha coefficient (α) for each construct, where values of 0.60 and above suggest adequate reliability (Malhotra, 2010). A one-sample *t*-test was run to check whether the calculated means were statistically significant. These results are summarized in Table 2.

Table 2. Personal finance behavior

Financial planning constructs	$\bar{X}$	SD	α	*t*-value	*p*-value
Financial planning	3.948	0.921	0.711	20.192	0.000*
Credit management	4.187	1.282	0.736	18.156	0.000*
Insurance planning	4.227	1.001	0.711	24.051	0.000*
Investment management	4.551	0.717	0.628	42.441	0.000*
Estate planning	5.142	0.889	0.817	47.275	0.000*

Note: *Significant at $p < 0.05$ (1-tailed).

As shown in Table 2, the means of each construct recorded on the six-point Likert-type scale were all above 3.5, inferring that the sampled participants have a positive attitude towards personal finance. The calculated means were also statistically significant ($p = 0.000 < 0.05$). Estate planning recorded the highest mean value ($\bar{X} = 5.142$), suggesting that African Generation Y students believe that looking after your loved ones after death is important. The Cronbach's alpha values for each construct exceeded 0.60, which indicates internal-consistency reliability.

3.3. Financial knowledge

Table 3 reports the mean percentages of the correct answers in each of the respective personal financial management areas.

Table 3. Financial knowledge

Areas of financial knowledge	Number of questions	Mean (%)
Basic financial knowledge	9	4.953 (55.0)
Savings measures	4	1.938 (48.4)
Managing spending	3	1.091 (36.4)
Controlling debt	2	1.000 (50.0)
Overall score	18	8.982 (49.9)

Table 3 indicates that African Generation Y students answered less than 50 percent of the personal finance questions correctly. The highest percentage was achieved in the basic financial knowledge area, followed by debt control questions. These poor results suggest that the students lack the essential financial knowledge to manage personal finances effectively.

3.4. Financial skills

Descriptive statistics were calculated to evaluate the students' observed personal financial skills. The mean ($\bar{X}$) and standard deviation (SD) for each item are reported in Table 4. To check the internal-consistency reliability of the scale, Cronbach's alpha coefficient (α) was calculated. Moreover, to assess the calculated means as statistically significant, a one-sample *t*-test was run. The results are outlined in Table 4.

As delineated in Table 4, all the means were greater than 3.5, signifying that African Generation Y students think they have the financial skillset to manage their personal finances. The calculated means were also statistically significant ($p = 0.000 < 0.05$). The highest mean value was returned for decision-making skills ($\bar{X} = 4.873$), followed by problem-solving skills ($\bar{X} = 4.842$). A Cronbach's alpha value of 0.818 was recorded for this scale, which indicates internal-consistency reliability.

3.5. Correlation analysis

A correlation matrix of Pearson's product-moment correlation coefficients was computed to assess the relationship between the constructs. Table 5 outlines the results.

Table 5. Correlation matrix

	2	3
Personal finance behavior (1)	0.069	0.514*
Financial knowledge (2)		–0.058
Financial skills (3)		

Note: *Statistically significant at $p \leq 0.01$ (2-tailed).

As outlined in Table 5, the relationship between African Generation Y students' personal finance behavior and their observed personal finance management skillset ($r = 0.514$, $p < 0.01$) was positive and statistically significant. However, an insignificant relationship was found between attitudes towards personal finance and financial knowledge ($r = 0.069$, $p > 0.01$), as well as between financial knowledge and African Generation Y students' apparent finance skills ($r = -0.058$, $p > 0.01$).

4. DISCUSSION

It is important that marketers from various financial organizations, such as retail banks, investment management companies, and insurance brokerages, better understand the personal finance behavior and knowledge of the growing African middle class in South Africa. This is because the African middle class represents a profitable and rewarding market segment. Of particular importance are university students, as African Generation Y university graduates contribute to this market segment's future growth. The purpose of this study was to evaluate African Generation Y students per-

Table 4. Observed personal finance skills

Personal finance skills	$\bar{X}$	SD	Standard error	*t*-value	*p*-value
Managing expenditures	4.600	1.223	0.062	25.449	0.000*
Controlling credit/debt	4.429	1.336	0.068	20.973	0.000*
Managing funds for future needs	4.436	1.231	0.062	22.874	0.000*
Managing time	4.296	1.334	0.068	19.049	0.000*
Managing stress	4.112	1.346	0.068	16.204	0.000*
Saving skills	4.530	1.082	0.055	27.735	0.000*
Negotiating skills	4.738	1.061	0.054	32.132	0.000*
Skilled at decision-making	4.873	0.974	0.049	37.708	0.000*
Solving problems	4.842	0.928	0.047	38.909	0.000*
Career planning	4.794	1.034	0.052	33.941	0.000*

Note: *Statistically significant at $p < 0.05$.

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sonal finance behavior in terms of their attitudes towards financial planning and their knowledge and to assess whether this cohort believes that they have the skills to manage their finances successfully.

The findings of this study suggest that African Generation Y students seem to have a significant positive attitude towards planning personal finances and managing their credit, insurance, investment, and estate. While all the constructs returned a high mean value, the highest mean value was recorded for estate planning, inferring that the students believe that having a will and taking care of family or friends after death is more important. From a marketing perspective, these positive financial behaviors and attitudes force the financial services industry to become more knowledgeable at marketing financial products and services to the youth market segment in general and the African Generation Y students market segment in particular. As Generation Y students are savvy in terms of using technology, financial institutions are encouraged to use technology that this cohort finds appealing and familiar such as online messaging, communicating and sharing information on social networking sites including Facebook, Twitter, and Instagram, as well as developing effective, useful, and easy to use mobile applications.

In terms of African Generation Y students' financial knowledge, evidence in the sample infers that they lack the necessary financial knowledge to manage their personal finances effectively. The results suggest that the sampled participants have little basic financial knowledge and limited knowledge about savings measures, managing spending, and debt control measures. This lack of financial knowledge is consistent with the low levels of financial knowledge globally and paints a clearer picture of why many South African households have insufficient savings, are over-indebted, and spend recklessly. Therefore, universities, government, and the financial services industry must invest in financial education and training to address the financial knowledge problem and needs of students and society in general.

Regarding African Generation Y students' observed financial skills, the results indicate that students believe that they are equipped with the essential skills to manage their finances. The students believe that they are more skilled in decision-making and problem-solving and less in managing time stress. While African Generation Y students opine that they have the skills to manage their finances, financial knowledge deficiency begs whether students are indeed equipped with crucial financial skills. Therefore, universities and financial institutions must present workshops and seminars and establish financial counseling centers to evaluate and develop students' financial skills.

Although this study found a strong and statistically significant positive relationship between the students' personal finance behavior and their observed financial management skillset, the association between personal finance behavior and financial knowledge and the association between financial knowledge and African Generation Y students' financial skills, was insignificant. The relationship between personal finance behavior and financial skills infers that the more positive students' attitudes towards personal finance are, the more skilled they think they are managing their personal finances.

5. LIMITATIONS AND FUTURE RESEARCH

The first limitation of this study is the non-probability convenience sampling method used to survey the participants. When using convenience sampling, interpreting the results should be done with due care. Besides, a longitudinal study may produce more accurate results than the single cross-sectional design used in this study. Future research surveying more than one ethnic group is encouraged.

CONCLUSION

Personal finance behavior and knowledge amongst the Generation Y cohort in South Africa is largely under-researched. Therefore, this study aimed to evaluate African Generation Y students' personal finance behavior in terms of their attitudes towards financial planning and whether this cohort believes that they have the skills to manage their finances successfully. Besides, this study sought to evaluate African Generation Y students' knowledge regarding personal finance. The study's results indicate that the sample deems the process of planning personal finances and managing credit, insurance, investment, and estate, as important. Moreover, the students scored low in the broad personal finance knowledge areas of basic finance, saving, spending, and debt, suggesting that this cohort is financially illiterate. The results also indicated that the students think they have the financial skillset to manage their personal finances. A high Pearson's correlation coefficient was noted between sampled participants' personal finance behavior and their observed personal finance management skillset regarding the relationship between the constructs. However, an insignificant relationship was found between attitudes towards personal finance and financial knowledge and between financial knowledge and African Generation Y students' apparent finance skills. By better understanding African Generation Y students' personal finance behavior and knowledge, universities and financial institutions can identify gaps and deficiencies in students' personal finance endeavors more effectively. The results of this study may aid financial institutions such as retail banks and investment management companies to better target and service this market segment through appropriate product information. Moreover, further studies through interdisciplinary research would benefit from the findings of this study. Besides, this study pointed out the personal finance areas in which training should be provided. A key future assignment for personal finance professionals would be to design, deliver, and assess these personal finance training programs' effectiveness. More effective programs that would correct the deficiencies can be developed by identifying and understanding the importance and weaknesses in students' personal finance behavior and knowledge.

AUTHOR CONTRIBUTIONS

Conceptualization: Marko van Deventer.
Formal analysis: Marko van Deventer.
Investigation: Marko van Deventer.
Methodology: Marko van Deventer.
Project administration: Marko van Deventer.
Software: Marko van Deventer.
Validation: Marko van Deventer.
Writing – original draft: Marko van Deventer.
Writing – review & editing: Marko van Deventer.

REFERENCES

1. Bevan-Dye, A. L., Dhurup, M., & Surujlal, J. (2009). Black Generation Y students' perceptions of national sport celebrity endorsers as role models. *African Journal for Physical, Health Education, Recreation and Dance, September supplement,* 172-188. Retrieved from http://hdl.handle.net/10520/EJC19407
2. Biehler, T. J. (2008). *The mathematics of money: math for business and personal finance decisions*. New York: McGraw-Hill.
3. Bleedorn, G. (2013). Say hello to the millennial generation: millennials love to spend money and use mobile banking. But winning their loyalty is not easy. Here are a few suggestions for successfully marketing to this group, also known as Generation Y. *ABA Bank Marketing, 1,* 24-28. Retrieved from https://www.questia.com/read/1G1-326983047/say-hello-to-the-millennial-generation-millennials
4. Boon, T. H., Yee, H. S., & Ting, H. W. (2011). Financial literacy and personal financial planning in Klang Valley, Malaysia. *International Journal of Economics and Management, 5*(1), 149-168. Retrieved from http://0104.nccdn.net/1_5/1c2/228/3bd/Financial_Literacy_and_Personal_Financial_Planning_Malaysia.pdf
5. Botha, M., Du Preez, L., Geach, W., Goodall, B., Palframan, J., Rossini, L. & Rabenowitz, P. (2011). *Fundamentals of financial planning 2012*. Durban: LexisNexis.
6. Botha, M., Du Preez, L., Geach, W., Goodall, B., Rossini, L. & Rabenowitz, P. (2012). *The South African financial planning handbook 2012*. Durban: LexisNexis.
7. Chen, H., & Volpe, R. P. (1998). An analysis of personal financial literacy among college students. *Financial Services Review, 7*(2), 107-128. Retrieved from https://www.cgsnet.org/ckfinder/user-

http://dx.doi.org/10.21511/imfi.17(4).2020.13

files/files/An_Analysis_of_Personal_Financial_Lit_Among_College_Students.pdf

8. Chinen, K., & Endo, H. (2012). Effects of attitude and background on students' personal financial ability: a United States survey. *International Journal of Management, 29*(2), 778-791. Retrieved from https://www.researchgate.net/publication/221940809_Effects_of_Attitudes_and_Background_on_Personal_Financial_Ability_A_Survey_in_the_United_States

9. Christelis, D., Jappelli, T., & Padula, M. (2005). *Health risk, financial information and social interaction: the portfolio choice of European elderly households*. Retrieved from https://www.academia.edu/2679524/Health_Risk_Financial_Information_and_Social_Interaction_the_Portfolio_Choice_of_European_Elderly_Households

10. Cude, B. J., Lawrence, F. C., Lyons, A. C., Metzger, K., LeJeune, E., Marks, L., & Machtmes, K. (2006). *College students and financial literacy: what they know and what we need to learn*. Paper presented at Eastern Family Economics and Resource Management Association 2006 Conference. Retrieved from http://www.fermascholar.org/wp-content/uploads/2013/07/22-college-students-and-fin-literacy.pdf

11. Cui, Y., Trent, E. S., Sullivan, P. M., & Matiru, G. N. (2003). Cause-related marketing: how Generation Y responds. *International Journal of Retail and Distribution Management, 31*(6), 310-320. http://dx.doi.org/10.1108/09590550310476012

12. Danes, S. M., & Hira, T. K. (1987). Money management knowledge of college students. *Journal of Student Financial Aid, 17*(1), 4-16. Retrieved from https://ir.library.louisville.edu/cgi/viewcontent.cgi?article=1435&context=jsfa

13. DeRogatis, N. (2013). *Financial marketing tips for attracting Gen Y*. Retrieved from http://k4architecture.com/financial-marketing-tips-for-attracting-gen-y/

14. Falahati, L., Paim, L., Ismail, M., Haron, S., & Masud, J. (2011). Assessment of university students' financial management skills and educational needs. *African Journal of Business Management, 5*(15), 6085-6091. Retrieved from https://academicjournals.org/journal/AJBM/article-full-text-pdf/C1DC-0DA14456.pdf

15. Fünfgeld, B., & Wang, M. (2009). Attitudes and behaviour in everyday finance: evidence from Switzerland. *International Journal of Bank Marketing, 27*(2), 108-128. https://doi.org/10.1108/02652320910935607

16. Gitman, L. J., & Joehnk, M. D. (2008). *Personal financial planning*. New York: South-Western Thompson Learning.

17. Goetz, J., Cude, B. J., Nielsen, R. B., Chatterjee, S., & Mimura, Y. (2011). College-based personal finance education: student interest in three delivery methods. *Journal of Financial Counselling and Planning, 22*(1), 27-42. Retrieved from https://www.researchgate.net/publication/256019479_College-Based_Personal_Finance_Education_Student_Interest_in_Three_Delivery_Methods

18. James, J., Leavell, H. W., & Maniam, B. (2002). Financial planning, managers and college students. *Managerial Finance, 28*(7), 35-42. https://doi.org/10.1108/03074350210767960

19. Joo, S., & Grable, J. E. (2004). An exploratory framework of the determinants of financial satisfaction. *Journal of Family and Economic Issues, 25*(1), 25-50. Retrieved from https://link.springer.com/content/pdf/10.1023/B:JEEI.0000016722.37994.9f

20. Kempson, E., Collard, S., & Moore, N. (2006). Measuring financial capability: an exploratory study for the financial services authority. In *Consumer Financial Capability: Empowering European Consumers* (pp. 39-76). Brussels: European Credit Research Institute.

21. Lai, M. M., & Tan, W. K. (2009). An empirical analysis of personal financial planning in an emerging economy. *European Journal of Economics, Finance and Administrative Sciences, 16,* 99-111. Retrieved from http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.313.7367&rep=rep1&type=pdf

22. Leskinen, J., & Raijas, A. (2006). Consumer financial capability – a life cycle approach. In *Consumer Financial Capability: Empowering European Consumers* (pp. 8-23). Brussels: European Credit Research Institute. Retrieved from https://researchportal.helsinki.fi/en/publications/consumer-financial-capability-a-life-cycle-approach

23. Louw, J. J. (2009). *Financial literacy competencies of third-year university students: a case study*. Retrieved from http://repository.nwu.ac.za/bitstream/handle/10394/5078/louw_jj.pdf;sequence=1

24. Lusardi, A., & Mitchell, O. S. (2007). *Financial literacy and retirement preparedness: evidence and implications for financial education programs*. Retrieved from http://www.mrrc.isr.umich.edu/publications/papers/pdf/wp144.pdf

25. Malhotra, N. K. (2010). *Marketing research: an applied orientation* (6th ed.). New Jersey: Prentice Hall.

26. Markert, J. (2004). Demographics of age: generational and cohort confusion. *Journal of Current Issues and Research in Advertising, 26*(2), 11-25. https://doi.org/10.1080/10641734.2004.10505161

27. Miles, D. (2004). *The UK mortgage market: taking a longer-term view*. Retrieved from http://news.bbc.co.uk/nol/shared/bsp/hi/pdfs/12_03_04_miles.pdf

28. Norvilitis, J. M., Merwin, M. M., Osberg, T. M., Roehling, P. V., Young, P., & Kamas, M. M. (2006). Personality factors, money attitudes, financial literacy and credit card debt in college students. *Journal of Applied Social Psychology, 36*(6), 1395-1413. https://doi.org/10.1111/j.0021-9029.2006.00065.x

29. Olivier, D. (2007). South Africa poised to become a loyalty marketing gem. *Journal of Consumer Marketing, 24*(3), 180-181. https://doi.org/10.1108/07363760710746184

30. Sabri, M. F., & MacDonald, M. (2010). Savings behaviour and financial problems among college students: the role of financial literacy in Malaysia. *Cross-cultural Communication, 6*(3), 103-110. Retrieved from http://www.cscanada.org/index.php/ccc/article/viewFile/j.ccc.1923670020100603.009/997

31. Schiffman, L. G., Kanuk, L. R., & Wisenblit, J. (2010). *Consumer behavior* (10th ed.). New Jersey: Prentice Hall.

32. Shim, S., Xiao, J. J., Barber, B. L., & Lyons, A. C. (2009). Pathways to life success: a conceptual model of financial well-being for young adults. *Journal of Applied Development Psychology, 30*(6), 708-723. https://doi.org/10.1016/j.appdev.2009.02.003

33. Stats SA (Statistics South Africa). (2020). *Statistical release P0302: 2020 mid-year population estimates.* Retrieved from http://www.statssa.gov.za/publications/P0302/P03022020.pdf

34. Swart, N. (2005). Why financial literacy is a complete failure. *Management Today, 21*(2), 48-50. Retrieved from http://hdl.handle.net/10520/EJC69931

35. Swart, N. (2012). *Personal financial management: the Southern African guide to personal financial planning* (3rd ed.). Claremont: Juta.

36. Symanowitz, C. D. (2006). *The relationship between financial literacy, economic measures and delayed gratification in South African high school learners*. Retrieved from https://repository.up.ac.za/bitstream/handle/2263/23689/dissertation.pdf?sequence=1

37. Van Gijsen, N. (2002). *Retirement – all you want to know without the jargon*. Cape Town: Pearson.

38. Vitt, L. A., Reichbach, G. M., Kent, J. L., & Siegenthaler, J. K. (2005). *Goodbye to complacency: financial literacy education in the U.S. 2000–2005*. Retrieved from http://www.isfs.org/documents-pdfs/GoodbyetoComplacency-nocover.pdf

39. Volpe, R. P., Chen, H., & Pavlicko, J. J. (1996). Personal investment literacy among college students: a survey. *Financial Practice and Education, 6*(2), 86-94. Retrieved from https://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.476.6325&rep=rep1&type=pdf

http://dx.doi.org/10.21511/imfi.17(4).2020.13