International Journal of Economics, Commerce and Management
United Kingdom Vol. III, Issue 3, March 2015
http://ijecm.co.uk/ ISSN 2348 0386

ASSESSMENT OF THE LEVEL OF FINANCIAL LITERACY AND ECONOMIC BEHAVIOUR AMONG COLLEGE STUDENTS IN BOTSWANA

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Abstract

Personal financial literacy is vital to all people from different walks of life. With good personal financial management an individual is able to make appropriate consumption and investment decisions. However, numerous studies have found that most people lack this important skill. This study examined the Botswana tertiary students' personal assessments of their level of financial management knowledge and practices. The study also investigated students' level of indebtedness and willingness to have a financial literacy course in their curriculum. The survey method was employed to solicit the views of students; descriptive analyses were made and independent T test was used to test the hypotheses. The findings of this study suggest that tertiary students believe they have above average personal financial management knowledge and business students have better financial knowledge than their non-business counterparts. The results further reflect that students perceive themselves to be moderately engaged in some good economic behaviour. The study also revealed that Botswana students do not have a debt problem but they are happy to have a financial literacy course added to their curricula. These results have implications for students as well as tertiary programme designers who ought to embrace the financial literacy course in the early stages of tertiary education.

Keywords: financial literacy, students, Botswana, financial knowledge, financial practices

INTRODUCTION

Personal financial skills are crucial in today's world of fluctuating economic conditions to enable appropriate consumption and investment decisions to be made. Personal financial management is vital to the prosperity of the nation's economy and to individuals. Various studies mainly conducted in the developing world have emphasized the importance of personal financial management education at tertiary level (Falahati, Paim, Ismail & Masud, 2011; Mae, 2009; McKenzie, 2009; Xiao, Tang, & Shim, 2009).The importance of financial literacy among college students derives from the fact that it is at this level that most students initially assume financial responsibility on their own. At this stage students are given a relatively big amount of money and are faced with a milliard of financial choices to make. For example, in Botswana on average a college student receives between BWP13,500 and BWP17,800 (equivalent to US$1500 and US$2000) per year, depending on the boarding status, as books, stationery and living allowance.

The ability to manage personal finances is more significant to tertiary students in developing countries who are frequently faced with more stringent economic circumstances. For example, most tertiary students in developing countries depend on constant, if not dwindling (in real terms) repayable government bursaries. At the same time they are faced with ever rising cost of living exacerbated by increasing temptations of owning luxurious products imported from technologically-advanced countries. Worse still, some tertiary students in the developing countries find themselves required to support their immediate and/or extended families out of their meagre government allowances which are mostly intended to cover school expenses. Again, in most developing countries like Botswana, weak industrial base deny tertiary students job opportunities that could have earned them extra income to augment government allowances. Under these circumstances the tertiary students in developing countries find themselves under financial pressure which has the potential of pushing them to borrowing and consequently sinking them deeper into financial abyss which could potentially deter their academic excellence. It is therefore very important to examine the tertiary students' ability to manage their finances including management of debts and to assess their eagerness to havea financial literacy course in their curriculum.

According to Beal and Delpachitra (2003), financial literacy literature may be readily classified into two classes: 1) evaluations of individual financial literacy education programs and 2) tests of financial literacy among differing cohorts or populations. This study will focus more on the second category by assessing the level of financial literacy and practices among college students in Botswana.

Additionally, concerns about financial preparedness have been widely documented in recent studies demonstrating that both young and older adults lack the basic knowledge needed to make good financial choices (Mandell & Klein, 2009). Among the symptoms of insufficient personal financial literacy include rising individual debt levels with overuse of credit cards, using personal loans for consumption and undertaking over-optimistic home-loan obligations, irresponsible overspending on consumption, foolish commitment to get-rich-quick schemes, making unwise high-risk investments inconsistent with required capital stability and entering inappropriate vehicle-leasing contracts, among others (Beal & Delpachitra, 2003).

The motivation for this paper is therefore to assess financial literacy of Batswana students who are mostly given government sponsorship and living stipends with majority of them having no access to credit card facility. We evaluate students' perceptions on their basic knowledge on financial management issues and the practical implication of that knowledge (economic behaviour) or lack thereof. Our study differs from a recent study by Pelaelo and Swami (2014)which assessed personal financial management practices and financial stability of tertiary students in Botswana based on a sample of 100 students. The current study assesses a larger sample of more than 800 students from different tertiary institutions in Botswana and seeks to associate their financial knowledge and their financial practices. Furthermore, unlike previous studies that focussed on the use of credit cards, this study looks at other behavioural and spending patterns of college students as applicable to Botswana.

Since its independence in 1966Botswana,a southern African country with a population of about 2.1 million people and per capita income of around US$7023.05 by end of 2013 has enjoyed a stable government and an expanding economy. This has been a catalyst for steady growth in its education system. The tremendous enrolment expansion in tertiary schools has been to a larger extent due to the government's commitment to fully fund its students' fees in all disciplines. Government sponsorships are fully funded by Botswana Government under the Department of Tertiary Education and Financing. They cater for both tuition and maintenance costs as determined by the Government from time to time. The sponsorship is given as a loan and upon successful completion of the programme of study the loan may either remain as a loan or convert to a full or partial grant depending on the programme of study as determined by the national human resource needs (Government of Botswana, 2014).

With a rapid expansion in tertiary enrolment came the problem of financially ill-equipped students who are given government stipends to manage for themselves without the basics of personal financial management. This has been evident in the heated topic of low level of financial literacy in Botswana. For example, when addressing the Makhubu Community Junior Secondary School prize giving ceremony, LeinaGabaraane, the Stanbic Bank Botswana

Managing Director, called for financial literacy renaissance in the country. The bank is advocating for the introduction of financial literacy training in Botswana schools with view of strengthening financial knowledge to the country's future generations (Reporter, 2009). In the same context, Chibba (2007) argued that there is a need for a comprehensive financial literacy programme to help citizens of all ages to become knowledgeable and responsible about finance and banking matters so that they can make informed decisions that affect their daily lives.

When comparing financial literacy studies done in Australia, UK and USA, Marcolin and Abraham (2006) established that all the studies across the three countries showed that individuals with higher education levels, or those students with business majors as opposed to other majors, generally have higher levels of financial literacy. The current study seeks to establish whether this is true in the developing countries like Botswana.

This study is expected to identify the gaps in students' financial literacy and practices and suggest remedial measures. The findings of this study will also be beneficial to authorities administering students' bursaries and to university administrators and educators in their endeavours to assist students to better manage the funds under their disposal. In addition, this study will also contribute to the financial literacy literature in the developing countries.

Objectives

1. To determine the basic knowledge of tertiary students on financial management issues.
2. To establish whether or not there is a difference in financial knowledge between business and non-business students.
3. To determine the tertiary students' financial practices.
4. To establish whether or not there is a difference in financial practices between business and non-business students.
5. To establish students' level of indebtedness
6. To determine students' willingness to have a financial literacy course in their curriculum.

LITERATURE REVIEW

Definition of financial Literacy

Most studies on financial literacy tend to agree that it is difficult to define this concept. McKenzie (2009) noted that although financial literacy has frequently been discussed, still there is no clear definition of financial literacy and this ambiguity has led to multiple definitions. Thus, researchers have recently tried to define "financial literacy" from different spectrums. For example, Mason and Wilson (2000) defined financial literacy as an individual's ability to obtain, understand, and evaluate the relevant information necessary to make decisions with an awareness of the likely financial consequences. From a different perspective, Vitt et al. (2000) defined financial literacy as the ability to read, manage and communicate about personal financial conditions that affect material well-being. Bianco and Bosco (2011) describe financial literacy as having a working knowledge in the following four areas - investment management, retirement planning, general money management, and credit management.

Despite all these differences, consistencies have been noticed in describing the individual who is considered to be financially literate. According to Hogarth (2002) a financially literate person is 1) knowledgeable, informed, educated and informed on the issues of managing money and assets, banking, investments, insurance and taxes; 2) understands the basic concepts underlying the management of money and assets; and 3) uses that knowledge and understanding to plan and implement financial decisions. This study adopted the definition by Hogarth (2002) which encompasses both knowledge and practical aspect of financial literacy. As a result, we assess the literature that describes the financial knowledge of college students as well as their economic behaviour resulting from that financial knowledge or lack thereof.

Level of financial Literacy among college students

Beal and Delpachitra (2003) surveyed a wide cross-section of the student population of a regional Australian university. They, however, mainly targeted the first-year students from the Faculty of Business as well as students from other faculties or disciplines. The research found that financial literacy was not high among students and they associated this phenomenon with the lack of financial-skills education in high schools. Beal and Delpachitra (2003) noted that out of the five identified areas of financial skill or knowledge, decision-making skills and knowledge of insurance appeared to be the least well developed. The link of poor financial literacy among university students with a lack of good financial education programme in primary and second schools described by Beal and Delpachitra (2003)ties in well with our study which is conducted in similar environment of poor foundation of financial education.

The evidence of the effect of general financial education programs in high schools on financial literacy among adults was provided by the study ofBernheim, Garrett, and Maki (2001)in the USA. The authors compared financial literacy of adults who attended schools in states where it was mandatory to provide personal financial education to high school students to those who did their high schools in states which did not adopt those mandates. The study found that the exposure to high school financial curriculum influenced the rate of saving and accumulation of wealth during adult life.

More previous studies have reported a low level of financial literacy among college students. Volpe, Chen and Pavlicko (1996) examined the university students' knowledge of personal investments and reported that the problem of financial illiteracy was rampant among students of gender, various academic disciplines, and experience groups. However, the authors reported that business majors were more financially knowledgeable than non-business students. Again, Chen and Volpe (1998) analysed personal financial literacy among college students and established that non-business majors had lower levels of financial knowledge. They linked this result to financial practice, in that the less knowledgeable students tend to hold wrong opinions and make incorrect decisions. Beal and Delpachitra (2003) also reported that the business majors at one of the Australian universities were better off in financial knowledge and skills than non-business majors, perhaps due to their higher interest in financial matters.

On the other hand, Marriott (2007) measured the personal financial awareness, attitude to debt and budgeting capabilities of 149 first-year UK business school undergraduates. The outcome from the study was a mean test score of 34 per cent on the financial awareness section which indicated significant gaps in students' personal financial knowledge. The author argued that students were entering a critical stage of their lives ill-equipped to cope with the severe cash restrictions they will encounter. Moreover, the author was concerned about the low degree of financial literacy amongst students studying business related subjects and wondered how non-business undergraduates who are not exposed to financial education cope with financial pressures. Further, Marcolin and Abraham (2006) established that studies in the UK, USA and Australia showed that individuals with higher education levels, or those students with business majors as opposed to other majors, generally have higher levels of financial literacy.

The study by Falahati, Paim, Ismail, and Masud (2011)examined financial management skills and financial education needs of the Malaysian universities students and found that only 5% of them were financially skilled while majority of them had a moderate level of knowledge and skills in financial matters. On the contrary, study by McKenzie,(2009) which related the financial literacy level and debt level of graduating university seniors in the USA found that the majority of students had a high level of financial literacy with an average financial literacy score of 72.56% with students majoring in business performing significantly better than non-business students.

Financial Behaviour among tertiary students

Financial behaviours consist of a vast array of characteristics. Britt et al. (2012)summarized the financial management techniques as comprising of: (a) financial planning for short and long term financial goals; (b) management of income and credit; (c) purchases of housing, insurance, auto, and other durable and non-durable consumer goods, and services including banking, insurance and investment and (d) investing for the future. Confidently handling all these issues will demonstrate that a person is managing one's money well and is financially capable. According to Atkinson, McKay, Collard, and Kempson (2007) financial capability encompasses four different areas namely, managing money, planning ahead, choosing financial products and staying informed about financial matters. Thus, the financially capable person should be able to make ends meet and keep track of their own finances. They should also be able to plan their future financial commitment and confidently choose among the investment alternatives. In addition, the financially capable person should remain abreast of the changes in the economy that may affect financial position. We thus expect students, who are financially literate to be able to manage their stipend, control their expenditure, avoid excessive borrowing and be able to save to meet their future obligations like repayment of their educational loans.

Several prior studies have reported that tertiary students do not manage their money properly.R. A. Henry, Weber, and Yarbrough (2001)reported that 58% of college students do not keep a budget and tend to spend money on items that they do not consider important. Chinen and Endo (2014) compared the level of personal financial literacy and confidence in making own financial decisions between the US and Japanese college students and found that nearly a half of Japanese students were not confident enough to make their own financial decisions. They also found that the US students displayed a higher level of financial literacy than Japanese counterparts. Shahrabani (2012)reported that college students' intention to budget was influenced by various factors including past debt frequency, level of emotions due to having one's account significantly overdrawn and level of financial literacy. They noted that the effect of past debt frequency on the intention to control a budget was moderated by a positive attitude towards financial management.

A recent study among tertiary students in Botswana concluded that on a general note, tertiary students in Botswana have some form of financial management practices in place, but this may not warrant the conclusion that they have financial stability (Pelaelo & Swami, 2014). The authors' conclusion was based on the fact that the students had indicated getting financial assistance from those around them, especially family. They called upon parents and guardians to teach their children the importance of proper financial management through practical exercises like encouraging saving through piggy banks while they are still in primary schools.

Debt among college students

Various factors push students at tertiary institutions into debts. Leclerc (2012)argued that college students' debt grows as result of shopping for clothes, entertainment, and other luxury items. The debt problem among college students is manifested through the untamed urge of utilising the credit cards. Mae (2009) investigated the usage of credit cards among college students in the US and found that 84% of undergraduate had at least one credit card and only 17% of them indicated to honour their credit card obligations regularly. The study by Robb and Sharpe (2009)that examined the relationship between personal financial knowledge and credit card behaviourreported that 66% of college students have a credit card with an average of 1.4 cards per cardholder. However, the earlier study by Lyons (2004) had reported that college students were able to manage their credit cards responsibly with more than half of those with credit cards reporting to have paid their balances in full each month. The focus group of undergraduate students at the University of North Georgia in the study by Danns (2014)did not report large indebtedness among students. Reflecting on the weak confidence of Japanese College students in making their own financial decisions, Chinen and Endo (2014), argued that lack of confidence in financial matters render students vulnerable to financial traps in the deregulated financial markets where access to credit is just a few clicks away.This scenario is not farfetched in Botswana due to the rapid increase of micro lending facilities which makes it easier to access loans even by students.

Impact of financial behaviour among college students

Research has shown that the financial decisions students make in college have various impacts on their college life and life after college. At college, bad financial decisions impact students' retention, productivity, and even potentially a student's health. They can result in heightened level of stress, depression, fear and suicide (Cude & Kabaci, 2012). In the same token Lyons (as cited in Cude et al. 2006) noted that one-third of students admitted that their financial situation was "likely" or "somewhat likely" to affect the ability to complete a college degree. Xiao, Tang, and Shim (2009)found that financial behaviours contributed to college students' academic attainment performance and satisfaction. According to Williams (2008)debt accumulated at school forced young people to alter their career plans and delayed some to pursue further education. While 22% of respondents to William's study said that they took jobs they would not have taken because they needed more money to discharge the students-loan debt, 29% of them revealed that they decided not to pursue more education due to debt burden and another 22% put off buying a house for the same reason.

Other research by Marriott (2007) showed that student debt is an expected outcome of attending university. The author highlighted that, apart from the negative consequences debt may have on participation in higher education, it may have a detrimental impact on the academic performance and psychological well-being of students as they strive to fund their education and reduce their debt through part-time working patterns. Additionally, Marriott (2007) stated that student debt can be managed better if students possess adequate personal financial awareness, have a responsible attitude to debt and are able to budget carefully.

Financial literacy education at Tertiary level

Most researchers concur on the importance of personal financial knowledge for college students. Bernheim et al (2001) provided evidence that financial education was associated with higher rates of savings and higher net-worth after school life. Peng, Bartholomae, Fox, and Cravener (2007)found a significant correlation between exposure to college-level personal finance courses and higher investment knowledge. Furthermore, Lyons (2004)noted that college students who took a personal finance course were significantly less likely than those who had not taken a course to misuse and mismanagecredit. Moreover, Sallie Mae's National Study of Usage Rates and Trends (2009) reported that 84% of students indicated they were interested in pursuing some form of financial education.

Regardless of its commonly accepted importance for the individual and economy advancement, personal financial management education has not been given its rightful place in university curricula. Bianco and Bosco (2011) evaluated the finance curriculum of 100 US undergraduate business programs as they relate to personal financial literacy. They found that only 44% of the institutions offered a personal finance course for business majors and 10% for non-business major; and even on those schools the course content was insufficient with regard to individual financial management. They strongly recommended for inclusion of a core course on personal planning in undergraduate business programs. Falahati et al (2011) also advocated for the educational programmes to focus on improving the basic knowledge and skills concerning the financial products and financial services for young adults. Moreover Avard, Manton, English, and Walker (2005)urged universities to regard financial knowledge as being a component to their general education program and require a course in personal finance of all its students at freshman or first year level.

From the literature review we draw two null hypotheses as follows:

Ho1: There is no significant difference in financial knowledge between business and non-business students.

Ho2: There is no significant difference in financial behaviour between business and non-business students.

METHODOLOGY

This was a descriptive research which targeted the whole population of tertiary students in Botswana and used the survey approach to solicit the views of students through a structured questionnaire. Purposive sampling was used to select the students to respond to the questionnaire. Sample students to complete the questionnaires were drawn from three institutions located in and around Gaborone: University of Botswana, Baisago University College and Molepolole College of Education. While University of Botswana and Baisago University College are degree offering institutions with the normal duration of four years for their degree programmes, Molepolole College of Education is a diploma offering institution with a normal duration of two years. This study targeted students at all levels, that is, from first year to last year and in all programmes - business and non-business. University of Botswana and Molepolole College of Education are both public institutions while Ba Isago University College is a private institution. In Botswana, students in both private and public tertiary institution receive government sponsorship for tuition, living allowances and book allowances.

The questionnaire was designed to gather students' demographic information and viewson their financial knowledge and financial practices. The questionnaire also sought the information about students' borrowing status and their opinion about the inclusion of financial literacy course in tertiary curriculum. Regarding financial knowledge, this study adopted, in a modified form, the questionnaire which was developed by Chen and Volpe (1998) when assessing the personal financial literacy among college students in the USA. The original questionnaire consisted of 52 multiple choice questions about students' financial literacy on general knowledge, savings, borrowing, insurance and investments. Others studies which have used multiple choice questions to assess students financial knowledge include those by Mandell and Klein (2007), Mckenzie (2009) and Chinen and Endo (2012).

Instead of multiple choice questions which assessed students' actual knowledge, the current study asked students to assess themselves about their level of knowledge on specific financial matters which covered general financial knowledge, borrowing, insurance and investments. The responses to 18 items were on a 5 point Likert scale which ranged from "extremely poor" to "excellent". We modified the questionnaire of Chen and Volpe (1998) because we thought that the subjects of this study would not be familiar with some of the questions which were more suitable to the developed world environment. The quality and consistence of the questions about students' level of financial knowledge was evaluated using Cronbach's alpha test which yielded a strong value of 0.926. The method of soliciting subjective responses from students regarding their financial management skills was also used in earlier studies by Cude et al (2006) and Falahati et al (2011).

Regarding financial behaviour, this research borrowed some questions from a questionnaire developed by Cude et al (2006) who interrogated what college students in the USA should know and learn about financial management practices based on 10 items. We asked students to indicate how regularly they engage in 18 specific financial management behaviours using a 6 point Likert scale with 0 = not applicable, 1= never, 2= very rarely, 3= rarely, 4= occasionally and 5 = always. One item about students' likelihood of diverting stationery and book allowances to something else was inversely coded with 0 = not applicable, 1= always, 2= occasionally, 3= rarely, 4=very rarely and 5 = never. The 18 financial management behaviours traversed over areas such as financial record keeping, savings, budgeting, honouring obligations, bank reconciliation, taking insurance cover, seeking to understand insurance and accommodation contracts, showing interest in financial literacy programmes and comparing prices when shopping. The questionnaire was first pilot tested using few students who were later excluded from responding to the final questionnaire. The main recommendation which came from the pilot survey was the inclusion of a "Not Applicable" response option. The Not applicable choice was used in order to give students a chance to be free to indicate the financial practices which do not apply to them instead of responding with "never" in the practice which does not concern them. For example, the practice of negotiating favourable accommodation contracts is not applicable to students who stay with their parents while schooling. Cronbach alpha test on financial practices items gave a strong value of 0.826. In analysing the financial practices, the N/A responses were included in calculation of percentages of respondents per item but excluded in computation of mean scores. This was to avoid the distortion of true means.

The questionnaires were administered in class towards the end of the second semester in May 2014. In some classes course lecturers were requested to distribute the questionnaires and in other classes the researchers themselves distributed the questionnaires to students. In either case, the purpose of the questionnaire was explained and students were requested to complete and submit the questionnaire immediately after completion. It took between 10 and 15 minutes to complete the questionnaire. All of the 825 questionnaires issued were returned but only 813 questionnaires were usable.

EMPIRICAL FINDINGS AND DISCUSSION

Background information of respondents is shown in Table 1. Two thirds of respondents were females and one third of them were males. This is a true reflection of demographic picture in Botswana tertiary institutions. For instance, the enrolment statistics at the University of Botswana, the largest University in the country in terms of enrolment, show that females account for 55% of total number of students in the whole university and 63% in the Faculty of Business where most of respondents were drawn from.

Majority of respondents were in the age group of between 18 and 25. Close to 80% of respondents were from the University of Botswana where the researchers work and the 20% was shared between Ba Isago University College and Molepolole College of Education. Also majority of respondents (78%) were taking business programmes. Poor response from colleges other than the University of Botswana was due to the fact that they were approaching examination period.

Table1: Background Information of Respondents

	Number	Percentage
Gender		
Male	274	33.7
Female	539	66.3
Age group		
Below 18	33	4.1
18 < 25	660	81.2
25 < 30	60	7.4
30 < 35	33	4.1
above 35	27	3.3
Institution		
UB	647	79.6
BAISAGO	91	11.2
MCE	75	9.2
Programme of Study		
Bachelor of Accountancy (BACC)	254	31.2
Bachelor of Arts and Social Sciences (BASS)	85	10.5
Bachelor of Commerce (BCOM)	91	11.2
Bachelor of Education (BED)	62	7.6
Bachelor of Engineering (BENG)	8	1.0
Bachelor of Finance (BFIN)	58	7.1
Bachelor of Science (BSC)	36	4.4
Diploma in Secondary Education (DSED)	74	9.1
Bachelor of Information System (BIS)	53	6.5
Bachelor of Business Administration (BBA)	92	11.3
Program of study		
Business	636	78.2
Non-business	177	21.8

The business group is composed of Bachelor of Accountancy, Bachelor of Arts and Social Sciences (Economics and Accounting) Bachelor of Commerce, Bachelor of Finance, Bachelor of Information Systems and Bachelor of Administration. The non-business group consisted of student reading for Bachelor of Education, Bachelor of Engineering, Bachelor of Science and Diploma in Secondary Education. Most of respondents (31%) were from Bachelor of Accountancy degree programme.

Table 2: Students' opinions about level of financial knowledge

		Extremely poor (%)	Below average(%)	Average (%)	Above average (%)	Excellent (%)	Mean	Std. Deviation
a)	How personal financial literacy can help you in life	3.1	3.6	28.9	32.1	32.3	3.87	1.008
b)	What personal financial planning and control involve	4.0	9.2	36.1	33.5	17.5	3.51	1.010
c)	What is meant by liquid assets	8.7	9.7	24.0	26.3	31.3	3.62	1.257
d)	How to calculate your net worth	9.6	13.5	28.7	25.6	22.7	3.38	1.239
e)	How to keep yourself financially stable	4.8	9.6	29.4	31.9	24.5	3.61	1.097
f)	What to look for in accommodation contracts	10.3	22.9	33.8	20.8	12.2	3.02	1.157
g)	How to negotiate a favorable accommodation contract	12.9	23.7	30.6	21.0	11.7	2.95	1.197
h)	How to keep track of your deposits and withdrawals in your bank account	7.3	12.8	28.7	27.3	24.0	3.48	1.193
i)	What is overspending and how to avoid it	4.6	9.4	24.6	32.1	29.3	3.72	1.120
j)	How to avoid borrowing what you are incapable of repaying	4.4	7.0	22.0	30.6	36.0	3.87	1.112
k)	Why you may need to take insurance cover	8.5	15.0	28.9	27.2	20.3	3.36	1.204
l)	What to look for in insurance contracts	13.0	25.5	30.6	19.2	11.7	2.91	1.196
m)	Investment opportunities available to you	13.1	20.6	30.2	23.5	12.7	3.02	1.213
n)	How to differentiate between high risk and low risk investments.	13.0	21.8	29.3	21.6	14.2	3.02	1.235
o)	How to build your investment portfolio to maximize your returns.	18.4	26.4	25.9	18.6	10.6	2.77	1.249
p)	The difference between compound interest and simple interest.	7.0	10.4	25.4	27.4	29.9	3.63	1.209
q)	The difference between keeping your money in the current account and savings account.	5.3	9.8	25.4	26.1	33.3	3.72	1.177
r)	How to repay your education loan from government	18.7	18.1	30.5	19.2	13.5	2.91	1.286
AVERAGE							**3.36**	**1.175**

Students' opinions about their level of financial knowledge are depicted on Table 2. With an average mean of 3.36, which is marginally above average, it is clear that students assessed themselves positively regarding the knowledge they have about financial matters which included general financial knowledge, accommodation, insurance, investment and education loan.

Out of 18 items, 14 received a mean score of 3 and above while knowledge about how financial literacy can help to improve someone's life and how to avoid borrowing what one is incapable of repaying topped the list with a mean of 3.87 each. The knowledge of when one is overspending and the difference between current account and savings accounts became second with a mean score of 3.72 each. Next on the top of the list was knowledge about the difference between compound interest and simple interest (mean=3.63), meaning of liquid assets (mean=3.62) and how to remain financially stable (mean = 3.61). The items in which students believed they had less knowledge included "how to build investment portfolio to maximize returns"(mean = 2.77), "how to repay education loan from government" (mean = 2.91), "what to look for in insurance contracts(mean =2.91) and "how to negotiate a favorable accommodation contract" (mean = 2.95). While it could be understandable why students confessed to have less knowledge regarding building an investment portfolio, scrutinizing insurance contracts and negotiating accommodation contracts it is perplexing to learn that students are not comfortable with what is required of them by their education loan contracts. Less knowledge about how a student should repay his or her education loan can lead to poor recovery of these loans.

Table 3 shows a comparison of business and non-business students' views about their level of financial knowledge. With an average mean score of 3.40 business students appear to have marginally a better financial knowledge than non-business students who have a mean score of 3.18. The supremacy of business students in financial knowledge is reflected in all items except in knowledge about "what to look for in insurance contracts" and "how to repay education loan from government" in which the non-business students have higher means. While the difference in knowledge about repayment of educational loan between business students and their non-business counterparts is statistically significant (Sig =0.016) the difference about what to look for in insurance contracts is not (Sig = 0.70). Business and non-business students assessed themselves equally about their knowledge of how to negotiate a favorable accommodation contract (mean =2.95). In 11 items out of the 15 items in which business students have better financial knowledge than non-business students the differences are statistically significant. Nine are statistically different at 99% confidence level while 2 are statistically different at 95% confidential level. However, in four items where business students also believe to have better financial knowledge than non-business students, the differences between the two cohorts are not statistically significantly different. These are "what to look for in accommodation contracts", "why there is a need to take insurance cover", "investment opportunities available to students" and "how to build investment portfolio to maximize returns". It is apparent from Table 3 that the difference in general financial knowledge items between business and non-business students is statistically significant while the difference in knowledge about accommodation and insurance contracts and investments matters between the two groups is not statistically significant.

Table 3: Business and Non-Business Students' level of financial knowledge

		Business		**Non- Business**		**t-test for equality of means**	
Variable		**Mean**	**Std dev.**	**Mean**	**Std dev.**	**t**	**Sig.**
a)	How personal financial literacy can help you in life	3.94	0.991	3.63	1.034	3.663	.000
b)	What personal financial planning and control involve	3.56	0.998	3.33	1.035	2.721	.007
c)	What is meant by liquid assets	3.79	1.172	2.98	1.351	7.832	.000
d)	How to calculate your net worth	3.47	1.198	3.09	1.341	3.567	.000
e)	How to keep yourself financially stable	3.69	1.073	3.34	1.147	3.683	.000
f)	What to look for in accommodation contracts	3.02	1.169	2.99	1.113	.357	.721
g)	How to negotiate a favorable accommodation contract	2.95	1.230	2.95	1.072	-.028	.978
h)	How to keep track of your deposits and withdrawals in your bank account	3.53	1.189	3.28	1.188	2.464	.014
i)	What is overspending and how to avoid it	3.78	1.100	3.52	1.172	2.631	.009
j)	How to avoid borrowing what you are incapable of repaying	3.94	1.067	3.62	1.234	3.046	.003
k)	Why you may need to take insurance cover	3.36	1.210	3.35	1.185	.148	.882
l)	What to look for in insurance contracts	2.90	1.211	2.94	1.142	-.386	.700
m)	Investment opportunities available to you	3.05	1.222	2.92	1.181	1.183	.237
n)	How to differentiate between high risk and low risk investments.	3.07	1.225	2.84	1.254	2.229	.026
o)	How to build your investment portfolio to maximize your returns.	2.81	1.262	2.60	1.186	1.922	.055
p)	The difference between compound interest and simple interest.	3.74	1.175	3.24	1.248	4.904	.000
q)	The difference between keeping your money in the current account and savings account.	3.79	1.180	3.49	1.139	3.025	.003
r)	How to repay your education loan from government	2.85	1.288	3.11	1.259	-2.426	.016
	AVERAGE	**3.40**	**1.164**	**3.18**	**1.182**	**2.226**	

Based on the above findings we can conclude that business students have better financial knowledge than their non-business counterparts in general knowledge matters but not in accommodation, insurance and investment matters. The findings of this study therefore concur in part with the findings of Volpe, Chen and Pavlicko (1996), Chen and Volpe (1998) and

Marcolin and Abraham (2006) who reported a lower financial knowledge among non-business students.Based on the Independent sample T test results for the average mean scores oft= 2.226, $P < 0.05$the null hypothesis that there is no significant difference in financial knowledge between business and on-business students is rejected.

Table 4 presents students' perceptions regarding their financial behaviour. It is apparent from the table that students were moderately engaged in most of the 18 financial practices investigated, with an average mean score of 3.30.

Table 4: Students' opinions about financial practices

	Always	Occasionally	rarely,	Very Rarely	Never	Not Applicable	Mean	Std. Deviation
a)I maintain adequate financial records	13.7	32.0	25.3	10.4	12.6	6.0	3.25	1.228
b)I spend less than my income	18.8	26.9	20.4	15.3	14.1	4.6	3.22	1.331
c)I maintain adequate insurance coverage	8.2	7.3	11.3	8.6	24.0	40.5	2.45	1.461
d)I plan and implement a regular investment programme	7.9	11.9	13.3	10.4	23.2	33.3	2.56	1.419
e)I avoid writing bad cheques or ones with insufficient funds.	17.0	5.4	5.1	4.8	7.6	60.1	3.49	1.580
f) I honor my loan obligations on time to avoid extra interest charges.	23.5	9.3	4.7	4.2	5.4	52.9	3.88	1.404
g)I pay my rent and other living expenses (i.e., phone and utilities) on time each month.	41.3	12.4	4.7	6.5	2.6	32.5	4.23	1.168
h)I avoid spending more money than I have.	45.4	25.9	12.7	10.3	4.4	1.2	3.99	1.186
i) I have little or no difficulty managing my money.	26.5	36.5	16.4	12.4	6.6	1.7	3.65	1.193
j) I keep track of transactions in my bank account each month.	29.2	21.7	17.6	11.6	13.6	6.2	3.44	1.411
k)I have a weekly (or monthly) budget that I follow.	24.9	21.4	18.8	11.3	18.7	4.9	3.24	1.457
l) I set aside money each month for savings.	20.5	24.5	14.3	13.0	22.9	4.8	3.07	1.488
m) I tend to use my book and stationery allowances for something else	14.2	19.9	14.7	9.3	32.8	9.1	2.71	1.519
n)I compare prices when shopping.	51.4	23.8	8.9	8.3	6.1	1.6	4.08	1.226
o)I attend financial literacy programmes	7.6	16.6	15.4	13.9	38.5	8.0	2.36	1.387
p)I watch financial literacy programmes on television	9.2	23.9	18.2	13.4	27.9	5.8	2.71	1.387
q)I read over and understand loan agreements before I sign them.	24.0	12.7	7.0	7.5	9.8	37.5	3.55	1.501
r) I read over and understand apartment lease agreements before I sign them.	23.7	9.6	5.5	6.5	9.2	44.9	3.59	1.539
AVERAGE							**3.30**	**1.383**

While some students indicated that they never engage in some of the practices mentioned, others showed a favourable opinion towards a good number of them. The highly favoured practices included payment of utilities on time (mean = 4.23), comparing prices whenever they go shopping (mean = 4.08), and avoiding spending more money than one has (mean = 3.99). This implies that students are by and large cautious about how they spend their money. They avoid being extravagant.

Other practices which seemed to be favoured by students are: honoring loan obligations on time(mean = 3.88), having no difficulty in managing own money (mean = 3.65), reading and understanding accommodation lease agreement before signing (mean = 3.59) and reading and understanding loan agreement before signing (mean = 3.55). Avoiding writing bad cheques had a mean score of 3.49 but had highest percentage (60%) of N/A response. This is not surprising as most students do not keep current accounts. Their allowances are paid through the special bank accounts known a “Cash Pal” which can be accessed through cell phone banking or debit cards only.

Financial practices which were not favoured by students as they recorded a mean score of below 3 consisted of watching financial literacy programme on television (mean = 2.71), tendency to divert stationery and book allowance (mean = 2.71), planning and implementing a regular investment programme (mean = 2.56), maintaining adequate insurance coverage (mean=2.45) and attending financial literacy programmes (mean = 2.36). It is interesting to learn that more than half of students admitted to have at one time diverted stationery and book allowances to other things. While just above a third of students indicated that they always or occasionally use their stationery and book allowances for something else, 24% of them admitted that they rarely or very rarely engage themselves in such behaviour. Only 32% of students denied to have diverted stationery allowances to some other acquisitions. Although the question did not require students to mention the other things on which stationery and book allowance is used, the fact that this bad behaviour was brought to the open, calls for more strict ways to control it. The measure currently in place is to put the money strait into the facility which allows students to buy books using a card. However, this system is susceptible to circumvention whereby the card is used to buy books for someone else who pays cash to the card owner for the books.

Economic behaviours that attracted high level of N/A response from students includedavoiding writing bad cheques (60.1%), discharging loan obligations on time (52.9%), reading and understanding house lease agreements before signing (44.9%), maintaining adequate insurance coverage (40.5%), seeking to understand loan agreements before signing (37.5%), planning and implementing a regular investment programme (33.3%) andpayment of rent and other living expenses on time (32.5%). We suspect that this high level of N/A response might have been caused by the likelihood that most of the respondents to this survey were still under the care of parents or guardians. In that case, they would not have significant loans, investments or insurance contracts. Another contributing factor could be that most of the respondents were accommodated in school hostels and therefore they do not enter into accommodation lease agreements. Further studies along this line could be necessary to shed more light on this.

The comparison of business and non-business students' views about their financial practices is depicted in Table 5.This comparison still place business students slightly above non-business students in practicing good financial behaviours. The business students recorded an average mean score of 3.31 as compared to non-business students who registered an average mean score of 3.20. On item by item basis, the business cohort claims dominance in 13 practices but the difference in means is only statistically significant at 95% confidence level in4 behaviours. These are: "avoiding spending than one has" (*P*=0.011), "having little or no difficulty in managing money" (*P*=0.036),"making monthly savings" (*P*=0.013) and reading and understanding accommodation lease agreements before signing (*P*=0.018). On the other hands, the non-business students indicated to have better practices than the business students in 4 items including "maintaining adequate financial records", "maintaining adequate insurance coverage", planning and implementing a regular investment programme, andkeeping track of transactions in bank account. However, the difference in means was only statistically significant in one action which is maintaining adequate insurance coverage (*P*= 0.018).The results confirm our expectations given the composition of non-business students group which was largely made of up of students doing Bachelor of Education most of whom were already employed and were therefore more likely to be engaged in these practices.

On the average, the difference between business and non-business students' financial behaviour was not statistically different (t=0.929, $p > 0.05$). We, therefore, accept the null hypothesis that there is no significant difference in financial behaviour between business and non-business students.

The comparison of perceptions of business and non-business students regarding their financial knowledge and financial behaviours revealed differences in opinions. While the results seem to suggest that financial knowledge of business students is better than that of non-business students, the financial practices of the two groups do not reflect a substantial difference. This implies that the financial knowledge of business students, which could be arising from their perceived exposure to financial education, does not necessarily translate into better financial behaviours. This may mean that the content of the financial courses offered to business students does not address the personal financial management needs.

Table 5: Comparison of Business and Non-Business Students' opinion about financial practice

	Business		**Non-Business**		**t-test for equality of means**	
Variable	**Mean**	**Std dev.**	**Mean**	**Std dev.**	**t**	**Sig.**
a) I maintain adequate financial records	3.24	1.217	3.30	1.271	-.584	.559
b) I spend less than my income	3.25	1.333	3.10	1.324	1.284	.200
c) I maintain adequate insurance coverage	2.33	1.436	2.78	1.485	-3.012	.003
d) I plan and implement a regular investment programme	2.54	1.449	2.63	1.324	-.647	.518
e) I avoid writing bad cheques or ones with insufficient funds.	3.51	1.573	3.42	1.602	.477	.634
f) I honor my loan obligations on time to avoid extra interest charges.	3.97	1.353	3.64	1.514	1.894	.060
g) I pay my rent and other living expenses (i.e., phone and utilities) on time each month.	4.28	1.124	4.07	1.296	1.630	.105
h) I avoid spending more money than I have.	4.05	1.129	3.76	1.350	2.567	.011
i) I have little or no difficulty managing my money.	3.70	1.164	3.47	1.282	2.106	.036
j) I keep track of transactions in my bank account each month.	3.44	1.421	3.45	1.376	-.058	.954
k) I have a weekly (or monthly) budget that I follow.	3.29	1.446	3.04	1.488	1.947	.052
l) I set aside money each month for savings.	3.14	1.504	2.81	1.401	2.483	.013
m) I tend to use my book and stationery allowances for something else	2.66	1.536	2.88	1.448	-1.634	.103
n) I compare prices when shopping.	4.11	1.216	3.96	1.263	1.353	.177
o) I attend financial literacy programmes	2.39	1.402	2.22	1.325	1.373	.170
p) I watch financial literacy programmes on television	2.75	1.400	2.54	1.329	1.682	.093
q) I read over and understand loan agreements before I sign them.	3.61	1.474	3.38	1.567	1.485	.138
r) I read over and understand apartment lease agreements before I sign them.	3.69	1.517	3.30	1.571	2.376	.018
AVERAGE	**3.31**	**1.357**	**3.20**	**1.388**	**0.905**	**0.213**

Students' level of indebtedness

College students' debt has been recognised as a factor that can lead to poor academic performance (Cude, et al., 2006). Table 6 tabulates the absolute and relative numbers of students' responses to the questions about whether they borrow or not, their borrowing sources, their reasons of borrowing, the amounts of debt outstanding and the duration of the debt.

Table 6: Students' borrowing status

	Number	Percentage
Borrowing status/Do you usually borrow		
No	406	49.9
Yes	407	50.1
Borrowing source		
Friends and relatives	350	87.5
Banks	22	5.5
Banks n relatives	17	4.3
Cash loans n relatives	4	1.0
Cash loans	3	.8
Banks and cash loans	3	.8
All three	1	.3
Reasons of borrowing		
Transport	217	33.6
Food	163	25.3
Utilities	57	8.8
Entertainment	53	8.2
Clothing	47	7.3
Gadgets	39	6.0
Accommodation	36	5.6
Other	33	5.1
Any outstanding loan		
No	325	80.8
Yes	77	19.2
Loan balance		
Below P500	32	42.1
P500 to P1000	4	5.3
P1000 to P1500	2	2.6
P1500 to P2000	3	3.9
Above P2000	35	46.1
Loan duration		
Below 1 month	26	34.7
1 to 2 months	6	8.0
2 to 3 months	5	6.7
4 to 5 months	26	34.7
above 5 months	12	16.0

Half of students accepted to have been engaged in borrowing practices while the other half denied the engagement. Among those who borrowed, the main sources were friends and relatives which accounted for 87%. We suspect that this high percentage could be due to the cash loans which seem to operate clandestinely among students, which might have been construed as friendly source. Only about 6% of students admitted to have loans from banks. Students borrow for different reasons but transport came on top of the list as it was mentioned by 34% of respondents followed by food which was cited by 25% of them. This is not surprising as students who were not staying in school premises accounted for almost 65% of respondents. Although they are given a little more allowances (33%) than their counterparts, the off campus students are more likely to be facing bigger financial challenges. They pay rent in a market which is not controlled and some may be supporting their families. Interestingly, almost the same number of students (9%) agreed to have borrowed to cover utilities and entertainment. Surprisingly, clothing and accommodation come after entertainment as the reasons for borrowing. Perhaps, this could be due to the fact that most of the students are still under the care of their parents who might be catering for their clothing and accommodation.

Only 19% of respondents responded affirmatively to having outstanding loans at the time of the study. Majority of students (46%) who had outstanding loans had balances of above BWP2000 (equivalent to US$222) while 42% of them had loan balances of below BWP500 (equivalent to US$ 55). These two extremes could perhaps be explained by the fact that the composition of the students who had outstanding debts consisted of majority of in-service students who are expected to be having significant vehicle and mortgage loans and the minority of non-employed students who are not expected to have such big loans.

Financial literacy course

Among the objectives of this study was to establish students' views regarding the introduction of financial literacy course in their curriculum. Students' responses to this matter are reflected in Table 6. Overwhelmingly, 91% of students showed desire to have financial literacy skills taught in their programmes and 96% of them concurred that teaching financial skills is important for their development.

The findings of this study agree with the findings of Mae (2009) who found that 84% of undergraduates indicated interest in pursuing some form of financial education. Also these findings are in line with what was revealed by the study by Danns (2014) who reported that university students responded with strong affirmation about receiving financial management information and financial education through the university.

Table 7: Students opinions about Financial Literacy Education

	Number	Percentage
Financial Literacy course in your curriculum		
No	68	8.6
Yes	726	91.4
How should the financial literacy course be taught		
Separate	446	61.6
Combined	278	38.4
Importance of teaching financial skills		
Unimportant	2	.3
Of little importance	10	1.3
Moderately important	19	2.4
Important	69	8.7
Very important	689	87.3
Promotion of financial behaviour		
No	27	3.4
Yes	765	96.6

On the question of how the financial literacy course should be delivered, 62% of students preferred a fully-fledged course instead of combining it with another course. Almost all sample students (97%) were of the opinion that imparting financial skills to students can enhance good financial behaviour among students.

CONCLUSION

Using the survey method, this study sought students' perceptions about their personal financial knowledge and practices. The findings suggest that tertiary students have above average personal financial knowledge and business students have better financial knowledge than their non-business counterparts, particularly on the general financial knowledge area. The results further reflect that students perceive themselves to be moderately engaged in some good economic behaviour. However, the evidence from this study did not show that business students have better financial management practices than non-business majors. This leads to the conclusion that the current exposure to financial education has not adequately addressed the issue of personal financial management skills.

Furthermore, the indications from this study showed that students in Botswana colleges do not have a debt problem. This is in sharp contrast with what has been reported in developing world particularly in the US. The fact that the credit card facility is not easily accessible by students in the developing countries like Botswana might be a fair explanation of the mild debt problem. One may argue that the recent expansion of micro lending industry in the economy has not seriously penetrated in schools. However, this should not be the cause of complaisance. Measures still need to be taken to raise awareness of dangers of uncontrolled borrowings to students. In addition, the findings indicate thatstudents prefer to receive financial education in a separate financial literacy course and believe that the course has the potential to enhance their financial management practices.

The findings of this study should be interpreted with caution because they are the result of students' self-assessment which may have a risk of self-laudatory tendencies. However, they provide some insights to tertiary programme and curriculum designers as they may form a basis for developing curriculum that specifically addresses the financial education needs of tertiary students in the developing world. We recommend that college administrators should consider opening financial counselling offices on campus that are manned by personnel who are well versed in financial issues and introduce a financial literacy course which should be mandatory to all first year students. Also the tertiary institutions should try to create strong ties with the industry, particularly banks, with which they can run workshops to equip students with financial management skills. Curricula at Primary schools and Secondary schools should also incorporate general financial education modules. There is also a need to sensitise the whole society about the importance of good financial behaviour. Radio or television programmes on financial literacy and practices may be strong vehicles to educate the society about financial matters.

A further study that would design objective and/or subjective financial knowledge and practice questions specifically suitable to the Botswana tertiary students may be conducted. The study should be corroborative between academic staff from different institutions with a view of creating an examination like conditions to allow students to answer questions under a controlled environment. This will enhance credibility of students' responses and thus give a true picture of their level of financial literacy.

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