Gap Analysis on Financial Knowledge and Practice: Teachable Opportunities

Aditya Vijay

B.Tech Student, Mechanical Engineering, School of Mechanical and Building Sciences, VIT University, Vellore 632014, TN, India
mail: vijayaditya.vij@gmail.com

Vinayak Prakash

B.Tech Student, Mechanical Engineering, School of Mechanical and Building Sciences, VIT University, Vellore 632014, TN, India
Email: vinayak.prakash2011@vit.ac.in

Subhashree Natarajan

Professor, Accounting Finance and Economics Division, VIT Business school, VIT University, Vellore 632014, TN, India
Email: subhashree.p@vit.ac.in

Abstract

The study aims at assessing the gap in knowledge, perception and practice of managing personal finance among undergraduate students in India. A combined measure of self-rating and actual financial knowledge and practice on credit cards, investments, loans and insurance are recorded to analyze the behavioral gap. A structured questionnaire was administered on 1500 undergraduate students, selected using a purposive sampling technique. Simultaneous study on 50 experts to record their opinion and experience in identifying teachable opportunities, gaps in the current system and the best methodology for imparting financial literacy program for non-finance students revealed the best practices. The best practices suggested are evaluated based on its capacity to target, interact, access, scalable and its effectiveness at university level. It is evident from the study that there is a larger lacuna in imparting the basic financial knowledge for practical management of personal finance to non-business students and the teachable opportunities are unidentified at university level

Keywords: Behavioral Finance, Economic Liberty, Financial Literacy, Personal Finance, Teachable Opportunities

1. Introduction

Financial literacy of graduates is a growing socio-economic concern in many countries, especially after economic recession in 2008. The financial illiteracy level is high in India due to many reasons ranging from low-income to inclined mind set towards education. It is often acclaimed that biggest impediment to economic growth is the lack of awareness for initiating financial inclusion programs. Financial illiteracy leads to sub-optimal and unsustainable conditions that result in high-debts and high-financial insecurities in the society. It is important that the basic understanding on the rudimentary financial principles and practices is essential for informed financial decisions; avoid misleading and fraudulent investment proposition and to gain financial liberty.

Financial education at under-graduation level is considered as an essential course on 'life skills' in many developed countries. Managing personal finance is a foundation for stronger financially liberal individuals, families, communities and Government at large. Though, India is considered as a conservative saving economy adequate exposure of young graduates to financial concepts may transform Indian community as informed investor group. The financial education programs covering a large section of the society may help avoid fraudulent practices, debt-traps and subsequent suicide rates. It is also important that the educated, to-be-employed graduates and entrepreneurs gain adequate knowledge on the financial systems and practices for leveraging their technical and managerial skills with financial skills. Though the complex financial markets deter many under graduate students from being financially literate, it has become a dire necessity for personal economic stability, career planning and financial liberty

Though for many young graduates financial literacy is a slip-through-the-crack, it could be systematically taught at the school and the college level; the new financial information, values, new skills and behavior have impeccable impact on the participants' life and the economy.

The purpose of this paper is four folded. Firstly, explore the link between the financial knowledge and financial behavior relevant to the sample group. Secondly, to analyse the factors that determine the level of competency possessed by the students. Thridly, identify the teachable moments or opportunities at the University for imparting the financial skills. Finally identify the best practices (measured based on precise targeting, interactiveness, accessiblity, scalablility and effectiveness at university level) in imparting financial literacy programs and to spot the gaps in the existing programs

2. Review of Literature

University graduates constitute an important segment that has a need to understand the significance of managing personal finance. Though this segment in India has relatively less responsibility to pay education fee, meeting living expenses and the need to earn and save for future, when compared to their counter parts in other parts of the world, due to socio-cultural setup in India. According to the annual MasterCard's index for financial literacy India is at the bottom among the 16 countries in Asia-Pacific region with 59 index-points.

A study on the mental health among university students reveal a growing public concern that the depressive and anxiety disorders and the resulting suicidal ideations are high among the students reporting financial struggles (Eisenberg, Gollust, Golberstein, Hefne 2007). Studies have also proved that financial problems are often the cause for mental illhealths, divorce and other adverse life experiences ((Kinnunen and Pulkkinen, 1998; Yeung and Hofferth, 1998; Cleek and Pearson, 1985). Students with limited knowledge on finance tend to hold wrong opinions and make incorrect decisions (Chen and Volpe, 2002) that place them on debt traps.Uninformed investors vest their reserves in conservative tools; victimized by scams or unscrupulous brokers (Schultz, 1992; simon, 1992, Spiro and Schroeder, 1992). Conservative investment decisions can retard the financial wellness (Anand, 1994; Christine, 1992 and Philip and Cardona, 1994),

3. Need for Research

Global economic crisis has created a prolonged decline in interest rate, increased debt loads, low savings rate, reduced retirement income and higher rates of unemployment. This has created an unidentified crowd fear in young graduates. Their immediate concern is employment after graduation, without having realized the avenues for financial wellness. It is a major concern that there are only limited research on the financial literacy of Indian university students and the teachable academic opportunities for a progressive design of curriculum and informal modes of financial education is yet to be systematically identified

4. Research Methodology

Samples of 1500 under-graduate engineering students from different parts of India with a diversified socio-economic background were selected through purposive sampling method to administer a structured questionnaire. A items in the questionnaire included a combined measure of self-rating and actual financial knowledge and practice on product purchase, credit card usage, investments, loans and insurance are recorded to analyze the behavioral gap; Appropriate statistical tools like Correlation, ANOVA, logit regression were applied to analyse the responses.

A simultaneous study on 50 experts to record their opinion and experience in identifying teachable opportunities, gaps in the current system and the best methodology for imparting financial literacy program for non-finance students revealed the best practices. The best practices suggested are evaluated based on its capacity to target, interact, access, scalable and its effectiveness at university level

5. Hypothesis

H1: Ability to manage their pocket money differs with the students' monthly living expenditure

H2: Relation between financial discipline and financial behavior

H3: Gap between the self-rated conceptual knowledge on finance and financial wellness and actual practice

H4: Analyze the linear combination of multiple dependent variables relevant to financial wellness with credit card possession and usage

6. Results and Discussions

Students with a monthly living expenditure of Rs.3000 – Rs.5000 manage their pocket money effectively than their counterparts; and, male students tend to fare better than the female students. Fig -1 reflects the weighted score on the students' ability to manage their pocket money across economic class and between genders.
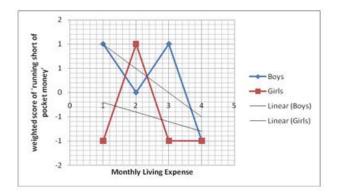

Fig. 1: Weighted score on the ability to manage pocket money

It is evident that there is a strong statistical relation between the variables of financial discipline maintenance of monthly accounts, planning and budgeting the expenditures and the financial behavior like postponing the impulse purchase, regular saving and taking informed investment decisions. The matrix given below consolidates the correlation co-efficients (ρ-value).

Table 1: Correlation between the financial discipline and behavioral adherence

Financial Discipline \ Financial Behaviour	Avoiding impulse purchase	Saving systematically	Informed Investing decisions
Maintaining monthly accounts	$\rho = 0.002$	$\rho = 0.001$	$\rho = 0.001$
Pre-planning of expenses	$\rho = 0.008$	$\rho = 0.000$	$\rho = 0.001$
Budgeting for all expenses	$\rho = 0.008$	$\rho = 0.000$	$\rho = 0.000$

Further probe into the respondents' debt management behavior provided a clear insight on their lack of financial knowledge. Some of the unwise and financially unadvisable behaviours highlighted the lost teaching opportunities at parental and collegiate levels. It is evident from figure 2 that the control on spending is second to depleting the savings account. The figure also provides a gradational view on intensity of each behavioral strategy used by respondents when there is a money crunch.
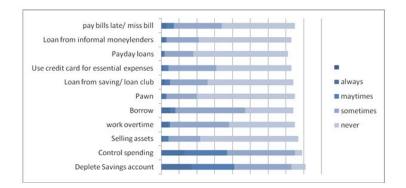

Fig. 2: Strategies adopted to manage money needs

In the study, ANOVA is applied to understand the gap or variance between the self-rating of financial knowledge and financial behavior, in particular the resultant - individual financial wellness. It is evident from the analysis that there is no statistically significant difference in many of the concepts like Time value of Money ($\rho=0.657$, F=0.539), Inflation and interest rate ($\rho=0.499$, F=0.796), Risk tolerance ($\rho=0.323$, F=1.177), Insurance ($\rho=0.657$, F=0.513), Loan management ($\rho=0.217$, F=1.539). However there is statistically significant difference between the self-rating and behavior with regard to knowledge on share market ($\rho=0.020$, F=3.469) and investment and savings decisions ($\rho=0.048$, F=2.749). Table-2 consolidates the gap in self-rated knowledge on financial concepts and the financial behavior.

Table 2: Consolidated ANOVA measure of self-rated and actual financial knowledge and practice

Criteria	Sig.	F
Statistically significant difference between the self rated criteria and actual behaviour		
Share market	0.02	3.469
Investment and saving decisions	0.048	2.749
Statistically insignificant difference between the self rated criteria and actual behaviour		
Loan management	0.217	1.539
Risk tolerance	0.323	1.177
Inflation and interest	0.499	0.796
Time Value of Money	0.657	0.539
Insurance	0.675	0.513

The Generalized linear method (GLM) applied to understand the financial wellness of students in the perspective of credit card passion and usage reveal that the student respondents who possess more cards tend to exceed their credit limit and are frequently charged for it. Though Wilks′ Lambda of GLM multivariate test has a significance (0.042) and F-value(3.534), the between subject effect is weak with significance (0.072) and F-value(3.491), thus making the model unstable to predict.

Teachable Opportunities

The experience survey amongst the 50 University teachers and mentors where conducted to trace the formal and informal teachable opportunities identified, identified-and-activated, identified-but could not activate, lost opportunities. Basic information on the average number courses floated across by business school to non business students on finance, need identification process adopted by faculty to impart formal financial literacy programs, assessment of academic assignments and attic projects for the students were taken into account to gain a comprehensive insight on teachable opportunities.

The vital information received from university-affiliated mentors reveal that

a) Financial mismanagement and the resulting outcomes associated with it, is one of the top five reasons for suicidal attempts among the university students.

b) More than 20% of the counseled students are reported to have broken friendships due to financial reasons

c) Many students who seek jobs for financial wellness through university placement cells have a crowd driven fear without a root-cause analysis. These students who opt for dream pay-packages lack in their basic knowledge on salary scale structure, have inadequate financial plans to achieve their financial goals and exhibit an unsure approach towards economic wellness.
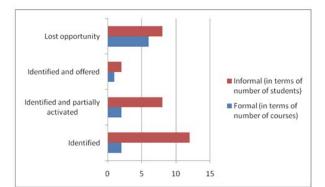
The average number of financial papers floated across universities for non-finance students is 5 for an average class size of 60 each, which imples that on an average 300 students pursue courses on finance. A class survey revealed that less than 1% co-opt for nationally certified courses like NCFM, Coursera′s MOOC courses on Finance and economy.

The common courses floated include basics of Accounting, Financial Management, Stock Market and Trading, Management Of Personal Finance.

No formal and systematic need identification process is adopted to float finance courses to cross-disciplinary students. It is also identified that many Universities have dearth of professors in finance and accounting.

The assessment process for the courses on Finance is not activity or project-based. Conceptual testing and classroom case analysis are adopted. The reason for the same could be attributed to the nature of basic courses offered.

The formal and the informal opportunities identified and lost in last academic year is depicted in Fig-3.

Fig. 3: Teachable opportunities identified and lost

Some of the courses identified for offer include basics of economics and econometrics, basics of stock market and stock trading; the new curriculum for both the identified opportunities were framed and a course on basics of stock market and trading were offered. The opportunities lost includes the failure to offer courses on corporate finance, accounting, basics of commodity market, management of personal finance, banking and banking products, Financial instruments.

Though a common cord of accordance could not be drawn, many mentors have responded that the financial problems are one of the reasons for distress of the students who approach them. Mentors don't tread on the students' financial commitments fearing even subtle intervention into the same may hinder their counseling process. Almost all the mentors surveyed have recorded that they had lost an opportunity to teach the students money-wise, either due to professional limits or their lack of proficiency in financial knowledge.

The study further probed into the best practices, as perceived by Professors and students, in imparting finance as a life skill course to collegiate students based on the following criteria and sub criteria:

Capacity to target non business students- voluntary selection of finance courses, effective internal marketing, Courses undertaken as audit courses –not for credits

Capacity to interact and access - motivating students to engage in project-based learning and attic projects, organize and deliver through flip classrooms, video lectures

Up-scaling – advance courses offered based on students requisitions and potential enrollment

Effectiveness – usefulness of the course in placing the students in jobs or in higher education

The weighted average score on the criteria collected on a five-point scale are enlisted in the Table-3 and exhibited using the Fig-4.

Table 3: Best practices in imparting the financial literacy courses to cross-disciplinary students

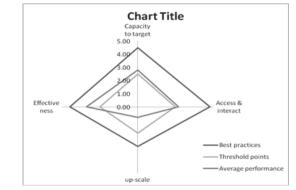|	Best practices	Threshold points	Average performance
Capacity to target	4.50	2.50	2.80
Access & interact	4.80	2.50	2.70
Up-scale	3.00	2.00	0.80
Effectiveness	4.50	2.50	3.40

Fig. 4: Benchmarking the best practices

7. Conclusion

The study concludes that the financial literacy level of non-business graduate students in India is remarkably poor. The gap between the conceptual awareness, self-rated financial knowledge and the actual practice is wide. At the University level, the teachable opportunities lost are considerably high; up-scaling the courses and treating finance literacy as a life skill courses requires careful deliberation for the benefit of the society at large

References

A report on Financial Knowledge and Behaviour Survey 2013, Report prepared for Commission for Financial Literacy and Retirement Income , Reference: 109104260

A report on 'Measuring Financial Literacy: Questionnaire and Guidance Notes for Conducting an Internationally Comparable Survey of Financial Literacy'OECD

Alba, J. W., and J. W. Hutchinson.2000. What consumers know and what they think they know. *Journal of Consumer Research*27(2):123–56.

Corazzini, L., L. Esposito,and F. Majorano. 2012. Reign in hell or serve in heaven? A cross-country journey into the relative vs absolute perceptions of well-being. *Journal of Economic Behavior and Organization* 81(3): 715–30.

Grimes, P. W., K. E. Rogers, and R. C.Smith. 2010. High school economic education and access to financial services. *Journal of Consumer Affairs* 44(2): 317–35

Hastings, J.S., B. Madrian, and W. L.Skimmyhorn. 2012. Financial literacy, financial education and economic outcomes.*Annual Review of Economics* 5: forthcoming. NBER Working Paper No. 18412. Cambridge, MA: NBER. Doi: 10.1146/annurev-economics-082312-125807.

Hung, A. A., A. W. Parker, and J. K.Yoong. 2009. Defining and measuring financial literacy. Rand Corporation, Working Paper (WR-708). Available at http://ssrn.com/abstract=1498674.

Hung, A. A.,and J. K. Yoong. 2010. Asking for help: Survey and experimental evidence on financial advice and behavior change. Rand Corporation, Working Paper (WR-714-1). Available at http://ssrn.com/abstract=1532993.

Huston, S. J. 2010. Measuring financial literacy.*Journal of Consumer Affairs* 44(2):296–316.

Jacoby,W.G. 2010. Policy attitudes, ideology and voting behavior in the 2008 election*Election Studies*29:557–68.

Noor Azizah Shaari, Nurfadhilah Abu Hasan, Ramesh Kumar Moona Haji Mohamed, Mior Ahmad Jafri Md Sabri (2013), 'Financial Literacy: A Study Among the University Students' Interdisciplinary Journal Of Contemporary Research In Business, Vol. 5, No 2, Pg.,

Sam Allgood and William B. Walstad, 2013, 'The Effects of Perceived and Actual Financial Literacy on Financial Behaviors' http://ssrn.com/abstract=2191606 or http://dx.doi.org/10.2139/ssrn.2191606