



What Determine Money Management Behaviour of Undergraduates? An Examination in an Emerging Economy

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Authors' contributions

This work was carried out in collaboration between both authors. Authors VS and DW designed the study, managed the literature review, collected data, performed the statistical analysis and wrote the manuscript. Both authors read and approved the final manuscript.

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ABSTRACT

Aims: Money management behaviour of undergraduates academically is a researchable area as their decisions relating to money management not only have an impact on their life itself but also it affects the long-term financial stability of an organisation, an industry and a nation. In emerging economy contexts, money management behaviour heavily focused on functional financial literature, there is a significant lack of published research focus on factors beyond different aspects of financial literacy. Therefore, the purposes of this study include investigating factors beyond financial literacy that influence money management behaviour and understanding the level of influences on money management behaviour of undergraduates.

Study Design: The study was carried out in Sri Lanka, an emerging country and adopted a quantitative survey method. A personally-administered, structured questionnaire was used to collect

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data from management undergraduates in the selected university in Sri Lanka.

Results: The results indicate that undergraduates economic, social and psychological factors significantly affect money management behaviour. The results of regression-based path analysis indicate that economic, social and psychological factors mediate the direct impact and encouraging healthy money management behaviour in undergraduates. The study further identified the deviations in money management behaviour and selected influences of undergraduates with respect to gender, academic year, place of residence, doing online transactions and working hours.

Conclusion: The study has extended our understanding on the money management behaviour of undergraduates. Research and managerial implications are provided together with future research directions.

Keywords: Economic factors; social factors; psychological factors; undergraduates; path-analysis.

1. INTRODUCTION

The money management behaviour of undergraduates has insofar received the greatest attention of researchers and practitioners [1,2,3, 4,5,6,7] because the undergraduates will be future managers and decision makers who generate revenue to the nations. Hence, their behaviour in managing money at university pretends to be carried forward in their career life [8]. As such, money management behaviour of undergraduates is one of the most important factors to retain long-term financial stability of an organisation, an industry and/or a nation.

A cursory review of the literature shows that studies on money management behaviour have mostly focused on functional financial literacy [9, 10,7], credit card usage and debt management [4,7]. However, there is a significant lack of published research focus on undergraduates' money management behaviour beyond different aspects of financial literacy [2]. Prior studies [11, 12,13] suggested that factors such as economic, social and psychological could also influence the undergraduates' money management behaviour. It is very much interest that these studies are conducted in developed context like Australia, New Zealand, USA and UK, there is a dearth of literature on developing context. However, there is a dearth of studies conduct in the developing countries on the money management behaviour of undergraduates. Hence, there is a literature gap to address. The purposes of this study include investigating factors beyond financial literacy that influence money management behaviour and understanding the level of influences on money management behaviour of undergraduates. Further, acknowledging the future research directions given by [2], this study intends to analyse the differences in money management behaviour and its influences with

respect to different demographic characteristics of undergraduates.

This study offers several contributions to the undergraduates' money management behaviour literature. Although prior studies have been focused on determinants of undergraduates' money management behaviour in the developed economic context [2,14,15,12,13], there is a dearth of literature on exploring determinants of money management behaviour of undergraduates in the emerging nations. This study is also unique in examining the interrelationships among economic, social and psychological factors and their impacts on money management behaviour. In summary, the present study extends money management literature by examining money management behaviour, via theoretically grounded constructs and empirically based relationships between constructs.

The undergraduates who have weaker ability to make appropriate decisions regarding money management, the result of this study will facilitate to aware which type of support they require to make appropriate money management decisions. In developing context, degree completion rate highly depends on financial constraints and language barrier [16]. Practically, it is worthwhile to gain extensive understand on determinants of undergraduates' money management behaviour because undergraduates' decisions relating to money management affect long-term financial stability of an organisation, an industry and/or a nation [17]. Understanding the ways of responding influences to manage their money and level of influences on money management behaviour will be of use in support programs which can assist them to make effective money management decisions, which in turn to enhance their academic performance. Irresponsible spending behaviour can influence on undergraduates' academic performance,

social relationships and physical and emotional wellbeing. As such, a deeper understanding of money management behaviour of undergraduates is a vital concern for society. Hence, the findings of this study are useful to government, financial institutions, educational institutions and parents who keen to encourage healthy money management behaviour of undergraduates.

This paper is organised as follows. The first part presents the literature review, followed by the methodology and findings. The final part provides conclusions, implications and directions for future research.

2. LITERATURE REVIEW

Money management plays an important role in shaping an individual's quality of life, social relationships and mental fitness [15]. Money management behaviour refers as managing over spending, minimising chances of mislead on financial matters and in managing financial debt [2]. The skill of money management can differ between population sub groups, age, material status, gender, education level, personality characteristics, cultural influences etc. According to Peng [18], undergraduates take on high levels of personal financial responsibility and challenges with respect to budgeting monthly expenses, working, savings, debt management and bill payments. Thus, financial knowledge and financial skills obtained at university level act as a compound for workable financial behavior later in life [19]. It is vital to equip undergraduates in attaining effective money management behaviour.

It has also been found that financial literacy levels significantly contribute to responsible financial decisions [20,7,8]. However, the prior studies proposed that money management behaviour not only determine by financial knowledge, it is deeply intertwined economic, social and psychological factors [21,22].

Among the factors that have an impact over undergraduate money management behavior, economic factors are of paramount importance, which includes both macro level economic factors and micro level economic factors [2]. Macroeconomic factors are those that affect society and it is not in the control of an individual. Microeconomic factors that aid in determining individual money management decision include individual's financial literacy, family income,

education and stream of education [23]. According to Bamforth [2], undergraduates carefully manage their money using a combination of money products, while controlling their credit card usage. Lusardi [24] report that female students have more difficulty in catching up with economic and financial market development and thus they struggle to manage their money. In addition, Soria [25] reveal that students from low-income backgrounds are more likely to make decisions based on financial need rather than their educational need and rely on credit cards and loans as a result of their financial concerns. However, little is known about the impact of these economic factors on a developing nation. These phenomena show that the impact of economic factors on money management behaviour is not conclusive and needs further research.

Social comparison theory [26] indicates that people evaluate themselves through comparisons with others. In line with that, the study of usage of social media emphasised that social comparison highly influences to teenagers' financial decision who are less confidence about themselves. Further, social learning theory highlights that observational learning impacts financial behaviour [27]. Proactive approach indicates that there is an incorporate influence on financial behaviour from various social agents namely teachers, parents, peer and media [28]. Among these socialisation mechanism, parental involvement plays a vital role in instructing appropriate attitudinal and behavioral skills. Specific to financial skills and attitudes, parental engrossment is a positive mechanism for influencing teenagers' financial decisions [15,29, 30]. Peers seem to make unique influence on undergraduates' learning and decision-making process [15] and they become another social agent who influence on financial behaviour of the undergraduates [2,31]. Since, Sri Lanka is a religious-based cultural heritage country, religious beliefs might influence undergraduates' spending patterns. Thus, there is a limited understanding of how social factors influence money management behaviour in developing nations context.

A person's self-concept motivates to engage in identity-related behaviours and influences behavioural decisions [21,32]. In line with the theory of planned behaviour, self-identity is the major predictor of intention and behaviour [33, 32]. Berg [34,35,36] emphasised that graduates with daily emotional stress, low self-esteem,

decreased confidence in managing economic resources and diminished psychological well-being cause to increased college dropout rate, difficulty finding employment after graduation, poor mental health and, in some cases, attempted suicide. Thus, it has been identified that psychological stress causes to poor self-control [37] which in turns will affect financial decisions. With that respect, in the present scenario, much remains unknown about the psychological factors influencing money management behaviour of undergraduates [2, 38]. Thus, the research is needed that investigates the psychological factors affecting undergraduates' money management behaviour in Sri Lanka.

3. METHODOLOGY

A quantitative research design was used to examine the factors that influence money management behaviour, the level of influences on money management behaviour and analyse the differences in money management behaviour and its influences with respect to different demographic characteristics of undergraduates. Survey method was chosen to collect data from undergraduates. According to Sekaran [39], the survey method is the most appropriate technique to collect data from a large population in terms of cost-effectiveness and timeliness factors. A structured questionnaire was designed acknowledging the prior studies and it compromised a total of 53 items. These included eight categorical items which were used to solicit demographic information from the undergraduates. The remaining 45 items representing the four variables (money management, economic, social and psychological factors). These items were measured on a continuous, itemised rating scale (five-point Likert-scale) with end points of strongly disagree and strongly agree. Such itemised rating scale is frequently used in social science research [39].

The questionnaire was initially reviewed by three academics to ensure comprehensiveness and clarity and it was pre-tested with 40 undergraduates who were randomly selected. This study employed Cronbach's alpha to test the reliability of the measures. According to Bontis [40], the reliability for each of the constructs is fine when the alpha values are greater than 0.70. Besides, construct validity is also determined to show how well the results obtained from the use of the measure fit the

established theory [39]. Correlation analysis was adopted to test the convergent and discriminant validity. For adequate construct validity, the highest correlation value for the selected element with corresponding rows and columns should be from 0.30 to 0.90. Further, the minimum corrected item total correlation value should be greater than 0.30. Based on the pilot test results, five items from the desired variables were removed and finalised with 40 items (APPENDIX 1). A total of 48 items were featured in the final questionnaire.

At present, the total number of undergraduates in the selected university is 9205, enrolling under six faculties and 57 academic departments. This study has selected Year II, III and Year IV undergraduates from Management Faculty (FMSC), representing 12 academic departments, since money management is highly associated with management discipline. Degree part I undergraduates at FMSC were not included since they have relatively inadequate experience with the university life. Accordingly, the target population of the study consisted with 1220, 1170 and 1140 (in total 3630) FMSC undergraduates from Year II, III and IV respectively.

The survey was administered in June 2018; data has been collected from the 2200 undergraduates. Out of 2200, 29 questionnaires were not properly completed, thus they were removed from the further analysis. Representing 60.2 percent response rate, 2171 questionnaires were considered to the further analysis of this study. Table 1 illustrates the profile of the respondents.

In order to assess the adequacy of the measurement items, individual-item reliability, construct reliability, discriminant validity and multicollinearity were tested. Then, the descriptive statistics were employed to examine the extent of money management behaviour and desired influences of the selected respondents. Following them, correlation analysis was used to examine the association amongst variables. Independent sample t-test and One-Way ANOVA were employed to ascertain the differences in money management behaviour, economic, social and psychological factors with respect to gender, academic level, credit card, online transaction, place of residence and working hours of the undergraduates. Finally, the multiple regression analysis and regression-based path analysis were used to examine the level of influences on

money management behaviour of undergraduates.

Table 1. Characteristics of respondents

Factors	Frequency	Percentage
Gender		
Male	935	43.1
Female	1236	56.9
Academic year		
Year II	698	32.2
Year III	908	41.8
Year IV	565	26.0
Credit card		
Yes	458	21.1
No	1236	56.9
Online transaction		
Yes	1047	48.2
No	1124	51.8
Residence		
Home	684	31.5
Hostel	622	28.7
Boarding place	841	38.7
Other	24	1.1
Working hours		
Not relevant	1246	57.4
Less than 5 hours	121	5.6
6-10 hours	354	16.3
11-15 hours	76	3.5
More than 15 hours	374	17.2

4. FINDINGS

4.1 Adequacy of Measurement Items

Initially, factor analysis was applied using Principal Axis Factoring method for data reduction and purification of the items under each variable of the study (Money management – MM; Economic factors – EF; Social factors – SF; Psychological factors – PF). Since there are latent variables measured through the itemised rating scale (five-point Likert-scale), the Principal Axis Factoring method must be used in extraction [41, p.76]. The Kaiser-Meyer-Okin (KMO) measure of sample adequacy was

employed to determine the appropriateness of factor analysis. Generally, a KMO measure of 0.50 or higher indicates the appropriateness of factor analysis [42], and that factor loadings with values above 0.70 are acceptable [43]. Table 2 shows that the KMO measure of the variables were greater than 0.50 ($p < 0.05$) and that the Bartlett's test of Sphericity showed a significant level ($p < 0.001$), indicating the appropriateness of factor analysis. The loadings of the items on their corresponding variables ranged from 0.724 to 0.839 (greater than 0.50). Hence, none of the items were dropped from analysis.

In addition, the reliability of variables was also assessed by examining their internal consistency values through computing the construct reliability (< 0.90), average variance extracted (AVE) (< 0.50) and Cronbach's Alpha values (< 0.60) [44]. The results in Table 2 show that the construct reliability, AVE and alpha values were above the suggested cut-off values, suggesting adequate reliability of the items.

4.2 Correlation Analysis

The descriptive statistics and inter-correlational values of each variable of the study were provided in Table 3. As shown in Table 3, mean value of money management was 3.30, which implied the moderate level of money management behaviour. Amongst the factors, psychological factors recorded the highest mean value (3.33), followed by economic factor (3.32). The standard deviation scores for all the variables were well below 1.00, implying consistencies in the responses provided. There were statistically significant correlations between money management and economic, social and psychological factors at 0.01 significance level. None of the correlation coefficient was above 0.85, indicating the absence of multicollinearity in the variables [44]. The correlation results further indicated that economic, social and psychological factors were interrelated with each other.

Table 2. Assessment of the measures

Variable	KMO measure	Bartlett's test of sphericity	AVE	Construct reliability	Cronbach's alpha
MM	0.676	0.000	0.66	0.946	.663
EF	0.771	0.000	0.62	0.935	.709
SF	0.775	0.000	0.68	0.952	.739
PF	0.716	0.000	0.70	0.955	.664

Table 3. Inter-correlational values

	Mean	SD	MM	EF	SF	PF
MM	3.3053	.5517	1			
EF	3.3208	.6610	.401**	1		
SF	3.2963	.6579	.239**	.332**	1	
PF	3.3324	.4945	.312**	.321**	.301**	1

** Correlation is significant at the 0.01 level (2-tailed)

4.3 Multiple Regression Analysis

In addition, the multiple regression analysis was employed to determine the level of influences on money management behaviour of undergraduates. Accordingly, the R-squared value was 0.302 ($F = 183.85$, $p < 0.05$), which implies that 30.2% of the variation in money management behaviour can be explained by economic, social and psychological factors. In addition, the Durbin-Watson (DW) statistics was 1.668, which falls within the acceptance range of 1.53 to 2.50 in order to ensure that there is no autocorrelation problem in the data [45]. Table 4 shows that the p-values of economic, social and psychological factors were less than 0.05. Hence, those factors are statistically significant determinants of money management behaviour of undergraduates in this study. Amongst the factors, psychological factor recorded the highest beta value ($\beta = 0.263$, $p < 0.05$), followed by social factors ($\beta = 0.209$, $p < 0.05$). Economic factors recorded the lowest beta value ($\beta = 0.065$, $p < 0.05$).

4.4 Path Analysis

As shown in Table 3, the correlation results indicated that economic, social and psychological factors were interrelated with each other. Thus, it is interesting to examine the mediating effects of economic, social and psychological factors on money management behaviour. The regression-based path analysis [46,47] was employed to test the six models proposed in this study (Table 5).

According to Hair [48]; Monecke [49] and Sachitra [50,51], path-analysis is designed to work with multiple related equations simultaneously where it offers a number of advantages over some more familiar methods and therefore provides a general framework for linear modelling. Table 5 illustrates the summary results of the regression-based path analysis.

As shown in Table 5, social factor was not significantly mediated the relationship between economic factor and money management behaviour of undergraduates of this study ($p > 0.05$). However, the relationship between economic factor and money management was significantly mediated by psychological factor ($p < 0.05$). It is interesting to indicate that the relationship between psychological factor and money management was significantly mediated by social and economic factors ($p < 0.001$). On the other hand, the relationship between social factor and money management was significantly mediated by psychological and economic factors ($p < 0.001$).

Finally, Independent sample t-test and One-Way ANOVA were employed to determine the differences in money management behaviour, economic, social and psychological factors with respect to gender, academic level, using credit card, performing online transactions, place of residence and working hours of the undergraduates. Table 6 illustrates the results of comparisons analysis.

Table 4. Regression analysis results

Model		Unstandardized coefficients		Standardized coefficients	t	Sig.	Collinearity statistics	
		B	Std. error	Beta			Tolerance	VIF
1	(Constant)	1.523	.083		18.368	.000		
	Economic	.065	.017	.078	3.722	.000	.847	1.180
	Social	.209	.023	.187	9.027	.000	.854	1.171
	Psychological	.263	.018	.315	14.993	.000	.836	1.197

a. Dependent Variable: Money Management

b. Predictors: (Constant), Economic, Social, Psychological

Table 5. Results of regression-based path analysis

Model	R-squared	Indirect effect	Indirect effect Sig.	Boot UL CI
1. EF – SF – MM	0.057	0.0068	0.1041	0.1420
2. EF – PF – MM	0.084	0.0381	0.0201	0.2694
3. PF – SF – MM	0.1202	0.0535	0.0000	0.1712
4. PF – EF – MM	0.1978	0.1201	0.0000	0.2722
5. SF – PF – MM	0.1021	0.0667	0.0000	0.1817
6. SF – EF – MM	0.1729	0.1006	0.0000	0.1212

Table 6. Comparison analysis

Factor	T test p value ^a	T test p value ^b	T test p value ^c	T test p value ^d	T test p value ^e	T test p value ^f
MM	0.011	0.131	0.478	0.026	0.409	0.153
EF	0.008	0.000	0.755	0.000	0.011	0.000
SF	0.098	0.025	0.548	0.091	0.519	0.000
PF	0.001	0.001	0.321	0.271	0.036	0.133

^a differences among males and females; ^b differences among academic levels; ^c differences among using credit card; ^d differences among performing online transactions; ^e differences among place of residences; ^f differences among working hours of undergraduates

As shown in Table 6, there were significant differences on mean values of money management, economic and psychological factors between male and female undergraduates. Relative to females (mean = 3.36), males (mean = 3.28) recorded the highest score for economic factor. However, in regard to money management and psychological factors, females recorded the highest mean value. In terms of academic levels, there were significant differences in economic, social and psychological factors. The results in Post-Hoc test indicated that academic year IV undergraduates recorded the highest mean value for economic factor. The highest mean scores for social and psychological factors were recorded year II and year III undergraduates respectively. There were significant differences on mean values of money management and economic factor between undergraduates who performing online transaction or not. Relative to non-users, users of online transactions recorded the highest score for money management and economic factor. Further, place of residences has significant influence on economic and psychological factors. The Post-Hoc test results indicated that undergraduates who residence in hostels recorded the highest mean value for economic factor and undergraduates who residence in their home recorded the highest mean score for social factor. Finally, there was significance differences in economic and social factors with respect of number of working hours of undergraduates in this study. The highest mean scores recorded for undergraduates who are undertaking more than 16 working hours.

5. DISCUSSION AND CONCLUSION

The findings of descriptive statistics indicate that the undergraduates in our study experienced moderate level of money management behaviour. They adopted both careful and risky money management approaches; the part of respondents intensively lived beyond their income limit and others were able to live within their means.

The findings of multiple regression analysis indicated that there is comparatively high influence from psychological factors on money management behaviour, hence consistent with that reported in the extant literature [34,35,37, 36]. However, the average mean score (Table 3) suggests that low self-identity, high emotional stress and reluctant to learn from mistakes are pressing issues encountered by the undergraduates in this study. Since the academic performance highly depends on financial constraints of undergraduates in developing countries, self-identity might become one of the major predictors of money management behaviour. Some respondents appeared to be more stressed and experienced negative feelings struggled to manage money. Eventhough few respondents tended to learn lesson from their overspending patterns, other respondents demanded to continue the expensive socialisation activities.

With regard to social factors, the mean score (Table 3) indicated that undergraduates were experienced parental and peer influences. This

result is not surprising since Sri Lankans are inherited with sharing and caring culture. The finding in regression analysis (Table 4) is in line with the literature [2,31,29,52,22,53,30] where parents' and peers' financial behaviour, norms and attitudes significantly influence on the financial decisions of youngsters. The study included religious beliefs as social influence factor. Relative to the other items in social factors such as parental influence and peer pressure, the responses for the religious beliefs items recorded the highest mean values (mean = 3.714).

The average mean score on economic factor (Table 3) suggests that, up to some satisfactory level, our respondents were equipped with knowledge and skills of budgeting and aware with financial concepts. This value suggests that the undergraduates should leverage on their knowledge and skills on financial decisions because money management behaviour of undergraduates is one of the most important factors to retain long-term financial stability of an organisation, an industry and/or a nation. The finding in regression analysis (Table 4) shows that, compared to other two factors, economic factor recorded the lowest beta value. This finding is not congruent with prior studies [2; 31] where economic factors mostly influence on the financial decisions of undergraduates and young consumers. As far as concerning the Sri Lankan context, Sri Lanka has had a free education system from kindergarten to undergraduate education since 1945. Tertiary education is dominated by state-owned universities [54]. Between 70%-80% of state undergraduates receive financial assistance scheme called 'Mahapola' which is granted to students based on their performance at the General Certificate of Examination (Advanced Level) and on their family income level. This is a nominal monthly allowance that is only sufficient to cover the basic monthly expenses of the students, such as meals, educational needs, travel, etc. In additionally, undergraduates are given meals, hostels and communication facilities at subsidised rates that help them to substantially reduce the direct costs involved with their higher education. The findings reveal the importance of Mahapola, students are able to manage themselves with it without much of a trouble. This also have helped them to avoid part time work, debt and use of credit cards. We found this as a unique situation where in many other studies the findings suggest that the students have a higher stress in generating

income and they have higher debts and use credit cards [2,55].

However it should be noted that eventhough Sri Lankan university system is currentlt dominated by the state owned universities and free higher education, there is a growing tendency of privately owned paid university establishments. Also in catering to the opportunity, banks have started granting studnet loans to manage their student fees for their education. This tendency may result in increasing undergraduate debt, part time working and credit card usage which will ultimatly result in increasing stress levels and higher failiure rates. The impacat of establishing private universities to undergraduate money management behaviour needs to be explored in a different study.

Furthermore, the study examined the mediating effects of economic, social and psychological factors on money management behaviour. The regression-based path analysis results indicated that relationship between economic factor and money management was mediated by psychological factor, social and economic factors influence to the relationship between psychological factor and money management and social factor and money management relationship was mediated by psychological and economic factors. On this basis, controlling psychological factors, undergraduates can manage their social and economic influences which in turn improve their money management behaviour. At the same time, the importance of social influences also enhances the role of psychological and economic influences for greater money management behaviour.

Analysing different groups of undergraduates with respect of gender, academic level, using credit card, performing online transactions, place of residence and working hours of the undergraduates, this study enables to identify the deviations in money management behaviour and selected influences of undergraduates. Females recorded the highest money management behaviour and males recorded the highest mean value for economic factors. Specially the culture of Sri Lanka, suggest that the young females to be under their parents until they get married and also young females are rarely given responsibilities specially relating to money management when they are under their parents. However, selecting to a university is one of the rare occasions where young females are authorised to stay away from their home, and therefore they get a responsibility live

independently and manage their money better with more control. Male students on the other hand expected to be looked after their parents and therefore engaging additional (part-time) income. In terms of academic year, year IV undergraduates recorded the highest mean value for economic factor. This is because year IV undergraduates have opportunities to undergo internship programme (work-integrated learning experience) and they entitle to receive an allowance. Meanwhile, concerning the engagement in online transactions, users are able to manage their money and controlling economic influences than non-users. Availability of free wi-fi access and usage of social media tools enable the undergraduates to find cheaper products to fulfil their requirements such as textbooks, cloth, mobile phones, lap-top, shoes and food. This finding is consistent with the findings of [2], who emphasises that usage of web-based transactions strongly influences the financial decisions of teenagers who are less confident about themselves. Further, Post-Hoc results indicated that undergraduates who residence in hostels recorded the highest mean value for economic factor and those residence in their home recorded the highest mean score for social factor. The hostel facilities are given to the undergraduates who belong to the low-income family category in Sri Lanka. Hence, undergraduate's residence in hostels concern more on economic aspects relative to others. On the other hand, undergraduates living with their parents/guardians get more parental control and in returns parents' norms and attitudes influence financial decisions of undergraduates.

6. IMPLICATIONS AND LIMITATIONS

This study offers several contributions to the literature relating to undergraduates' money management behaviour. There is a dearth of literature on investigating determinants of money management behaviour of undergraduates in the developing context. By addressing this literature gap, this study extends our understanding on the influence of economic, social and psychological factors on the undergraduates' money management behaviour in Sri Lanka. At the same time, the study has also addressed the limitation in literature regarding the association between economic, social and psychological factors in determining money management behaviour. The mediating roles of economic, social and psychological factors has also been investigating, as such, it makes significant contributions to knowledge from this standpoint.

In practical perspective, the findings of this study are useful to government, financial institutions, educational institutions, parents and family members who are keen to encourage healthy money management behaviour of undergraduates. The findings reveal that parents' financial behaviour, norms and attitudes significantly influence on the financial behaviour of students. Thus, parents have to pay close attention on their financial decisions and behaviour and need to be a role model to their children. This study further identified peer influence on financial decision. Parents and family members need to pay special focus on undergraduates' relationships. This could be easily executed if parents and family members are close to undergraduates.

Concerning the psychological factor, self-identity, self-confidence and stress level of the undergraduates can affect the behaviour of managing money. The responsible departments in the university or government agencies should look at the issue more carefully to come up with strategies to enhance self-identity and self-confidence of undergraduates and control their stress level in academic and personal life. Furthermore, creating self-identity via management of money result in building up a strong personality of an individual, which is a positive factor when they become leaders of the corporate and government institutions [55].

A strong influence of religious and cultural basis of the country has also influence the respondents of the study in incorporating a shared culture, where it was evident that they help each other to cope up with their money management issues [16]. Encouraging good practices of religion could assist in inculcating careful spending patterns of undergraduates. Since undergraduates are highly devoting to academic performance, they purposefully ignore the good practices their religion. Therefore, university could organise support programmes that help undergraduates to practice their religious beliefs. They can also be encouraged to participate these programmes, emphasising the importance of participation.

It is expected that this study provides the impetus for more studies to be conducted in the future. As this study is set in the context of single state university in Sri Lanka and considerably low response rate in survey, the ability to generalise the reported results remains restricted. Hence, further research is required in other universities,

especially non-state universities. Since non-state university undergraduates do not privilege the free education, such a study will enable to compare how those undergraduates' responses to the economic, social and psychological factors relating to their money management behaviour.

The study revealed that economic, social and psychological factors were significantly mediated their relationships with money management behaviour. Thus, a further qualitative based analysis needs to be conducted to explore how this interplay works in encouraging healthy money management behaviour in undergraduates. A longitudinal study would facilitate identifying how the money management behaviour of undergraduates has changed over time to benefit policy makers in developing and adopting productive financial and educational policies.

COMPETING INTERESTS

Authors have declared that no competing interests exist.

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APPENDIX – 1

Measurement items

Money Management:

- Follow a weekly or monthly budget
- Keep a written or electronic record of my weekly/monthly expenses
- Review and evaluate my spending on a weekly or monthly basis
- Spent more money than I have
- Get into more and more debt each month
- Regularly set aside money for saving
- Regularly set money aside for possible unexpected expenses
- Able to buy goods really need
- Have high credit card debt / debt
- Repay the borrowed money as soon as possible
- Plan ahead for purchases

Economic factors:

- Knowledge and skills of budgeting
- Aware of saving opportunities available for university students
- Understand key financial concepts such as inflation, liquidity, interest, compound interest, diversification, share market.
- Taking on part-time job to manage my expenses
- Search cheaper ways to manage my expenses
- Able to make short-term financial decisions
- Able to manage long-term financial planning
- Interest in making investments
- know how to live within my income

Social factors:

- Parents support me to control my expenses
- I am disciplined by my parents not to overspend
- Follow my parents' money management advices
- Follow my parents' money control behaviour
- I discuss with my parents before do shopping
- Friends influence me to enjoy an expensive lifestyle
- Spend more because of my friends
- I have friends who have similar lifestyle like me
- My friends understand that I have difficulties in financing
- Follow my religious beliefs when making expenses
- My religion helps me when managing money

Psychological factors:

- Feel out of control in financial matters
- Experiencing high levels of negative feelings relating to money management?
- Have confidence in my ability to resist temptation
- Feel shame when taking debts

Have a worried view of managing money
Have confidence in my ability to manage myself
Like to change the way that I spend my money
Learn lessons from my reckless money spending
Believe that one should save a little regularly even on a low income

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