DETERMINANT OF STUDENTS' SPENDING BEHAVIOUR AT UiTM KOTA BHARU

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Abstract: Students' spending behaviour refers to the patterns and habits that shape how they manage their financial including expenditures on accommodation, food, entertainment, books, and personal needs. Understanding this behaviour is essential to identify the factors that influence students' financial decisions and promoting responsible money management. This study examines the determinants of students' spending behaviour, by focusing on five key factors: financial management knowledge, price elasticity, parental income, peer influence, and lifestyle. Cross-sectional research design methods were employed to examine the relationships among the variables, and data were collected from 207 students using stratified random sampling. Pearson's correlation and multiple linear regression analyses were conducted to assess the relationships among the variables. Correlation results indicate significant relationships between spending behaviour and all five examined factors. However, the regression analysis identifies only two significant predictors: peer influence and lifestyle. These findings highlight the strong role of social interactions and lifestyle preferences in shaping financial habits, suggesting that financial education initiatives should emphasize the influence of peers and lifestyle choices to enhance students' financial responsibility.

Keywords: financial knowledge, lifestyles, parental income, peer influence, price and spending behaviour.

1   Introduction

In the era of advanced technologies and the emergence of Industrial Revolution 5.0, issues of poverty and financial instability continue to persist globally, including in Malaysia. Despite modernization and economic progress, Malaysia's economy remains volatile, with fluctuating growth that affects citizens' financial behaviour and lifestyles. The increasing prevalence of technology-driven and luxury-oriented lifestyles has encouraged many individuals to spend beyond their financial means.

Sandrasegaran and Rambeli [1] stated that spending refers to the act of allocating money for goods or services that fulfill one's needs or desires. It reflects how individuals make financial decisions based on their wants, needs, and perceived satisfaction, and it may be characterized as either positive or negative. Individuals with good spending habits make rational purchasing decisions, whereas those with poor habits tend to spend impulsively. Esmail Alekam and Md Salleh [2] emphasized the need for financial education to be incorporated into the Malaysian curriculum, highlighting growing concerns about debt accumulation among youth . The National Strategy for Financial Literacy further reported that only

24% of Malaysians could sustain their expenses for three months if they lost their income, indicating low financial resilience at the household level.

The Department of Statistics Malaysia further reported significant inflation in categories such as restaurants and hotels (7.4%) and beverages (7.0%), yet 44% of Malaysians planned to increase their spending on health-related products, reflecting shifting consumption priorities despite rising costs. Furthermore, Darshini et al. [3] found that the spending behaviour of young Malaysians is becoming increasingly uncontrollable, partly due to rising prices of goods.

Shahryar and Tan [4] revealed that Malaysian college students' major expenditures include food, drinks, stationery, and books, while Indriyarti et al. [5] observed that technological advancement has facilitated online purchasing, encouraging easier and more frequent spending. Spending habit issues are particularly concerning among youth, especially university students. Poor financial management, overspending, and lack of self-control often result in debt accumulation and financial distress.

The Malaysian Minister of Finance highlighted that financial strain could lead to social problems such as theft, drug involvement, gangsterism, and even suicide. Between 2021 and 2023, the Malaysian Department of Insolvency reported 13,878 bankruptcy cases, with 1,629 recorded as of May 2023 significantly higher than in Singapore (108 cases). A considerable portion of these cases involve young individuals struggling with debt and insufficient income [6].

Given these challenges, understanding spending behaviour among Malaysian youth is essential. University students represent a particularly vulnerable group, as they are transitioning toward financial independence but may lack adequate financial literacy. However, existing studies have predominantly focused on students in urban regions or general populations, with limited research examining students in Kelantan. This gap is noteworthy because regional economic conditions and lifestyles may influence spending patterns. Thus, further investigation is needed to understand how these factors affect students in East Coast state

Therefore, this study aims to examine the factors influencing the spending behaviour of undergraduate students at Universiti Teknologi MARA (UiTM) Kota Bharu, focusing on five key determinants: financial management knowledge, price elasticity, parental income, peer influence, and lifestyle. Understanding these factors can help students identify areas of overspending, improve budgeting practices, and make informed financial decisions. Moreover, the findings of this study are expected to assist policymakers and educators in promoting financial literacy and supporting economic stability among Malaysian youth.

2 Literature Review

A Financial Management

Spending behaviour among university students is influenced by multiple factors, including financial management knowledge, price elasticity, parental income, peer influence, and lifestyle. Financial management knowledge enables students to budget effectively, save, invest, and avoid unnecessary debt. Prihartono & asandimitra [7] surveyed 312 undergraduates using structured questionnaire and regression analysis. The results show a significant positive relationship between financial literacy and controlled spending. Falahati et al. [8] using a survey of 400 students and descriptive statistics and inferential statistics reported that the students with higher financial management skills demonstrate better budgeting and less impulsive spending. Chuah et al. [9] analysed 250 university students through correlation and multiple linear regression, confirming that financial management knowledge predict spending behavior.

B   Price Elasticity

Price elasticity, or sensitivity to product prices, also affects spending patterns. Aparicio et al [10] highlighted that students are responsive to discount and promotion. Research done by analysing subsidized student loans using an econometric model, found that financial support reduces price sensitivity [11]. Through a doctoral study of 180 UTAR undergraduates using survey and regression methods, similarly, observed that students receiving loans or scholarships were less price-conscious in their spending decisions [12].

C   Parental Income

Parental income further shapes student's spending. Chang et al. [13] surveyed 200 undergraduates and found that higher parental income was associated with increased spending on leisure, while Jamal et al. [14] used regression analysis of 250 students and highlighted that disciplined financial habits could mitigate the impact of high allowances.

D   Peer Influence

Peer influence strongly affects consumption patterns. Indriyarti et al.[5] collected data from 500 students and used multiple regression to show that peer norms significantly increase expenditure on social activities. Jamal et al. [14] also reported similar results.

E   Lifestyle

Lifestyle shaped by demographics, interests, and social experiences impacts spending priorities. Bona [15] surveyed 350 students and found socially active students spend more on entertainment and fashion. Rajennd et al. [16] and Fernandez Ignacio et al. [17] confirmed through surveys and factor analysis that lifestyle is a significant predictor of consumption patterns. Overall, these studies demonstrate that financial literacy, economic background, peer dynamics, and lifestyle jointly influence university students' spending behaviour, emphasizing the need for financial education and responsible consumption interventions.

3   Research Material and Design

The present study received approval from the UiTM Research Ethics Board under the ethics approval letter BREC/02/2023(UG /MR/03).

F   Study framework

Theoretical framework helps to illustrate the relationship between independent variables and dependent variables based on previous research. Figure 1 showed the factors (independent variables) that affect the students spending behavior where financial management knowledge, price elasticity, parental income, peer influence and lifestyle had been chosen. Students spending behavior was chosen as the dependent variable for this study.
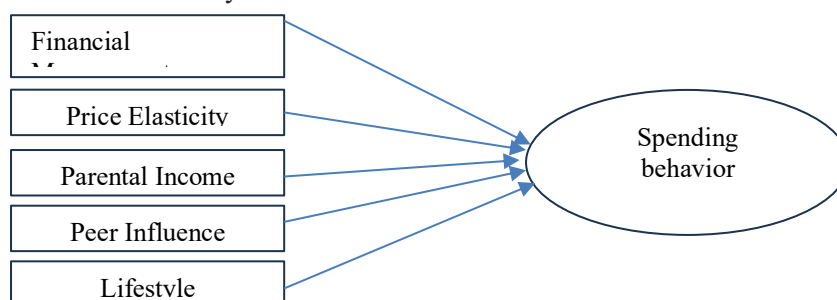

Figure 1: Study Framework

G   Study design

This study used a cross-sectional design with a self-administered questionnaire to collect data. A total of 1020 full-time students from UiTM Kota Bharu in Kelantan were selected as the population with a 5% margin error and with a 95% confidence interval to get a precise analysis of 308 students from UiTM Kota Bharu students were selected as samples using a stratified random sampling technique. Out of the 308 sampled students, 207 completed the questionnaire. Since this number exceeds 50% of the target sample, the data was deemed sufficient for analysis.

H   Instrument

The questionnaire was divided into seven parts: Part A, Demographic Profile; Part B, financial management knowledge; Part C, price elasticity; Part D, parental income; Part E, peer influence; Part F, lifestyle and Part G, spending behavior (see Table 1). The measurement responses are based on a nine-point scale ranging from 1 (strongly disagree) to 9 (strongly agree). A nine-point scale was chosen to provide greater sensitivity and precision in capturing respondents' attitudes and perceptions compared to shorter scales. This wider range allows for more nuanced differentiation of agreement levels, reducing central tendency bias and enhancing the reliability of the measurement.

Table 1: Instrument Tools Used in Study

Section	Variables	Number of Questions	Sources
A	Demographic Profile	6	Lai, Ting & Wong, [12]
B	Financial Management Knowledge	6	Fernandez et al., [17]
C	Price Elasticity	6	Lai, Ting & Wong, [12]
D	Parental Income	6	Chang et al., [13]
E	Peer Influence	6	Lai et al., [12]
F	Lifestyle	6	Bona, [15]
G	Spending behaviour	7	Chang et al., [13]

4   Method of Data Analysis

Analysis was performed by using Statistical Package of Social Sciences (SPSS) software version 23 (IBM Inc., USA). Frequency and percentage using table presentation were analysed for socio demographic variables.

A   Pearson correlation

The relationship between students spending behavior and financial management knowledge, price elasticity, parental income, peer influence and lifestyle was evaluated using Pearson's correlation coefficient. Statistical test was run using 95% confidence interval. Pearson's correlation measures the direction and the strength of linear relationship between the dependent variable which is students spending behavior and independent variables (financial management knowledge, price elasticity, parental income, peer influence and lifestyle). Values of strength relationship can be measured between -1 and +1. The closer the correlation to ± 1 if the stronger correlation is measured. Before conducting the analysis, the assumptions of Pearson's correlation were checked, including linearity, normality of the variables, and absence of significant outliers. Linearity was assessed through scatterplots to ensure a linear relationship between each independent variable and spending behaviour. Normality was evaluated using skewness and outliers were examined to avoid distortion of correlation results. All assumptions were met, indicating that the data were suitable for Pearson's correlation analysis.

Statistical significance was tested at a 95% confidence level ($p < 0.05$). A significant positive correlation indicates that as the independent variable increases, students' spending behaviour also increases,

whereas a significant negative correlation indicates an inverse relationship. This analysis provides initial insights into the potential associations between students' spending behaviour and each determinant, informing further analysis such as multiple regression

B   Multiple Linear Regression

Uyanik and Güler [18] stated that regression analysis is used to examine the correlation between two or more variables and to make predictions. They further note that multiple linear regression relies on several key assumptions: a linear relationship between the dependent and independent variables, normally distributed error terms, constant error variance, independence of error terms, and the absence of extreme outliers. In this study, we examined factors associated with the spending behaviour of students at UiTM Kota Bharu. Specifically, we investigated how financial management knowledge, price elasticity, parental income, peer influence and lifestyle relate to students' spending behaviour. The multiple linear regression model used in this study is as follows:

$$\hat{Y} = \beta_0 + \beta_1 x_1 + \beta_2 x_2 + \beta_3 x_3 + \beta_4 x_4 + \beta_5 x_5 + \varepsilon_t \tag{1}$$

where $\hat{Y}$ is spending behaviour students of UiTM Kota Bharu, x_1 = financial management knowledge, x_2 = Price Elasticity, x_3 = Parental Income, x_4 = Peer Influence and x_5 = Lifestyle, The regression parameters are $\beta_0, \beta_1, \beta_2, \beta_3, \beta_4, \beta_5$ and ε_t = residual on random error

C   Model Adequacy checking

Model adequacy checks were conducted to verify the assumptions of the multiple regression analysis, ensuring the validity and reliability of the results. Linearity was assessed before conducting Pearson's correlation, and the results confirmed that all independent variables had a linear relationship with students' spending behaviour. Linearity is important because multiple regression assumes that the dependent variable changes proportionally with each predictor; violations can lead to biased estimates. The normality of errors was evaluated using normal probability (Q-Q) plots, ensuring that residuals were approximately normally distributed. Homoscedasticity, or constant variance of residuals, was examined using residual-versus-predicted plots. Homoscedasticity is essential to prevent inefficient estimates and invalid standard errors. Multicollinearity was evaluated using the Variance Inflation Factor (VIF) and tolerance values. Serious multicollinearity is indicated when the VIF exceeds 10 and the tolerance value is below 0.1.

5   Result

A   Preliminary study

The questionnaire's reliability is assessed by analyzing the results of a pilot study, an early study conducted which is small-scale to determine the questionnaire's reliability before undertaking a larger study. Participants in the pilot study were 30 in total. Table 2 demonstrates reliability for every variable has a value larger than 0.70. Lai, Ting and Wong [12] stated that the Cronbach's alpha coefficient should be higher than 0.7 to be considered a good reliability. Consequently, this can confirm the reliability of every item on the questionnaire used for the study

Table 2: Summary of Reliability Analysis of Pilot Study and Actual Study

Variable	Number of Item	Cronbach's Alpha for Pilot Study	Cronbach's Alpha for Actual Study
Financial Management Knowledge	6	0.863	0.903
Price Elasticity	6	0.799	0.820
Parental Income	6	0.779	0.731
Peer Influence	6	0.820	0.723

Variable	Number of Item	Cronbach's Alpha for Pilot Study	Cronbach's Alpha for Actual Study
Lifestyle	6	0.841	0.871
Spending Behaviour	6	0.735	0.841

The demographic profile of participants provides context for interpreting the findings. Understanding characteristics such as age, gender, program of study, and year of study allows for a clearer understanding of the sample composition and helps determine whether the results can be generalized to the broader student population at UiTM Kota Bharu. By considering both reliability and demographic information, the study ensures that the measurement tools are robust and the sample is appropriately described for meaningful analysis.

B Socio-demographic of respondents

Table 3 indicates that most respondents are female, representing 150 students (72.5%), while 57 students (27.5%) are male. Majority of participants are 22 years old, comprising 108 respondents (52.2%), whereas the smallest age group consists of students aged 24 to 28 years. The largest proportion of respondents comes from the Bachelor of Science (Hons.) Statistics (CDCS241/CS241) program with 94 students (45.4%). This is followed by students from the Bachelor of Business Administration (Hons.) Islamic Banking (BA249) program (43 students, 20.8%), the Bachelor of Business Administration (Hons.) Marketing (BA240) program (24 students, 11.6%), the Bachelor of Business Administration (Hons.) Finance (BA242) program (22 students, 10.6%), and the Bachelor of Business Administration (Hons.) Business Economics (BA250) program (15 students, 7.2%). Additionally, 9 students (4.3%) are enrolled in the Bachelor of Science (Hons.) Statistics and Bachelor of Entrepreneurship (Logistics and Distributive Trade) with Honors (CS291) program. Furthermore, Semester 6 has the highest number of respondents, with 97 students (46.9%), while Semester 7 has the lowest, with only 2 students (1.0%).

Table 3: Summary of descriptive statistics

Variable	Class Variable	Frequency (n)	Percentage (%)
Gender	Male	57	27.5
	Female	150	72.5
Age	19	3	1.4
	20	20	9.7
	21	52	25.1
	22	108	52.2
	23	20	9.7
	24	1	0.5
	25	1	0.5
	26	1	0.5
	27	0	0
	28	1	0.5
Course	BA240	24	11.6
	BA242	22	10.6
	BA249	43	20.8
	BA250	15	7.2
	CDCS241/CS241	94	45.4
	CDCS291/CS291	9	4.3
Semester	1	13	6.3
	2	10	4.8
	3	35	16.9
	4	17	8.2
	5	97	46.9

6	33	15.9
7	2	1.0

C   Results of Pearson Correlation Coefficient

Table 4 presents the Pearson's correlation results between students' spending behaviour and the independent variables. All correlations are statistically significant at the 0.05 level. The correlation coefficients (r) are 0.194 for financial management knowledge, 0.149 for price elasticity, 0.440 for parental income, 0.513 for peer influence, and 0.660 for lifestyle. These results indicate weak positive relationships for financial management knowledge and price elasticity, and moderate positive relationships for parental income, peer influence, and lifestyle. The stronger correlations of peer influence and lifestyle with spending behaviour can be explained theoretically. Peer influence affects students' spending through social conformity and normative pressure, as individuals often adjust their consumption patterns to align with friends' expectations or social group norms. Lifestyle reflects personal preferences, interests, and social activities, which directly shape consumption choices. Students with active social lifestyles or preferences for leisure and fashion-related activities tend to spend more, whereas those with academically oriented or low-cost lifestyles exhibit more restrained spending. These findings are consistent with prior research indicating that social and lifestyle factors play a critical role in shaping financial behaviour among university students.

Table 4: Pearson's Correlation of Dependent and Independent Variables

Variables	p-value	Correlation, r
Spending Behaviour * Financial Management Knowledge	0.005	0.194
Spending Behaviour * Price Elasticity	0.032	0.149
Spending Behaviour * Parental Income	0.000	0.440
Spending Behaviour * Peer Influence	0.000	0.513
Spending Behaviour * Lifestyle	0.000	0.660

D   Result of multiple linear regression model

i.   Result of Model Significant (ANOVA)

Table 5 shows that the p-value of the regression model is less than 0.001, which is below the significance level of 0.05. Since the p-value is smaller than the threshold, the null hypothesis is rejected. This indicates that the regression model is statistically significant, meaning there is sufficient evidence to conclude that at least one of the independent variables is related to the dependent variable. Therefore, further examination of the individual coefficients is justified.

Table 5: Test for Model Significant

Model	F	Sig
Regression	37.174	< 0.001

ii.   Result of coefficients of regression

Table 6 shows the summary coefficient of the regression for each variable by using the enter method. Multiple Linear Regression was tested out by using all the parameters that have been identified which are financial management knowledge, price elasticity, parental income, lifestyle and peer influence as independent variables, and students' spending behavior as dependent variables. In addition, the variables financial management knowledge and price elasticity need to be removed since it was insignificant with the p-value 0.331 and 0.229 is greater than 0.05 We proceed with the backward elimination method to remove the insignificant variable. The backward elimination method was employed to refine the model by systematically removing non-significant variables. This approach was chosen over forward or stepwise methods because it allows the full model to be evaluated first, ensuring

that the combined effect of all predictors is considered before eliminating variables. Multicollinearity was assessed both before and after variable elimination using the Variance Inflation Factor (VIF) and tolerance values; all values were within acceptable limits, indicating no multicollinearity issues.

Table 6: Summary of Coefficients

Model	Unstandardized Coefficients (B)	t-value	Sig
Constant	1.386	2.815	0.005
Financial Management Knowledge	0.074	0.975	0.331
Price Elasticity	-0.103	-1.207	0.229
Parental Income	0.163	2.028	0.044
Lifestyle	0.419	7.862	0.000
Peer Influence	0.166	2.758	0.006

iii. Result of final model based on Backward Elimination

Final ANOVA for the model significance is used to determine if the linear regression model fits the data. The variation in the dependent variable is explained by the significant independent variables and is measured by using the coefficient of determination (R^2). Table 7 shows a value of the F-statistic (F= 89.715, p-value < 0.05) indicating that the regression model is significant, and the R^2 value (0.468) means that 46.8% of the total variation in students' spending behavior can be explained by lifestyle and peer influence.

Table 7: ANOVA for Backward Elimination Method

Model	F	Sig	R^2
Regression	89.715	< 0.001	0.468

Final Model of Significance of the Independent Variable

Table 8 shows the final model of the regression coefficient with all p-values less than 0.05 and we can confirm that all variables are now significant. The coefficient of β_0 is 1.757 indicating that when there are no changes in the factors affecting students' spending behavior, the student's spending behavior stays the same. Furthermore, β_1 is 0.453 and β_2 is 0.201 showing that an increase in the mean of lifestyle and peer influence will increase the student's spending behavior.

Table 8: Final Model of Regression Coefficient Model

Model	Unstandardized Coefficients (B)	t-value	Sig
Constant	1.757	5.891	0.000
Lifestyle	0.453	8.860	0.000
Peer Influence	0.201	3.535	0.001

This study showed that students' spending behavior were significantly influenced by lifestyle and peer influence. Thus, below is the final estimated model for this study: where: x_1 = Lifestyle and x_2 = Peer Influence,

$$\hat{Y} = 1.757 + 0.453x_1 + 0.201x_2$$

E   Model Adequacy Checking

The regression analysis is used to investigate the factors contributing to the students' spending behavior. Model adequacy checks include the normality of residuals, homoscedasticity, and multicollinearity.
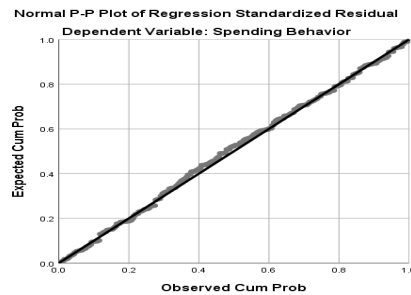
i. Normality

Figure 2: Normal P-P Plot of Students' Spending Behavior

Figure 2 the P-P plot of regression standardized displays points scattered along a diagonal line. The alignment of points along this diagonal indicates that the residuals follow a normal distribution. This suggests that the model's residuals fulfill the normality assumption. We may conclude that the normality assumption is satisfied by this model.
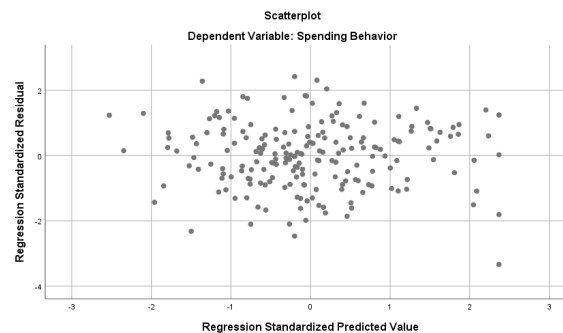
ii. Homoscedasticity Assumption

Figure 3: Scatter Plot of Students' Spending Behavior

In Figure 3, the scatter plot of students' spending behavior reveals a random distribution of all points, without any discernible rising or falling trend. This observation is crucial for verifying that the residual variance in the model is constant. Assumption of homoscedasticity is satisfied.

iii. Multicollinearity

The multicollinearity test is performed to determine whether the independent variables in the model are closely related. Table 9 shows that there is no evidence of multicollinearity for all variables, as the tolerance values for lifestyle (0.699) peer influence (0.699) are greater than 0.1. In addition, the VIF values are all less than 10. Therefore, there is no multicollinearity problem in this model.

Table 9: Multicollinearity Checking

Model	Collinearity	
	Tolerance	VIF
UiTM Kota Bharu Students' Spending Behavior toward Lifestyle	0.699	1.431
UiTM Kota Bharu Students' Spending Behavior toward Peer Influence	0.699	1.431

6   Conclusion

This study concludes that students' spending behaviour is influenced by multiple factors, with peer influence and lifestyle identified as the strongest predictors in the multiple regression analysis. Financial management knowledge, price elasticity, and parental income showed weaker or non-significant effects, indicating that social and lifestyle factors play a more prominent role in shaping students' financial habits. These findings are consistent with prior research emphasizing the importance of social interactions and personal lifestyle choices in determining spending behaviour, although some contradictions were observed regarding the role of lifestyle in earlier studies. Based on these results, targeted strategies are recommended. Universities should focus on peer- and lifestyle-oriented interventions, such as workshops promoting conscious spending in social contexts, group-based financial counselling, and programs that help students manage lifestyle-related expenses. Encouraging students to reflect on how social pressures and lifestyle preferences influence their spending may also enhance financial self-awareness. It is recommended to include a larger and more diverse sample from all UiTM Kelantan campuses, adopt mixed-method approaches such as interviews to gain deeper insights, and explore additional factors like financial stress, part-time employment, or access to financial aid, which may further influence students' spending behaviour for future research. By addressing these areas, subsequent studies can provide a more comprehensive understanding of the determinants of financial decision-making among university students.

Conflict of Interest Statement

The authors agree that this research was conducted in the absence of any self-benefits, commercial or financial conflicts and declare the absence of conflicting interests with the funders.

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