



Mental Accounting Practices and Spending Behavior of Collegiate Students at National University Baliwag: An Assessment

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ABSTRACT

This study assesses the influence of mental accounting practices on the spending behavior of college students at National University Baliwag. It aims to understand how gender and school affiliation influence these connections. The research employs a combination of applied, quantitative, explanatory, and descriptive methods, utilizing data collected through a three-sectioned questionnaire from a sample of 361 students. The findings revealed a high negative correlation between mental accounting practices and spending behavior, stating that students who utilize mental accounting tend to have controlled spending habits. Furthermore, it was noted that gender has no significant difference in mental accounting practices but has a difference in spending behavior. The School of Engineering, Architecture, and Technology (SEAT) showed the highest mental accounting practices, while the School of Tourism and Hospitality Management (STHM) had the highest spending behavior. While several studies have linked mental accounting practices in various shopping methods, this research contributes to the literature by applying the mental accounting theory within a university context in the Philippines. This study is important in understanding behavioral finance, providing guidance and practical implications for the beneficiaries of the study.

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Introduction

In a hypothetical scenario where an individual owns a single ₱500 bill in their wallet and a friend invites them to dine out, a common action will be hesitation as the money is already reserved for bills, savings, and upcoming expenses. The internal conflict escalates as they address the universal dilemma of balancing social life and financial responsibility. The question arises: Why did this dilemma occur when they had money in their

wallet? It shows not just a personal choice but examines a broader theme of modern challenges and the concept of mental accounting. What does mental accounting practice mean? It is categorizing money mentally and allocating it to different categories or mental accounts. Silva, Moreira, and Bortolon (2023) explained that mental accounting is how a consumer mentally tracks their money, and it has been extensively utilized in the fields of economics, finance, and marketing to examine its influence on consumers' decision-making. This concept is a key determinant of an individual's behavior in spending and managing their finances (Montgomery, Olivola, & Pretnar, 2019).

Moreover, when people undergo a transaction, the budget is the first thing that comes to mind. They sort through their mental accounts to determine whether the amount to be purchased is in the budget (Rizal, 2017). Furthermore, it is proved that less spending is done when utilizing this mental accounting process as it plays a decisive role when making a purchase (Swathy, Rajani, & Aiswarya, 2019). However, the extent of the influence of mental accounting practices depends upon the brackets or limits that a person sets for mental accounts. An individual with a weak mental account distinction may be easily influenced to spend something as the money spent can be offset by other resources, while those with a strong mental account distinction may find it hard to spend over the budget (Chudziak, 2022). This provides a clear understanding of the negative and positive influence of mental accounting practices on spending behavior and gives strong evidence that links the two variables together.

Previous research has established a connection between the two. However, this study seeks to fill the areas where existing knowledge falls short, specifically in empirical, methodological, and geographical gaps. In this study, the college students were utilized as the respondents. In addition, this research also assessed the different demographic profiles' levels of mental accounting practices and spending behavior. It is due to the dilemma faced by society, proved by Farinella, Bland, and Franco (2017) and Abawag et al. (2019), that graduates are still lacking the fundamental skills needed to manage their finances, and even after taking a management course, students' financial competence has not been enhanced.

The current study's purpose is to provide practical significance towards the betterment of financial management and resource allocation of students and individuals. This research aims to create an impact on society. By understanding their financial practices, the researchers can develop targeted programs depending on the needs of the students from different academic programs both catered for male and female students, to bridge the financial literacy gap in the community of college students.

Literature Review

Theoretical Foundation

This study utilized the Mental Accounting Theory explored by Thaler (1999), who characterized it as a collection of mental functions employed by individuals to categorize, assess, and monitor financial transactions. It was first developed as a new model under consumer behavior seeking to evaluate mind framing and context for purchase intention by Gupta and Kim (2010). Aligned with these, the four cognitive functions of mental accounting received the most engagement: convenience, pleasure, perceived price, and perceived risk. The theory concentrates on how these cognitive functions weigh based on the value they possess affecting purchase intention. In addition, it enables businesses to align their products and services based on the customer's intention.

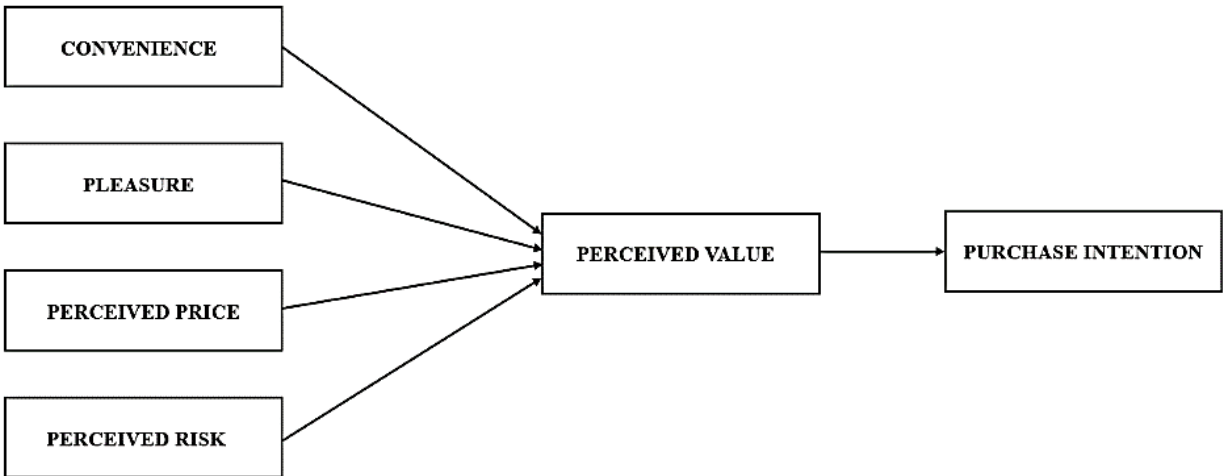


Figure 1: Mental Accounting Model (Gupta & Kim, 2010)

- **Convenience** - refers to time and effort saved by the customer in a transaction. It is the mental and physical energy extended in obtaining a product or service.
- **Pleasure** - degree of feeling such as good, joyful, and satisfaction in a transaction.
- **Perceived Price** - refers to the objective price (seller's price) and reference price (customer's preferred price) the customers mentally compare linked to products and services.
- **Perceived Risk** - subjective representation of uncertainty and unfavorable consequences in a transaction.
- **Perceived Value** - described as the net beneficial outcomes of the choices of consumers. It is an evaluation of perceived benefits proportional to perceived sacrifices.
- **Purchase Intention** - describes the reason or purpose to avail of such product or service.

Customers are driven by different factors before purchasing a product or availing a service. Mental accounting theory guides the researchers by adopting the four cognitive functions to indicate which factor affects the mental segregation of money that leads to the spending behavior of college students the most.

Conceptual Framework

The concept of this study is centered on the influence of mental accounting practices on the spending behavior of college students. In the adoption of the theoretical foundation, the four cognitive functions of mental accounting namely: convenience, pleasure, perceived price, and perceived risk are utilized as determinants to specifically categorize what indicators affect individuals' mental accounting practice. In addition to how mental accounting varies based on the demographic profile of the students.

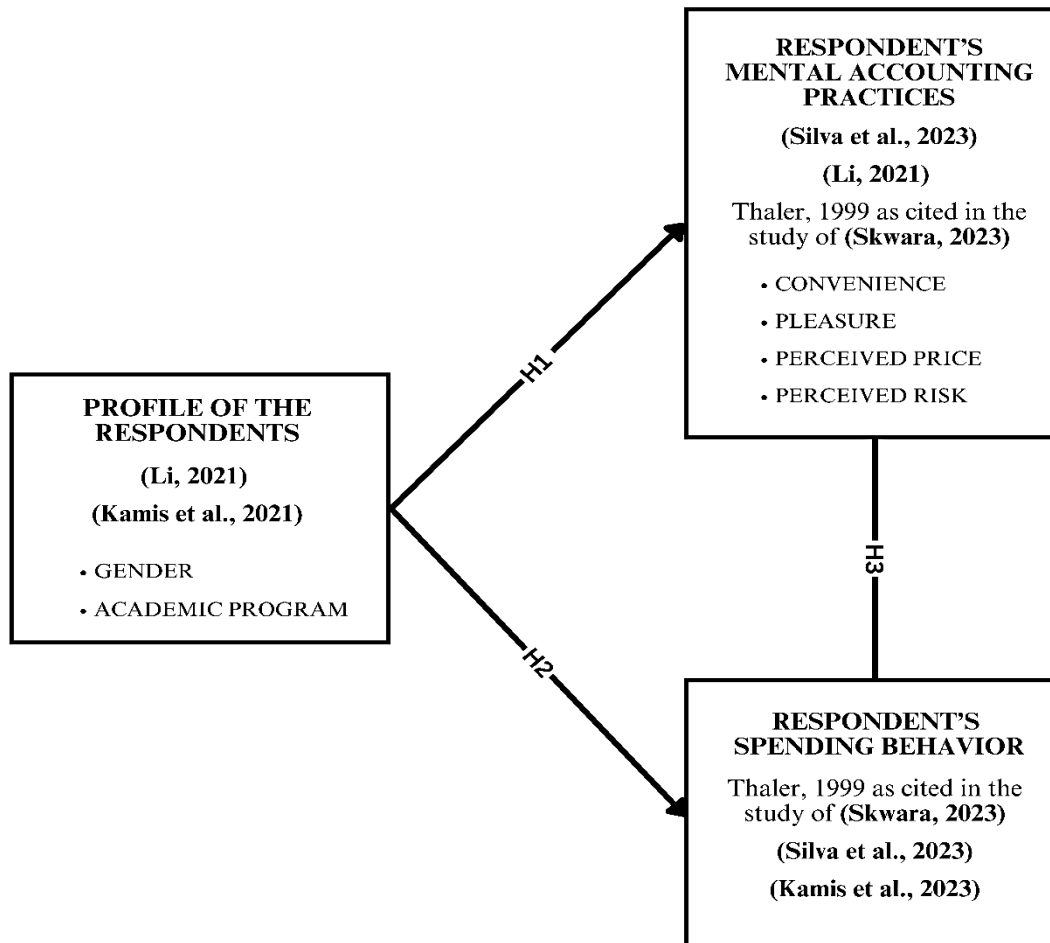


Figure 2: Conceptual Framework of the Study

The Challenges of Financial Literacy Among College Students

The Philippine Statistics Authority (2020) Census reported higher female (10.3%) than male (9.6%) college undergraduate students, with both genders having a high preference for administration courses. However, more students are drawn to pursue higher education courses in Science, Technology, Engineering, and Mathematics (STEM) fields due to career opportunities and technological significance (Zhan, Shen, Xu, Niu, & You, 2022). Despite many graduates, the challenge remains with graduate students lacking the fundamental skills needed to manage their finances. Farinella et al. (2017) and Abawag et al. (2019) found that management courses did not improve students' financial competence. College students must possess sufficient financial understanding for future decisions on savings, expenditures, and investments.

Mental Accounting as a Tool for Financial Management

Swacha-Lech and Solarz (2019) place significance on mental accounts in budgeting personal finances allowing efficient planning of expenditures, which then leads to the attainment of financial goals. Mental accounting, as introduced by Richard Thaler in the 1990s, has been widely utilized in many areas of study particularly in economics, finance, and marketing (Silva et al., 2023). It is the act of categorizing their financial obligations, based on their source, or intended use (De Bortoli, da Costa, Goulart, & Campara, 2019). This helps in planning expenditures properly. As professed by Antonides and Ranyard (2017), the utilization of mental accounting in financial management is known as "mental budgeting". Further explained by Galperti

(2017) that it is setting limits and specific budgets for each category, or divisions that are called “mental accounts” (Skwara, 2023). These mental accounts play a significant role in consumer decision-making, as Rizal (2017) claimed that individuals sort through their mental accounts before purchasing to make sure that the money that is spent will be according to the rightful budget. Zhang and Sussman (2018) explained that this practice encourages financial discipline.

Assessing Mental Accounting Practices

The concept of mental accounting, as discussed by Hahnel, Chatelain, Conte, Piana, and Brosch (2020), pertains to the cognitive practice whereby individuals establish mental accounts to manage their financial resources, associating specific spending actions with corresponding payments. Thaler (1999) introduces four cognitive functions namely convenience pleasure, perceived price, and perceived risk that serve as lenses through which one can evaluate the intensity of how an individual engages in mental accounting. These cognitive functions help measure the susceptibility of an individual to spend impulsively based on subjective criteria of transaction utility, in which inclination towards impulsive spending according to these criteria may indicate lower mental account distinction and control (Chudziak, 2022; Ö. Özkan & M. Özkan, 2020).

However, this concept is contended by Zemack-Rugar and Corus (2018), emphasizing that having mental price restrictions can increase the spending of an individual. Antonides and de Groot (2022) contested this claim by implying that the money reserved for a particular mental budget is fixed, especially for expenses that are already determined. In addition, individuals who spent their allocated budget on other things feel regretful about their purchases (Elgeka & Ma, 2020).

The Influence of Demographics on Mental Accounting Practices

Furthermore, mental accounting practices may vary depending on the demographic profile. Several studies claimed that females are less likely to utilize mental accounting practice than males due to the different traits that can be associated with their mental accounting practice (Li, 2021). On the other hand, Wijayanti and Santoso (2022) claimed that men are easily content with having money for food. Even so, the results of their study showed that gender does not affect the mental accounting of an individual. This supports the study by Funches, Yarber-Allen, and Johnson (2017), which discussed that males and females now have the same approach when it comes to financial management.

In addition, in the study of Mandasari and Nur Fietroh (2022), it was revealed that mental accounting may also vary depending on the academic program since its influence is also evident. According to Ergün (2018), and Lantara and Kartini (2016) students taking business and economics-related courses tend to have adequate levels of financial literacy. Furthermore, engineering students also possessed higher financial literacy rates due to exposure to mathematical subjects (Mändmaa, 2019), exposure to financial market speculation (Khoshnevis & Shafiee, 2017), and because they are expected to be involved in technological operations and lead the policies in implementation (Khoshnevis & Shafiee, 2017; Stanisavljević & Stojković, 2018).

On the other hand, the study of Xie (2018) found that tourism students lack knowledge when it comes to handling their personal finances and financial issues. Tourism and hospitality students have an inadequate level of financial competency because they do not have many finance-related subjects (Arquero, Fernández-Polvillo, & Jiménez-Cardoso, 2024). This relates to a study conducted by Zopiatis, Lambertides, Savva, and Theocharous (2019), which highlights that tourism students with insufficient financial literacy backgrounds tend to disregard any related finance and accounting content. Likewise, a study conducted by Mendes (2013), and Antoni, Dlephu, and Notshe (2020) asserted that students from fine arts, law, psychology, and education sciences have lower financial competency. In a similar department, Fatoki (2014) argued that agriculture and chemistry students lack money management-related courses, which resulted in having a weak financial attitude. Hence, the researchers proposed:

H₁: There is a significant difference in the respondents' mental accounting practices when they are grouped according to their demographic profile.

Spending Behavior of College Students

Spending behavior is the way students exhaust available money, money as cash, from debit cards, credit cards, and digital applications to fulfill their needs or wants (Sundra Kumar, Sudin, Othman, & Salehuddin, 2022). The majority of the students' funds come from the allowance given to them by their parents (S. Singh, Gupta, Jain, Kabra, & Gupta, 2020). These limited funds give them a responsibility to control the way they spend. Despite this, younger individuals are reported to take more risks when spending as compared to the older generation (Breivik, Sand, & Sookermany, 2020). This sentiment is further underscored by Sun (2022), emphasizing that the present generation engages in freer and more lavish spending habits as compared to the previous generation, which may be attributed to Gen Z's reliance on smartphones and the rise of online shopping during the pandemic (Zhao & Cao, 2021). Essentially, Marañon and Ortega (2022) highlighted the inclination of Filipinos to be swayed by the “budol” culture, wherein unplanned purchases are done impulsively based on the positive information received by individuals. Further research has found that Generation Z individuals are easily influenced by this “budol” culture, which could significantly contribute to increased acquisition of unnecessary products and potential financial problems in the future (Barcelona et al., 2022). These emphasize the need for greater discipline and responsibility when spending.

The Influence of Demographics on Spending Behavior

The spending behavior of college students may differ depending on each student's demographic profile. Kamis et al. (2021) determined that there were distinctions among demographics regarding the spending behavior of an individual. In line with this, sex has a major influence on spending behavior (Villanueva, 2017). According to Muniady, Al- Mamun, Permarupan, and Zainol (2014), shopping is an activity that can be based on gender. It was labeled as “female typed” since most women prefer to go shopping. However, contrary to this, it was mentioned in the study of Funches et al. (2017) that millennial men are breaking the stereotypes.

Consequently, according to Farinella et al. (2017), even students who are taking management education have not fully improved when it comes to financial literacy, indicating that not all management students have a better spending pattern, despite their program's focus on financial matters. This agrees with the study of Lindblom and Weidenmark (2022), which argues that commerce students are significantly risk takers compared to engineering, information technology, and humanity students. This proves the study of Mendes (2013) that engineering students are most likely to have low spending due to their high level of financial competency. Mändmaa (2019) also states that their mathematics-related subjects influence the way engineering students handle their financial skills. Likewise, Rani and Saraswathi (2017) stated that art students tend to be more knowledgeable in financial management. A study conducted by Mendes (2013) conveys that students from science and health allied courses possess a higher financial literacy. This complements the study of Upsi and Khalid (2014), which illustrates that the courses under SEAS affiliation only have minimal expenses when it comes to their course materials and extracurricular activities. Luo, Chen, Li, Nie, and Wang (2021) have proved that college students have a superior preference for risk-taking and are vulnerable to impulsive buying. These emphasize the need for greater discipline and responsibility when spending. Hence, the researchers proposed:

H₂: There is a significant difference in the respondents' spending behavior when they are grouped according to their demographic profile.

Relationship Between Mental Accounting Practices and Spending Behavior

Being utilized as a tool for budgeting and managing finances, mental accounting significantly shapes consumer behavior, particularly consumer spending (Cheng, Yu, Wang, & Zheng, 2023). Bernard (2022)

strengthens this claim by indicating consistent findings regarding the crucial effect of mental accounting on spending behavior. Also, mental accounting has a decisive role in spending as it helps lessen one's spending (Swathy et al., 2019). Moreover, mental accounting can be labeled as a behavioral control mechanism as it can control an individual's consumption behavior, further confirming the strong link between mental accounting and spending (Montgomery et al., 2019). The cognitive factors affecting the mental segregation of the students that leads to spending are convenience, pleasure, perceived price, and perceived risk (Gupta & Kim, 2010; Skwara, 2023; Thaler, 1999).

The convenience of transactions leads individuals to have a scarcity mindset, having them conduct financial decisions that will fulfill their immediate needs. This changes the way consumers allocate resources in mental accounting (Cheng et al., 2023; Skwara, 2023). In line with this, pleasure denotes the emotional satisfaction that individuals get when transacting, having a significant effect on their mental accounting framework. As mentioned by Maison (2019), negative emotions lower the feeling of pleasure, resulting in decreased spending, while positive emotions drive consumers to purchase products that are not necessary. Accordingly, the perceived price or the subjective evaluation of the cost or value of each transaction has a significant effect on the mental accounting paradigm. Strong mental budgeting can be observed in Filipinos through seeking the “sulit” or most valued item available, which is embedded in their culture (Chhatwal, 2023). Lastly, perceived risk greatly influences the mental account allocation of individuals, which affects spending. Kamalul Ariffin, Mohan, and Goh (2018), and Winarti, Indriastuti, & Sohsan (2023) explained in both of their papers that perceived risk negatively affects the purchase intention of an individual. This suggests that the higher the perceived risk, the lower the likelihood of making a purchase.

Overall, mental accounting greatly contributes to the spending behavior of an individual. With each parameter's inclination, impulsive spending may indicate lower mental account intensity, and vice versa (Chudziak, 2022; Ö. Özkan & M. Özkan, 2020). This leads to the assumption that weak and flexible mental accounting leads to impulsive spending behavior (Zhang & Sussman, 2018), while strong mental accounting enhances self-control and discipline, thereby limiting spending which leads to the attainment of the financial goals of an individual (Swacha-Lech & Solarz, 2019). Hence, the researchers proposed:

H₃: There is a significant relationship between mental accounting practices and the spending behavior of the respondents.

Methodology

The study utilized applied, quantitative, explanatory, and descriptive research methods. These methods were used because of their applicability in addressing practical problems by employing statistics to observe and explain underlying causes of observed issues, along with illustrating characteristics of populations or phenomena (Hassan, 2024; Manjunatha, 2019; K. Singh, 2022; Williams, 2021).

The study's participants involved three thousand six hundred fifty-nine (3,659) college students from the National University Baliwag for the academic year 2023-2024. Using Slovin's Formula, a sample size of three hundred sixty-one (361) students was determined. Stratified sampling was used in identifying the number of respondents per department and gender, whereas non-probability convenience sampling chose the samples within each stratum.

The data for this study were gathered through a validated three-sectioned self-constructed questionnaire, which was administered online utilizing Google Forms and QR codes. The questionnaire employed a Likert scale (1 to 4) and a checklist form for demographic profiles. The first part of the survey includes the respondent's demographic profile and contains two items: gender and academic program. The second part includes 24 items regarding four cognitive factors associated with mental accounting: convenience, pleasure, perceived price, and perceived risk. In this section, reverse coding was applied to convenience and pleasure factors, where “strongly agree” equates to 1 (verbal interpretation: very weak) and “strongly disagree”

equates to 4 (verbal interpretation: very strong). The third part includes six items, which are connected to spending behavior.

The study utilized various statistical tools for data analysis and interpretation. Descriptive statistics, including frequency and percentage, were used to measure the demographic distribution of respondents, while mean, standard deviation, and verbal interpretation assessed the levels of mental accounting practices and spending behavior. The ANOVA test compared mental accounting practices and spending behavior across different demographic groups by gender and academic program, helping to discern whether variations in these practices and behaviors could be explained by differences in these groups, by indicating the presence or absence of a statistically significant difference. Meanwhile, Cohens' d measured the effect size of demographic differences in these practices and behaviors. Lastly, the correlation analysis evaluated the relationship between mental accounting practices and spending behavior to ascertain in which direction (positive or negative) and with what power the two variables are associated, providing an understanding of whether higher levels of mental accounting were more associated with conservative or lavish spending behavior. The data analysis was conducted with the help of a statistician.

The reliability of the self-made questionnaire was confirmed in two methods. The first is confirmatory factor analysis, where all the factor standard estimate scores are above 0.5, which is considered excellent. Second is the Cronbach Alpha with a value of 0.904, showing remarkable internal consistency. All five variables scored above 0.800, confirming good reliability between all the factors.

Table 1: Construct Reliability and Consistency

| | Cronbach's a |
|---------------------------------|---------------------|
| Convenience | 0.879 |
| Pleasure | 0.827 |
| Perceived Price | 0.871 |
| Perceived Risk | 0.860 |
| Spending Behavior | 0.879 |
| Overall Cronbach's Alpha | 0.904 |

Research Ethics

The researchers complied with the ethical principles that were defined by Saunders, Lewis, & Thornhill (2012) to ensure seamless data gathering from the respondents. These principles include maintaining integrity in the results, avoiding data manipulation, and treating respondents with respect, ensuring voluntary participation and the right to withdraw. Privacy and confidentiality were upheld through compliance with the Data Privacy Act, and informed consent was obtained before they can began answering through the first part of the online survey. Personal information was only gathered when necessary, and all data was responsibly analyzed, reported, and deleted after the study. Additionally, this study has been reviewed and approved by the committee of oral examination, consisting of the panel chair, statistician, and panel members, during the thesis defense.

Results and Discussion

Students' Demographic Profile

Table 2 provided showcases the distribution of respondents by gender and their respective schools within the National University Baliwag. Females slightly outnumber males, with 190 (52.6%) female and 171 (47.4%) male respondents.

In terms of school affiliation, the School of Engineering, Architecture, and Technology (SEAT) has the highest representation with 159 respondents (44%). The School of Business and Accountancy (SBA) followed with 87 students (24.1%). The School of Tourism and Hospitality Management (STHM) and the School of Education, Arts and Sciences (SEAS) have lower representations, with 72 (19.9%) and 43 (11.9%) students, respectively.

Table 2: Demographic Profile of the Respondents

| Demographics | | f | % of Total |
|--|--|-----|------------|
| Gender | | | |
| Female | | 190 | 52.6% |
| Male | | 171 | 47.4% |
| School | | | |
| School of Business and Accountancy (SBA) | | 87 | 24.1% |
| School of Education, Arts and Sciences (SEAS) | | 43 | 11.9% |
| School of Engineering, Architecture, and Technology (SEAT) | | 159 | 44.0% |
| School of Tourism and Hospitality Management (STHM) | | 72 | 19.9% |

Source: Primary Data

Mental Accounting Practices Assessment

Table 3 shows the impact of mental accounting practices on college students at the National University Baliwag. Lower mean scores in convenience and pleasure factors indicate stronger agreement, suggesting weak mental accounting practice. At the forefront, convenience has an overall mean score of 1.61 (SD = 0.43). Students agree with availing products or services that are “less time-consuming” (\bar{x} = 1.57, SD = 0.554), “less difficult to transact” (\bar{x} = 1.58, SD = 0.606), and “have complete information” (\bar{x} = 1.59, SD = 0.536). The lowest agreement is for choosing products requiring “little effort to search” (\bar{x} = 1.74, SD = 0.637).

Pleasure has an overall mean of 1.78 (SD = 0.539). Students strongly agree on repeatedly purchasing products or services that “satisfy their needs” (\bar{x} = 1.62, SD = 0.622) and “give happiness” (\bar{x} = 1.72, SD = 0.702), and that “satisfaction affects their intention to buy” (\bar{x} = 1.73, SD = 0.661). The lowest agreement is for “spending on short-term happiness regardless of savings” (\bar{x} = 2.02, SD = 0.87).

On the other hand, the perceived price has an overall mean score of 2.97 (SD = 0.615). Students strongly agree with “using vouchers” (\bar{x} = 3.12, SD = 0.733), “looking for sale items” (\bar{x} = 3.02, SD = 0.762), and “seeking discounts” (\bar{x} = 3.01, SD = 0.816). The least agreement is for “avoiding items perceived as overpriced” (\bar{x} = 2.77, SD = 0.87).

Lastly, perceived risk has an overall mean of 2.89 (SD = 0.577). Students are most cautious about spending on items “that could lead to losses” (\bar{x} = 3.03, SD = 0.734), “that they are uncertain with” (\bar{x} = 2.95, SD = 0.76), and “without reviews” (\bar{x} = 2.89, SD = 0.813). The least agreement concerns “the effect of risk on their spending decisions” (\bar{x} = 2.75, SD = 0.766).

Overall, this accounts for an overall mean of 2.31 for the students’ mental accounting practices, with a standard deviation of 0.38.

Table 3: Mental Accounting Practices of College Students

| Mental Accounting Practices | Overall Mean | SD | Descriptive Equivalent | Verbal Interpretation |
|------------------------------------|--------------|-------------|------------------------|-----------------------|
| Convenience | 1.61 | 0.43 | Strongly Agree | Very Weak |
| Pleasure | 1.78 | 0.539 | Agree | Weak |
| Perceived Price | 2.97 | 0.615 | Agree | Strong |
| Perceived Risk | 2.89 | 0.577 | Agree | Strong |
| Mental Accounting Practices | 2.31 | 0.38 | Disagree | Weak |

Source: Primary Data

Spending Behavior of College Students

Table 4 shows students' spending behavior. Students most agree with the “difficulty of resisting limited time offers” ($\bar{x} = 3.24$, $SD = 0.722$), “struggle to follow budgets” ($\bar{x} = 3.16$, $SD = 0.737$), and “feeling of deserving things” ($\bar{x} = 3.16$, $SD = 0.749$). The lowest mean score is 2.96 for the “persuasion of influencers in availing items” ($SD = 0.87$). The overall mean score is 3.1, indicating high spending behavior.

Table 4: Spending Behavior of the Respondents

| Spending Behavior | Mean | SD | Descriptive Equivalent | Verbal Interpretation |
|--|------------|--------------|------------------------|-----------------------|
| I often struggle to follow my assigned budget due to impulsive decisions. | 3.16 | 0.737 | Agree | High |
| I always try to justify availing unnecessary products or services by telling myself that I deserve them. | 3.16 | 0.749 | Agree | High |
| I am easily influenced by my peers when availing a product or service. | 2.97 | 0.826 | Agree | High |
| I often make impulse purchases when I receive unexpected funds. | 3.12 | 0.762 | Agree | High |
| I am easily persuaded by influencers from social media platforms to avail a product or service. | 2.96 | 0.87 | Agree | High |
| I find it hard to resist the urge to spend when there is a limited-time offer or discounts available. | 3.24 | 0.722 | Agree | High |
| Spending Behavior | 3.1 | 0.581 | Agree | High |

Source: Primary Data

Mental Accounting Practices of Students Based on Demographic Profile

The result for the gender entails that between males and females, there's a Cohen's d of -0.194 with a p -value of 0.067. In terms of comparing different schools, a notable finding is the small positive effect (Cohen's $d = 0.364$) between SBA and STHM, which is statistically significant (p -value = 0.023). Likewise, SEAS compared to SEAT shows a small negative effect (Cohen's $d = -0.4$), which is significant (p -value = 0.02). When SEAT is compared to STHM, with a medium positive effect size (Cohen's $d = 0.515$) and a p -value of 0.001. It strongly indicates that mental accounting practices differ between these two schools.

Table 5: Assessment of Students' Mental Accounting Practices Based on Demographic Profile

| Mental Accounting Practices | Cohen's d | Interpretation | P-value | Decision | Interpretation |
|-----------------------------|-----------|------------------------|---------|-----------------------------------|-----------------|
| Gender | | | | | |
| Female vs Male | -0.194 | Small Negative Effect | 0.067 | Do not reject the null hypothesis | Not significant |
| School | | | | | |
| SBA vs SEAS | 0.249 | Small Positive Effect | 0.182 | Do not reject the null hypothesis | Not significant |
| SBA vs SEAT | -0.151 | Ignored | 0.259 | Do not reject the null hypothesis | Not significant |
| SBA vs STHM | 0.364 | Small Positive Effect | 0.023 | Reject the null hypothesis | Significant |
| SEAS vs SEAT | -0.4 | Small Negative Effect | 0.02 | Reject the null hypothesis | Significant |
| SEAS vs STHM | 0.115 | Ignored | 0.551 | Do not reject the null hypothesis | Not significant |
| SEAT vs STHM | 0.515 | Medium Positive Effect | 0.001 | Reject the null hypothesis | Significant |

Source: Primary Data

Spending Behavior of Students Based on Demographic Profile

The data reveals a significant difference in spending behavior between genders, with females with a small positive effect in comparison to males (Cohen's $d = 0.417$), and a p-value of 0.001. This result showed a significant difference in spending behavior between genders.

Table 6: Assessment of Students' Spending Behavior Based Demographic Profile

| Spending Behavior | Cohen's d | Interpretation | p-value | Decision | Interpretation |
|-------------------|-----------|------------------------|---------|-----------------------------------|-----------------|
| Gender | | | | | |
| Female vs Male | 0.417 | Small Positive Effect | 0.001 | Reject the null hypothesis | Significant |
| School | | | | | |
| SBA vs SEAS | 0.2376 | Small Positive Effect | 0.203 | Do not reject the null hypothesis | Not significant |
| SBA vs SEAT | 0.2592 | Small Positive Effect | 0.053 | Reject the null hypothesis | Significant |
| SBA vs STHM | -0.2535 | Small Negative Effect | 0.112 | Do not reject the null hypothesis | Not significant |
| SEAS vs SEAT | 0.0216 | Ignored | 0.9 | Do not reject the null hypothesis | Not significant |
| SEAS vs STHM | -0.4911 | Medium Negative Effect | 0.011 | Reject the null hypothesis | Significant |
| SEAT vs STHM | -0.5127 | Medium Negative Effect | 0.001 | Reject the null hypothesis | Significant |

Source: Primary Data

In terms of educational background, when comparing SBA to SEAT (Cohen's $d = 0.2592$), there is a p -value of 0.053. SBA students tend to have higher spending behavior than SEAT students. Moreover, significant differences also emerge when SEAS is compared with STHM, showing a medium negative effect (Cohen's $d = -0.4911$), and similarly between SEAT and STHM (Cohen's $d = -0.5127$). Both comparisons have low p -values (0.011 and 0.001, respectively). These results indicate that when SEAS and SEAT are compared with STHM, STHM students have greater spending than students from both schools.

Relationship of Mental Accounting Practices and Spending Behavior of Students

The data provided uses Pearson's r to measure the correlation between these two variables. The analysis revealed a Pearson's r value of -0.628 and p -value of 0.001, indicating a high negative and significant correlation between mental accounting practices and spending behavior. Hence, the null hypothesis is rejected.

Table 7: Relationship of Mental Accounting Practices and Spending Behavior of Students

| Correlation Matrix | Pearson's r | Value | p-value | Decision | Interpretation |
|--|-------------|---------------------------|---------|----------------------------|----------------|
| Mental Accounting Practices vs Spending Behavior | -0.628 | High Negative Correlation | 0.001 | Reject the null hypothesis | Significant |

Result of Hypothesis Testing

For hypothesis H1, regarding gender $\beta = -0.734$ ($p = 0.067$), since the p -value is greater than the conventional threshold of 0.05, the decision is to not reject the null hypothesis. When comparing different schools, significant differences are found for SBA-STHM $\beta = 0.1361$ ($p = 0.023$), SEAS-SEAT $\beta = -0.1494$ ($p = 0.02$), and SEAT-STHM $\beta = 0.1924$ ($p = 0.001$), where the null hypothesis is rejected.

Hypothesis H2 tests the significance of gender differences in spending behavior. The $\beta = 0.238$ ($p = 0.001$), leads to the rejection of the null hypothesis. In the comparison between schools, the differences are significant only for SBA-SEAT $\beta = 0.1482$ ($p = 0.053$), SEAS-STHM $\beta = -0.2808$ ($p = 0.011$), and SEAT-STHM $\beta = -0.2932$ ($p = 0.001$), leading to the rejection of the null hypothesis for these group comparisons.

Table 8: Result of Hypothesis Testing

| Hypothesis | Estimate | SE | t | p | Cohen's d | Decision | |
|------------|-----------|---------|--------------|--------|-----------|------------------|------------------|
| H1 Gender | -0.0734 | 0.0399 | -1.84 | 0.067 | -0.194 | Do not reject Ho | |
| H1 School | SBA-SEAS | 0.0931 | 0.0696 | 1.338 | 0.182 | 0.249 | Do not reject Ho |
| | SBA-SEAT | -0.0563 | 0.0498 | -1.131 | 0.259 | -0.151 | Do not reject Ho |
| | SBA-STHM | 0.1361 | 0.0595 | 2.287 | 0.023 | 0.364 | Reject Ho |
| | SEAS-SEAT | -0.1494 | 0.0642 | -2.328 | 0.02 | -0.4 | Reject Ho |
| | SEAS-STHM | 0.0429 | 0.072 | 0.596 | 0.551 | 0.115 | Do not reject Ho |
| | SEAT-STHM | 0.1924 | 0.0531 | 3.626 | 0.001 | 0.515 | Reject Ho |
| H2 Gender | 0.238 | 0.06 | 3.96 | 0.001 | 0.417 | Reject Ho | |
| H2 School | SBA-SEAS | 0.1358 | 0.1066 | 1.274 | 0.203 | 0.2376 | Do not reject Ho |
| | SBA-SEAT | 0.1482 | 0.0763 | 1.943 | 0.053 | 0.2592 | Reject Ho |
| | SBA-STHM | -0.145 | 0.0911 | -1.591 | 0.112 | -0.2535 | Do not reject Ho |
| | SEAS-SEAT | 0.0124 | 0.0983 | 0.126 | 0.9 | 0.0216 | Do not reject Ho |
| | SEAS-STHM | -0.2808 | 0.1102 | -2.548 | 0.011 | -0.4911 | Reject Ho |
| | SEAT-STHM | -0.2932 | 0.0812 | -3.609 | 0.001 | -0.5127 | Reject Ho |
| H3 MAP-SB | N.A. | N.A. | $r = -0.628$ | 0.001 | N.A. | Reject Ho | |

Lastly, hypothesis H3, which assesses the relationship between mental accounting practices (MAP) and spending behavior (SB), shows a Pearson's $r = -0.628$ and a $p\text{-value} = 0.001$. This result rejects the null hypothesis.

Discussion

Students' Demographic Profile

This study gives insights into the demographic profile of collegiate students at National University Baliwag in terms of gender and academic program. The findings reveal a near-equal distribution of college students, with a slight majority of females. This data reflects the recent census from Philippine Statistics Authority (2020), reporting a slightly higher number of female undergraduates. In terms of schools, the increasing number of SEAT students can be attributed to the growing interest in STEM fields due to promising career opportunities and technological expansion (Zhan et al., 2022). Similarly, the PSA 2020 census highlighted the popularity of courses in business and management, education and science, and fields related to information and technology management.

Mental Accounting Practices Assessment

The study revealed that students exhibit a weak mental accounting practice in terms of convenience. They tend to prioritize purchases readily available in stores during their free time. This situation prompts them to prioritize purchases that offer immediate accessibility. These findings are consistent with the results of Cheng et al. (2023) and Skwara (2023), who noted that individuals tend to make financial decisions immediately due to a scarcity mindset, viewing each transaction as advantageous due to its convenience.

In terms of pleasure, the study found that the students possess weak mental accounting practices. When a transaction is pleasurable, they often overlook practicality. Such emotion-driven purchasing may encourage further spending on non-essentials. This aligns with the study by Maison (2019), who noted that positive emotions encourage spending beyond the budget.

Moreover, the findings indicate that students exhibit strong mental accounting practices regarding perceived price. Students try to find ways to make spending worth their money by ensuring to get a value that is equal to or exceeds the price paid, demonstrating a deliberate consideration of cost and value before purchasing. They consistently avoid overpriced products unless they believe the value justifies its cost. This aligns with Chhatwal (2023), who claim that Filipinos aim to get the most out of every peso by seeking the "sulit" in every transaction.

And lastly, the results showed that the students have a strong mental accounting practice when assessed in terms of perceived risk. It suggests that students are aware of their finances and cautious about purchases, leading them to be more informed in their decision-making. Students tend to exhibit an aversion to spending when risks are present. The findings align with the notion that higher risks in a transaction can reduce or halt an individual's spending (Kamalul Ariffin et al., 2018; Winarti et al., 2023).

Overall, the assessment revealed a weak mental accounting practice among students, showing difficulty in adhering to budgets and resisting impulse purchases. This is supported by the studies of Ö. Özkan & M. Özkan (2020), and Chudziak (2022), indicating that individuals with weak mental account distinctions are prone to impulsive spending. This impulsivity stems from weak mental barriers and a lack of budgeting discipline among individuals. While financial management considerations exist, the pursuit of convenience and pleasure overpowers the perceived price and risk, which negatively impacts their mental accounting practices.

Spending Behavior of College Students

The study found that the college students at National University Baliwag generally exhibit high spending behavior, indicating a tendency towards reckless spending. This aligns with Sun (2022), who stated that the current generation is more inclined towards luxurious spending compared to the previous ones. Accordingly, this behavior may be influenced by social media and online shopping platforms, which entices students to increase their spending. Gen Z students, who predominantly rely on their smartphones for various activities, are susceptible to the influence of these factors. This is supported by Zhao and Cao (2021), who stated that the pandemic led to more impulse purchases due to the convenience of online shopping.

Mental Accounting Practices of Students Based on Demographic Profile

The outcome revealed that the differences in the mental accounting practices of male and female students are mostly becoming similar. This corroborates a study conducted by Wijayanti and Santoso (2022), showing that gender does not affect mental accounting practices. When comparing schools, the result shows that SBA students have stronger mental accounting practices than STHM students. This indicates that students majoring in economics and business management possess a higher financial literacy rate (Mandasari & Nur Fietroh, 2022). Research by Arquero et al. (2024), pointed out that tourism students tend to disregard any related finance and accounting content, leading to a deficiency of knowledge in financial literacy. Moreover, SEAT students have stronger mental accounting practices than SEAS and STHM. This result is because STHM students do not focus primarily on finance or numerical subjects, whereas SEAT does. In connection, SEAT students are more knowledgeable about finances because engineering professionals are expected to set policies in implementation and operate technological projects (Stanisavljević & Stojković, 2018).

Spending Behavior of Students Based on Demographic Profile

The data reveals a significant difference in spending behavior between genders. This suggests that females tend to have higher spending tendencies than males because they are entitled as “energetic shoppers” (Funches et al., 2017). In terms of school affiliations, SBA students tend to have higher spending behavior than SEAT students. This may indicate that despite majoring in a business course, SBA students may find it hard to apply finance management to personal finance (Abawag et al., 2019). On the other hand, the lower spending of SEAT students is due to the mathematics-related courses influencing the financial skills of engineering students (Mändmaa, 2019). Moreover, when SEAS is compared with STHM, STHM students have greater spending than SEAS students. Similarly, STHM students also hold a higher spending behavior when compared to SEAT students. This is because STHM students have insufficient financial literacy due to the absence of finance-related courses in their curriculum (Arquero et al., 2024), while SEAS students have control over their spending compared to STHM (Rani & Saraswathi, 2017).

Relationship of Mental Accounting Practices and Spending Behavior of Students

The result shows that there is a significant relationship between mental accounting practices and spending behavior among students. This implies that students with weak mental accounting practices tend to be easily swayed when purchasing. At the same time, students who have stronger mental accounting practices are most likely to stick to their budget or have discipline in spending. This solidifies the study of Zhang and Sussman (2018), denoting that individuals with weak mental accounts are susceptible to impulsive spending, whereas those with strong mental accounts tend to be more disciplined and self-controlled, which prevents impulsive spending behavior.

Result of Hypothesis Testing

For H1, the assessment of mental accounting practices among students shows significant differences based on the school they attend, but not their gender. This insight could be valuable for the university in understanding how different academic disciplines might predispose students to certain financial behaviors and decision-making processes.

For H2, the analysis from this part of the study reveals that both gender and educational background significantly exhibit differences in terms of spending behaviors among students. These differences underscore the need for targeted financial education that considers the diverse backgrounds and characteristics of the student body to effectively address and potentially modify undesirable spending habits.

For H3, the assessment of the relationship between mental accounting practices and spending behavior had a negative correlation which suggests that as mental accounting practices increase, spending behavior tends to decrease, and vice versa. In practical terms, this finding suggests that the way students think about and categorize their money indeed has an impact on their actual spending practices.

Conclusion

This study examined how mental accounting practices—considering convenience, pleasure, perceived price, and perceived risk—affect college students' spending behavior, alongside variations by gender and academic program. Results show a strong negative correlation between mental accounting practices and spending, indicating that students who prioritize budgeting exhibit more controlled spending. Both genders have similar mental accounting practices, but females have higher spending tendencies. Students in the SEAT program excel in mental accounting due to their exposure to mathematical and financial subjects, whereas STHM students exhibit the highest spending due to their curriculum requirements.

The theoretical contributions of this research expand the current understanding of mental accounting practices and consumer behavior in young individuals. This study sheds new light on the behavioral factors that influence finance decisions by illustrating how academic background and gender influence these behaviors.

Practically, this research contributes significantly to the students, student organizations, educational institutions, and the public. For students, the findings propose better financial management, to hone their abilities in budgeting and resource allocation, which establishes a strong foundation in managing personal finances that can be applied at work. For student organizations, to identify specific initiatives aimed at strengthening the students' financial literacy and skills. For the university to offer training about financial literacy topics based on its academic program. For SEAT & SBA, the introduction of advanced topics of cost-benefit analysis and spreadsheet budgeting, for STHM & SEAS are with less complex numerical subjects and industry-specific ones such as event budgeting and issues regarding the psychological impact of financial decisions for a deeper understanding of future clients and personal finances. This enables the university to curate specific strategies that assist students with basic financial knowledge that is beneficial to their professional and personal endeavors.

Additionally, the study contributes to several Sustainable Development Goals (SDGs). It supports SDG 4: Quality Education by promoting adequate and quality educational opportunities for improved financial literacy. It aligns with SDG 8: Decent Work and Economic Growth by preparing students for future employment with a better understanding of finances. Lastly, it supports SDG 12: Responsible Consumption and Production by encouraging proper consumption patterns among students and individuals.

Overall, the study empowers students and individuals to become financially literate and economically resilient, while gearing them up for their financial life ahead, fitting into the broader societal objectives of economic stability and responsible consumerism.

Limitation and Future Direction

Nonetheless, this study is restricted to the university setting of the National University Baliwag for two academic terms, hence, the researchers employed a quantitative research design due to the limited time available. It is also limited to the mental accounting practices of convenience, pleasure, perceived price, and perceived variables affecting spending behavior, and focuses on two specific demographic profiles such as gender and academic program. Therefore, it is recommended to explore other factors influencing spending behavior besides mental accounting and dive deeper into how the integration of tailored financial literacy training influences students' spending.

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