

Framing, Financial Literacy, and Mental Accounting: How Cashback Labeling Affects Spending Behavior in South-Asia's E-Wallet Economy

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ABSTRACT

The rapid adoption of e-wallet platforms such as GoPay, ShopeePay, and OVO has reshaped consumer spending behavior in Indonesia, particularly among younger users in urban centers like Jakarta. A key feature of these platforms is their use of cashback incentives, which, although equal in monetary value, are often presented in different ways, such as being labeled 'bonus,' 'cashback,' or 'savings.' Drawing on mental accounting theory and framing effects from behavioral economics, this study investigates how the labeling of cashback influences short-term spending decisions and whether financial literacy moderates this effect.

This study investigates how the framing of cashback incentives influences consumer behavior, with a focus on mental accounting and financial literacy among e-wallet users in Indonesia and South Korea. A structured survey was administered to 50 respondents (50% male, 50% female), aged 15 to 58, with the majority residing in Jakarta (66%) and the remainder in Seoul (34%). Participants were grouped into three age categories: 15–16 years (28%), 17–18 years (32%), and 19 years and older (38%). Only six respondents reported earning income, all of whom were over 19. Notably, 67% of female students reported having a personal budget, compared to 33% of male students ($p = .07$).

The survey explored perceptions of cashback labeled as “bonus,” “savings,” or “cashback.” When framed as a “bonus,” 74% of respondents viewed the cashback as extra money to spend freely, with younger participants (15–18 years) significantly more likely to adopt this view ($p = .006$). In contrast, when labeled as “savings,” 72% of respondents opted to save the cashback, with higher financial literacy scores correlating with increased saving behavior (78% vs. 50%). Age and country differences were pronounced: younger respondents and those from Indonesia were more likely to treat cashback as discretionary income, while older and South Korean participants exhibited more varied interpretations.

When cashback was labeled simply as "cashback," 70% of respondents interpreted it as a discount on their original purchase, particularly among those with higher financial literacy (75%) and Indonesian users (85%). Across all scenarios, budgeting behavior appeared to influence perceptions, with non-budgeters more likely to treat cashback as spendable money. These findings support mental accounting and framing theories, demonstrating that semantic labeling and financial literacy significantly shape consumer responses to digital financial incentives. The results offer practical implications for fintech design and financial education strategies in emerging digital economies.

Literature Review

Behavioral economics has long challenged the classical assumption that money is fungible. Richard Thaler's (1999) theory of mental accounting proposes that individuals mentally assign subjective value to money based on their source or intended use. For example, individuals may treat a "tax refund" more frivolously than a "salary bonus," even if both are equivalent in value. This insight has been validated in lab experiments and field studies (e.g., Hastings & Shapiro, 2013; Shu et al., 2011), especially in consumer behavior. Skwara (2023) reviewed 110 research papers and found four main ways mental accounting affects how people decide what to buy. First, people treat money differently depending on where it comes from, like a salary or a gift. Second, they often set aside money for specific things, like food or travel. Third, how prices are shown or described can change how people feel about buying something. Kahneman and Tversky (1981) demonstrated that framing information as a gain versus a loss, or a bonus versus a discount, influences consumer choices. In financial contexts, labeling identical rewards as either a "rebate" or a "discount" leads to different spending behaviors (Cheema & Soman, 2006). When cashback is presented as an immediate gain, such as "get 5% back instantly", consumers often perceive it as a bonus or windfall, mentally categorizing it separately from their regular income. This framing encourages more impulsive or discretionary spending, as the reward feels like "free money" rather than a return on prior expenditure. On the other hand, if cashback is framed as a future rebate or savings, like "earn 5% back toward your next purchase"—it may be mentally accounted for as part of a budgeting strategy, leading to more restrained or planned spending. The psychological separation of money into different "accounts" based on its source or intended use is central to this effect, often overriding rational financial decision-making. Lastly, the payment method influences purchase decisions in that cash versus card versus digital alters emotional response.

Financial literacy has emerged as a potential moderator of these biases. A good understanding of financial literacy helps individuals make better financial decisions, avoid debt traps, and participate more effectively in the economy. Lusardi and Mitchell (2014) find that low financial

literacy is correlated with worse savings and borrowing decisions. Individuals with higher financial literacy are more likely to recognize cashback as a delayed return on spending rather than a true gain and thus integrate it into their broader budgeting and financial planning.

Hastings, Madrian, and Skimmyhorn (2013) argue that individuals with low financial literacy are more susceptible to behavioral nudges and framing. As Southeast Asia embraces digital finance, low literacy levels threaten financial inclusion. Many individuals lack the skills to navigate digital financial services, which can exacerbate economic inequality and limit participation in the digital economy.

There is limited evidence on how framing and financial literacy interact in mobile-first emerging markets, particularly in Southeast Asia, where digital payments have rapidly outpaced traditional banking infrastructure. In Indonesia, a country with one of the highest e-wallet adoption rates globally (Statista, 2023), there are only a handful of studies that have explored these dynamics. For instance, Nurmalasari et al. (2025) found that cashback rewards can make people use e-wallet apps more and feel happier with them. When the cashback is called a “reward” instead of a “discount,” people think it’s more useful and are more likely to keep using the app. The study looked at 300 e-wallet users in Indonesia and showed that people see cashback as extra money, which makes them feel more connected to the app and use it more often. This matches the idea of mental accounting, where people treat unexpected money like a bonus and tend to spend it more quickly. Additional research from West Java, Indonesia (Suseno and Aulawi, 2024) similarly confirmed that digital wallet usage affects mental accounting and financial behavior, particularly among millennials. Users often categorize cashback separately from their main budget, which can lead to overspending unless moderated by financial literacy. Individuals with higher financial literacy are more likely to recognize cashback as a delayed return on spending rather than a true gain and thus integrate it into their broader budgeting and financial planning.

Despite these insights, studies among college students in Indonesia show only 49.3% on financial literacy assessments, with lower scores among males, and those not living with parents (Sjam, 2015). This lack of knowledge can lead to poor financial behaviors and risky debt management. Additionally, the same researchers found literacy penetration or access to savings accounts, credit or digital payments among college-age students was only 21.7 percent, while in the Philippines it was above 30% and 60-70% in Malaysia. These disparities suggest that Indonesia is falling behind in preparing their youth for financial independence. Many individuals lack the skills to navigate digital financial services which can increase the economic inequality in the country. Thus, to address this gap in literature, this study offers a survey of framing effects in digital cashback incentives in Jakarta, while also considering individual differences in financial literacy. The results have implications for participation in the digital economy and can help guide schools in Indonesia for integrating financial literacy into core curricula starting in primary

education.

Methodology

The subjects targeted were regular users of e-wallet platforms (defined as using GoPay, ShopeePay, or OVO). A structured survey was given out to 50 respondents of which 25 were males, and 25 females. The respondents were from the age range of 15 yrs to 58 years old.

Highschool students and young millennials were the primary targets they are among the most active digital payment users in Indonesia and South Korea. The recruitment of the survey participants was made through university mailing lists, fintech partnerships, and social media ads. The majority of the participants were from Jakarta, Indonesia (66%), while the other 34% were from Seoul, South Korea.

Participants completed a Perception Survey designed to understand their attitudes toward cashback incentives. The survey asked respondents to indicate how they perceived the cashback, whether as free money, savings, or additional income. It also examined whether the label attached to the cashback influenced their choice, and included an open-ended question where participants provided justifications for their decisions. This approach allowed researchers to capture both quantitative trends and qualitative reasoning behind consumer behavior.

The survey also included a Financial Literacy Assessment consisting of six validated multiple-choice questions adapted from Lusardi and Mitchell (2007). These questions measured participants' understanding of basic financial concepts such as interest, inflation, risk diversification, credit card debt, and opportunity cost. For example, respondents were asked to calculate the future value of 100,000 Rupiah in a savings account earning 2% interest over five years, assess the impact of inflation on purchasing power, and identify whether buying a single company stock is riskier than investing in a mutual fund. Other questions explored how long it would take for credit card debt to double at a 20% annual interest rate, the benefits of diversification in reducing investment risk, and the opportunity cost of spending versus investing 1 million Rupiah for one year. Scores ranged from 0 to 6, reflecting the number of correct answers and providing an indicator of participants' financial literacy levels.

Results and Analysis

The results of the survey were analyzed. Fifty respondents completed the survey. Fifty percent of the respondents were male, and 50% were female. The respondents were grouped in the following age groups, 15 to 16 yr olds (28%), 17-18 yr olds (32%), and 19 years old and over (38%). Only 6 of the respondents worked for pay, of which all were over 19 yrs old. Notably, 67% of female students reported having a personal budget, compared to only 33% of male

students. This difference approached statistical significance ($p=.07$).

Perceptions of Cashback as Bonus Funds

Mental accounting is the idea that people treat money differently depending on how it's labeled or where it comes from. When asked to imagine receiving a Rp 20,000 cashback labeled as a "Bonus" after making a payment using a digital wallet, 74% of respondents perceived the cashback as extra money that could be spent freely. Another 10% of the respondents thought about it as a discount on their original purchase, 8% as money that should be saved for future use, and lastly 8% did not think about it in any particular way. This perception was consistent across genders. When examining the medium to high financial group, 75% of these respondents attributed the bonus as extra money that could be spent freely, while only 70% of the low financial literacy scorers mentioned this option. Thus, financial literacy did not play a role in imagining how bonus money should be spent.

Among those who viewed the cashback as extra money, 73% reported not having a budget, suggesting a potential link between budgeting behavior and perceptions of cashback. Age differences were statistically significant ($p = .006$). Specifically, 85.7% of respondents aged 15–16 years and 100% of those aged 17–18 years considered the cashback as extra money to spend freely. In contrast, only 42% of respondents aged 19 and older shared this view. This older age group exhibited more varied responses, with 22% viewing the cashback as a discount on their original purchase, and another 22% indicating no particular way of thinking about it. Examining country differences, 91% of the respondents in Indonesia chose to use the bonus as extra money that could be used to spend freely, while only 41% of the respondents in South Korea did.

Perceptions of Cashback as Savings Funds

When presented with a hypothetical scenario involving a Rp 20,000 cashback labeled as a "savings" from a digital wallet payment, 72% of respondents indicated they would save the money for future use. At least 72% of these respondents did not have a formal budget, suggesting a tendency to save despite limited financial planning. When examining the other options, 10% of the respondents thought the cashback was a discount on their original purchase, 10% as money that should be saved for future use, and lastly 8% did not think about it in any particular way.

Among respondents with medium to high financial literacy scores, 78% also chose to save the money for future use. Interestingly, only 50% of the low financial literacy scorers chose to save the money for future use. Individuals with higher financial literacy are more likely to save money for future use compared to those with lower financial literacy.

Another finding was that age was a significant factor in responses. Ninety three of the

respondents aged 15–16 and 100% of those aged 17–18 chose to save the cashback.

In contrast, only 32% of respondents aged 19 and older selected the saving option, with other choices distributed evenly across this group. Looking at country differences, it was interesting that 94% of respondents in Indonesia chose to save the money for future use, while only 29% of the respondents in South Korea chose this option.

Perceptions of Cashback as “Cashback” Funds

In response to a scenario where respondents received Rp 20,000 cashback labeled as "cashback" following a digital wallet payment, 70% interpreted the amount as a discount on their original purchase. The second most selected option, chosen by 14%, was viewing the cashback as extra money to spend freely. Notably, 80% of these respondents reported not having a personal budget, suggesting a disconnect between budgeting practices and perceptions of financial incentives. Gender distribution among respondents was relatively balanced, with 46% identifying as female and 54% as male. Among respondents with medium to high financial literacy scores, 75% also interpreted the amount as a discount on their original purchase, whereas only 50% of the low financial literacy scorers chose this option. Examining country differences, 85% of the respondents in Indonesia attributed the cashback labeled as cashback as a discount on the original purchase, while only 41% of the respondents in South Korea did.

Conclusion:

The survey of 50 respondents revealed significant insights into how framing influences financial decision-making. When cashback was framed as a “Bonus,” 74% of participants perceived it as extra money to spend freely, especially younger respondents (85.7% of 15–16-year-olds and 100% of 17–18-year-olds), while only 42% of those aged 19+ shared this view. In contrast, when the same amount was labeled as “Savings,” 72% opted to save it for future use, with higher financial literacy correlating with increased saving behavior (78% vs. 50%). Age and country differences were also pronounced: younger participants and Indonesian respondents were more likely to save when the cashback was framed as savings. Finally, when labeled simply as “Cashback,” 70% interpreted it as a discount, particularly among those with higher financial literacy and Indonesian participants. These findings underscore the power of framing effects—how subtle changes in labeling (bonus vs. savings vs. cashback) significantly influenced participants’ mental accounting and financial choices, supporting the hypothesis that semantic framing can shape economic behavior.

The survey findings align with Richard Thaler’s theory of mental accounting, which suggests that individuals categorize money based on its source or label, influencing how they choose to spend it. For instance, when cashback was labeled as a “Bonus,” 74% of respondents perceived it

as extra money to spend freely, despite its identical economic value to other forms of cashback. This behavior reflects a common tendency to treat windfalls or unexpected gains as discretionary funds, reinforcing the idea that psychological framing can override rational financial decision-making.

Framing Effects Amplify Behavioral Biases

The results also highlight the power of framing effects in financial contexts. Identical monetary amounts were interpreted differently depending on how they were labeled— “Bonus,” “Savings,” or “Cashback.” These semantic variations significantly influenced participants’ choices, with “Savings” prompting more conservative behavior (72% chose to save), while “Bonus” encouraged spending. Such findings support existing research that framing can alter risk perception and consumer behavior, challenging the assumption that individuals make purely rational economic decisions.

Budgeting and Financial Literacy as Moderators

People who know more about money and have a budget were better at understanding how cashback works. Those with higher financial literacy scores and personal budgets were more likely to view cashback as a discount or savings rather than as “free money.” For example, 78% of high-literacy respondents chose to save when the cashback was labeled as “Savings,” compared to only 50% of low-literacy scorers. This suggests that financial planning and awareness can shield individuals against framing biases and promote more deliberate, rational financial choices.

Implications for Digital Finance and Marketing

These insights have practical implications for fintech platforms and marketers. The way financial incentives are framed can strategically influence user behavior. Labeling cashback as “Savings” may encourage users to adopt more prudent financial habits, while framing it as a “Bonus” can stimulate immediate consumption. Understanding these psychological dynamics allows digital finance companies to design more effective messaging strategies that align with user goals, whether promoting saving, spending, or engagement.

There are some limitations to the study. The study was based on imagined scenarios, not real spending, and focused mainly on urban youth in Jakarta, Indonesia and South Korea. Thus, the results might not apply to everyone. Having experimental treatment groups with different cashback conditions could provide more realistic scenarios for spending habits. Additionally, the linguistic framing used may not be uniformly understood. Cultural context, language tone, and prior experiences with cashback systems may cause some users to interpret “bonus,” “cashback,”

and “savings” in different ways, which complicates clean attribution of behavior to framing alone. Despite these concerns, this study is still an important step in learning how people make money decisions in Southeast Asia’s fast-growing digital economy. The findings can help improve the design of fintech apps, guide rules that protect consumers, and shape money education programs, especially for people who are more easily influenced by how offers are worded.

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