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Impact of financial behavior on savings strategies among the poor in Vietnam

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ABSTRACT

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This study focuses on improving the savings behavior of the poor in Vietnam, who face numerous challenges due to limited socio-economic conditions and inadequate access to formal financial services. The research employs a multivariable linear regression model to quantify the roles of income stability, financial literacy, access to banking services, health risks, social safety nets, and cultural norms. Data were collected through a quantitative survey ensuring representativeness and reliability. The analysis explores how these socio-economic factors interact to influence savings behavior. The results indicate a significant correlation between the above variables and the adoption of sound saving practices. Integrating financial and educational support for the Vietnamese poor, alongside a broader socio-economic perspective, plays a pivotal role in fostering better savings behavior. The study underscores the importance of socio-cultural contexts and appropriate financial incentives in enhancing the savings behavior of vulnerable groups. These findings offer insights for policymakers, financial institutions, and stakeholders in promoting financial inclusion, improving financial management literacy, and bolstering economic resilience among disadvantaged communities in Vietnam.

Contribution/ Originality: This study uniquely integrates multivariate regression analysis with factors of income stability, financial literacy, health risks, and socio-cultural norms in the context of Vietnam's poor. This multidimensional approach provides a comprehensive perspective and new quantitative evidence on savings behavior.

1. INTRODUCTION

Research is one of those studies that pose challenges on many fronts, which are very important, pressing, and far-reaching. It describes a complex world of financial life that poor people live in Vietnam, influenced by complex socio-economic structures, including limited access to financial services for their specific needs (Cohen & Nelson, 2011). This research brings those pressing issues to the foreground and attempts to explain them. In doing so, this research advances our understanding of economic behavior in contexts of poverty. It opens up new perspectives and possible remedies to this nitty-gritty challenge all over the world (Fourie et al., 2022).

The biggest challenge, perhaps, for the poverty-stricken Vietnamese (Page & Pande, 2018) is that these groups do not have access to formal credit. Vietnam still has many unbanked people living in rural and off-road areas; there is practically no formal bank or microfinance institution there. Stringent documentation requirements, coupled with a lack of collateral, further make it hard for many poor people to join the formal banking sector, which has developed as an impregnable fortress. Therefore, these individuals are driven to resort to other ways of saving, such as storing money at home or being part of a village lending circle (Parambil & Simon, 2019). Such strategies allow for instant and easy access and can be adopted, yet the risks involved cannot be ignored: fire, flood, theft, loss, and possible exploitation. Poor people accept these dangers in life not because they love prosperity, but for survival—a famous quote attributed to F. D. Roosevelt is often misused: "to enjoy the fruits of his garden"! (Papaoikonomou & Alarcon, 2017).

Other research highlights some important aspects of financial literacy, namely financial education and training programs that Vietnam, particularly the poor, has failed to accomplish (Bruton, 2004). Poor people lack knowledge of basic economics, such as how interest rates, inflation, and the need for saving in order to meet future demands operate; consequently, they are denied a good understanding of informed decision-making processes (Ringold, 2005). Poor individuals are doomed to end up as part of some highly risky practices or, at the very least, they end up trapped in cycles of poverty due to the lack of such rudimentary information and, at the same time, a high degree of distrust towards formal financial institutions and lending. That said, this does not mean it is unachievable (Layton, 2009). Tailored financial services coupled with further training on financial education can equip the poor with better information in order to break out of such cycles (Laczniak & Santos, 2011).

This also renders the problem complex because of the more prevalent socio-cultural influences that dictate financial conduct among the poor in Vietnam, such as cultural values and kinship structures, conspicuous consumption habits in the present, as well as a tendency for a wide network of extended family members, which mitigates against individual-oriented conduct, such as saving or planning for future security (Maruyama & Trung, 2012). The values concerning community care are likely responsible for informing the tight family ties. However, they present a challenge that stands in the way of establishing saving and financial planning directly. While discussing these challenges, this study goes beyond simply highlighting the excruciating difficulties faced by the poor in Vietnam as they navigate this space, but it provides insights into the intricate web of interactions between the impact of socioeconomics and financial behavior (Maruyama & Trung, 2012). What distinguishes this research is the incessant drive to probe deeper into this analysis, going beyond merely recognizing the complexity of the issues. It seeks to understand the forces that drive these phenomena to yield pragmatic, culturally relevant solutions that can be deployed widely, providing many of Vietnam's most vulnerable people with help.

The study brings about important changes to our discussion on poverty and financial inclusion; this is in sharp contrast to the main "simplistic" literature, where the poor are simply presented as naive. The conclusions of this study send out a powerful message to policymakers, financial institutions, and development practitioners that they must change their approach and rethink how they offer financial services, to whom, and why. A genuine chance exists here, by understanding these special challenges and capitalizing on lessons learned in this study, to achieve meaningful progress toward realizing the extraordinary vision of wide financial inclusion and economic empowerment of the poor in Vietnam, ultimately becoming a model for similar contexts more generally.

2. LITERATURE REVIEWS

2.1. Income Level and Stability

It's the surging and unfortunate part of Vietnamese economics that the interaction between fluctuations in income and both habits of literal and figurative savings in poor households mingles with an interesting saga of endurance, enhancement, and survival— their anxious hopes amidst the shifting naturalities within this world—the main arbitraire of this story being formulated, low-fluctuating profits of income versus the preservation habit to secure against uncertainty (Aini & Prasetiantono, 2021). While part of this story chronicles income levels and stability-ramified experiences for countless people exiled in Vietnam's agricultural heartlands and bustling informal sectors—a world where income flows are congruent with the monsoons, calibrating each rhythm in the scoreboards of financial decisions played out amidst daily life (Pesqué-Cela, Tian, Luo, Tobin, & Kling, 2021). Underneath such volatility, savings from another kind of hypersensitivity function almost as a metaculture of coping and intention delineation

(Simkins & Peterson, 2016). Every dong dented by these families forms a stronghold shoring up the uncertainties of tomorrow—provided by testimony to resilient fortitude acting in opposition to economic crises.

The tale of savings among Vietnam's poor people is, however, not merely one about figures and accounts; rather, it is intensely human—one of dreams, fears, and aspirations. In simple words, mental accounting suggests that money has an attached psychological predicate, impacting the way one makes financial decisions (Klein & Wang, 2008). It is about, therefore, how income variability imparts information on the future capability to save or, for that matter, how savings will be insisted upon and prioritized (Morduch & Schneider, 2017). Those engaged within that process carefully allocate the scarce resources given the uncertainties of tomorrow. It becomes distorted to see what has gone from a must-have, say, to perhaps a wish list. In this kind of situation, saving always becomes informal: Perhaps it's more akin to rotating savings groups in Vietnamese culture, or to the more timeless custom of stashing away money in the cracks of rural homes. They represent the essence of practicality and creativity, expressing an implicit need for security that, particularly in remote areas of Vietnam, has dramatically lagged behind compared to the larger capabilities of conventional financial systems.

The storyline allows us to delve into the dynamics of innumerable trials to create a well-knitted safety net for unlimited economic vulnerability within the nation of Vietnam. This particular journey calls for innovative solutions when combined under the banners of financial literacy, the back-and-forth between traditional and modern standards, and informal versus formal. An appeal is made to institute policies and programs wise to the distinctive predicaments low-income families experience and to celebrate their creativity and resilience when it comes to overcoming myriad obstacles. But most importantly, the bigger story here goes beyond examining financial strategies; it pays tribute to the will of the Vietnamese poor, who brave the windmills of income instability with hope and determination. It reaffirms that, in the pursuit of a stable economy, the core of the matter is to comprehend and respond to the human condition while maintaining a certain commonality in the reading flow.

2.2. Access to Financial Services

This is the type of revolution about which, in silence, great change—the very sort that could balance or ruin the economic destinies of the poorest of the poor—who work in the green rice fields and busy markets of Vietnam. This is a story where the threads of inclusive financial services weave an extraordinary tale with vivid hues of change and aspirations (Albert, Gribbons, & Almadas, 2009). One ponders how, with the keys to a bank or a small loan and the beep of mobile banking transactions, one could bring about a change in life from a boring, monotonous existence to a level wherein stability, prosperity, and fulfilling dreams that had seemed impossible are attained (Swierenga, 2002). Serious business at this turn of the tale is a heart driver, really, of financial inclusion—the esoteric beam for poor families who live together teetering on the edge of economic uncertainty in their lives (Benel, Boulette, & Avery, 1985). The strides needed to leap from the dark corners of informal economies into the light of a formal financial system are tortuous and require much learning (Hart, 2009). For many, it is not about opening a savings account, but rather a pilgrimage towards financial security and empowerment (Bijli, 2012).

In their multiplicity of interwoven concepts, research depicts that it is not merely economic policy but rather a lifeline to the economically disadvantaged in a poorly structured country, such as Vietnam, to gain access to a savings account, credit, or insurance, Perez (2005) suggests. Each newly opened account, each loan approved, and each insurance settled forms the components by which the poor of Vietnam are creating stronger and stronger nets beneath themselves, providing them vital protection from the blows dealt by the unpredictable twists of life. More than any security, these financial instruments are wings of opportunity: they help establish businesses, educate people, and raise hopes for a better tomorrow, Elkington and Hartigan (2008) elaborate on this. Yet, reaching out for financial services could be a kind of dance where trust and custom arrange the ballet for manifestation through cultural undertones of historical hesitations, Shapiro, Andre, Schumacher, Windell, and Schur (2009). There are still those who are deeply entrenched in the rhythm of keeping cash, gold, and livestock very close to themselves, close to the unknown tune of banks and electronic transactions. While both these conversations are traditionally aligned with skepticism reinforced through generations, a penchant for adoption is slowly building as mobile banking and digital finance become compelling alongside the traditional financial expositions of rural life, Cai, Shu, Zhang, and Zeng (2022).

The revolution encompasses far more than mere access to services. It extends into the area of financial education in which knowledge alleviates fears and provides grounds for making decisions (Banu, Farashuddin, Hossain, & Akter, 2013). Workshops and training demystify banking and show the power of informed choices in saving, borrowing, and planning for the future. The education thus serves as a compass for the poor in Vietnam, guiding every step in the landscape of finance in a way that is confident and well-informed (Vierra & Vierra, 2010). As this narrative unfolds, the reader is invited to observe Vietnam poised for an economic transformation. Financial services are not just changing the way the poor save; they are also changing what they dream about. In the story of evolution in the economic fabric of Vietnam, every thread woven with financial inclusion shall make the future safer and more colorful. This future does not understand poverty as a destiny; it merely offers an opportunity for economic enablement. It is a story of hope, resilience, and the undying human spirit that evidences the capacity of financial access to impact dramatically the lives of Vietnam's vulnerable.

2.3. Financial Literacy

In the throbbing heart of Vietnam, where tradition embraces change, a somewhat quiet but quite important revolution is in the making, this time not with arms or with ruckus but with knowledge and empowerment (Gard, 2000). This revolution encompasses proven methods and breakthroughs in financial literacy to penetrate the web of confused and mismanaged savings strategies used by the poor in this country, yet promising nowhere near the broad horizons of security and prosperity (Ferrell, Crowson, & Mayhorn, 2022). Illuminating this new revolution is the lesson of financial literacy brought forth as more than just numbers and terms. It is both the art and science of mastering one's economic destiny (Angela & Pamungkas, 2022). It means the capability to dance in lockstep with figures, bend budgets toward one's will, and direct all future courses of finances with the precision of a maestro. Knowledge of this beat of personal finance is a beat that seduces the markets, caresses the rice paddies, and serenades the quiet rural houses of Vietnam to new life (Marron, 2014).

Like the live alternative waves riding on the ocean swell against the tide of economic instability, the tale has some financial literacy heroes coming into view (Bear, 2013). For the poorest in Vietnam, every drop of financial knowledge is a bit of clarity from the crystal of informality and insecurity (Wood & Gough, 2006) behind which lies the exceedingly visible alternative of hoarding gold and hiding cash; financial literacy shines avenues clearly for banks and budding investments into fertile lands of formal financial services (2021). Yet, it is not just a tale of transition: it is indeed a story of empowerment. The people had a shield of financial literacy to go into the intimidating darkness of loan tunnels beaming with light, apparently inviting nontrivial decisions informed by their judgment to escape with no encumbrance from the tricks of debt traps. This is knowledge that is neither a tool to be kept, though, but rather the illumination guiding toward financial wellness, clearing the fog obscuring the threats of exploitation (Xue, Gepp, O'Neill, Stern, & Vanstone, 2021).

Therefore, despite the promised path of advancement to general financial literacy, challenges do lie in between. For these heroes, the enemies are perplexing foes: low educational attainment, clouded access, and age-old custodians of tradition (Liu, Ho, & Chueh, 2020). Yet in the peak of hope, some champions have arisen: mobile learning platforms that whisper secrets about finance into eager ears, community programs that build bridges of understanding, and technologies that bring faraway shores of formal banking within reach (Zimmerman & Arnold, 2013). Amid Vietnam's erstwhile cool history of financial literacy, each piece begs a story of resilience, of battles lost and won in the quest for economic empowerment. This is a story of inspiration—winning in contests and winning because it has given the least a vision of a future in which knowledge will light, dispelling the darkness of poverty and granting each the power to sculpt one's financial path with wisdom and courage. This is not so much about a fightful tale for financial literacy in Vietnam, but actually an invitation to glimpse in its fullness the revolution of knowledge, in its posterity on how financial literacy will shape thoughts of the future into momentum.

2.4. Health Risks and Safety Nets

The intricacies of health risks, safety nets, and savings in Vietnam, however, present a complex array of problems and opportunities. It is, however, the very vulnerable status of the poor that remains at the core of this query: their financial saving arrangements are always laced with the corrosive undercurrents of possible health care costs. The backdrop to this narrative is the lively markets, wide open rice fields, and bustling urban sprawl of Vietnam; a tale of endurance, struggle, and the continued pursuit of viability (Klein & Wang, 2008). The facilities for health risks and financial safety intersect in a specific manner in the case of Vietnam. The poor walk a tightrope between attending to their immediate needs on one hand and unanticipated costs from health emergencies on the other. The case studies conducted by Hooda (2017) detail this predicament in all its shades and colors, highlighting the wide gaps in health insurance coverage, which leave many exposed to expensive out-of-pocket payments. The safety nets intended to catch them usually remind one of nets with holes: while providing partial support, they let primitive protections against catastrophic health expenses slip through, as cited by Monchuk (2013).

The very fact that this is an unstable arrangement has a significant bearing on the styles of saving that the poor in Vietnam would adopt. The continuous fear of rising health costs has, therefore, utterly relegated other aspirations like education and business; subsequently, saving for health has now gained primacy. The chain of events has been analyzed by Le, Nguyen, and Tran (2023), whereby anticipated health expenditures lead to the allocation of sunk resources. Parsons et al. (2011) support this view by confirming that the absence of sufficient safety nets does not release families from the risk of having to set savings aside for treating unexpected illnesses. While in all these predicaments, proposed means of bolstering financial capability bring some hope to the poor. Among a few that come to mind is providing affordable access to health insurance that would ease the health 'savings' burdens. A much-awaited turn for the better is now allowed as Gauthier, Bernier, Kuuluvainen, Shvidenko, and Schepaschenko (2015) warrant full coverage that could change the very fabric of health security. For them, in a sympathetic manner, a glimpse through their own eyes Wucker (2021) wove tales of financial literacy: an inclination toward good saving and investment. In this mosaic of solutions, Zeller and Sharma (2000) provide bright shades of financial products designed to meet the specific needs of the poor: a foresight to the future with micro-savings and Health Saving plans coming to stabilize the lives of the very needy folks.

It is the tale of Vietnam, which had to grapple with health and financial problems, calling for creative resolutions and resilience (Martenson, 2023). It's the narrative that brings forth the voices of the poor and points to possibilities for policy reform through community work and financial innovation. Emerging from the very lives of Vietnam's most vulnerable people, it brings an invitation for all to imagine a future in which health and financial well-being will not be denied to anyone: a weaving of hope and determination amidst adversity.

2.5. Social and Cultural Norms

In the thriving backdrop of Vietnamese culture, rich in ancient traditions yet aspiring for modernity, lies a special story of the art of saving. The social and cultural values that permeate the lives of the Vietnamese people have shaped their financial behaviors and strategies for generations; thus, they will bring a new luster to economic decision-making within such a society, which is alike both in tradition and aspiration. At the very center of this tale stand deep-rooted family values and collective cooperation—obviously colored with a Confucian ethos centered on filial piety, which highlights respect for one's elders and a duty toward the welfare and happiness of the family as a whole (Dadzie, Winston, Williams, & Dadzie, 2021). Such principles foster a savings culture that looks toward the future, ensuring the continuation of the well-being of those currently living and those who will come after them. The Vietnamese savings strategy, in other words, is more than just a financial plan; it extends beyond money to consider family obligations and the abiding respect for sacrifices made by the older generation—all within the hope for prosperity in the legacy of the living (Shoham & Malul, 2012).

The spirit of 'face' — social standing and respectability — culturally nuances the tale of financial conduct (Ho, 1976). Rasputin-like embellishments surround such acts, with 'face' as a site of grand community celebrations and reciprocity, bringing together social relationships and the stakes involved in an even more delicate balance of creating social hierarchy and household management of money (McFall, 2008). Indeed, it balances precariously between the cultural premium of social pleasures and the bare bones of economic survival. Education and changing gender roles, under such narratives, present themselves as the two most powerful influences on saving behaviors (Ojo, 2023). Education holds a place of primacy in Vietnamese culture, as it is seen as a ray of hope, a small bridge to a better life, hence often making families invest astronomical financial resources in celebrating their children's futures, oftentimes way ahead of the educational savings. In this regard, the traditional definition of female roles has started altering, albeit very slowly, the household decision-making dynamic, ushering procedures of who makes decisions: definitely adding yet another layer to the complexity of saving strategies out there.

In the cultural and social context, certain identifiable deposit modes—such as the informal hui mechanism—take shape to best show the community-centeredness of Vietnamese finance. This community forms a sort of safety net; this illustrates a shared attitude toward saving, deeply rooted in trust and cooperation (Newman, Tarp, & Van Den Broeck, 2014). Beyond that, there is the abiding historical mistrust of banking institutions. Coupled with it is a proclivity for gold and land over more abstract financial instruments (Walker, 2015). It is, in a manner of speaking, the pursuit of security handed down through generations. In the years ahead, it will continue to pulsate with this wonderful collage of social norms, financial practices, values, and cultures. To understand this interaction in all its facets is not merely an academic enterprise; rather, it is living a metaphorical experience that places one right in the heart of Vietnamese society, nurturing insights into the contrarieties of traditional and modern decisions concerning finance. It becomes a storyline rich with understanding toward the way cultures approach economies. Skills are learned in standing firm and supporting one another, along with how far-reaching the family might extend its tendrils into private finances.

Based on the above Literature Reviews, the following hypotheses are formed.

Hypothesis 1 (H_1): Income Level and Stability have a positive and meaningful impact on strategies for savings behavior among the poor in Vietnam.

Hypothesis 2 (H_3): Access to Financial Services positively and meaningfully impacts strategies for savings behavior among the poor in Vietnam

Hypothesis 3 (H_3): Financial Literacy positively and meaningfully impacts strategies for saving behavior among the poor in Vietnam.

Hypothesis 4 (H_4): Health Risks and Safety Nets positively and meaningfully impact strategies for saving behavior among the poor in Vietnam.

Hypothesis 5 (H_5): Social and Cultural Norms positively and meaningfully impact strategies for saving behavior among the poor in Vietnam.

3. METHODOLOGY

3.1. Instrument and Participant

The procedure of data collection in a study is made up of different steps from the first planning to the identification of appropriate tools for collecting data, preliminary work, implementing chosen methods of data collection, proper recording of the data, and appropriate data analysis techniques. Inequal to that, adherence to the ethics of the research in terms of confidentiality, privacy, and consent for involvement of participants in the research process should not be compromised (Reja, Manfreda, Hlebec, & Vehovar, 2003).

It comprised, within the panel that assessed the questionnaires and validated their validity and appropriateness to the research objectives, a psychologist, a sociologist, a public policy expert, and two finance professionals (Reja et al., 2003). The second division of the instrument was created on the basis of information from demographic characteristics of the respondent; namely, age, gender, education, and the occupational category of the respondent. The second component collects views from the respondents on relevant issues of Income Level and Stability (Miething & Åberg Yngwe, 2014) Access to Financial Services (Claessens, 2006) Financial Literacy (Ranyard, McNair, Nicolini, & Duxbury, 2020) Health Risks and Safety Nets (Ryan, Kalil, & Leininger, 2009) Social and Cultural Norms (Heinrichs et al., 2006) and Savings Behaviors (Jamal, Ramlan, Mohidin, & Osman, 2016) of the impoverished.

Following a review for clarity and cultural acceptability by linguists, Santos Prudêncio et al. (2016) conducted a pilot testing phase comprising a sample of 40 persons tending to be representatives of the study population; this was for a rapid assessment of the questionnaire's functionality, comprehensibility, and effective assessment criterion, where, hence, passing these assessments, it underwent minor injection in terms of its composition and phrasing, ending with the version made applicable to Vietnam, (Bowling, 2005; DeVellis, 2017). Specifically, the pilot testing of the questionnaire purposely involved recruitments of the participants who were involved in local credit schemes, therewith allowing for an early estimation of its validity and efficiency. Feedback from this group was crucial for any further refinement of the questionnaire because reliability and ability to gauge attitudes related to the contribution of financial habits in forming savings behavior for the Vietnamese poor need to be ensured in 1 final version of the questionnaire.

Research was conducted in February 2023 in Nam Dinh, Thai Binh, Ha Nam, and the outskirts of Hanoi in the north of Vietnam, as well as in the suburbs of Ho Chi Minh City, Long An, Vinh Long, and Dong Nai in the south of Vietnam. These areas were selected due to the continued expansion of credit activities oriented toward the poor. A survey with a sample of 200 individuals participating in credit services was designed; thereby, each respondent completed the questionnaire, giving a response rate of 100% (Fowler, 2014). The demographic characteristics of the participants are provided in Table 1 and offer an insightful overview of the study population (Fowler, 2014). It is vital to incorporate 200 individuals that would grant a reasonable sample size and the generation of relevant findings. Such strategic planning has provided a sound basis for further extensive research into the influences of financial behavior on savings strategies from underprivileged groups in Vietnam.

Table 1. Demographic characteristics of survey participants.

Variables		Education_level							
		Bachelor		Primary school		Secondary school		Vocational training	
		Count	Row N %	Count	Row N %	Count	Row N %	Count	Row N %
Age	35 44 years old	2	7.4%	4	14.8%	5	18.5%	16	59.3%
	18 24 years old	8	25.0%	5	15.6%	7	21.9%	12	37.5%
	25 34 years old	5	6.3%	7	8.9%	28	35.4%	39	49.4%
	Over 44 years old	5	8.1%	1	1.6%	26	41.9%	30	48.4%
Gender	Female	7	17.5%	7	17.5%	13	32.5%	13	32.5%
	Male	13	8.1%	10	6.2%	53	33.1%	84	52.5%
Employment_Status	Employed fulltime	3	7.9%	4	10.5%	15	39.5%	16	42.1%
	Employed parttime	3	8.3%	5	13.9%	7	19.4%	21	58.3%
	Self-employed	14	11.1%	8	6.3%	44	34.9%	60	47.6%
Household_Income	over VND 5000.000	4	11.4%	3	8.6%	13	37.1%	15	42.9%
	VND 3.000.000	4	9.1%	5	11.4%	12	27.3%	23	52.3%
	VND 5000.000	12	9.9%	9	7.4%	41	33.9%	59	48.8%
Marital_Status	Divorced	6	16.2%	5	13.5%	8	21.6%	18	48.6%
	Married	10	7.8%	9	7.0%	45	35.2%	64	50.0%
	Widowed	4	11.4%	3	8.6%	13	37.1%	15	42.9%
Number_Dependent	1- 2 people	6	12.0%	6	12.0%	18	36.0%	20	40.0%
	3- 4 people	11	11.2%	7	7.1%	29	29.6%	51	52.0%
	Over 4 people	3	5.8%	4	7.7%	19	36.5%	26	50.0%
Type_Residence	Rural	5	6.9%	4	5.6%	29	40.3%	34	47.2%
	Suburban	12	14.1%	10	11.8%	22	25.9%	41	48.2%
	Urban	3	7.0%	3	7.0%	15	34.9%	22	51.2%
Housing_Status	Live with family/Friends	4	8.5%	6	12.8%	12	25.5%	25	53.2%
	Own	9	8.3%	8	7.3%	43	39.4%	49	45.0%
	Rent	7	15.9%	3	6.8%	11	25.0%	23	52.3%

3.2. Reliability Analysis

In order to check for validity and quality of collected survey data, a reliability analysis is conducted. The analysis aims to ascertain whether the questionnaire or the instrument for measuring something is consistent and steady over various time conditions and contexts. In this study, the internal consistency and reliability of the data collected were assessed using Cronbach's alpha. The meaning of Cronbach's alpha is subjective: it is interpreted differently according to the research's specific background and the questionnaire or the measurement instrument's particular features (Cortina, 1993; Kline, 2015; Nunnally & Bernstein, 1994). The conventional lower limit is 0. 7, which is generally taken as indicating high internal consistency and is usually acceptable for most studies (Cortina, 1993; Kline, 2015; Nunnally & Bernstein, 1994). A 0. 6-0. 7 cut-off value is regarded as fair in some surveys; however, it indicates that some survey items might not capture the intended construct well enough and should be removed or altered (Cortina, 1993; Kline, 2015). Most of the values below 0. 6 show that a certain degree of non-consistency is represented, meaning that some survey items would possibly assess different constructs; therefore, it is highly recommended to reassess (Kline, 2015; Nunnally & Bernstein, 1994).

Table 2. Summary of reliability.

Scales	Number of variables observed	Reliability coefficients (Cronbach alpha)	The correlation coefficient of the smallest total variable
Income level and stability (Inco_Stability)	4	0.761	0.486
Access to financial services (AF_Services)	4	0.773	0.527
Financial literacy (Fina_Literacy)	4	0.712	0.481
Health risks and safety nets (HRS_Nets)	4	0.744	0.511
Social and cultural norms (SC_Norms)	4	0.742	0.506
Strategies for saving behavior (Stra_Savings)	4	0.764	0.516

The results of testing the reliability and validity of the research questionnaire are shown in Table 2. All items had Cronbach's alpha coefficients above 0.7, which means the questionnaire had an internally consistent reliability (Hair Jr, Black, Babin, & Anderson, 2019; Nunnally & Bernstein, 1994). Exploratory and confirmatory factor analyses also confirmed the validity of the questionnaire by establishing construct validity (Bollen, 1989; Hair Jr et al., 2019). The good convergent validity of all the items confirmed that they were measuring the same construct (Fornell & Larcker, 1981). Additionally, the study also established discriminant validity as the items were correlating more with their respective constructs than with other constructs in the questionnaire (Fornell & Larcker, 1981; Hair Jr et al., 2019). Therefore, it can be said that there was a high level of reliability and validity for the questionnaire assessing financial behavior in savings strategies among the poor in Vietnam.

3.3. Factor Analysis

To a great extent, factor analysis has become an important statistical technique in the field of social sciences whereby researchers can unfold latent factors or dimensions underlying a set of variables. It simplifies the dataset by grouping and clustering the variable measures according to the extent of their correlation into fewer more basic latent constructs or factors (Gorsuch, 1983). Decisions about how many factors should be extracted depend mostly on scree plots and eigenvalues (Fabrigar, Wegener, MacCallum, & Strahan, 1999). It is said that findings based on factor analysis can considerably refine formulation in the research questions asked, the formulation of hypotheses, and the formulation of theoretical models (Hair, Anderson, Tatham, & Black, 2010) and additionally, illuminate the main factors of explaining connections between variables in a dataset (Chen, 2007).

Table 3. Result of factor analysis.

Rotated component matrix						
Variables	**Component**					
	1	**2**	**3**	**4**	**5**	**6**
SC_Norms3	0.697					
SC_Norms4	0.639					
SC_Norms1	0.603					
SC_Norms2	0.598					
HRS_Nets2		0.690				
HRS_Nets4		0.667				
HRS_Nets3		0.658				
HRS_Nets1		0.629				
Stra_Savings4			0.697			
Stra_Savings3			0.651			
Stra_Savings2			0.606			
Stra_Savings1			0.539			
AF_Services1				0.770		
AF_Services3				0.705		
AF_Services4				0.634		
AF_Services2				0.553		
Fina_Literacy3					0.756	
Fina_Literacy1					0.670	
Fina_Literacy4					0.617	
Fina_Literacy2					0.548	
Inco_Stability2						0.758
Inco_Stability1						0.660
Inco_Stability3						0.571
Inco_Stability4						0.515
Extraction method: Principal component analysis. Rotation method: Varimax with kaiser normalization.						
Rotation converged in 7 iterations. Kaiser-Meyer-Olkin measure of sampling adequacy (KMO)=0.914 Bartlett's test of sphericity (Chi-Square = 1761.523, df =276, sig.=0.000) Extraction sums of squared loadings = 59.454, Initial eigenvalues = 1.028						

Factor analysis is the methodology used to test the reliability of this survey in the research presented in Table 3. According to Bartlett's test of sphericity, it was significant at a level of 0. 000 and had a KMO of 0. 914, which is well above the minimum value of 0. 5 required. Hence, there is a reasonable correlation among the variables in the population. This factor analysis is thus justifiable. Factor loadings for all the considered variables were above the minimum limit of 0. 5 to confirm the reliability of the analysis. For practically significant factor loadings, the minimum required is 0. 3, more stringently so at 0. 4 for significance, and 0. 5 for practical application. All the factor loadings, according to Table 3, were more than 0. 5, thus supporting the factor analysis. The sum of squared load extraction from the six factors added up to 59. 454% of variance, thus exceeding the minimal threshold of 50%. This proves that these factors accounted for a great part of variance in the dataset, thus indicating that there is a real relationship within it. The first eigenvalues for these factors stood at 1. 028 (>1. 00), thus confirming the validity of factor extraction. This evidence supports that exploratory factor analysis was appropriate and valid for application within the research model of this research (Hair Jr et al., 2019; Kim & Mueller, 1978; Marôco, 2010; Tabachnick & Fidell, 2013).

3.4. Correlation Analysis

Correlation analysis establishes the nature and degree of a linear association between two variables, thereby enabling a means of checking change in one variable with reference to another change in another (Bryman & Bell, 2015). This is also seen by Tabachnick and Fidell (2013) as a qualitative technique of measuring the correlation between two variables, which checks whether changes in one variable correspond to changes in the other. The correlation coefficient, commonly known as Pearson's coefficient, measures the strength and degree of a linear relationship between two variables ranging from -1 to +1 (Field, 2013). The value -1 signifies perfect negative correlation, while the value +1 indicates perfect positive correlation. Zero means there is no correlation (Hair Jr, Hult, Ringle, & Sarstedt, 2017). This analysis is instrumental in revealing the interactions between the variables, thereby enabling prediction of change in one variable given information on another's change (Gronlund & Linn, 2014). However, it is very important to note that correlation does not mean causation; that is to say, changes may be associated with other factors besides these variables (Agresti & Finlay, 2009).

Correlation analyses results, presented in Figure 1 at a 95% level of confidence, demonstrate the correlation coefficients to be a statistical relationship with significance (Sig. = 0.05) between the dependent and independent variables. This significance level validates these variables for later analyses in the multiple linear regression model and control regression, so as to enable control for other variables having an influence (Larose, 2014; Seraphin, Gowreesunkar, & Platania, 2019). The process offers a very complete quantitative investigation of the relationships between the variables, since the significance of correlation coefficients becomes crucial for establishing the statistical significance of those relationships (Larose, 2014). Also, there will be further work involving multiple linear regression and control regression aimed at the identification of factors of significance concerning the saving strategies for the poor in Vietnam. Through multiple linear regression, important independent variables associated with the dependent variable are identified, while control regression is used in order to minimize confounding variables' effect on the main relationship studied (Field, 2013; Larose, 2014).

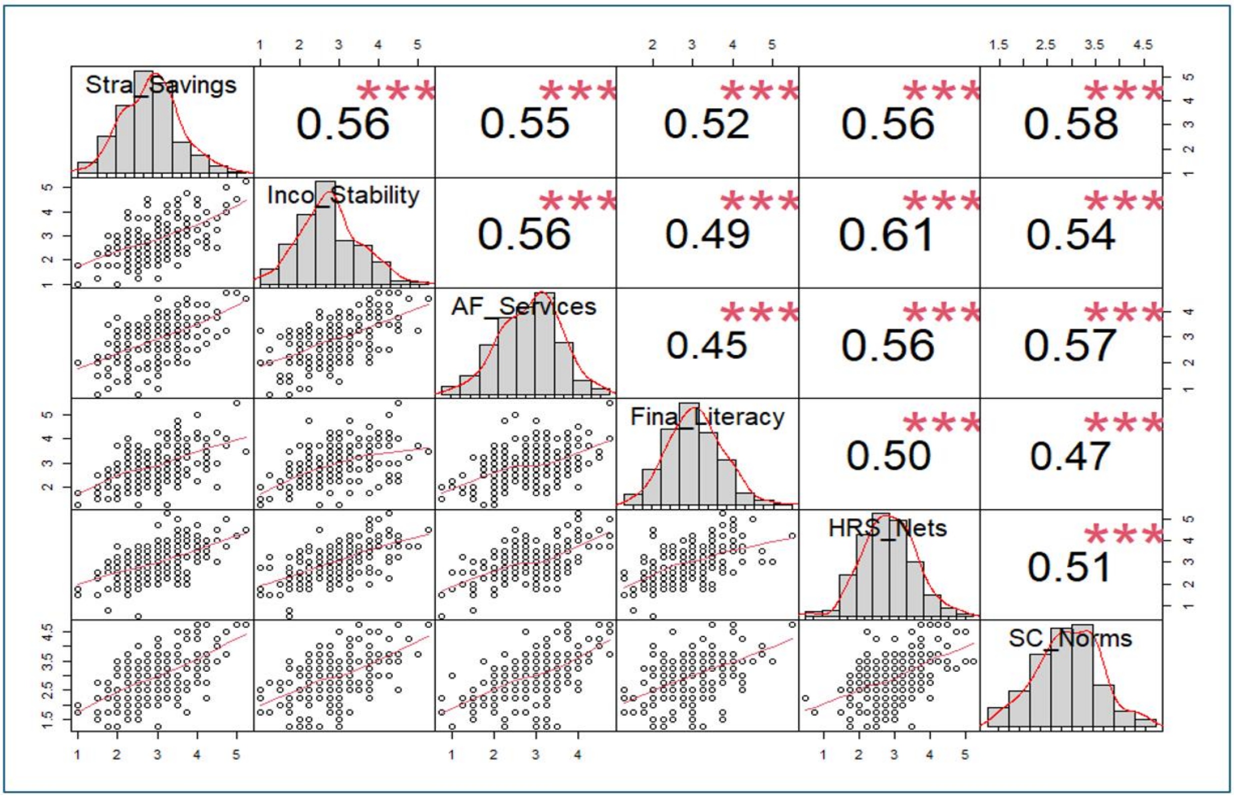

Figure 1. Correlation analysis results.

Note: *** indicates highly significant correlations.

3.5. Multivariate Linear Regression Analysis

It is a statistical technique applied to the investigation of the influence of a great many independent variables upon one dependent variable (Bryk & Raudenbush, 1992). This approach, in essence, puts an explanation to the relationships between independent variables through a simple equation in linear form (Hair, Anderson, Tatham, & Black, 1998). The core purpose of multivariate linear regression is to establish the impact of independent variables on the dependent variable by finding their coefficient values and their magnitude and direction of the impact (Greene, 2003). With these identified coefficients it is then possible to forecast dependent variable outcomes by incorporating independent variable values (Hair et al., 1998). Widely used in social sciences, economics, and other disciplines, it offers a great understanding into the interactions among variables while providing information about these relationships that helps inform predictions about them (Bryk & Raudenbush, 1992).

Table 4. Regression analysis results.

Dependent variable:	
Stra_Savings	
Model	
Inco_Stability	0.080* (0.061)
AF_Services	0.253*** (0.066)
Fina_Literacy	0.174** (0.072)
HRS_Nets	0.157** (0.069)
SC_Norms	0.230*** (0.070)
Constant	0.417* (0.216)
Observations	200
R2	0.494
Adjusted R2	0.481
Residual std. error	0.549 (df = 194)
F Statistic	37.885*** (df = 5; 194)
VIF:	Inco_Stability =1.93, AF_Services =1.48 , Fina_Literacy =1.53 , HRS_Nets =1.92 , SC_Norms =1.75

Note: *p<0.1; **p<0.05; ***p<0.01.

The results of the multivariable linear regression analysis (Table 4) indicate that the regression model is valid to explain the results, as evidenced by the statistical significance of the F-test (p.value = 0.000, df = 5;194) (Hair Jr et al., 2019). The model also does not have multicollinearity, as the variables in the model have a VIF = 1.480<3.00 (Kutner, Nachtsheim, Neter, & Li, 2005). This suggests that the variables are not highly correlated, and the regression coefficients can be estimated with high precision.

4. RESULTS

Our detailed work in Table 4 reveals a compelling narrative regarding determinants affecting the behavior of the poor towards savings in Vietnam. Exploring the details of this data unveils subtle impacts exerted by certain factors on the way saving strategies operate, which gives a broader understanding in academics and the practice of the subject itself.

The central theme of this research revolves around income stability's effects on savings behavior and shows regression coefficient $\beta = 0.153$ with p value = 0.001. This supports H1 whereby stable income will promote the effective saving behavior of the poor. This supports findings in earlier studies which also emphasized the critical part income stability plays in planning for resilience, including in socio-economically disadvantaged environments (Aini & Prasetiantono, 2021) as mentioned by Pesqué-Cela et al. (2021).

We also showed through a regression coefficient β = 0.148 and a p-value of 0.001 that access to financial services illuminates savings behavior. The acceptance of our H2 offers a clearer explanation of how provision of financial services does not only facilitate but acts as a catalyst to positive savings behavior. It corroborates research showing that widening access to financial services has been instrumental in creating a foundation for economic empowerment and inclusion (Cai et al., 2022; Elkington & Hartigan, 2008).

In this study, a pivotal function of financial literacy manifests a regression coefficient of β = 0.178 and a high significance level of p-value = 0.000 for which we support our H3. This means financial literacy plays a critical role in guiding the informed and rationalized behavior regarding saving (Ferrell et al., 2022). In a way similar to the earlier studies that advocated financial education as critical to overcoming poverty (Gauthier et al., 2015; He, 2021) the basic function is to enable savings.

It was shown that our study has further proven how a health risk or safety net could affect savings strategies, based on a regression coefficient of β=0.154 and a p-value=0.001 that confirms our H4. It further corroborates the developing body of work that is beginning to see the role of social safety nets in reducing financial vulnerability (Gauthier et al., 2015) and stimulating savings among economically disadvantaged groups (e.g., (Wucker, 2021)).

The profound impact that social and cultural norms have on savings behavior, as indicated by the regression coefficient β = 0.242 and the corresponding p-value of 0.000, provides evidence for our H5. This particular aspect deserves special attention due to its insight into how deeply ingrained social practices and cultural expectations can shape financial behaviors (for example, (Dadzie et al., 2021)). Recently, this has become one area of rising interest in literature as it influences economic decision-making (for example, (Ojo, 2023)).

5. DISCUSSION

Our study delves into the multi-dimensional interplay of the income stability, access to financial services, financial literacy, risk of falling sick, social safety nets, and deeply embedded social and cultural norms that shape economic behaviors among the poor in Vietnam. Our data collection and analysis, conducted carefully, shed new insights into the determinants of saving behavior through the lenses of financial behavior among the poor in Vietnam and validate the well-known theoretical lenses but provide unique contributions in understanding the peculiarity of economic behavior in the context of developing countries.

The research presents the leading arguments about stable income affecting how people could save. In this aspect, this study confirms previous findings, although it further illustrates how an essential role predictable earnings have in financial planning, especially among the low-income groups, such as Morduch and Schneider (2017). Therefore, the key contribution of this work is providing robust numerical evidence to fill in the existing literature gap regarding theory affirmation in the socio-economic context of Vietnam and subsequently provide an empirical basis for interventions via policies aimed at stabilizing income toward savings.

Financial education, along with access to financial services, is an equally vital part of proper strategies for saving (Cai et al., 2022). The present research fills the void in this regard by illustrating the positive effects through high regression coefficients, suggesting that the mentioned predictors play a role in savings behavior in the economy of Vietnam. This acts as validation for the worldwide calls for financial inclusion and financial education toward economic empowerment and reveals how these aspects play in the social and cultural context of Vietnam.

This new insight presents social safety nets in a whole different light: investigating the interplay between these risk and safety nets and various aspects of social support mechanisms and financial behavior (e.g., (Wucker, 2021)). Thus, this research reveals the positive influence these factors have on saving strategies and will contribute to further elucidating the role that these nets have in softening the impact of the poverty's financial vulnerability among the poor (e.g., (Martenson, 2023)). Therefore, this will imply a larger implication for social policies and development interventions by underlining the importance of an integrated approach in consideration of health security and financial stability.

Besides, through the investigation of social and cultural norms, it is shown that societal norms and expectations as well as familial obligations highly affect decisions concerning financial matters. Our study fills a vacuum that existed in the past when research focused on quantifying this impact in the case of Vietnam, inviting a reassessment of how cultural dynamics shape economic behaviors. It sheds light on how culturally-sensitive financial education and decision-making should be, advocating for policies that allow the consideration of local values and practices as part of decision-making.

The analysis presented synthesizes these findings in a convincing narrative that moves beyond the specific Vietnam socio-economic framework to a discussion of wider themes in financial empowerment of the poor. Our study, which deals with financial behavior, maps areas between socio-economic, cultural, and the behavior itself, hence filling the critical gaps in the literature. It offers practical advice to policymakers, financial institutions, and development practitioners. The implications of this research go beyond Vietnam and point towards a comprehensive understanding of financial inclusion encompassing the structural, educational, and cultural dimensions of economic empowerment. This is exactly where the study contributes in a colorful thread woven into the huge carpet of the world of economic research that combines theory with real-world evidence and implications that enhance the debate on alleviating poverty and building financial resilience among poor people.

6. CONCLUSION

Savings behavior among the poorest emerges from the complicated threads of global economic challenges in vividness and importance in the study and actions. This study, set in Vietnam, seeks to examine the complexities surrounding the financial practices of the country's poor. Since saving is central to building the capacity for resilience and empowerment in the economy, understanding such behaviors in Vietnam becomes more urgent with the fast-tracking of the nation into development and inequality.

This study has contributed to an extension within the existent literature where empirical evidence regarding the drivers for savings strategies in low-income populations in Vietnam was purported. It aimed to render a reliable yet unvarying conclusion on the effects of income stability and access to financial services on saving behavior of some of the psychologically and economically vulnerable groups in Vietnam, namely financial literacy, health risks and safety nets, and social and cultural norms. Based upon our investigations, we have applied a painstaking methodological rigor to analyze the gathered materials and arrive at salient conclusions. The regression analyses suggested that income stability, accessibility to financial services, financial literacy, and health and safety nets positively influence savings behavior. Equally important is the impact of social and cultural norms, which is performed by doing a detailed analysis regarding the culture and socioeconomics of financial behaviors. The insights drawn from this signify critical conceptual contributions to the orientations of economic theoretical positions, pedagogical interventions in relation to actual operating conditions, and socio-cultural oriented constructs as critical linkages to obstacles against prosperous financial ambitions.

The implications of our finding are many: it offers vital suggestions to policymakers, financial institutions, and development practitioners. Our study calls for a mix of the three, arguing for an integrated approach to improve the financial status and emancipation of the poor in Vietnam, focusing on financial inclusion, education, and social support. This categorization of an all-encompassing approach may improve saving conducts within the scope of poverty concessions on a wider frontier of nothing less than national economic development. That said, this study also comes with a fair share of limitations. The extent of this user's research did not allow her to explore bigger questions of this research in different contexts, both within the geographical limits of Vietnam and outside of them. Another limitation of this research is that although it significantly contributes to how things could be in quantitative methodologies, qualitative research could require further attempt to present the individual aspects of the situation as a whole (Curry, Nembhard, & Bradley, 2009).

Further studies wave with promise toward deeper directions and wider applications. Future research on saving decisions of low-income households in developing countries, particularly ones that compare Vietnam and other countries and that draw upon mixed methods, would be of tremendous value to the understanding of saving decisions in developing countries and beyond (van der Venne, van Meijel, Deen, Olff, & Mulder, 2021). Moreover, research on policy interventions that act on these inputs and their effects could prove important in large-scale financial inclusion and economic empowerment. In conclusion, this study adds an important piece to the larger puzzle of economic behavior among the poor in Vietnam. Through an unfolding of its construction, it exposes the determinants of savings mechanisms and offers insights for possible solutions, including future openings for investigation; thus, it becomes a beacon for the commitment of heterogeneous stakeholders-scholars, policymakers, or development practitioners alike. This research takes a step forward in stimulating greater financial resilience and, more generally, empowerment for poor people living in this world, building a strong foundation for further research, inquiry, and action.

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Transparency: The authors state that the manuscript is honest, truthful, and transparent, that no key aspects of the investigation have been omitted, and that any differences from the study as planned have been clarified. This study followed all writing ethics.
Data Availability Statement: Upon a reasonable request, the supporting data of this study can be provided by the corresponding author.
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APPENDIX

Appendix 1 presents the questionnaire, collecting demographic data and measuring financial behavior and savings strategies.

Appendix 1. Questionnaire.

Your profile: Please select ONE answer from each statement that best describes you

Age ☐18-24, ☐25-34, ☐35-44, ☐ over 44

Gender: ☐Male, ☐Female

Education Level: ☐Primary school, ☐Secondary school, ☐Vocational/technical training,

Employment Status: ☐Employed full-time, ☐Employed part-time, ☐Self-employed, ☐Unemployed.

Household Income per month: ☐over VND 5000.000, ☐VND 3.000.000, ☐VND 5000.000

Marital Status: ☐Married, ☐Divorced, ☐Widowed.

Number of Dependents: ☐1-2, ☐3-4, ☐5+.

Type of Residence: ☐Urban, ☐Suburban, ☐Rural.

Housing Status: ☐Own, ☐Rent, ☐Live with family.

This survey examines the impact of financial behavior on savings strategies among the poor in Vietnam. There is no correct or incorrect response on this scale. Please read each statement carefully and indicate your level of agreement using a 5-point Likert scale, where 1 corresponds to "Strongly Disagree" and 5 corresponds to "Strongly Agree."

Income level and stability						
Inco_Stability1	My household's income is predictable and stable month to month.	1	2	3	4	5
Inco_Stability2	I am confident in providing for my household's basic needs.	1	2	3	4	5
Inco_Stability3	My household's income allows us to save for future needs.	1	2	3	4	5
Inco_Stability4	Fluctuations in my household's income rarely affect our standard of living.	1	2	3	4	5
Access to financial services						
A F_Services1	I have easy access to a bank account for personal use.	1	2	3	4	5
A F_Services2	Obtaining credit from formal financial institutions is straightforward for me.	1	2	3	4	5
A F_Services3	I can easily access insurance products (e.g., health, property) when needed.	1	2	3	4	5
A F_Services4	Digital financial services (e.g., mobile banking) are readily available and accessible to me.	1	2	3	4	5
Financial literacy						
Fina_Literacy1	I understand how interest rates on savings and loans work.	1	2	3	4	5
Fina_Literacy2	I am confident in budgeting and managing my household finances.	1	2	3	4	5

Fina_Literacy3	I understand the risks and benefits of different financial products available to me.	1	2	3	4	5
Fina_Literacy4	Making informed decisions about financial investments is something I am capable of.	1	2	3	4	5
Health risks and safety nets						
HRS_Nets1	I am prepared financially to handle unexpected medical emergencies.	1	2	3	4	5
HRS_Nets2	Health insurance is something I can access and afford for my family.	1	2	3	4	5
HRS_Nets3	I am confident in my ability to support my family in case of long-term illness or disability.	1	2	3	4	5
HRS_Nets4	My savings are sufficient to cover unexpected health-related expenses.	1	2	3	4	5
Social and cultural norms						
SC_Norms1	In my community, there is a strong expectation to contribute financially to social events.	1	2	3	4	5
SC_Norms2	I feel pressured to keep up with the financial practices of my neighbors and friends.	1	2	3	4	5
SC_Norms3	Spending money on cultural or religious ceremonies is a priority for my household.	1	2	3	4	5
SC_Norms4	My community commonly lends or borrows money among friends and family without formal agreements.	1	2	3	4	5
Strategies for savings						
Stra_Savings1	I regularly set aside a portion of my income for savings.	1	2	3	4	5
Stra_Savings2	I have a specific strategy or plan for saving for future needs.	1	2	3	4	5
Stra_Savings3	I prioritize saving money even when it means cutting back on daily expenses.	1	2	3	4	5
Stra_Savings4	Unexpected income (e.g., bonuses, gifts) is typically added to my savings rather than spent.	1	2	3	4	5

Thanks for participating!