

Impact of Financial Behaviors on the Financial Wellbeing of Vegetable Farmers in Bhaktapur District

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Abstract


Financial wellbeing is the overall state of an individual's financial health. It reflects the balance between income, expenses, savings, investments, and debt management, ultimately influencing one's financial resilience and quality of life. This study investigates the impact of financial behavior in relation to saving, spending, investment and borrowing on financial wellbeing among vegetable farmers in Bhaktapur District. Required primary data were collected using a structured questionnaire administered through random sampling technique. The respondents comprised 205 vegetables farmers of who produce and sell vegetables in the market. The Smart PLS 4.0 was used to analyze the structural relationships within the proposed theoretical model. The findings validated the set hypotheses that saving behavior, spending behavior, and investment behavior significantly influence financial wellbeing, indicating that prudent financial practices positively contribute to economic stability and growth. However, borrowing behavior does not show a significant effect on financial wellbeing, suggesting that while access to credit may be important, its management and utilization are critical factors to consider for sustainable financial health. Based on the result, policymakers and stakeholders can tailor interventions to enhance financial literacy, improve access to appropriate financial services, and promote sustainable agricultural development in the region. Ultimately, these findings can lead to more informed policies and initiatives aimed at bolstering the financial resilience and livelihoods of vegetable farmers.

Keywords: borrowing behaviour, financial behaviour, financial wellbeing, investment behaviour, spending behaviour

Introduction

Financial wellbeing is a crucial concern for individuals, societies, and nations. It broadly encompasses various aspects of overall quality of life, including income levels, job

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security, housing facilities, living standards, healthcare access, education opportunities, environmental conditions, and social connections (Hicks et al., 2013).

Financial wellbeing means feeling satisfied and comfortable with financial situation. This includes being able to cover current expenses with current income, maintaining savings, managing debt responsibly, handling financial challenges, and overall being content with financial status (Agyei et al., 2019). It's not just about individual or organizational factors; it also impacts larger societal and national levels. Unsatisfactory financial wellbeing doesn't just affect individuals and their immediate circles; it can also strain economic and financial systems at a national level (Wahab & Yaacob, 2018).

Financial wellbeing involves meeting financial commitments on time and having sufficient savings and resources to handle financial shocks. It is a state where a person can fully meet current and ongoing financial obligations, feel secure about their financial future, and make choices that allow them to enjoy life (Camilla et al., 2017). It is a vital component of overall wellbeing of an individual. It includes individuals' feelings of security about their current financial situation, confidence in their financial future, and confidence in funding their retirement (Center for Disease Control and Planning, 2018).

Financial wellbeing is a comprehensive measure of an individual's financial health and stability, encompassing not just their current financial situation but also their future prospects and overall sense of security. It involves having control over day-to-day and month-to-month finances, the capacity to absorb financial shocks, being on track to meet financial goals, and the financial freedom to make choices that allow one to enjoy life (Consumer Financial Protection Bureau, 2015). Achieving financial wellbeing often requires a combination of sound financial practices, such as budgeting, saving, and investing, along with access to financial education and resources. Sound financial behavior is strongly correlated with better financial wellbeing, as individuals are more likely to make informed decisions regarding their finances (Lusardi & Mitchell, 2014). Additionally, financial wellbeing is linked to overall wellbeing, including mental and physical health. Financial stress can lead to anxiety, depression, and other health issues, whereas financial stability contributes to a sense of security and peace of mind (Netemeyer et al., 2018). Policies and programs aimed at improving financial literacy and providing support for financial behavior can play a crucial role in enhancing financial wellbeing on a broader scale, ultimately contributing to healthier and more resilient communities.

Financial behavior encompasses the decisions and actions of an individuals who take in managing their finances, including saving, investing, spending, and budgeting. Financial behavior is interpreted as any human behavior related to money management (Xiao,

2008). Financial behavior pertains to how individuals or groups handle their finances, which includes how they earn, save, spend, invest, borrow, and budget their money (Lusardi & Mitchell, 2022). Good financial behavior is characterized by responsible management of financial resources, which involves avoiding excessive debt, creating and sticking to a savings plan, making informed investment decisions, adopting an economical spending habit, and practicing sound financial decision-making (Knoll & Houts, 2012). People have to make some financial decisions to fulfill their needs; therefore, they have to be able to make the right financial choices to reach financial wellbeing (Huston, 2010).

Financial behavior is profoundly influenced by various factors, including psychological, social, and economic elements. Shu et al. (2017) highlighted that individuals often exhibit irrational financial behaviors driven by cognitive biases and emotional responses rather than purely rational decision-making. Moreover, social norms and peer influences significantly impact financial choices (Fisman & Kariv, 2015). These influences can lead to herd behavior or conformity in financial markets, affecting investment decisions and risk-taking behaviors. Additionally, economic conditions such as interest rates and inflation rates play crucial roles in shaping financial behavior, influencing savings rates, borrowing decisions, and overall financial planning strategies (Chetty et al., 2014). Understanding these diverse influences is essential for policymakers and financial advisors aiming to promote sound financial decision-making and stability in financial markets.

Financial behavior significantly influences financial wellbeing, encompassing various aspects such as spending habits, saving patterns, and investment decisions. These behaviors are critical as they directly impact an individual's financial stability and long-term security. For instance, effective budgeting and prudent saving contribute positively to financial wellbeing by providing a cushion against unexpected expenses and facilitating future financial goals (Fernandes et al., 2014). Conversely, poor financial behaviors, such as overspending or neglecting savings, can lead to financial stress and insecurity (Norvilitis et al., 2006). Therefore, fostering responsible financial behaviors is essential for achieving and maintaining financial wellbeing over the long term.

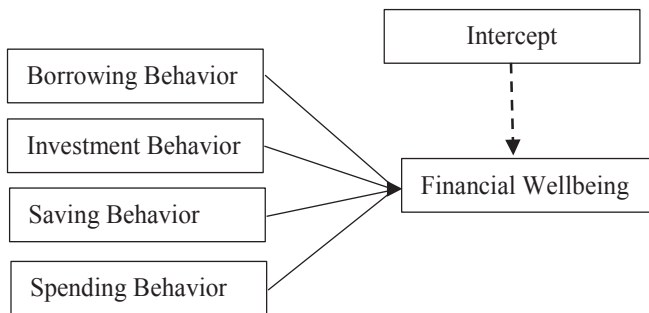
The Nepalese economy heavily relies on the agriculture industry, where vegetable farming has emerged as a significant source of employment and income for many farmers and vegetable businessmen, playing a pivotal role in the country's GDP (FAO, 2023). However, Nepalese vegetable farmers confront substantial financial challenges. These include burdensome loans, exploitation by loan sharks, high interest rates, limited access to formal credit, escalating production costs, inadequate government support, and a lack of financial management skills. These issues contribute to financial losses and

hinder sustainable income generation from vegetable cultivation, potentially impacting the nation's GDP and overall economic growth.

Moreover, inadequate financial behaviour and a lack of training in financial management impede farmers' ability to make informed decisions regarding savings and investments for their financial wellbeing. Considering these facts, this study aims to explore the financial behavior and financial wellbeing of vegetable farmers in Bhaktapur district. On the basis of the literature review, research model for the study has been developed as follows:

Figure 1

Proposed Research Model



Source. Kavita et al. (2021)

Accordingly, a multiple regression model is specified as follows:

$$FWB = \beta_0 + \beta_1 BB + \beta_2 IB + \beta_3 SB + \beta_4 SPB + e_i$$

Where,

- FWB = Financial wellbeing
- BB= Borrowing behavior
- IB = Investment behaviour,
- SB= Saving behavior
- SPB= Spending behavior
- β_0 = The intercept (constant term) and
- e_i =error term

Hypothesis

Borrowing Behaviour and Financial Wellbeing. Borrowing behaviors can significantly impact financial wellbeing, often leading to both positive and negative

outcomes depending on the context and management of debt. While borrowing can facilitate investments in education, housing, or business expansion, excessive debt or mismanagement can strain financial health. Research underscores that high levels of debt can increase stress and reduce overall life satisfaction (Dwyer & McCloud, 2017). Moreover, borrowing at high interest rates or through predatory lending practices can exacerbate financial vulnerability, particularly among lower-income groups (Barr & Blank, 2017). In regions like Nepal, borrowing is often a crucial tool for farmers to purchase seeds, equipment, or to cope with seasonal fluctuations (Kumar & Sharma, 2020). However, if not managed prudently, debt can lead to a cycle of indebtedness, where farmers struggle to repay loans, impacting their ability to invest in their farms or manage household expenses effectively (Singh & Jain, 2019). On the basis of above facts, the following hypothesis has been proposed:

H₁: Borrowing behaviour significant influences financial wellbeing.

Investment Behaviour and Financial Wellbeing. Investment behaviors play a crucial role in enhancing financial wellbeing by enabling individuals to build wealth, manage risks, and achieve long-term financial goals. Diversified investment portfolios tend to yield higher returns while mitigating risk through asset allocation across different financial instruments and sectors. Moreover, engaging in regular investment activities, such as systematic savings and disciplined investment in stocks, bonds, or real estate, contributes to wealth accumulation over time (Lusardi & Mitchell, 2020) and to navigate economic uncertainties and unforeseen expenses (Thaler, 2015). Proactive investment behaviors correlate with improved financial wellbeing indicators such as increased savings rates, higher net worth, and greater financial resilience during economic downturns (Banks & Oldfield, 2007). By fostering a mindset of long-term financial planning and risk management, individuals can enhance their financial stability and prepare for future financial goals, including retirement and education expenses (Campbell, 2006). Investment behaviors not only facilitate wealth creation but also contributes to overall financial wellbeing by providing individuals with the tools and resources to secure their financial futures effectively (Van Rooij et al., 2011). On these facts, the following hypothesis has been proposed:

H₂: Investment behaviour has significant influence on financial wellbeing.

Saving Behaviour and Financial Wellbeing. Cultivating a habit of saving contributes significantly to financial stability and resilience. Morduch and Schneider (2022) argued that saving behaviour not only act as a buffer against financial shocks but also enable individuals to invest in productive assets, thereby boosting income and overall wealth accumulation. This is particularly relevant in agricultural settings where income can

fluctuate seasonally. Savings provide a sense of security and peace of mind (Thaler & Benartzi, 2021) and fosters financial discipline and responsibility (Olen & Pollack, 2023). It encourages individuals to prioritize financial goals and adopt prudent spending habits, which are essential for long-term financial health. Financial planning and resource management are critical to overcoming seasonal challenges and achieving sustainable growth, cultivating a savings habit can lead to improved overall financial wellbeing of the individuals (Fernandez & Alvarez, 2021). Accordingly, the following hypothesis has been proposed:

H₃: Saving behaviour has significant influence on financial wellbeing.

Spending Behaviour and Financial Wellbeing. Spending behavior plays a pivotal role in shaping an individual's financial wellbeing, influencing both short-term financial stability and long-term wealth accumulation. Shahbaz et al. (2023) emphasized that individuals who exhibit disciplined spending tend to have higher savings rates and better financial preparedness for unexpected expenses. It allows individuals to build emergency savings, which serve as a crucial buffer against unexpected expenses or income disruptions (Shim et al., 2021). Moreover, effective budgeting and controlled spending are linked to reduced financial stress and improved overall life satisfaction (O'Donoghue & Rabin, 2022). Moreover, practicing restrained spending habits enables individuals to reduce debt burdens and avoid high-interest payments, thereby improving overall financial health (Han et al., 2023). Furthermore, cultivating a habit of low spending encourages disciplined financial planning and goal setting. Individuals who are mindful of their expenditures are more likely to allocate resources towards long-term financial goals such as retirement savings or education funds (Lee & Hanna, 2022). Based on the above facts, the following hypothesis has been proposed:

H₄: Spending behaviour significantly influences financial wellbeing

Research Methods

To meet the objective of the study, a blend of descriptive and causal-comparative research designs was used. The descriptive research design aimed to outline the characteristics of various predictors of financial wellbeing, while the causal-comparative design focused on identifying the cause-and-effect relationships between these predictors and financial wellbeing of the vegetable farmers of Bhaktapur district. A total of 270 respondents among vegetable farmers of were chosen through random sampling technique. This sample size is for random sampling is considered appropriate on social science research (Babbie, 2016). Primary data was collected through a structured questionnaire with a 5-point Likert scale. The questionnaire was disseminated via personal visit, email and social media platforms. Out of 270 distributed questionnaires,

220 were returned, resulting in 82% response rate, which is generally considered satisfactory (Babbie, 2016). For data analysis, 205 responses were utilized after excluding 15 due to multiple non-responses. Data analysis was conducted using Smart PLS 4. Descriptive statistics were employed to describe the characteristics and interrelationships of the study variables. Multiple regression analysis was used to assess the impact of various dimensions of financial behaviour on financial wellbeing of vegetable farmers.

Results

Demographic Profile of the Respondents

The respondents in this study have a wide range of demographic and socio-economic backgrounds (Table 1).

Table 1
Demographic Profile of the Respondents

Dimension and Group	N	Percent	Dimension and Group	N	Percent
Gender			Types of Family		
Male	168	81.95	Joint Family	145	70.73
Female	37	18.05	Nuclear	55	26.83
Marital Status			Monthly Income		
Married	178	86.83	Up to 30,000	15	7.31
Unmarried	27	13.17	30,000-50,000	45	21.95
Age			51,000-70,000	92	44.88
Below 25	10	4.88	71,000-1,00,000	32	15.61
25-35	34	16.59	Above 1,00,000	21	10.25
36-45	84	40.97	Amount of Investment		
46-55	48	23.41	Up to 2,00,000	45	21.95
Above 55	29	14.15	2,00,001-5,00,000	85	41.46
Academic Qualification			5,00,001-10,00,000	42	20.49
Literate	95	46.34	Above 10,00,000	33	16.1
School Level	88	42.93			
Bachelor	16	7.8			
Above Bachelor	6	2.93			

Note. N = 205

Source. Field survey, 2024

Out of 205 respondents, 81.95 % are male and 86.83% are married. The majority of the respondents belongs to the age group 36-45 years (40.97 %), followed by 46-55 years (23.41). Regarding academic qualifications, 46.34 % are literate, 42.93 % have passed school level, 7.8 % have passed bachelor level and 2.93 % have passed above bachelor

level. The majority of the respondents (70.73 %) has joint family. The monthly income figure shows that 7.31 % earn up to 30,000, 21.95 % earn between 30,000-50,000, 44.88 % earn between 51,000-70,000, 15.61 % earn 71,000- 1,00,000 and 10.25 % earn over 100,000. In terms of investment, 21.95 % respondents invested up to 2,00,000, 41.46 % respondents invested 2,00,001-5,00,000, 20.49 % respondents invested 5,00,001-10,00,000 and 16.10 % respondents invested more than 10,00,000 in their business.

Reliability Analysis

To establish the internal reliability of the variables, Cronbach's alpha reliability test was conducted. It determines whether the items within each dimension are internally consistent or not. The reliability of the scales in this study was evaluated using Cronbach's Alpha, with all scales showing high reliability, Borrowing Behaviour had an alpha of 0.777, Investment Behaviour recorded 0.849, Saving Behaviour 0.844, Spending scored 0.763, and Financial Wellbeing showed 0.798. Each scale comprised 5 items except borrowing behaviours 4 items, and all Cronbach's Alpha values surpassed the acceptable threshold of 0.70 (Nunnally, 1978). The results, as presented in Table 1, indicate that all the scales have good reliability, with Cronbach's Alpha values exceeding the acceptable threshold.

Table 2

Reliability Analysis

Variable	Cronbach's Alpha	No. of Items	Remarks
Borrowing Behavior	0.777	4	Reliable
Investment Behavior	0.849	5	Reliable
Saving Behavior	0.844	5	Reliable
Spending Behavior	0.763	5	Reliable
Financial Wellbeing	0.798	5	Reliable

Source: Field survey, 2024

Descriptive Statistics and Pearson Correlation

Table 3 presents the descriptive analysis and correlation coefficients of the variables used in the study. The descriptive statistics revealed varying mean scores and standard deviations. BB has the highest mean ($M = 4.072$) and the average standard deviation ($SD = 0.646$), suggesting that BB indicating greater variability in the comparison of saving and spending behaviour. SB scores of standard deviations are generally lower and more consistent among participants. In contrast, SB has the lowest mean score ($M = 3.528$). Overall, the mean scores for the other variables range from 3.528 to 4.072, with standard

deviations ranging from 0.551 to 0.693, demonstrating a moderate level of variability in responses.

The correlation analysis indicates that FWB is positively correlated with SB ($r = 0.108$), IB ($r = 0.156$), BB ($r = 0.244$), and SPB ($r = 0.439$). The highest correlation is between FWB and SPB ($r = 0.439$). IB is positively correlated with BB ($r = 0.242$) and weakly correlated with SPB ($r = 0.050$) and SB ($r = 0.023$). BB has a strong positive correlation with SPB ($r = 0.467$), while SB shows a negligible correlation with IB ($r = 0.023$) and a negative correlation with BB ($r = -0.002$) and SPB ($r = -0.027$). The findings indicate that improving spending behaviors can have the greatest impact on enhancing individuals' financial wellbeing.

Table 3
Descriptive Analysis and Correlation Coefficients

Variable	Mean	SD.	1	2	3	4	5
FWB (1)	3.6468	0.68439	1				
BB (2)	4.0722	0.64584	0.244**	1			
IB (3)	3.7971	0.69296	0.156*	0.242**	1		
SB (4)	3.5280	0.55085	0.108	-0.002	0.023	1	
SPB (5)	3.9532	0.56996	0.439**	0.467**	0.050	-0.027	1

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

*Correlation is significant at the 0.05 level (2-tailed) **

Where: *FWB- Financial wellbeing, BB- Borrowing Behaviour, IB- Investor Behaviour, SB- Saving Behaviour and SPB- Spending Behaviour*

Regression Analysis

The regression analysis results indicate the relationship between various factors of financial behaviors (Borrowing, Spending, Saving, Investment) and Financial Wellbeing. The model's R^2 value is 0.225, suggesting that approximately 22.5% of the variance in financial wellbeing is explained by the model. The F-test indicates that the overall model is statistically significant ($p < 0.001$). Durbin-Watson statistic is 1.903, which is close to 2, indicating that there is no significant autocorrelation in the residuals (Durbin & Watson, 1951). The Variance Inflation Factor (VIF) values for all variables are below 5, suggesting that multicollinearity is not a concern (Kutner et al., 2004).

Table 4
Regression Coefficient

Predictor	β	SE	T value	P value	VIF
BB	0.013	0.077	0.175	0.862	1.362
IB	0.128	0.064	1.994	0.048	1.068
SB	0.117	0.077	1.878	0.062	1.001
SPB	0.430	0.085	6.093	0.000	1.286
Intercept	0.000	0.471	1.180	0.240	

$R^2 = 0.225$, $Adjusted R^2 = 0.209$, $F(4, 200) = 14.502$, $p < 0.001$, $D-w = 1.736$.

Outcome variable: Financial Wellbeing

Where: SB- Saving Behaviour, IB- Investor Behaviour, BB- Borrowing Behaviour, SPB- Spending Behaviour

Test of Hypotheses

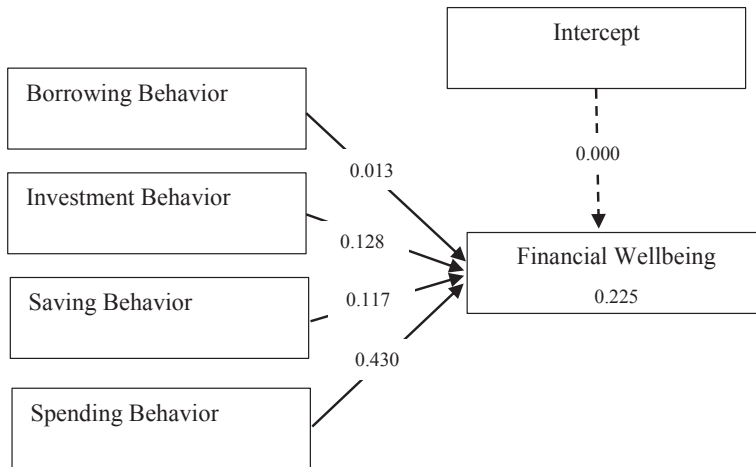
The results of the regression analysis (as per table 4) indicate that BB does not have a statistically significant effect on FWB ($\beta = 0.013$, $p = 0.862$). Hence, the hypothesis (H_1) is not supported. IB has a statistically significant positive effect on FWB ($\beta = 0.128$, $p = 0.048$). Therefore, the hypothesis (H_2) is supported. SB has a statistically significant effect on FWB at the 0.1 level ($\beta = 0.117$, $p = 0.062$). As such, the hypothesis (H_3) is also supported. Finally, SPB has a statistically significant positive effect on FWB ($\beta = 0.430$, $p < 0.001$). Thus, the hypothesis (H_4) can also be accepted. Table 5 given below provides the summary of hypothesis testing followed by figure 2 presenting the final research model.

Table 5
Summary of Hypotheses Testing

Hypotheses	Statements	P Value	Remarks
H_1	Borrowing behaviour has significant influence on financial wellbeing.	0.862	Rejected
H_2	Investment behaviour has significant influence on financial wellbeing.	0.048	Supported
H_3	Saving behaviour has significant influence on financial wellbeing.	0.062	Supported
H_4	Spending behaviour significantly influences financial wellbeing	0.000	Supported

On the basis of above analysis and hypothesis testing the following final model has been developed relating to financial behaviour and financial wellbeing.

Figure 2
Final Research Model



Discussion

The findings of the study offer insights about financial wellbeing of vegetable farmers of Bhaktapur district. The results of this study demonstrate that financial behaviors, including saving, spending, and investment behaviors, have significant impacts on the financial wellbeing of vegetable farmers. However, borrowing behavior does not appear to significantly affect financial wellbeing. These findings are crucial for understanding how different financial practices influence the economic stability and satisfaction of this demographic. The analysis indicates that saving behavior has a significant positive effect on financial wellbeing. This finding aligns with previous studies that highlight the importance of savings in ensuring financial security and stability. Lusardi and Mitchell (2007) emphasized that regular savings contribute to the accumulation of assets and provide a buffer against financial shocks, thereby enhancing overall financial wellbeing. Similarly, Osei-Assibey (2010) found that individuals who engage in consistent saving practices tend to have higher levels of financial satisfaction and security. Prudent spending, characterized by budgeting and avoiding unnecessary expenditures, contributes to better financial health and stability. This finding is supported by various studies which suggest that effective money management, particularly in controlling discretionary spending, can significantly improve one's financial situation. Xiao and Dew

(2011) found that individuals who engage in responsible spending practices, such as keeping track of expenses and sticking to a budget, report higher levels of financial satisfaction and less financial distress. This study's results are consistent with the broader literature that underscores the role of judicious spending in achieving financial wellbeing. It suggests that initiatives aimed at educating farmers on effective spending strategies and financial planning could have a substantial positive impact on their financial health.

Gutter and Fontes (2006) and Behrman et al. (2012) indicated that individuals who actively engage in investment activities, such as purchasing livestock, machinery, or engaging in other agricultural improvements, tend to have higher financial wellbeing due to the potential for increased income and asset value. The investments in better farming techniques, quality seeds, and technology can lead to improved productivity and, consequently, higher income levels. This increased financial return from investments can provide a safety net during adverse times and help farmers achieve a more secure financial position and significantly boost their financial wellbeing. On the contrary to the other financial behaviors, borrowing behavior does not have a significant effect on financial wellbeing in this study. This result diverges from some studies that suggest borrowing can either positively or negatively affect financial health depending on the context and purpose of the loans. Zeller and Sharma (1998) found that access to credit can enhance financial wellbeing by enabling investments in productive assets and smoothing consumption. However, other studies, such as those by Lusardi and Tufano (2015), indicate that borrowing, particularly high-interest or unproductive loans, can lead to financial distress and lower wellbeing. The lack of significant impact observed in this study could be due to the nature of the borrowing by vegetable farmers in Bhaktapur, where loans might be used primarily for consumption rather than productive investments, or due to the high cost of borrowing. Therefore, while borrowing can be a useful tool for managing cash flow and making investments, the type and terms of borrowing, along with the purpose of the loans, are critical factors that determine its impact on financial wellbeing.

Conclusion

The study concludes that the financial wellbeing of vegetable farmers in Bhaktapur District is significantly influenced by their financial behaviors. Farmers who exhibit consistent saving practices are better equipped to build a financial cushion that offers protection against unexpected expenses and economic fluctuations, thereby enhancing their financial stability. Responsible spending behavior, characterized by prioritizing essential expenditures and avoiding unnecessary debt, further contributes to effective financial management and positively impacts their financial health. Additionally, those

who make informed and strategic investment decisions are likely to see their financial assets grow, which in turn strengthens their financial wellbeing. Investments in advanced farming technologies, quality seeds, and other agricultural inputs can lead to increased productivity and income, providing a substantial boost to their financial condition. In contrast, borrowing behavior does not show a significant effect on financial wellbeing. This finding suggests that reliance on loans or credit does not necessarily lead to improved financial conditions, possibly due to the financial strain caused by interest payments and debt obligations.

The results of the study underscore the importance of fostering positive financial behaviors such as saving, prudent spending, and wise investing among vegetable farmers to enhance their financial wellbeing. Financial education programs and support services tailored to the needs of these farmers could play a crucial role in promoting these beneficial behaviors, ultimately contributing to the resilience and prosperity of the agricultural community.

The study has some of the limitations. Firstly, the sample size may not be large enough to generalize the findings across the entire population of vegetable farmers in the district, potentially leading to biased results. Secondly, the study relies on self-reported data, which may be subject to inaccuracies due to recall bias, where respondents might not accurately disclose their financial behaviors and wellbeing.

Implications of the Study

The study on financial behavior and financial wellbeing among vegetable farmers has several important implications. Understanding the financial behavior of these farmers can provide insights into their spending, saving, and investment patterns, which are crucial for developing targeted financial education and support programs. Improved financial literacy and behavior can lead to enhanced financial wellbeing, enabling farmers to better manage their resources, invest in productive assets, and mitigate risks. Additionally, the findings can inform policy interventions aimed at promoting sustainable agricultural practices and economic resilience in the region. Overall, enhancing financial behavior and wellbeing among these farmers can contribute to greater economic stability and economic growth of the country.

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