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Socioeconomic Drivers of Women's Saving Behavior: Evidence from Cooperatives in Birendranagar, Surkhet, Nepal

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ABSTRACT

This study investigates the socioeconomic factors influencing women's saving behavior in cooperatives of Birendranagar, Surkhet, Nepal, focusing on financial knowledge, self-control, family and peer influence, and saving intention as predictors, with saving behavior as the dependent variable. Grounded in the Theory of Planned Behavior, the research employed a cross-sectional quantitative design, collecting data from 152 women of savings and credit cooperatives of Birendranagar are selected through purposive sampling design, using a structured questionnaire. The study revealed that financial knowledge ($\beta = 0.285816$, $p = 0.0001$), self-control ($\beta = 0.274769$, $p = 0.0421$), and saving intention ($\beta = 0.137477$, $p = 0.0195$) significantly and positively affect saving behavior, explaining 83.98% of its variance (R-squared = 0.839757). However, family and peer influence ($\beta = 0.121741$, $p = 0.8667$) showed have no significant effect, possibly due to moderate multicollinearity (VIF < 5) among predictors. Diagnostic tests confirmed the model's validity, with no significant issues in linearity, normality, homoscedasticity, autocorrelation, or specification. The findings highlight the critical role of financial literacy, self-discipline, and planning in promoting women's saving practices, offering practical insights for cooperative-based interventions to enhance financial empowerment in semi-urban Nepal.

1. INTRODUCTION

Financial literacy is crucial in empowering individuals to make informed decisions about their finances, and financially literate people are more likely to make the right choices when it comes to savings, investments, and retirement planning (Li, 2020). In many rural/semi-urban parts of developing countries, financial literacy is extremely low, and women are disproportionately affected by this (with educational barriers as well as economic barriers to participating) (Raut & Kagotho, 2024). Studies done in a similar context found that a

lack of financial literacy greatly affects the extent of guiding one's income into savings and preventing their involvement in other financially oriented activities like cooperatives (Sharma & Shahi, 2022). Aside from financial literacy, an individual's psychological traits (i.e., self-control) determine whether someone is self-motivated to save. Self-control is defined as the capacity to delay gratification, or pleasures, for immediate benefits, or pleasure, in other words. Numerous studies have shown that self-control and consistency of saving have a high correlation (Chi et al., 2025). A woman's sense of self-control may be particularly relevant in cooperative saving plans due to its long-term usage and need for continued disciplined financial commitment. Family may also be a determinant, since the degree to which one is financially dependent or not is determined (at least habitually) by a family's expectations as well as culture. Studies in Nepal have found that families can be both enabling and constraining with respect to women's saving attitudes and practices (van Dongen et al., 2024).

The influence of peers in a cooperative is another element affecting a person's tendency to save. Cooperatives provide a social environment with shared experiences and women being able to spur each other on that supports good financial behavior. Social Learning Theory describes this scenario and involves how one learns behavior by watching others and being a part of their social groups (Müller et al., 2021). Therefore, social networks of peers in a cooperative can develop saving behaviors through group norms, accountability and a zeitgeist of respondent partnership (Sharma & Shahi, 2022).

The concept of being financially well is pervasively influenced by individual money management behaviours, particularly in developing economies where conditions are undoubtedly far more volatile than those we are blessed with in the West. Various studies have shown that one’s saving behaviour is affected by social, psychological, and financial attributes, making it more likely that an individual will undertake actions associated with planning for their financial future (Xiao, 2020). Enter cooperatives, a potential answer to all our questions regarding how women can be financially empowered, and it is pivotal to work out what factors influence women as they undertake saving behaviours for cooperative advancement. The city of Birendranagar in the Surkhet District was a suitable location to study the socio-economic factors behind women’s saving intentions and behaviours, considering the cooperative movement there. There is a plethora of theoretical and empirical literature to validate the belief that financial literacy is indispensable for people to make informed financial decisions. The positive link between financial literacy and people’s ability to make such rational phenomena of money management decisions as saving, investing, and developing retirement plans ultimately makes them Eager savers (Li, 2020). Regrettably, however, the proposed need for financial literacy is very acute at the grassroots levels in most rural and semi-urban areas of most developing nations, such as in Africa, where women are particularly seriously disadvantaged by fewer educational and economic opportunities (Raut & Kagotho, 2024). In a similar context in Nepal, it was argued that inadequate financial knowledge in women is likely to curtail the volume of income that they are able and willing to allocate for savings and other financially oriented activities such as participation in cooperative systems (Sharma & Shahi, 2022).

But beyond financial literacy, psychological factors and self-control are crucial determinants of saving behavior. Self-control, as the human ability to control impulses to give way to instant gratification whilst working toward a future benefit, has been reported as a critical factor among those who make it a habit of regularly setting aside a portion of their income (Chi et al., 2025). Since members of cooperatives who save there must necessarily embody some measure of this self-control discipline for months on end, they are likely to be women in that respect. Then again, family influence is an important factor in the decisions of the same

woman. Cultural orientation and family dependence are likely to eclipse one's autonomy as to savings and other financial risks, as has been demonstrated from a similar study to ours in Nepal, which also found that family members' expectations can facilitate or inhibit women's savings attitudes and behaviors in response times (Van Dongen et al., 2024).

Peer group members in the cooperative constitute another influence. Through social interaction, cooperatives traditionally have their members look out for one another to realize their dreams in what social learning theory calls a social group to which a person is attached as a member and where learning takes place via other members observing and modelling the behaviours of others (Müller et al., 2021). This peer network becomes even more important in leading to women members of the cooperatives developing good saving habits and becoming accountable by monitoring each other in a culture of saving (Sharma & Shahi, 2022).

This study investigates the social/economic factors that are affecting the women's saving behavior in cooperatives in Birendranagar, Surkhet, Nepal. It examines four independent variables (financial knowledge, self-control, family and peer influence and saving intention) that it assumes will affect their saving behavior, the dependent variable (Ajzen, 1991).

This study addresses an important gap in the literature by examining the interaction of social/economic and psychological factors that shape women's saving behaviors in the unique cultural/ socio-economic context of Surkhet, Nepal. Through the generation of empirical evidence, this research provides cooperative institutions and policymakers with information on how to develop targeted intervention strategies and financial education programs that can promote women's saving behaviors. Ultimately, this study demonstrates the importance of saving for promoting women's economic development, reducing poverty, and increasing gender equality in developing countries.

Literature Review and Development of Hypothesis: The financial empowerment of women in the form of savings is a significant mechanism of the creation of economic independence in women in developing nations like Nepal (World Bank, 2020). The saving behavior phenomenon implies the rational distribution of resources that will be used in the future and is mediated by a range of socio-economic and psychological factors. It is, therefore, necessary to explain the socio-economic variables that determine the saving pattern of women in Birendranagar, Surkhet, in a bid to achieve financial empowerment of women. Behavioral economists are of vital interest to these socio-economic determinants. As soon as mentioned above, the socio-economic variables which determine the saving behavior of women cannot be neglected in the understanding of their saving behavior and especially applicable in the understanding of saving behavior in cooperative organizations. This paper combines self-determination and group economic behavior by examining financial knowledge, self-control, family influence, and peer influence in Surkhet, Nepal.

Financial Knowledge and Women's Savings: Financial literacy provides people with the skills necessary to make sound financial judgments. Financially literate people are more likely to realize their saving requirements, determine financial products available, and create a saving habit (Boto -Garcia et al., 2022). Boto-Garcia et al. consider that the issue of financial socialization, which takes place in the early life of an individual, has a great impact on the development of savings habits among women (2022). Further, Boto-Garcia et al. (2022) show that women who have had formal training in financial literacy show a greater intention and propensity to save as compared to those who did not. Furthermore, as Boto-Garcia et al. (2022) claim, inaccessibility to financial information and education has an extremely negative impact on the ability of marginalized women to save effectively. Nunez -Letamandia, Sanchez-Ruiz and Silva (2024) also explain

that investment product literacy (a knowledge of the kind of investments there are and how they work) has a direct correlation with successful savings behaviours. The link between financial knowledge and saving behavior can be hypothesized as:

HA1: There is a significant positive relationship between financial knowledge and women's saving behavior.

Self-Control and Saving Behavior: Self-control plays an important role in financial behavior through psychology. Financial literacy can be enough to save, but without self-control, this can result in no savings. In studies of micro-enterprise owners, it has been found that "Financial literacy does not automatically translate into effective saving; it requires the intervening variable of self-control" (Mpaata, Koske, & Saina, 2021). Thus, self-control is supported through self-determination theory. The theory indicates that intrinsically motivated behavior (i.e., personal restraint and goal setting) leads to fiscal prudence (Di Domenico et al., 2022). Therefore, among economically vulnerable women in Nepal, higher levels of self-control could provide an adaptive resource to prioritize saving and delay consumption. The association can be hypothesized as:

HA2*: There is a significant positive relationship between self-control and women's saving behavior.*

Family or Peer Influence and Saving Behavior*:* Families typically have a significant influence on people's attitudes toward money and how they spend money; however, in countries such as Nepal, which are considered collectivistic cultures, family influences on an individual's propensity for saving are far-reaching. Zhu (2020) provides insight into the relationships between the socialization of adolescents by their parents about money and saving habits and found that when parents teach children about saving money and the importance of money saving, this results in long-term financial responsibility of those children. Cooperative models of saving, common in the Surkhet area, rely on familial trust and the shared responsibilities of family members to encourage and motivate the use of shared resources to save collectively. Intergenerational financial expectations of the community will also most likely be a motivator for women to follow the example of their mothers' or grandmothers' saving patterns.

Peer groups have been shown to have a considerable influence on an individual's financial behavior. The peer group can act as a model for the encouragement or discouragement of saving money. A meta-analysis was completed by Giletta et al. (2021) regarding the effect of peers on the economic behaviors of adolescents and adults. The findings from this study support the conclusion that the influence of peers has a significant impact on the economic behaviors of individuals, specifically on the development of intentions and practices of saving money. In addition to influencing saving behaviors individually, the cooperative nature of many of these environments creates an environment where peer interaction with one another reinforces the desire to save money by creating a sense of shared financial goals and reinforcing behavioral norms. This concept of peer influence is consistent with the behavioral interdependence discussed in the context of Zhu (2020). Zhu's discussion of behavioral interdependence refers to the ability of an individual to make economic decisions based upon the actions of other individuals. A possible hypothesis stemming from this is:

HA3*: There is a significant positive relationship between family and peer influence and women's saving behavior.*

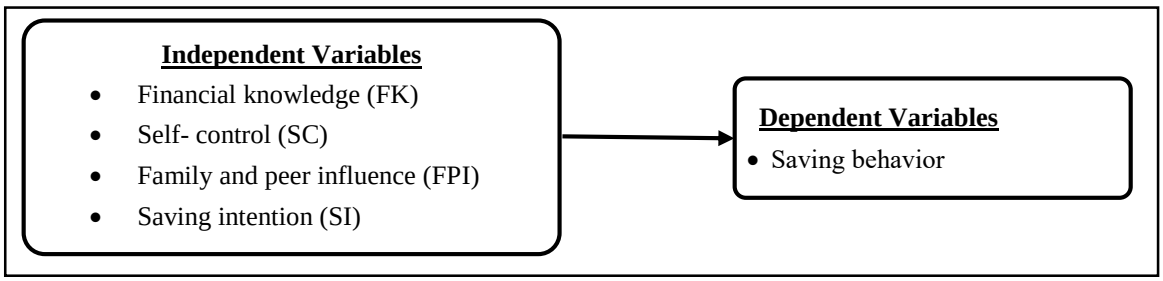
Saving Intention and Saving Behavior: Intention to save precedes behavior to save. Lučić et al. (2024) state that a person's attitude towards money, financial knowledge, past experiences with savings, and self-efficacy affect his/her intention to save. The theory of this study extends the theory of planned behavior

(Fishbein & Ajzen, 2010) by including additional variables such as economic conditions, social conditions, and family conditions that are the cause of an individual's intention to save. These can then lead to savings behavior. Fishbein and Ajzen (2010) have indicated that when an individual has strong intentions to save, they will take action to save. In Eastern Nepal, Poudel and Pokharel (2018) demonstrated that women from cooperatives in eastern Nepal who had a clear intention to save were able to contribute consistently to the cooperative due to its structure. In Birendranagar, it is possible for the intention to save to serve to bridge the gap between socioeconomic conditions and saving behavior. Therefore, the intention to save can be seen as a key variable. The hypothesis can be stated as:

HA4*: There is a significant positive relationship between saving intention and women's saving behavior.*

Theoretical Framework and Research Gap: This study is based on Ajzen's (1991) Theory of Planned Behavior, which indicates that saving behavior is influenced by financial knowledge, self-regulation, and social influences of peers and families, all through the lens of a woman's savings intention. However, prior global studies are strong in providing evidence for the theory's components (Lusardi & Mitchell, 2014; Strömbäck et al., 2017); however, there is little empirical research applying those findings to rural and semi-urban areas such as Birendranagar, Nepal. In addition, research in Nepal has indicated that cooperatives play an important part in promoting women's economic empowerment (Poudel & Pokharel, 2018; KC, 2018), but very few studies have examined how those factors interrelate in Surkhet District, which has the lowest literacy rate in the country and has many patriarchal-based cultural practices (ADB, 2018). This study fills that void with its investigation of the relationships among the variables identified and provides insight into the ways in which women can achieve financial empowerment through savings in cooperatives.

Figure 1: *Conceptual framework of the study*



2. METHODS

This study employs a quantitative research design in order to examine the social economic factors that influence the saving behaviors of women members in cooperatives in Birendranagar, Surkhet. The target population of this study consists of women who have been actively involved in savings and credit cooperative activities for at least one year. In this study, a purposive sampling method was employed, resulting in a sample of 152 respondents. The sample size was such that the resulting cohort was representative of the target population, and at the same time, it helped address the logistical limitations of conducting field research. The participants were given structured questionnaires to get the necessary data for this study. The measures were created based on the previously tested scales and converted into Nepali version to allow the participants to answer the questions in the local language. The enumerators supported the participants in understanding the questions of a survey and supported the participants with less literacy skills (KC, 2018; Chapagain, 2015).

The questionnaire included five scales, which were intended to measure financial knowledge (Lusardi & Mitchell, 2014), self-control (Tangney et al., 2004), family and peer influences (Shim et al., 2009), saving intentions (Ajzen, 1991) and actual saving (Perry &Morris, 2005). All scales utilized a 5-point Likert-type format and had been contextualized to be used in Nepal (Khanal, 2017. In addition to testing the validity of the scales using Cronbach's alpha (Hair et al., 2010), the reliability of the scales will be examined for internal consistency.

Multiple regression analysis was employed to analyze the data collected in this study. Specifically, Eviews 13 software was used to conduct multiple regressions to examine the relationship between the independent variables (financial knowledge, self-control, family and peer influences, and saving intentions) and the dependent variable, saving behavior. Statistical significance was established at the $p < 0.05$ level, a common level of statistical significance that has been widely accepted in the field of behavioral research (Hair et al., 2010). To ensure that the results of the multiple regression are valid, the following assumptions will be evaluated: linearity (to determine if the relationship between the independent variables and the dependent variable are linear); normality (to determine if the residual errors are normally distributed); and homoscedasticity (to determine if the variance of the residual errors is equal across all values of the independent variables). Multicollinearity will also be evaluated to ensure that none of the independent variables are highly correlated with each other and that the residuals are independent (i.e., do not exhibit systematic patterns). By evaluating the above assumptions, the researcher will provide a strong and reliable foundation for interpreting the contributions of the independent variables to explain variations in the dependent variable, saving behavior.

Finally, ethical considerations follow global norms adapted for local contexts and all necessary approvals are obtained before commencing the study. Participants will be informed of the purpose of the study and their right to withdraw at any time during the study. All references cited in the study are published and come from reputable sources. Studies done in Nepal have enhanced the relevance of the study to the local context, providing a solid and ethically sound basis for examining the role of women's financial empowerment in Birendranagar's cooperatives.

3. RESULTS

This section presents the results from the data analysis, including a reliability test to evaluate the consistency of the measurement scales, and a multiple regression analysis carried out in statistical software "Eviews 13" to identify the relationships between the independent variables and the dependent variable, saving behavior. Statistical significance was defined as $P < 0.05$, as is typical in behavioral research (Hair et al., 2010). In addition, classical assumptions were evaluated to establish the validity and robustness of the regression analysis, and the results of those tests, along with the regression analysis are included below.

Reliability Test: Before conducting the regression analysis, the reliability of the measurement scales for each variable was evaluated via Cronbach's Alpha to determine if there was Internal Consistency across all constructs. The results demonstrated acceptable reliability across all constructs: Financial Knowledge (α = .934); Self-Control (α = .725); Family and Peer Influence (α = .746); Saving Intention (α = .879); Saving Behavior (α = .883); Overall (α = .834). All values were above the commonly accepted threshold of .7 for Social Science Research (Taber, 2018). These results confirm that the items used to measure each variable

were consistent and reliable; therefore, they provided a solid foundation upon which to conduct additional statistical analyses.

Table 1: Reliability Test

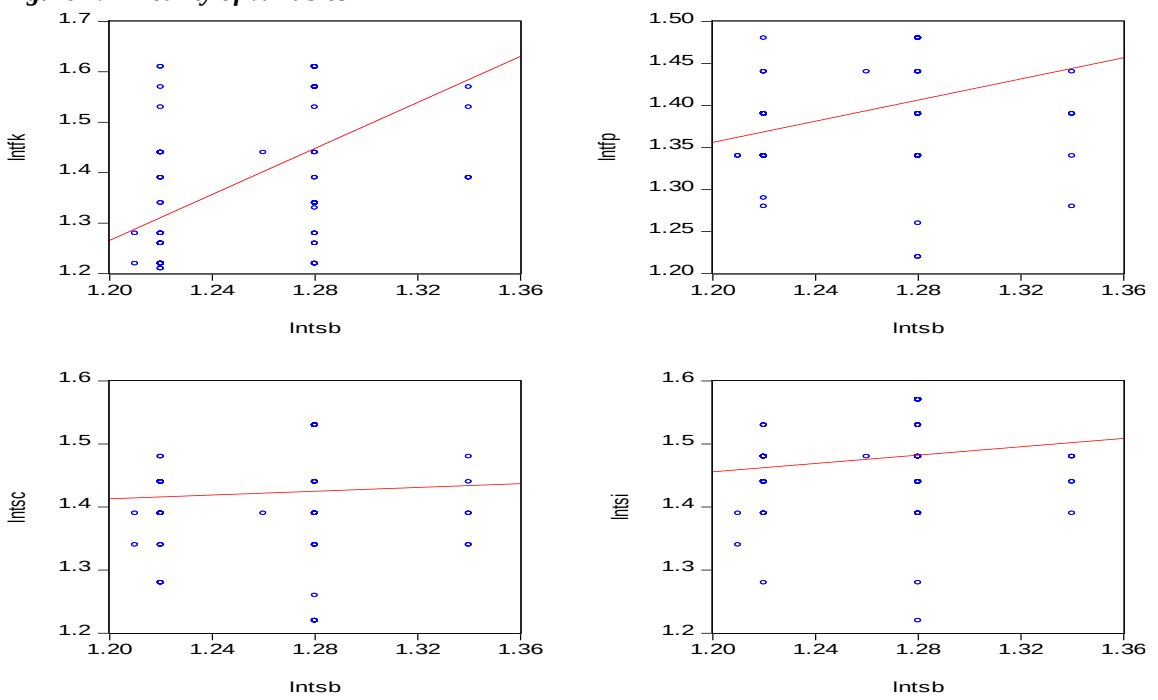
Variables	No of items	Cronbach's Alpha
financial knowledge (FK)	5	0.934
self- control (SC)	5	0.725
family and peer influence (FPI)	5	0.746
saving intention (SI)	5	0.879
saving behavior	5	0.883
Overall		**0.834**

Source: Author calculation using

Multiple Regression Analysis and Classical Assumption Tests*:* Multiple regression analysis was conducted in Eviews to investigate how independent variables influence saving behavior. Before interpreting the regression coefficients, the classical assumptions of regression were evaluated to ensure model validity.

Linearity of dependent and independent variables: Assuming linearity is an assumption that the relationship of the independent variables to saving behavior is linear in nature. To check this assumption in Eviews the author plotted scatter plots for each independent variable (financial knowledge, self- control, family & peer influence and saving intention) vs the dependent variable, saving behavior. All the scatter plots had linear trends with no apparent curvilinearity or other types of non-linearity. Therefore, the assumption of linearity was met, confirming the appropriateness of using a linear regression model to measure the association among them.

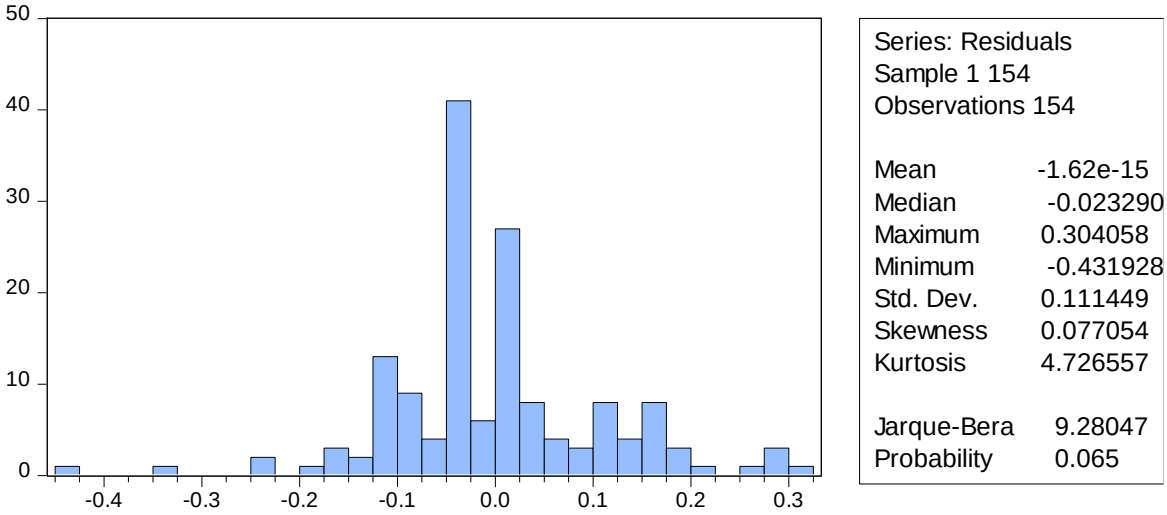
Figure 2: Linearity of variables



Normality of Residuals: The purpose of a normality test is to determine if your data follows a normal (or Gaussian) distribution and therefore has come from a normally distributed population. When you are conducting regression analysis, it is also very important to check for normality, as this will help you know if your significance tests and confidence intervals are valid. The Jarque-Bera test can be used to check for normality by checking for skewness and kurtosis in the residual data.

Null hypothesis (H_0): The data are normally distributed.

Alternative hypothesis (H_1): The data is not normally distributed.



In Figure 2, the graph P-value of Jarque-Bera is greater than **0.05**, **fail to reject H_0,** so the data is normally distributed.

Testing for normality is a crucial step in regression diagnostics, as violations may affect the reliability of statistical inferences.

Homoscedasticity (Constant Variance): The assumption of homoscedasticity implies that there will be a constant variance among residuals for each level of the independent variable(s). The Breusch-Pagan-Godfrey test for heteroscedasticity was used to evaluate this condition with Eviews. Hypotheses in statistical regression analysis regarding homoscedasticity are defined as follows:

Null Hypothesis (H_0): Residuals exhibit homoscedasticity (i.e., constant variance).

Alternative Hypothesis (H_1): Residuals do not exhibit homoscedasticity (i.e., non-constant variance).

Table 3: Heteroskedasticity Test: Breusch-Pagan-Godfrey

F-statistic	5.501607	Prob. F (4,149)	0.0004
Obs*R-squared	19.81791	Prob. Chi-Square (4)	0.0745
Scaled explained SS	34.56740	Prob. Chi-Square (4)	0.0694

Source: Author calculation using Eviews

If the **p-value is 0.0745 > 0.05**, **fail to reject H_0** → The assumption of homoscedasticity holds.

The test produced a chi-square statistic of 19.81 with a p-value of 0.0745 > 0.05, failing to reject the null hypothesis of homoscedasticity. Thus, the homoscedasticity assumption was upheld.

Test of Multicollinearity: Multicollinearity can be observed in a multiple regression analysis where multiple independent variables (i.e., predictors) have a substantial correlation, therefore, they have a lot of similar data, which makes it difficult to determine how each predictor individually affects the dependent variable and will affect the overall fit of the model (Hair et al., 2010; Gujarati & Porter, 2009). Using an example from a study about saving behavior using predictors such as financial knowledge, self-control, family and peer influences, and saving intention as examples of the above, if there is a high degree of correlation (i.e. 0.9) between financial knowledge and saving intention, then it may obscure the unique role that each predictor has (Wooldridge, 2016).

Table 4: Variance Inflation Factors

Variable	Coefficient Variance	Uncentered VIF	Centered VIF
TFK	0.000481	93.80996	2.941581
TFP	0.005222	1013.144	4.225663
TSC	0.002970	617.3703	3.868952
TSI	0.004208	970.9915	3.627615
C	0.037423	451.8543	NA

Source: Author calculation using Eviews

The Variance Inflation Factor (VIF) table examines whether there is multicollinearity between the independent variables in your regression model. The Centered VIFs are generally considered the best indicator of how much the variance of each independent variable will be increased by its correlation with the other independent variables. In general, if the VIF is greater than 10, it shows multicollinearity issues. In this instance, however, all of the Centered VIFs are less than five; TFK = 2.94, TFP = 4.23, TSC = 3.87, and TSI = 3.63. Therefore, these values indicate that while the variables do exhibit some relationships to one another, the relationships are not overly strong; therefore, multicollinearity is not an issue. The constant term (C) does not have a Centered VIF since it is not an independent variable. Thus, overall, the data indicates that multicollinearity is a non-issue and the reliability of the regression coefficients is acceptable. As such, we can conclude that the assumptions for multicollinearity were met and therefore each independent variable provides unique contributions to the model.

Auto Correlation Test: The Breusch-Godfrey Serial Correlation LM Test evaluates for autocorrelation in the residuals of the regression model, particularly in the context of time series or panel data. Auto-correlation occurs when residuals are correlated over time, which violates the assumption of independent errors. Violating this assumption can lead to distorted standard error estimates and potentially impact on the validity of hypothesis testing. One of the advantages of using the Breusch-Godfrey Serial Correlation LM Test is that it can detect higher-order correlations in addition to first-order correlations. Additionally, the Breusch-Godfrey Serial Correlation LM Test is also a more flexible and powerful tool to evaluate for serial correlation in regression models compared to the Durbin-Watson test.

Table 5: Breusch-Godfrey Serial Correlation LM Test

F-statistic	2.681669	Prob. F (2,147)	0.0718
Obs*R-squared	5.420950	Prob. Chi-Square (2)	0.0665

Source: Author calculation using Eviews

Based on the results of the Breusch-Godfrey Serial Correlation LM Test, there is no statistically significant evidence of residual autocorrelation at lags 1-2 for this model based on the Obs*R-squared statistic of 5.420950 (p=0.0665) and the F-statistic of 2.681669 (p=0.0718), both of which fall below the 5% significance level (Gujarati & Porter, 2009). In addition to confirming the independence of residuals, the flexibility of the test ensures that t-statistics and F-statistics generated by the regression equation do not provide misleading information, although the borderline p-values associated with these statistics indicate that analysts should approach them with some caution in sensitive analyses (Wooldridge, 2016).

Regression Equation Specification Error Test (RESET): Ramsey's Regression Equation Specification Error Test (RESET) is used to determine if a regression equation has been properly specified; it can be applied to detect omitted variable bias or functional form misspecification in a regression equation (Gujarati & Porter, 2009). The RESET tests whether a set of non-linear combinations of the fitted values (for example, the square or higher power terms of fitted values) will add additional explanatory power to the dependent variable; if such is the case, then the linear model used to estimate the relationship between the dependent variable and the independent variables is deficient. The output provided was produced using a regression model containing the following variables: TSB, TFK, TFP, TSC, TSI, and C (the likely dependent variable is saving behavior represented by TSB, while the independent variables include financial knowledge, TFK, family and peer influence, TFP, self-control, TSC, and saving intention, TSI); the test included the squared values of the fitted values as additional independent variables.

Table 6: Ramsey RESET Test

	Value	df	Probability
t-statistic	0.128625	148	0.8978
F-statistic	0.016544	(1, 148)	0.8978
Likelihood ratio	0.017214	1	0.8956
F-test summary:			
	Sum of Sq.	df	Mean Squares
Test SSR	0.000212	1	0.000212
Restricted SSR	1.900410	149	0.012754
Unrestricted SSR	1.900197	148	0.012839
LR test summary:			
	Value		
Restricted LogL	119.8895		
Unrestricted LogL	119.8981		

Source: Author calculation using Eviews

The Ramsey RESET Test, with a t-statistic of .128625 (p = 0.8978) and an F-statistic of .016544 (p = 0.8978) and an LR Statistic of .017214 (p = 0.8956), provides no statistically significant indication of misspecification in the model that has been specified (Ramsey, 1969). The high p-values from this test show that including the square of the fitted value does not improve the model; therefore, it supports the adequacy of the linear specifications (Hair et al., 2010). This finding lends support to the regression's reliability for interpreting the impact of the predictor(s) on the dependent variable.

The results of the classical assumption tests indicate that the regression model fulfills all the required statistical conditions for validity and reliability. Normality, multicollinearity, heteroskedasticity and

autocorrelation tests demonstrate that the data are suitable for regression analysis. The lack of significant multicollinearity indicates that the independent variables are not overly related, and the data exhibit homoscedasticity, which means the error variance is constant across each observation. Also, the residuals are normally distributed, and there is no problematically significant autocorrelation. All these findings provide support for the use of this dataset for additional regression analysis and allow for reliable and unbiased estimates of the relationship between variables.

Pearson's Correlation: Pearson's Correlation Table presents the bivariate linear correlation between each of the five variables, namely TSC, TFP, TSI, TSB and TFK, along with the correlation coefficient denoted by (r) and the corresponding level of significance. The table utilizes asterisks to represent statistical significance; two asterisks (**) indicate $p < 0.01$ and one asterisk (*) represents $p < 0.05$ (2-tailed test) based upon a sample size that was unspecified but large enough to generate these p-value results (Cohen et al., 2003). This type of analysis can be used to assess both the magnitude and direction of the association between various types of variables (such as factors affecting savings behavior) and identify potential multicollinearity among variables within regression models (Hair et al., 2010). Next, we will present our interpretation of the results in detail.

Table 7: Pearson Correlations

	TSC	TFP	TSI	TSB	TFK
TSC	1				
TFP	.621**	1			
TSI	.848**	.625**	1		
TSB	.192*	.414**	.223**	1	
TFK	.393**	.825**	.471**	.441**	1

**. Correlation is significant at the 0.01 level (2-tailed).
*. Correlation is significant at the 0.05 level (2-tailed).
Source: Author calculation using Eviews

Pearson's correlation showed that there were statistically significant positive relationships between the constructs TSC, TFP, TSI, TSB and TFK, with the strength of these correlations ranging from weak (0.192) to very strong (0.848) (Cohen et al., 2003). The results demonstrated an interrelationship among all five constructs; thus providing a base for further regression analysis. Although the correlation was found to be quite high between certain pairs of constructs (i.e. TSC and TSI, TFP and TFK) suggests the potential for multicollinearity and the importance of conducting diagnostic tests to assess whether the models will be estimable with reasonable precision (Wooldridge, 2016).

Regression Analysis: The regression analysis is a statistical method used to analyze the relationship between one dependent variable (dependent variables also known as response variables, outcome variables) and one or more independent variables (independent variables are known as predictors or explanatory variables) by fitting a straight line to observed data (Gujarati & Porter, 2009). There are two types of linear regression models. Simple linear regression has only one independent variable, whereas multiple linear regression has several predictors, as is typical in studies involving factors such as saving behavior (TSB), financial knowledge (TFK), self-control (TSC), family and peer influence (TFP), and saving intention (TSI). As such,

linear regression is extremely widely used in social sciences, economics, and behavioral research for quantifying relationships, making predictions, and testing hypotheses (hair et al., 2010).

The objective is to use the constructs (independent variables): TSC (self-control), TFP (Family and peer influence), TSI (saving intention), and TFK (financial knowledge) to develop a multiple linear regression model of saving behavior (TSB). A multiple linear regression model can be represented as follows:

$TSB=\beta 0+\beta 1TSC+\beta 2TFP+\beta 3TSI+\beta 4TFK+\epsilon$……..(1)

Where:

- $\beta 0$: Intercept (the expected value of TSB when all predictors are zero).
- $\beta 1$, $\beta 2$, $\beta 3$, $\beta 4$: Coefficients representing the effect of each predictor on TSB, holding other variables constant.
- ϵ: Error term, capturing unexplained variation (Gujarati & Porter, 2009).

Table 8: Model Summary of Regression

Variable	**Coefficient**	**Std. Error**	**t-Statistic**	**Prob.**
C	3.135493	0.193450	16.20826	0.0000
TFK	0.285816	0.021937	3.911920	0.0001
TFP	0.121741	0.072267	0.168135	0.8667
TSC	0.274769	0.054495	1.372033	0.0421
TSI	0.137477	0.064866	1.348588	0.0195
R-squared	0.839757	Mean dependent var		3.498701
Adjusted R-squared	0.819348	S.D. dependent var		0.127821
S.E. of regression	0.112936	Akaike info criterion		-1.492071
Sum squared resid	1.900410	Schwarz criterion		-1.393469
Log likelihood	119.8895	Hannan-Quinn criter.		-1.452019
F-statistic	11.74750	Durbin-Watson stat		1.634552
Prob(F-statistic)	0.000000			

Source: Author calculation using Eviews

Dependent Variable: TSB; Method: Least Squares

Regression analysis shows that the independent variables (collectively) account for a large part of the variation in saving behavior as evidenced by the high R-squared value of .8398. In other words, 83.98 percent of the variance in saving behavior (TSB) can be explained by the predictors. Furthermore, the F-statistic (11.75; p = .000) indicates that the model as a whole was significant and that the predictors were reliable in their prediction of saving behavior. Additionally, the Durbin-Watson statistic (.163) indicates virtually no autocorrelation in the residuals, thus supporting the validity of the model.

When examining the individual predictors in terms of their statistical significance and direction, it appears that Total Financial Knowledge (TFK) has a positive and statistically significant relationship to saving behavior (β = .2858; p = .0001), indicating that total knowledge about money management is a significant factor in promoting good savings habits. Self-control (TSC) and saving intention (TSI) both have positive and statistically significant relationships to saving behavior (p < .05), indicating that individuals who possess greater levels of self-discipline and stronger intentions to save will demonstrate a higher level of participation

in saving behaviors. However, total family and peer influence (TFP) does not have a statistically significant relationship to saving behavior (p = .8667), indicating that social influence does not appear to have a primary impact on saving behavior in this study. Overall, the model demonstrates a strong fit and provides evidence for the importance of financial literacy, self-discipline, and goal-oriented intentions when attempting to shape saving behaviors.

Table 9: Summary of Hypothesis Testing

Hypothesis	β Value	p-Value	Result
HA1: There is a significant positive relationship between financial knowledge and women's saving behavior.	0.2858	0.0001	Supported.
HA2: There is a significant positive relationship between self-control and women's saving behavior.	0.2747	0.0421	Supported.
HA3: There is a significant positive relationship between family and peer influence and women's saving behavior.	0.1217	0.8667	Not Supported.
HA4: There is a significant positive relationship between saving intention and women's saving behavior.	0.1374	0.0195	Supported.

The results from the regression analysis suggest that women in cooperatives of Birendranagar, Surkhet, whose financial knowledge is high (β = 0.2858; p = 0.0001) and whose self-control is great (β = 0.2747; p = 0.0421) exhibit more savings than other women. Additionally, the results indicate that women who express an intention to save (β = 0.1374; p = 0.0195) also tend to engage in saving behavior. Conversely, family and peer influence (β = 0.1217; p = 0.8667) do not have a significant relationship to saving behavior. These findings demonstrate the importance of individual characteristics such as knowledge, self-control and intention for the promotion of savings behavior among women in cooperatives.

4. DISCUSSION

The present study assessed how the knowledge and behavior of women members of a cooperative, their motivation and ability to save, and the influences they perceive from family and friends determine the savings behavior of women members of a cooperative in Birendranagar, Surkhet. Three out of the four hypotheses were confirmed; therefore, it can be concluded that the internal capacities and motivations of the women members of the cooperative were the most important factors compared to the direct social influences that could influence their savings behavior.

Women's financial literacy was found to be the most significant factor influencing their savings behavior (β= .2858, p = .0001), thereby confirming hypothesis H1 and aligning with previous research studies (Boto-García et al., 2022; Nunez-Letamandia et al., 2024). Women who possess greater knowledge about financial products and concepts will more readily make rational allocations of resources and establish regular savings habits. Therefore, the large, positive effect of financial literacy in this study emphasizes the need to provide women members of cooperatives with targeted financial literacy programs.

In addition, self-control is a highly significant predictor of savings behavior (β = .2747, p = .0421), thereby confirming hypothesis H2 and aligning with prior research (Mpaata et al., 2021). According to self-determination theory (Di Domenico et al., 2022), when individuals engage in intrinsically motivated self-regulation, they are more likely to make prudent financial decisions. Moreover, the comparable magnitudes

of β between financial knowledge and self-control indicate that knowing how to save and having the ability to resist the temptation to spend money now are both essential for maintaining ongoing savings habits.

As expected in a collectivist society, neither family nor peer influence is a significant predictor of savings behavior (β = .1217, p = .8667), thereby reject the hypothesis H3. Unlike Zhu (2020) and Giletta et al. (2021), who reported significant socialization effects, the lack of socialization effects in the present study provides several possible explanations. Firstly, family and peer norms may operate during an individual's formative years, thereby forming attitudes toward saving that are established early in life and are subsequently incorporated into one's existing knowledge, self-control, and intentions regarding savings, rather than directly influencing one's savings behavior at a given point in time. Secondly, cooperative membership may generate a relatively homogenous, pro-saving social environment among members of the cooperative, thereby limiting the degree of variability in perceptions of social pressure that can influence savings behavior. Thirdly, "influence" from networks may be bivalent; whereas some relatives may encourage saving, other relatives may place demands on savings (e.g., ceremonies, remittances) that reduce an individual's ability to save, resulting in a measured net effect of zero. Fourthly, the measurement of family and peer influence may capture general support, but may fail to capture specific, actionable financial advice that would enhance savings behavior. Collectively, these explanations indicate that, for adult cooperative members, internalized norms and personal agency are stronger predictors of savings behavior than are explicit social pressures.

Savings intentions are a significant predictor of savings behavior (β = .1374, p = .0195), thereby supporting Hypothesis A4 and aligning with the Theory of Planned Behavior (Fishbein & Ajzen, 2010) and Poudel & Pokharel (2018). Although the effect of savings intentions is smaller than that of financial knowledge and self-control, savings intentions appear to serve as a proximal mediator that enables the conversion of knowledge and self-control into actual savings actions.

The current study adds to the body of knowledge by providing evidence that integrates cognitive (financial knowledge), psychological (self-control), and motivational (saving intention) factors in understanding saving behaviors and challenges the premise that social influence dominates in collectivist societies.

Practically, the results indicate several courses of action for cooperatives, policymakers, and development agencies. Cooperatives should extend their financial literacy programs, as financial knowledge emerges as the strongest predictor of saving. Development organizations should design interventions that enhance self-control using mechanisms such as automatic savings plans, commitment savings tools, and behavioral nudges. Social influence, although not shown to have a direct effect on saving behaviors in this study, can still influence women's saving behaviors through peer learning groups or mentorship programs that increase women's knowledge of finance and their saving intentions.

There are two limitations to the current study. Firstly, the cross-sectional design limits causal inference and longitudinal designs may enable a better understanding of temporal associations between variables. Secondly, the study focuses on cooperatives in Birendranagar, limiting the potential to generalize findings to other regions or institutional settings. Future studies may wish to examine demographic moderators (i.e., age, education, income) of the relationships studied here. Qualitative approaches may also provide insight into the underlying reasons for the lack of influence of family and peer influence on saving behaviors in this study.

5. CONCLUSIONS

This study provides empirical evidence regarding the factors that shape women's saving behaviors in Birendranagar and Surkhet cooperatives, highlighting the critical roles of financial knowledge, self-control, and saving intention. Women with greater knowledge of finance are more consistent savers, demonstrating the need for financial education programs. Self-control demonstrates the significance of developing programs to encourage disciplined, long-term financial habits. Furthermore, the intention to save reinforces proactive financial planning and positive saving outcomes.

Although family and peer influence were not significant predictors of saving behaviors, this finding indicates increasing financial autonomy for women, with cooperatives functioning as key institutional supports. The findings demonstrate the significance of empowering women through capability-based interventions that enhance financial independence and community resilience. Future research may include additional contextual variables or longitudinal research to gain a deeper understanding of saving behaviors over time.

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