Factors Affecting Economic Wellbeing of the Cooperatives Members in Rupandehi District

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Abstract

This quantitative study seeks to evaluate the factors affecting economic well-being of cooperative members. The 407 survey data for the study was gathered from the cooperative members of Rupadnehi district. The likert scale data consisted from primary sources.

The central tendency of the variables were also investigated using descriptive analysis that suggested all independent variables contributed to the creation of economic well-being of cooperative members.

To determine the correlation between the variables, the Pearson correlation was used. The result indicated that there is a significant and positive relationship between all variables. It indicates that the members' participation, credit facilities, training and financial inclusion,and economic well-being are associated.There is also a significant and positive correlation between independent variables each other.

The effect of factors on the economic well-being of cooperative members was analyzed by using multiple linear regression models. Further, the result shows that members' participation, credit facilities, training, and financial inclusion have a positive and statistically significant impact on economic well-being.

Therefore, the study reveals that the economic well-being of cooperatives is affected by independent variables. It helps policymakers, cooperative organizations, and further research for new insights to improve the study on the economic well-being of cooperative members.

Keywords: *Cooperative, econimic well-being, descriptive analysis, regression model, validity and realibility test*

Introduction

Cooperatives, widely acknowledged for their potent role in fostering economic empowerment and community development are grounded in principles such as

self-help, self-responsibility, democracy, equality, equity, and solidarity. These voluntary associations of individuals unite to address social, economic, and cultural needs, operating across diverse sectors like agriculture, finance, and consumer services (Oluyombo, 2013).Altman (2015) articulates that a cooperative is essentially a voluntary network of individuals who collectively own or control a business, distributing benefits based on usage or ownership, with a predominant emphasis on equitable ownership among individual members. A pivotal focus of the cooperative movement is the economic well-being of its members. Unraveling the factors influencing this economic well-being is crucial for optimizing cooperative effectiveness and fostering sustainable development.Several factors play a role in shaping the economic well-being fortunes of cooperative members, and investigating these factors can contribute valuable insights to cooperative management, policy formulation, and community development, and the effectiveness of cooperative governance, including transparent decision-making processes, equitable distribution of benefits, and member participation, significantly influence the economic outcomes for individual members (Birchall, 2017; Oluyombo, 2013).

Additionally, external factors such as market conditions, government policies, and socio-economic trends can impact the economic well-being of cooperative members. Economic well-being emphasizes the importance of analyzing the external environment in which cooperatives operate to identify opportunities and challenges that may affect member well-being outcomes (Chambers, 2020). For example, changes in market demand for cooperative products, access to credit, or government support programs can significantly influence the economic well-being of cooperative members.Furthermore, the level of education and training provided to cooperative members plays a pivotal role in enhancing their economic well-being. Education equips members with the necessary skills and knowledge to efficiently manage their cooperative activities, make informed decisions, and adapt to changing economic landscapes (Shrestha, 2018). Investing in member education contributes to building a more resilient and economically economic well-being cooperative membership. Cooperatives often contribute to improving the living standards of those with lower incomes and can serve as a cornerstone for the development of developing nations. Internal factors influencing the success of a cooperative originate from within, encompassing aspects like members' dedication, active involvement, organizational structure, communication, and managerial elements (Pokharel, 2009).

According to the latest data from the Department of Cooperative Board (2023), the total number of cooperatives has reached 29,886, underscoring a widespread network of collaborative enterprises.The robustness of this sector is further underscored by its substantial membership base, boasting an impressive total of 7,307,462 actively engaged individuals in Nepalese cooperatives.In the specified context, the cooperative sector demonstrates its substantial impact on both the economy and society.As per Rai etal.(2021), a cooperative is defined as an organization formed by a collective of individuals aiming to address their social, economic, and cultural needs. Karami and Rezaie (2005) delineate the cooperative principles, which were officially endorsed by the Cooperative Alliance International in 1995. These principles, as modified and presented by the authors, include open and voluntary membership, democratic control of members, economic participation of members, independence, training, information and education, dissemination, cooperation among cooperatives, and special attention to the community. In this respect, (Berhan&Gebeyebu, 2018; Poudel& Pokharel, 2017; Tesfay&Tadele, 2013)cooperative education can play an important role in reducing income inequality as it determines occupational choice, access to jobs, and the level of pay, and plays a pivotal role as a signal of ability and productivity in the job market. However, indigenous and Afro-descendant people require specific measures to obtain equality of opportunities (Mendoza, 2016).According to information from the National Cooperative Development Board Nepal in 2023, cooperation plays a crucial role in enhancing economic well-being and improving the quality of life for cooperative members.Notably, the cooperative sector's positive impact extends beyond individual livelihoods to make a significant contribution to the overall economic growth of Nepal (Bhattarai & Pandit, 2023). Within the specific context of Nepal, the government has undertaken various initiatives aimed at fostering socio-economic and political empowerment through national cooperative programs (Adhikari et al., 2020).

Cooperatives in Nepal have had a positive impact on the livelihoods of their members, leading to increased land holdings, improved socio-economic status, and increased income and expenditure. These cooperatives operate based on democratic principles and aim to meet the needs of their members while promoting community development (Mid-West University, 2017). Cooperative is a vehicle for employment creation, mitigating poverty rates, and augmenting, It also emphasizes on marketing cooperatives as catalysts for commercializing agricultural development and

sustaining farm profits. The research affirms that the instrumental role of cooperatives have played in propelling economic development not only within Province 3 but also in urban and city areas across Nepal. Study insights into the positive impact of cooperatives, shedding light on their role in promoting sustainable livelihoods, poverty reduction, and employment creation in the context of Bagmati Province, Nepal (Rai et al., 2020).

Gebeyehu and Atanaw (2018) studied the impact of cooperatives on Ethiopia's socio-economic development using a national survey of 173 cooperatives and 831 members, supplemented by Focus Group Discussions (FGDs) across eight regions. The research, spanning from 2001 to 2011, employed a semi-structured questionnaire. Results indicated that cooperatives significantly contributed to the country's economic development by offering various products, services, and benefits such as food security, increased income, improved lifestyle, social participation, and agricultural support. Despite these contributions, cooperatives faced challenges in effectively driving socio-economic development due to economic and policy constraints.Gasib (2019) assessed the socio-economic status and analyzed the financial and social services of four cooperatives in Tabuk City, Kalinga, Philippines, using a descriptive and empirical approach. The study examined indicators from the cooperatives' financial reports, including assets, deposits, loans, net surplus, dividends, and patronage refunds. A survey of 300 cooperative members evaluated the cooperatives' role in achieving the Philippines' Sustainable Development Goals (SDGs). The findings revealed significant differences in economic participation among members and highlighted the cooperatives' contributions to community needs, development, education, economic growth, responsible consumption, and strong institutions.

From these all discussions, it may be inferred that being a cooperative member is benificational for their economic well-being.The study's focal point is on assessing how cooperatives influence the economic well-being of their members. Several issues have been identified, encompassing members' participation, access to credit facilities, training opportunities, employment prospects, and financial inclusion for cooperative members.

Objectives of the Study

The major purpose of the present study is to investigate the factors affecting the

economic well-being of members of cooperatives in Rupandehi District, Lumbini Province, Nepal. The specific objectives of the present study are to:

- Examine the effect of member participation on the economic well-being of members within a specific cooperative.
- Investigate the effect of employment on the economic well-being of members within a specific cooperative.
- Analyze the effect of credit facilities on the economic well-being of members within a specific cooperative.
- Examine the effect of training opportunities on the economic well-being of members.
- Investigate the effect of financial inclusion on the economic well-being of members.

Statement of Problem:

Research questions are outlined to explore the relationship between economic well-being and cooperatives. This study aims to investigate how cooperatives influence economic well-being. The research seeks to address the following questions:

- What is the effect of member participation on the economic well-being of members within a specific cooperative?
- How does employment affect the economic well-being of members within a specific cooperative?
- What is the effect of credit facilities on the economic well-being of members within a specific cooperative?
- How do training opportunities on the economic well-being of members?
- What is the effect of financial inclusion on the economic well-being of members?

Working Hypothesis

H_1: There is a significant effect of member participation on the economic well-being of members.

H_2: There is significant effect of employment on the economic well-being of members.

H_3: There is significant effect of credit facilities on the economic well-being of members.

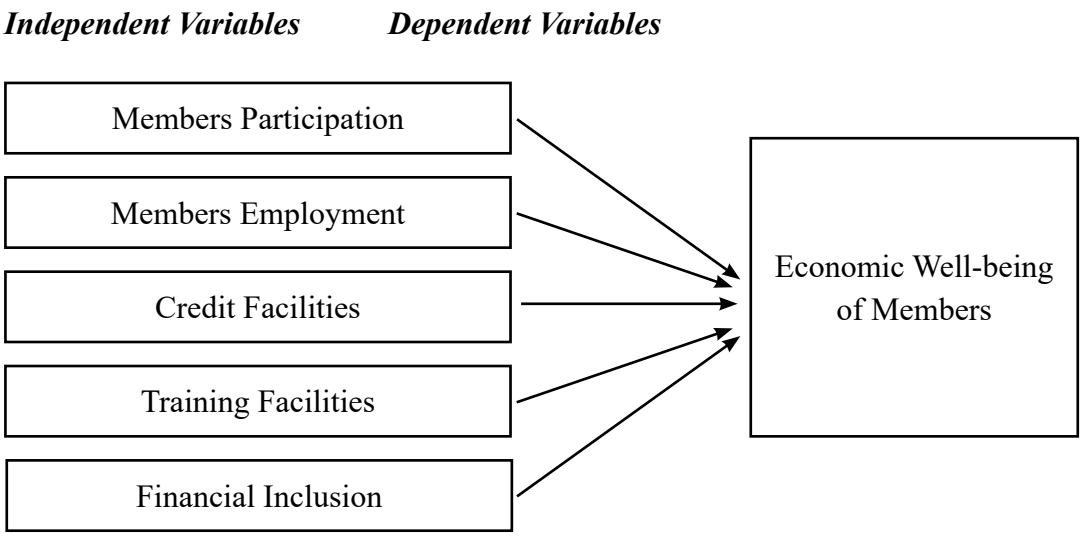
H_4: There is significant effect of training opportunities on the economic well-being of members.

H5: There is significant effect of financial inclusion on the economic well-being of members.

Conceptual Framework of the Study

Based on the comprehensive review-based learning of the various theoretical, conceptual, and other relevant insights gained through the process of an overall review of literature, the present researcher has crafted a conceptual framework to govern the overall study more objectively and systematically. The below figure represents the conceptual framework of the study.

Figure 1: Conceptualframeworkofthestudy



Source: (Bateman, 2010; Kabeer, 2005; Morduch, 1999; World Bank, 2014)

Research Methodology

This study guided by a positivist paradigm, employs a descriptive and causalcomparative research design, following a deductive approach. It includes multiplechoice questions for respondents' profiles and business information, as well as 5 point Likert scale questions for all independent and dependent variables. Primary data was collected from 407 respondents using a non-probability convenience sampling method. Data collection methods included face-to-face interviews, email,

telephonic interviews, and Facebook Messenger. The study focuses on an unknown population comprising members of cooperatives in the Rupandehi district of Nepal. To answer the research questions, Pearson correlation and multiple linear regression analyses were conducted, along with descriptive analysis. Data presentation, analysis, and result findings were carried out using SPSS. The minimum required sample size of unknown population was determined using following Cochran's formula:

$$n = \frac{z^2 \widehat{P}(1 - \widehat{P})}{(\varepsilon)2}$$

Where,

n= Sample size

Ɛ= Desired level of precision / margin of error, Ɛ =5% or 0.05.

z = the value in the Z-table (z-value=1.96 for a confidence level of 95%)

$\widehat{P}$ = Estimated desired population proportion

So, by applying the above formula, we get,

$$n = \frac{1.96^2 * 0.50(1 - 0.50)}{0.05^2}$$

n = 384.16 respondents

Thus, a total sample size of 407 economically active members of cooperatives operating within Rupandehi district, Nepal was considered from the population for this study.

Regression Model

In this study, the present researcher has used SPSS for analyses. The study was based on the following regression equation:

Y (EW) = β0 + β1 X1 + β2 X2+ β3 X3+ β4 X4+ β5 X5+ ε ……(i)

Where:

Y (EW) = Economic well being

β0 = Constant

β1, β2, β3, β4, β5 = Coefficient of regression which measures how strongly each independent variable impacts the dependent variable.

X1 = Member participation

X2 = Member Employment

X3 = Credit facilities
X4 = Training Service
X5 = Financial inclusion
ε = Error term

Data Analysis and Results

Demographic Profile of the Respondents

This section addresses the demographic characteristics of the respondents involved in the research. It covers details such as gender, age group, educational level, and marital status.

Table 1: Demographic Character of Respondents

		Frequency	Percent
Gender	Male	162	39.8
	Female	245	60.2
Age Group	18-24 years	83	20.4
	25-34 years	114	28.0
	35-44 years	158	38.8
	45-55 years	48	11.8
	55-64 years	4	1.0
Educational Level	Intermediate and below	276	67.8
	Bachelor	89	21.9
	Masters	42	10.3
Marital Status	Single	102	25.1
	Married	283	69.5
	Divorced	17	4.2
	Widowed	5	1.2

Source: Survey data (2023)

The table 1 showspredemographic breakdown of survey respondents. Among them, 39.8% were male (162 individuals) and 60.2% were female (245 individuals). Age-wise, 20.4% were 18-24 years old (83 individuals), 28.0% were 25-34 years old (114 individuals), and 38.8% were 35-44 years old (158 individuals). Smaller groups included 11.8% aged 45-55 years (48 individuals) and 1.0% aged 55-64 years (4 individuals). In terms of education, 67.8% had an intermediate level or below

(276 individuals), 21.9% had a bachelor's degree (89 individuals), and 10.3% had a master's degree (42 individuals). Regarding marital status, 25.1% were single (102 individuals), 69.5% were married (283 individuals), 4.2% were divorced (17 individuals), and 1.2% were widowed (5 individuals).

Business Information

Table 2: Business Profile of the respondents

		Frequency	**Percent**
Income Level	Less than Rs. 20000	138	33.9
	Rs. 20001 - Rs.39999	170	41.8
	Rs. 40000 - Rs.59999	63	15.5
	Rs. 60000- Rs. 79999	17	4.2
	Rs. 80000- Rs. 99999	11	2.7
	Rs. 100000 and above	8	2.0
Employee Status	Employed	122	30.0
	Self-employed	144	35.4
	Unemployed	69	17.0
	Student	45	11.1
	Retired	7	1.7
	Other	20	4.9
Membership in Cooperative	Less than 1 year	148	36.4
	1-5 years	167	41.0
	6-10 years	62	15.2
	More than 10 years	30	7.4

Source: Survey data (2023)

The result in table-2 shows the business profiles of the respondents. Regarding income levels, 33.9% earn less than Rs. 20,000 (138 individuals), while 41.8% have an income between Rs. 20,001 and Rs. 39,999 (170 individuals). Those earning Rs. 40,000 to Rs. 59,999 make up 15.5% (63 individuals), followed by 4.2% earning Rs. 60,000 to Rs. 79,999 (17 individuals), 2.7% earning Rs. 80,000 to Rs. 99,999 (11 individuals), and 2.0% earning Rs. 100,000 and above (8 individuals).Employment status shows 30.0% are employed (122 individuals), 35.4% are self-employed (144 individuals), 17.0% are unemployed (69 individuals), 11.1% are students (45 individuals), 1.7% are retired (7 individuals), and 4.9% fall into other categories (20 individuals).Membership in cooperatives reveals that 36.4% have been members for

less than a year (148 individuals), 41.0% for 1-5 years (167 individuals), 15.2% for 6-10 years (62 individuals), and 7.4% for more than 10 years (30 individuals).

Reliability and Validity

While examining a measurement tool, validity and reliability are two essential components. The general consistency of the items used to define a scale is measured through reliability analysis. The degree to which an instrument measures what it is meant to measure is what validity is all about. The capacity of an instrument to gauge consistency is what reliability all is concerning.

Cronbach's Alpha:

Cronbach's Alpha measures internal consistency, reflecting how well items within a section correlate. For Part 1, the value is 0.689, indicating moderate internal consistency, meaning the items are somewhat correlated. In contrast, Part 2 has a Cronbach's Alpha of 0.862, signifying a higher internal consistency, with items being more strongly correlated. Generally, a higher alpha is preferred, with values above 0.7 deemed acceptable. The total number of items across both sections is 35.

Descriptive Statistics

Descriptive coefficients offer a summary of a particular data set, whether it's a sample from the population or the entire population. These summaries, known as descriptive statistics, fall into two categories: measurements of central tendency and measurements of variability. Central tendency metrics (like mean, median, and mode) indicate the data's typical value, while variability metrics (like range, variance, and standard deviation) describe the data's spread.

Table 3: Descriptive summary statistics for all independent and dependent variables

	N	Minimum	Maximum	Mean	Std. Deviation
Members Participation	407	1.83	4.83	3.73	0.52
Members Employment	407	1.00	4.83	3.77	0.60
Credit Facilities	407	2.33	5.00	3.82	0.53
Training Facilities	407	1.00	5.00	3.79	0.59
Financial Inclusion	407	1.67	5.00	3.86	0.51
Economic Well-being of Members	407	1.00	5.00	3.75	0.61

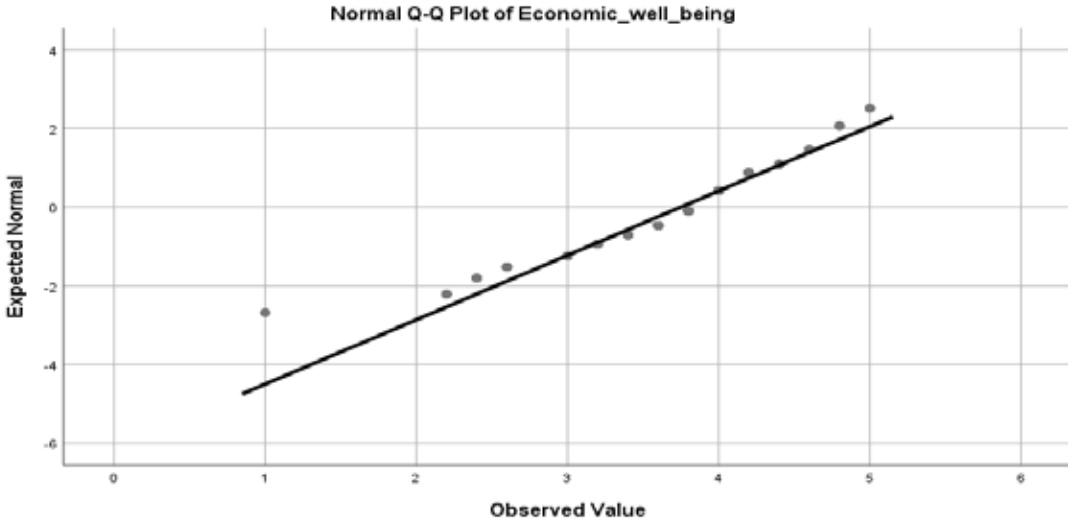
Source: Survey data (2023)

The results of table 3provide a summary of descriptive statistics for six variables measured among 407 participants. Each variable includes the number of observations (N), minimum and maximum values, the mean (average), and the standard deviation (a measure of variation). Among 407 observations, participation scores range from 1.83 to 4.83, averaging 3.73 with a standard deviation of 0.52. Similarly, employment scores vary from 1.00 to 4.83, with an average score of 3.77 and a standard deviation of 0.60. Credit facility scores fall between 2.33 and 5.00, with an average of 3.82 and a standard deviation of 0.53. The scores for training facilities, range from 1.00 to 5.00, averaging 3.79 with a standard deviation of 0.59. Financial inclusion span from 1.67 to 5.00, with an average score of 3.86 and a standard deviation of 0.51. Finally, economic well-being range from 1.00 to 5.00, with an average score of 3.75 and a standard deviation of 0.61.

Normality Test

The Quantile-Quantile (Q-Q) Plot

Figure 2: Normality on Quantile-Qunatile



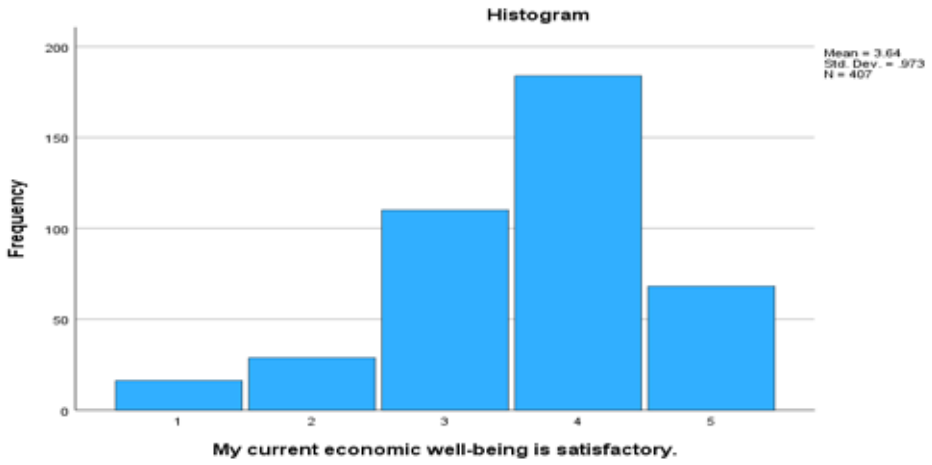
Source: Survey data (2023)

In figure 2,the x-axis represents the theoretical quantiles, and the y-axis represents the observed quantiles. The 45-degree line (y=x) is often drawn on the plot as a reference for the expected pattern if the data follows the assumed distribution. The

points on the Q-Q plot fall approximately along a straight line, which suggests that the data follows the normal distribution.

Histogram

Figure 3: Normality on Histogram



Source: Survey data (2023)

Correlations Analysis

Table 4:Correlations Matrix

	MP	EMP	CF	TRAI	FI	EW
MP	1	.397**	.104*	.104*	.718**	.574**
EMP		1	.163**	.163**	.486**	.750**
CF			1	1.000**	.118*	.210**
TRAI				1	.118*	.210**
FI					1	.654**
EW						1

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

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

Source: Survey data (2023)

The result shows that the EW (dependent variable) has positive relationship with MP, EMP, CF, TRAI, and FI (independent variable). The results show that there is also positive correlation between MP, EMP, CF, TRAI, and FI each other.

Regression Analysis

Regression analysis is a statistical technique used to examine and quantify the relationship between one or more independent variables and a dependent variable. Its primary goal is to model the nature and strength of this association. This method helps researchers understand how changes in the independent variables relate to changes in the dependent variable, allowing for prediction or explanation of the dependent variable's value based on the independent variables. The regression equation identifies patterns, trends, and estimates the impact of each independent variable. This approach is crucial in fields like economics, finance, and social sciences.

Table 5:Model Summary

R	R2	Adjusted R square	F	Sig.
.831[a]	0.690	0.687	223.843	.000[b]

a. Dependent variable: Economic

b. Predictors (Constant): Members' participation, employment, credit facilities, training, finaicial inclusion

Source: Survey data (2023)

The results of the regression analysis reveal a robust relationship between the predictor (s) and the dependent variable. The correlation coefficient (R) of approximately 0.831 indicates a strong positive linear association. The R-squared value, at 0.690, signifies that 69 percent of the variability in the dependent variable is explained by the independent variable(s). The adjusted R-squared, only slightly lower at 0.687, suggests that additional predictors in the model may not contribute substantially to explaining the variance. The F-statistic of 223.843 is notably high, and the associated significance level of .000 is below the conventional threshold of 0.05, indicating the overall statistical significance of the regression model. This implies that the model, collectively, provides valuable information in predicting the dependent variable. Consequently, the findings support the rejection of the null hypothesis, reinforcing the conclusion that the regression model is statistically significant.

Table 6: Coefficients for predictors of economic well-being and VIF test

Model	Unstandardized Coefficients		t	Sig.	
	B	Std. Error			VIF
1 (Constant)	0.223	0.075	2.955	0.003	
Member participation	0.172	0.021	8.024	0.000	2.293
Employment	0.048	0.030	1.618	0.106	2.106
Credit facilities	0.030	0.014	2.089	0.037	1.041
Training	1.010	0.032	31.269	0.000	1.867
Financial Inclusion	0.114	0.025	4.601	0.000	2.886

Dependent variable: Economic well-being

The result shows that if one unit increases in member participation, employment, credit facilities, training, and financial inclusion increased by 0.172, 0.048, 0.030, 1.010 and 0.114 respectively. There is a significant positive effect of member participation, credit facilities, training, and financial inclusion on economic well-being since, P values (sig. 0.000, 0.037, 0.000, & 0.000) are less than level of significance (0.05). But, employment has an insignificant positive effect on economic well-being of cooperative members because the P value (Sig. 0.106) is more than level of significance (0.05). Additionally, the individually values of VIF are less than 5, so there is no problem of multicollinearity in the data.

Testing of Hypothesis

Table 7: Hypothesis Testing Summary

Hypothesis	P-value	Result
Member Participation (H1)	0.000	Accepted
Employment (H2)	0.106	Rejected
Credit facilities (H3)	0.037	Accepted
Training (H4)	0.000	Accepted
Financial inclusion (H5)	0.000	Accepted

The result exhibits that the hypothesis testing results summary. It can be seen that first hypothesis H2 has been rejected and has an insignificant positive effect on economic wellbeing because the p-value is more than level of significance (0.05) and other

hypothesesH1, H3, H4 and H5 have been accepted and have a significant positive effect on economic wellbeing because the p-values are less than level of significance (0.05).

Conclusions

This study's objective was to determine how cooperative affects the growth of economic well-being in the Rupandehi area. Multiple linear regressions method explained that the 69.00 percent of the variation in dependent variable is explained by the independent variables. According to the study's findings, the majority of studies show the significant positive effect of cooperation on the economic development of cooperative members. The major conclusion of this study is that cooperative is the effective instrument and the member participation, credit facilities, training, and financial inclusion contributes as well as play a significant role but employment service plays an insignificant role on the economic well-being of members of cooperatives due to provide the different opportunities by cooperative institutions.Cooperatives have evolved from their first conceptualization and practice, with increasing concern for poverty alleviation. In light of the fact that the economically disadvantaged have not only financial challenges but also lack the necessary business skills and knowledge of the market, technology, and other information for the long-term success of their development. Cooperative has become an important tool to fill this gap. Clients using non-financial services have been found to have higher entrepreneurial skills than clients using only financial services. The business performance has also increased over the subsequent year. A client who has the opportunity to actively participate has better economic well-being than the clients who are opportunity-driven.

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