The Effect of Cooperative Education and Entrepreneurship Training on Credit-Union Members' Welfare

Cornelius Timang[1*], Baktiar Baktiar[2], Muh. Haekal Yunus[3]
Universitas Andi Djemma Palopo, Sulawesi Selatan, Indonesia[1,2,3]
cornelius_timang@yahoo.com[1]

Abstract

Purpose: This study examines the impact of cooperative education and entrepreneurship training on member welfare in the Sauan Sibarrung Credit Union in Tana Toraja. Does Education and Training at Credit Union Sauan Sibarrung have a positive impact on members' welfare? The Sauan Sibarrung Credit Union Cooperative prioritizes Education and Training as a strategy to improve members' welfare.

Methodology/approach: A quantitative approach using structural equation Modeling (SEM) with Partial Least Squares (PLS) was applied to 100 randomly selected members who attended education and training programmes.

Results: Cooperative Education significantly improved member welfare (path coefficient = 0.400; p = 0.023), while entrepreneurship training showed no significant effect (p = 0.136). This suggests that training programs are less effective because they are not sufficiently relevant or practical in the real world. Additional analysis indicates that education fosters better financial literacy and greater cooperative participation, thereby indirectly strengthening social capital and economic resilience among members.

Conclusions: Enhancing education quality and designing more adaptive, practice-oriented training are essential to strengthen member welfare. These findings show that the training carried out by cooperatives has not significantly improved members' welfare. This may be due to the fact that the training was theoretical, less applicable, and not followed by continuous mentoring.

Limitations: This study is limited to education and training variables; the sample of respondents is 100 due to limited research time and resources.

Contributions: The findings highlight the need for continuous improvement in cooperative empowerment programs and serve as evaluation material for administrators.

Keywords: *Cooperative Education, Entrepreneurship Training, Member Welfare, Sauan Sibarrung.*

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1. Introduction

Cooperatives in Indonesia play a strategic role in the people's economy, especially in expanding access to capital, creating jobs, and increasing income. Data from the Ministry of Cooperatives and SMEs show that, as of 2023, there are more than 127,000 active cooperatives with over 7 million members (BPS, 2023). Cooperatives play a strategic role in economic development, not only as financial institutions but also as forums for empowerment in the agriculture, fisheries, and trade sectors, supporting the economic sustainability of the community (Perkasa & Harahap, 2023).

Cooperatives are a strategic element in Indonesia's economic growth, supported by the principle of kinship and cooperation as the basis of the people's economic system (Siregar and Marliyah, 2022). Although cooperatives play a strategic role in the economy, their contribution to GDP was only around 5% in 2020, with a target of 5.5% by 2024, so adequate Education and Training are needed to increase their impact on members' income (Al Farisi, Fasa, & Suharto, 2022). Tana Toraja has economic potential in the agriculture, livestock, and tourism sectors, but still faces poverty and limited access to capital (BPS 2021).

To overcome this problem, the Sauan Sibarrung Credit Union Cooperative was established on December 7, 2006, in Makale as an initiative of the Catholic Church to improve welfare through solidarity and empowerment of members (Kleanthous, Paton, & Wilson, 2019). With more than 52,000 members and assets of Rp920 billion, the cooperative focuses on capacity building, active participation, and practical financial management, not just as a savings and loan cooperative but as a means of building community potential (Pagiu & Pundissing, 2021). Cooperatives aim to improve the welfare of their members, especially low-income groups, through the principles of cooperation and solidarity.

Well-being indicators include income, access to capital, economic participation, social services, and quality of life. The question is: Does Education and Training at Credit Union Sauan Sibarrung have a positive impact on members' welfare? The Sauan Sibarrung Credit Union Cooperative prioritizes Education and Training as a strategy to improve members' welfare. By 2025, 5,648 training activities are planned to cover 33 types of programs, ranging from financial literacy and entrepreneurship to MSMEs and technical training, which shows the cooperative's commitment to empowering members.

2. Literature Review and Hypothesis Development
2.1 Cooperative Education
Co-op education has a considerable impact on increasing member engagement. Through this educational activity, members become more aware of the importance of their active role in advancing and developing cooperatives in the region. The wider the insight, the greater the members' motivation to contribute positively to the cooperative environment (Anasrulloh, Rokhim, & Firotul, 2020). Cooperative Education is intended not only for members but also for cooperative administrators and managers. In the cooperative's human resources, the quality of managers is greatly influenced by the Education and Training they receive.

H_1: Cooperative education has a positive effect on the welfare of members

2.2 Entrepreneurship Training
Entrepreneurship training is a structured, practical program that improves the management, technology, and entrepreneurship competencies of cooperative members. This process is vital to the cooperative's development because it focuses on technical skills through systematic short-term education (Rahmi et al., 2025). Menurut Putri, Fauziyah, and Kanita (2023), Training is a short-term educational process structured to transfer knowledge and skills, thereby improving individual attitudes, behaviors, and abilities in managing businesses effectively. Training can increase cooperative members' knowledge. Training can foster entrepreneurial attitudes among cooperative members. Training can improve cooperative members' entrepreneurial abilities.

H_2: Entrepreneurship training has a positive effect on the wellbeing of members

2.3 Member Wellbeing
According to Marzuki (2016), welfare is a condition in which economic and financial needs are fulfilled. Indicators of member welfare include income, access to capital, economic participation, social services, and quality of life. The strategy is considered adequate if it results in increased income, access to capital, savings, satisfaction, and improved quality of life. Welfare is achieved when cooperatives not only meet members' needs but also provide moral and non-moral assistance. Welfare is reflected in independence in meeting material and spiritual needs, which can be increased through community assistance and empowerment (Fernandi et al. 2024). The conceptual framework of this study is shown in Figure 1.
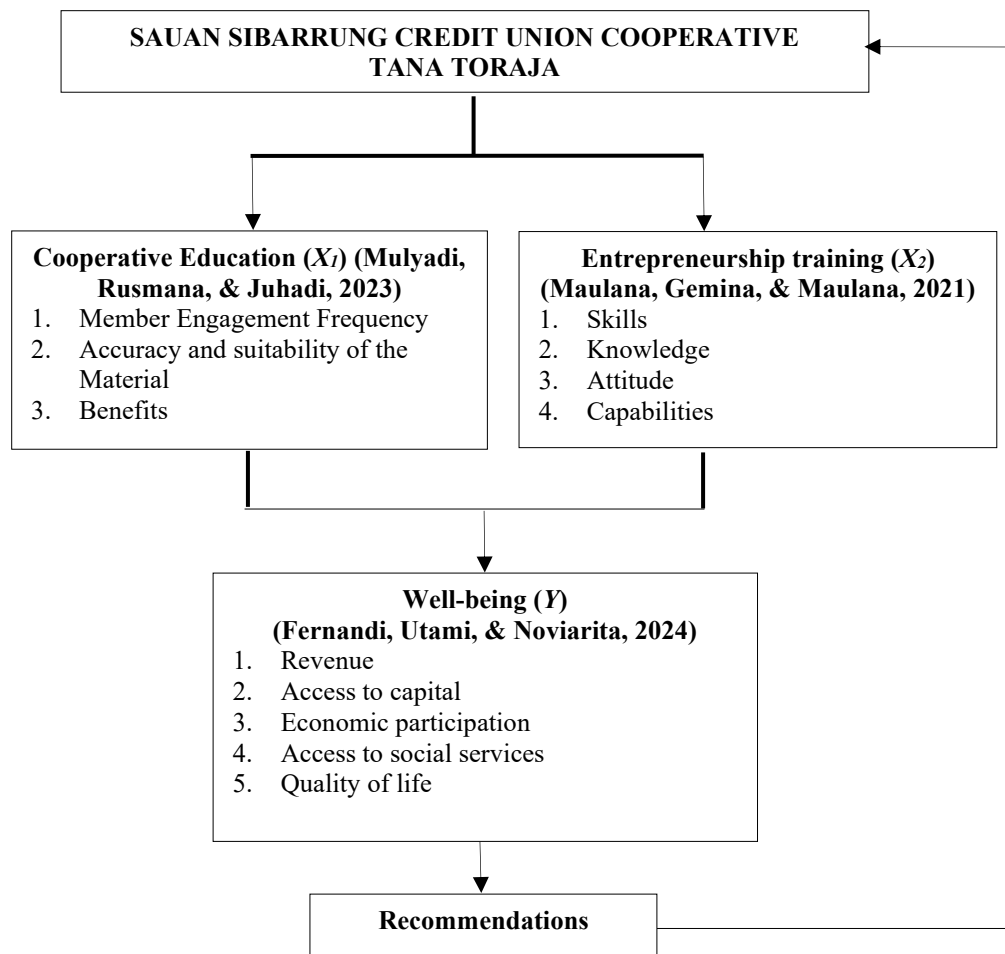
Figure 1. Conceptual framework

3. Research Methods

This study used a descriptive quantitative approach grounded in positivism to examine phenomena using random sample data. Data were collected using research instruments and statistically analyzed to test hypotheses, supported by a literature review as a theoretical basis (Agung & Yuesti, 2019). According to Sinaga (2022), the sample represents the population characteristics. A total of 100 cooperative members were selected as the sample, representing each branch office or Service Place. Thus, it is expected that the selected sample accurately reflects the problem being researched. The number of samples in this study was determined using the Slovin formula, with a total of 100 samples from the cooperative members. The researcher used a proportional random sampling method. The researcher took samples from 14 branch offices of the Sauan Sibarrung Credit Union Cooperative, proportionally presented in Table 1 below.

Table 1. Distribution of research sample size

No	Branch Office	Number of Members KUBn	Percentage	Number of Samples
1	Makale	346	8,6	8
2	Bone-Bone	150	3,7	4
3	Padang Sappa	515	12,9	13
4	Palopo	342	8,5	8
5	Saluampak	595	14,9	15
6	Deri	196	4,9	5
7	Rantepao	282	7,0	7
8	Rantetayo	270	6,7	7
9	Pare-Pare	57	1,4	2
10	Sangalla	289	7,2	7

11	Rembon	167	4,2	4
12	Mengkendek	515	12,9	13
13	Sanggalangi	213	5,3	5
14	Rantetiku	64	1,6	2
		4001	100	100

3.1 Operational Definition

Cooperative Education (X_1) is the process of providing members, administrators, and managers with an understanding of and skills in cooperative principles, values, and practices to support business development and institutional strengthening of cooperatives. The education indicators are the frequency of member involvement, accuracy and suitability of the material, and benefits obtained. Entrepreneurship Training (X_2) is a practical, brief, and applicable program that aims to improve the competence of managers and cooperative members in management, technology, and entrepreneurship. The indicators of training are skills, knowledge, attitudes, and abilities. Welfare (Y) is the condition in which economic and financial needs are satisfied. The indicators of cooperative members' welfare are Increased Income, Access to Capital, Economic Participation, Access to Social Services, and Quality of Life. The overall operational definitions of the variables are presented in Table 2.

Table 2. Research variables and indicators

Variabel	Operational Definition	Indicator	Scale
Education (X_1).	The process of providing understanding and skills about cooperative principles, values, and practices to members, administrators, and managers to support business development and institutional strengthening of cooperatives (Sutrisno, 2018)	1. The frequency of members' involvement in cooperative education. 2. The frequency of members' involvement in cooperative education. 3. Benefits of Cooperative Education.	Likert (1-4)
Training (X_2)	Practical, short, and applicable programs that aim to improve the competence of cooperative administrators and members in management, technology, and entrepreneurship (Maulana et al., 2021)	1. Acquired skills. 2. Increased knowledge. 3. Attitudes formed. 4. Compatibility of Training with the needs of members.	Likert (1-4)
Member Wellbeing (Y)	Conditions where economic and financial needs are met (Handayani, Sore, & Astikawati, 2020)	1. Revenue. 2. Access to capital. 3. Economic Participation. 4. Access to social services. 5. Quality of life.	Likert (1-4)

3.2 Data Analysis

Data were analyzed using *Structural Equation Modeling* based *on Partial Least Squares* (SEM-PLS) with SmartPLS 3 software, following the evaluation stages of the outer and inner models or hypothesis testing (Harahap, Rizal, Widodo, Sutanto, & Qamaruddin, 2024).

a. *The outer model* was evaluated using the PLS algorithm to test convergent and discriminant validity and reliability, using Cronbach's Alpha and Composite Reliability, with loading criteria of > 0.7 and AVE > 0.5.

b. *The inner model* tested the hypothesis among latent variables using path coefficients, statistical T-values, and P-values, with significance at p < 0.05.

The combination of the two models yields a robust structural analysis of the latent variables. PLS-SEM is effectively used in complex models with medium sample sizes, consistent with the research objectives of testing the influence among variables (Khaddapi et al., 2022).

4. Results and Discussion

Demographics of Respondents This study included 100 members of the Sauan Sibarrung Credit Union Cooperative who had participated in entrepreneurship training, especially those included in the Fostered Group. The descriptive information about the respondents in this study provides an overview of their characteristics, including gender, age range, education level, and duration of membership in the cooperative.

Table 3. Characteristics of respondents

Features	Opsi	Quantity	Percentage (%)
Gender	Men	31	31
	Women	69	69
Age	20-30 years	5	5
	31-40 years	36	36
	>41 years	59	59
Education	SD	1	1
	SMP	6	6
	SMA	33	33
	Diploma	7	7
	Strata 1	51	51
	Strata 2	2	2
Long Membership	< 5 years	16	16
	6 - 10 years	29	29
	11 - 15 years	30	30
	> 16 years	25	25
	Zum	100	100

Table 3 shows that the majority of respondents in this study were women (69 people, 69%), while men accounted for 31 people (31%). By age, 5% were 20–30 years old, 36% were 31–40 years old, and 59% were > 41 years old. In terms of education, most respondents were Strata 1 graduates (51%), followed by high school graduates (33%), diploma holders (7%), junior high school graduates (6%), Strata 2 graduates (2%), and elementary school graduates (1%). As for the duration of membership in the cooperative, most respondents have been members for less than five years.

4.2 Inferential Analysis
4.2.1 Hasil Uji Outer Model
The evaluation of the outer model in the SEM-PLS approach is conducted through three key aspects. These aspects include convergent validity, discriminant validity, and reliability. Each aspect plays a critical role in assessing the quality and robustness of the model.

4.2.1.1 Results Convergent Validity
To ensure the convergent validity of reflective indicators, two main conditions must be met. First, the Average Variance Extracted (AVE) value must exceed 0.5. Second, the outer loading of the indicator must exceed 0.7 (Ting, Memon, Thurasamy, & Cheah, 2025).

4.2.1.2 Outer Loading
Table 4. Outer loading validity testing

Indikator	(X_1) Education	(X_2) Training	(Y) Member Wellbeing	Remarks
X1.1	0,916			Valid
X1.2	0,911			Valid
X1.3	0,951			Valid
X2.1		0,945		Valid
X2.2		0,933		Valid
X2.3		0,946		Valid

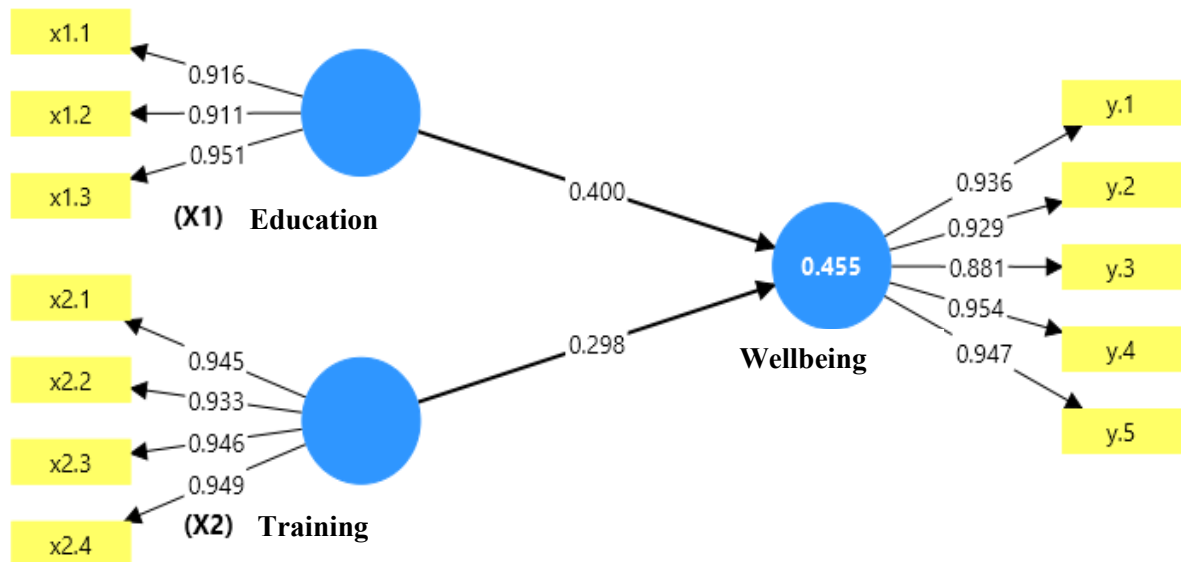| X2.4		0,949			Valid
Y1				0,936	Valid
Y2				0,929	Valid
Y3				0,881	Valid
Y4				0,954	Valid
Y5				0,947	Valid

Figure 2. Visualization of the outer loading value test results.

Based on Table 4 and Figure 2, all outer loading values were found to exceed the minimum threshold of 0.7. This indicates that the indicators meet the required standard for convergent validity. Consequently, the validity of the indicators is confirmed.

4.2.1.3 Average Variance Extracted (AVE)
Table 5. Average variance extracted

Variabels	Average Variance Extracted (AVE)
Education (X_1)	0,858
Training (X_2)	0,889
Member Wellbeing (Y)	0,865

The AVE values presented in Table 5 show that each construct has an AVE greater than 0.5. This indicates that the constructs meet the threshold for convergent validity. As a result, the measurement quality of all constructs is considered to be relatively good.

4.2.1.4 Result *Discriminant Validity*
Discriminant validity is used to assess the extent to which latent variables can be distinguished from one another. A model is considered to have good discriminant validity if each indicator shows the highest loading value in the correct construct.

Table 6. Analysis cross loading

	Education (X_1)	Training (X_2)	Member Wellbeing (Y)
X1.1	0,916	0,781	0,629
X1.2	0,911	0,779	0,537
X1.3	0,951	0,847	0,652
X2.1	0,847	0,933	0,605
X2.2	0,800	0,946	0,608
X2.3	0,826	0,949	0,636

X2.4	0,627	0,596	0,936
Y1	0,578	0,565	0,929
Y2	0,618	0,622	0,881
Y3	0,631	0,621	0,954
Y4	0,601	0,587	0,947
Y5	0,916	0,781	0,629

The cross-loading analysis shown in Table 6 indicates that each indicator has the highest loading on the correct construct, which is consistent with the principle of discriminant validity. Thus, the research model met the criteria for discriminatory validity.

4.2.1.5 Result *Composite Reliability*

The reliability of the construct was assessed using two leading indicators: Composite Reliability and Cronbach's alpha. Composite Reliability measures internal consistency more accurately, whereas Cronbach's alpha provides a lower bound on construct reliability. A construct is declared reliable if the Composite Reliability value is greater than 0.7 and Cronbach's alpha is greater than 0.6 (Maskur, Basir, & Dewi, 2024).

Table 7. Composite reliability result

	Cronbach's alpha	Composite Reliability (rho_c)
Education (X1)	0,917	0,926
Training (X2)	0,959	0,960
Member Wellbeing (Y)	0,961	0,961

Based on Table 7, all variables in this study, Education, Training, and Member Wellbeing, had high Cronbach's Alpha values of 0.917, 0.959, and 0.961, respectively. These values exceed the 0.7 threshold, indicating that each construct has strong internal reliability and consistent respondent responses. The evaluation of construct reliability through Composite Reliability and Cronbach's alpha showed excellent results. The Composite Reliability values for Education, Training, and Member Wellbeing were 0.926, 0.960, and 0.961, respectively, all above the 0.7 threshold. Thus, all constructs in this model can be declared to have adequate reliability.

4.3 Results of Inner Model or Structural Model Test
4.3.1 Result R-*Square*
The goodness of fit in the PLS approach is evaluated by reviewing the R-square value of each dependent latent variable, which is calculated using SmartPLS software.

Table 8. R-Square results.

	R-S*quare*	R-S*quare Adjusted*
Member Wellbeing (*Y*)	0,455	0,444

Table 8 shows the R-squared value as a measure of the predictive ability of the structural model. For the Member Wellbeing variable, an R-squared of 0.455 indicates that 45.5% of the variation in member wellbeing is explained by the education and training factors in this model, while other variables beyond the scope of the study account for the remaining 54.5%.

4.3.2 Result Q-*Square*
The Q-square is used to evaluate the predictive relevance of a model, that is, the extent to which it can estimate the observed value from the estimated parameters. The model is considered to have predictive relevance if the Q-square value is greater than 0. This value is between 0 and 1, and the closer it is to 1, the better the model's predictive ability.

PLSpredict LV summary - PLS-SEM			
	Q²predict	RMSE	MAE
y.	0.420	0.803	0.547

Figure 3. Q-Square predictive relevance model

The Q-square value of 0.420 in Figure 3, obtained in this study, indicates that the model has good predictive relevance. This means that 42% of the variation in member well-being variables can be explained by the independent variables used in the research model.

4.3.3   Testing Hipotesis

The purpose of testing hypotheses in structural models is to assess whether there is a significant influence of constructs. This test was carried out by comparing the t-statistic (α = 10%) against the t-table value of 1.660 and reporting a p-value of less than 0.05. A hypothesis is declared acceptable if the t-statistical value exceeds 1.65, and the p-value is less than 0.05. The data used in this test were derived from *the Path Coefficient results* (Setiabudhi, Suwono, Setiawan, & Karim, 2025). Table 9 presents the results of the analysis of the tested structural models.

Tabel 9. Hasil Path Coefficient

	Original sample (O)	Sample mean (M)	Standard deviation (STDEV)	T statistics (|O/STDEV|)	P values
X_1 -> Y	0,400	0,387	0,176	2,273	0,023
X_2 -> Y	0,298	0,308	0,200	1,490	0,136

The interpretation of the hypothesis test results, as shown in Table 10, is as follows:

The path analysis results indicated that education (X_1) had a significant direct influence on the Welfare of Members (Y). The path coefficient value of 0.400 reflects the strength of this relationship. The statistical t-value of 2.273 exceeds the critical limit of the t-table of 1.660 at a significance level of 5%, and the p-value of 0.023 is below the threshold of 0.05. Thus, the effects were statistically significant. Therefore, the first hypothesis (H_1), which states that Education (X_1) has a direct effect on the Welfare of Members (Y), is accepted.

H_1: Education has a direct effect on the welfare of members.

The pathway analysis results indicated that Training (X_2) did not have a significant direct influence on Member Welfare (Y). Although the path coefficient value of 0.298 indicates the direction of a positive relationship, the t-statistic value of 1.490 is still below the t-table threshold of 1.660 at a significance level of 10%, and the p-value of 0.136 exceeds the limit of 0.05. Thus, the second hypothesis (H_2), which states that there is a direct influence of Training on the Welfare of Members, is unacceptable.

H_2: Training has a direct effect on Member Wellbeing

4.4 Discussions
4.4.1 Education has a direct effect on members' welfare.

The results of the hypothesis test showed that education (X_1) had a significant direct influence on Member Welfare (Y). This shows that an increase in scores on the education construct will positively and significantly improve the welfare of cooperative members. Although this study found that education has a significant influence on members' well-being, other studies have found that education does not always automatically increase well-being, depending on the presence of social capital, participation networks, institutional policies, and local context (Ali & Khan, 2023). Meanwhile, within the scope of cooperatives, member education needs to be complemented by managerial support, organizational networks, and access to resources to improve welfare (Sun, Geng, & Kong, 2018).

Education, which includes aspects such as cooperative knowledge, membership understanding, and financial and cooperative organizational literacy, is essential and has a significant impact on member welfare (Rahmadianti, Maryani, & Pentiana, 2024). These findings are consistent with the international literature, which indicates that increasing human capital through Education and Training (including organizational literacy) has a positive impact on the well-being of households or cooperative members. For example, in a study on the role of cooperative membership and access to agricultural extension services, it was found that "participation in cooperatives improves farmers' access to extension services, training programs, and credit facilities, thereby equipping them with" (Kehinde, Oyenpemi, & Oladimeji, 2025).

Within the framework of Human Capital Theory, Education is considered a strategic investment that increases individuals' capacity to participate productively in economic and social activities (Voigt & Oelsnitz, 2024). Within the scope of cooperatives, education includes not only formal learning but also organizational literacy, understanding cooperative principles, and managerial skills. When cooperative members have a good understanding of their rights and obligations, as well as the cooperative's working mechanism, they tend to be more active in decision-making and joint venture management (Ojong, Heckelei, Baylis, & Rasch, 2023). This creates a multiplier effect on welfare, as educated members can access economic opportunities more effectively and contribute to the cooperative's sustainability.

Empirically, the path coefficient of 0.400 and p-value of 0.023 show a significant relationship between Education and the Welfare of cooperative members. This means that an increase in scores on the educational construct directly improves welfare. These findings are in line with studies showing that cooperative literacy and financial education play an important role in improving access to financial services, training, and business opportunities. In a study (Ingutia & Sumelius, 2024), participation in education-supported cooperatives has been shown to increase access to credit services, which ultimately strengthens the welfare of farmer households.

From a policy perspective, these results indicate that cooperative education should be a priority in cooperative development strategies (Santoso et al., 2023). Education programs that are systematically designed and tailored to members' needs (need-based training) will be more effective in increasing members' capacity (Chairoel et al., 2025). In addition, integrating digital technology into cooperative education can expand and improve learning efficiency (Lestari & Magfiroh, 2025). Local governments and cooperative managers must collaborate to provide relevant, accessible, and sustainable educational modules to maximize the positive impact on members' well-being.

4.4.2 *Training has a direct effect on the welfare of the members.*

The variables of the effect of training on member well-being in this model were not significant. Thus, H2 was rejected. The SEM analysis of the training variable (X2) did not show a significant effect; this does not mean that training is not essential. Several possibilities could explain this: perhaps the type or quality of training provided is not optimal, or it has not been sufficiently translated into concrete practices that have an impact on welfare, or perhaps the direct effect of training. Other research results also show that access to extension services and training, as in "Agricultural extension services and household welfare: evidence from Ghana socioeconomic panel survey," within the scope of agriculture (Aremu, Baye, Onyina, & Abijah, 2025), indicates that the mechanisms of interaction and local resources are decisive.

One of the main reasons the training does not show a significant influence is that the training provided may not have been in accordance with the real needs of the cooperative members. Training that is theoretical, not applicable, or not followed by practical assistance tends to fail to transform knowledge into skills that have a direct impact on well-being (Ichdan, 2024). A study by Ikhtiarini and Ratnaningrum (2024) emphasizes that the effectiveness of cooperative training is highly dependent on the relevance of the material to the local context and the presence of a follow-up oriented to field practice.

The effectiveness of training is also greatly influenced by the social and institutional dimensions in which the cooperative operates. In a study by Aremu et al. (2025) on agricultural extension services in Ghana, it was found that social interactions, local resources, and institutional support play an important role in determining whether training impacts household well-being. Therefore, cooperative training needs to be designed with consideration of members' characteristic organizational culture and support from the external environment (Sutejo, Rizki, Handayani, & Rinaldi, 2024).

Within the framework of *Cooperative Development Theory*, Training is an integral part of the cooperative member empowerment process. This theory emphasizes that practical training must increase members' active participation in decision-making and joint venture management. When Training fails to create behavior change or increase member capacity, its impact on well-being is limited. Therefore, Training should be positioned as an ongoing process that involves active learning, mentoring, and impact evaluation. Cooperative *Development Theory* suggests that cooperative membership not only provides access to resources and services, but also empowers members through Education, Training, and active participation in decision-making.

The finding that training did not have a significant effect opens the door to more in-depth follow-up research. Researchers can explore mediating variables such as learning motivation, managerial support, or social capital that might strengthen the relationship between training and well-being. In terms of policy, cooperatives and local governments must design training programs tailored to members' needs, involve competent facilitators, and establish impact evaluation mechanisms. The integration of digital technology and project-based learning approaches can also improve the effectiveness of training in the long run.

4.5 Managerial Implications
Cooperative Education must be a strategic priority by improving quality through membership literacy, financial management, and understanding of rights and obligations. Training must be evaluated to be more relevant, applicable, and sustainable. In addition, strengthening social capital, digital literacy, market access, and product innovation is necessary to improve members' welfare, supported by cooperative networks and digital technology.

5. Conclusions
5.1 Conclusion
Based on this study, the Education Variable (X_1) has a positive and significant effect on Member Welfare (Y), with a path coefficient of 0.400, t-statistic of 2.273, and p-value of 0.023. This means that the better the level of education of cooperative members, both formal education, cooperative literacy, and understanding of cooperative principles and management, the higher their level of welfare. The Training variable (X_2) had a positive but nonsignificant effect on Member Welfare (Y), with a path coefficient of 0.298, a t-statistic of 1.490, and a p-value of 0.136. These findings show that the training carried out by cooperatives has not significantly improved members' welfare. This may be due to the fact that the training was theoretical, less applicable, and not followed by continuous mentoring.

5.2. Research Limitations
This study has several limitations that should be considered when interpreting its results. First, the measurement of the training variable mainly focused on the existence and general implementation of training activities without fully capturing their quality, practicality, and relevance to members' actual economic activities. Consequently, the nonsignificant effect of Training on Member Welfare may not accurately represent the potential impact of more applied and continuous training accompanied by mentoring. Second, the study relied on self-reported data from cooperative members, which may be subject to response bias due to differences in the perceptions and understanding of the questionnaire items. Third, the cross-sectional research design limits the ability to capture long-term effects, particularly for training programs that typically require time and sustained assistance to produce tangible improvements in the welfare of members. Fourth, the research was conducted within a limited number of cooperatives and a specific regional context, which may restrict the generalizability of the findings to other cooperative settings in other regions. Finally, this study did not include other important

factors that may influence member welfare, such as access to capital, business experience, market conditions, and external institutional support, which may limit the overall explanatory power of this research.

5.2 Sugestions and Directions for Future Research
Cooperative administrators and managers are advised to strengthen cooperative education activities that are systematic and sustainable. Educational materials should include aspects of financial literacy, cooperative governance, and awareness of cooperative values. A need-based training program increases the relevance and effectiveness of learning. In addition, the use of digital media in cooperative educational activities can expand the reach and effectiveness of learning for members.

References

Agung, A. A. P., & Yuesti, A. (2019). *Buku Metode Penelitian Bisnis Kuantitatif dan Kualitatif*: Noah Aletheia.

Al Farisi, S., Fasa, M. I., & Suharto, S. (2022). Peran UMKM (Usaha Mikro Kecil Menengah) dalam Meningkatkan Kesejahteraan MasyarakaT. *Jurnal Dinamika Ekonomi Syariah, 9*(1), 73-84. doi:https://doi.org/10.53429/jdes.v9i1.307

Ali, T., & Khan, S. (2023). Health, Education, and Economic Well-Being in China: How Do Human Capital and Social Interaction Influence Economic Returns. *Behavioral Sciences, 13*(3), 209. doi:https://doi.org/10.3390/bs13030209

Anasrulloh, M., Rokhim, A. M., & Firotul, A. (2020). Pengaruh Pendidikan Perkoperasian terhadap Partisipasi Anggota pada Koperasi Wanita di Kabupaten Tulungagung. *Jurnal Ilmiah Ecobuss, 8*(2), 103-110. doi:https://doi.org/10.51747/ecobuss.v8i2

Aremu, T., Baye, R. S., Onyina, K., & Abijah, P. (2025). Agricultural Extension Services and Household Welfare: Evidence from Ghana Socioeconomic Panel Survey. *Agricultural and Food Economics, 13*(58), 1-24. doi:https://doi.org/10.1186/s40100-025-00400-7

BPS. (2021). Indikator Kesejahteraan Rakyat Kabupaten Tana Toraja 2021. Retrieved from https://tatorkab.bps.go.id/id/publication/2021/12/31/5928e85342cbc3a1ceea0a8d/welfare-indicators-of-tana-toraja-regency-2021.html

BPS. (2023). Serah Terima Data dan Laporan Hasil PL-KUMKM2023. Retrieved from https://www.bps.go.id/assets/news/2023/12/15/542/serah-terima-data-dan-laporan-hasil-pl-kumkm2023.html?

Chairoel, L., Afdaleni, A., Zulfariati, Z., Zaiyar, Z., Gusmulyani, G., Al, A., Zainin, F. (2025). PKM Malaysia Enhances Information Technology Innovation Outcomes for Higher Education Cooperatives. *Journal of Community Service and Application of Science, 4*(1), 75-79. doi:https://doi.org/10.62769/s3wy5k92

Fernandi, D., Utami, S. T., & Noviarita, H. (2024). Peran Koperasi dan UMKM dalam Meningkatkan Kesejahteraan Masyarakat. *Jurnal Intelek Dan Cendikiawan Nusantara, 1*(5), 8945-8956.

Handayani, T., Sore, A. D., & Astikawati, Y. (2020). Peran Koperasi dalam Meningkatkan Kesejahteraan Anggota di Koperasi Unit Desa Bale Yotro Desa Beloyang. *Jurnal Pendidikan Ekonomi (JURKAMI), 5*(2), 102-112. https://doi.org/10.31932/jpe.v5i2.905

Harahap, B., Rizal, M., Widodo, W., Sutanto, A., & Qamaruddin, Q. (2024). Whether Access to Agricultural Aid Improves the Welfare of Farmer Households in Palopo, Indonesia With Budget as a Moderate Variable. *Revista de Gestão Social e Ambiental, 18*(4), 1-16. doi:https://doi.org/10.24857/rgsa.v18n4-121

Ichdan, D. A. (2024). Analysis of Employee Performance Through Productivity: The Role of Kaizen Culture, Motivation, and Work Discipline in the Manufacturing Industry. *Annals of Human Resource Management Research, 4*(1), 13-28. doi:https://doi.org/10.35912/ahrmr.v4i1.2158

Ikhtiarini, S. A., & Ratnaningrum, I. (2024). Peningkatan Motivasi Belajar Anak SD: Tinjauan Psikologi Pendidikan dalam Meningkatkan Prestasi Akademik. *Sindoro: Cendikia Pendidikan, 5*(1), 11-20. doi:https://doi.org/doi.org/10.9644/sindoro.v4i5.3317

Ingutia, R., & Sumelius, J. (2024). Does Cooperative Membership Facilitate Access to Credit for Women Farmers nn Rural Kenya? *Journal of Agriculture and Food Research, 18*, 1-11. doi:https://doi.org/10.1016/j.jafr.2024.101425

Kehinde, A. D., Oyenpemi, L. O., & Oladimeji, O. O. (2025). Leveraging Agricultural Cooperative Membership to Improve the Technical Efficiency of Smallholder Cocoa Farmers in Nigeria. *Social Sciences & Humanities Open, 12*, 1-14. doi:https://doi.org/10.1016/j.ssaho.2025.102068

Khaddapi, M., Brurhanuddin, B., Sapar, S., Salju, S., & Risal, M. (2022). Pengaruh Kualitas Pelayanan Kepuasan Pelanggan Melalui Loyalitas Terhadap Minat Membeli Kembali di Jinan Pet Care and Veterinary Palopo. *Jurnal Aplikasi Bisnis dan Manajemen (JABM), 8*(3), 951-961. doi:https://doi.org/10.17358/jabm.8.3.951

Kleanthous, A., Paton, R. A., & Wilson, F. M. (2019). Credit Unions, Co-Operatives, Sustainability And Accountability In A Time Of Change: A Case Study Of Credit Unions In Cyprus. *International Journal of Social Economics, 46*(2), 309-323. doi:https://doi.org/10.1108/IJSE-06-2017-0231

Lestari, A. A. D., & Magfiroh, D. (2025). Digitalization Strategy in Improving Operational Efficiency and Service Quality in Agricultural Cooperatives in the Digital Economy Era. *Journal of Cooperative Development and Innovation, 1*(1), 25-36.

Marzuki, S. N. (2016). Relevansi Kesejahteraan Ekonomi Keluarga Dengan Peningkatan Perceraian Di Kabupaten Bone. *Jurnal Hukum Keluarga Islam, 2*(2), 179-196. doi:https://doi.org/10.30863/al-risalah.v2i1.435

Maskur, F., Basir, A., & Dewi, S. R. (2024). Influence of Job Satisfaction and Management Information Systems on Employee Performance n Pt. Pawnshop In Palopo City. *Journal of Multidisciplinary Academic and Practice Studies (JoMAPS), 2*(3), 325-334. doi:https://doi.org/10.35912/gams.v1i1.3372

Maulana, L. H., Gemina, D., & Maulana, M. I. (2021). Keberhasilan Koperasi Syariah Berbasis Diklat dan Partisipasi Anggota. *Jurnal Syarikah : Jurnal Ekonomi Islam, 7*(2), 113-120. doi:https://doi.org/10.30997/jsei.v7i2.4819

Mulyadi, C. D., Rusmana, F. D., & Juhadi, J. (2023). Peran Koperasi dalam Meningkatkan Kesejahteraan Anggota pada Koperasi Susu Cipendawa Cianjur. *Jurnal Perbankan Syariah Indonesia (JPSI), 2*(1), 14-26. doi:https://doi.org/10.57171/jpsi.v2i1.66

Ojong, M. P. J. T., Heckelei, T., Baylis, K., & Rasch, S. (2023). Cooperative Membership and Exposure to Role Models. *107*, 102-119. doi:https://doi.org/10.1016/J.socec.2023.102119

Pagiu, C., & Pundissing, R. (2021). Analisis Tingkat Kesehatan Koperasi Credit Union Sauang Sibarrung Berdasarkan Rasio Likuiditas. *Paulus Journal of Accounting (PJA), 2*(2), 28-47. doi:https://doi.org/10.34207/

Perkasa, R. D., & Harahap, F. F. (2023). Pengaruh Koperasi terhadap Peningkatan Usaha Kecil Menengah Masyarakat Kota Tanjungbalai. *Jurnal Pendidikan Tambusai, 7*(2), 13931-13936. doi:https://doi.org/10.31004/jptam.v7i2.8607

Putri, F. T., Fauziyah, A., & Kanita, G. G. (2023). Pengaruh Pelatihan Kewirausahaan dan Mentoring Bisnis Terhadap Perkembangan dan Kemajuan UMKM. *SEIKO: Journal of Management & Business, 6*(2), 469-479. doi:https://doi.org/10.37531/sejaman.v6i2.4848

Rahmadianti, S. S., Maryani, M., & Pentiana, D. (2024). Faktor–Faktor yang Mempengaruhi Pemahaman Penerapan SAK EMKM pada Pelaku Usaha Mikro, Kecil dan Menengah (UMKM) Di Kecamatan Tanjung Karang Pusat. *Reviu Akuntansi, Manajemen, dan Bisnis, 4*(1), 1-12. doi:https://doi.org/10.35912/rambis.v4i1.2693

Rahmi, Y., Sulistiyorini, D., & Zahra, G. A. (2025). Membangun Kompetensi Kewirausahaan melalui Pelatihan Entrepreneurial Mindset Dan Persuasive Communication Skill Pada Pembina Penyuluh Lapangan Koperasi. *Flourishing Journal, 5*(5), 249-258. doi:https://doi.org/10.17977/um070v5i52025p249-258

Santoso, W. T., Desmon, D., Surya, A., Ekatama, M. R., Hasbullah, H., & Indriyani, S. (2023). Pengaruh Pengetahuan, Persepsi, dan Kepuasan terhadap Loyalitas Anggota BMT Asy-Syafi'iyah Berkah Nasional. *Studi Ilmu Manajemen dan Organisasi, 6*(1), 173-186. doi:https://doi.org/10.35912/simo.v6i1.3562

Setiabudhi, H., Suwono, S., Setiawan, Y. A., & Karim, S. (2025). *Analisis data kuantitatif dengan SmartPLS 4*: Borneo Novelty Publishing.

Sinaga, D. (2022). *Buku Ajar Metodologi Penelitian (Penelitian Kuantitatif)(Aliwar, Ed.; Vol. 1)*: UKI Press.

Siregar, R., & Marliyah, M. (2022). Efektivitas Peran Koperasi dalam Pengembangan Usaha Kecil di Kota Medan. *Jurnal Multidisiplin Dehasen (MUDE), 1*(2), 55–60. doi:https://doi.org/10.37676/mude.v1i2.2143

Sun, H.-P., Sun, W.-F., Geng, Y., & Kong, Y.-S. (2018). Natural resource dependence, public education investment, and human capital accumulation. *Petroleum science, 15*(3), 657-665. doi:https://doi.org/10.1007/S12182-018-0235-0

Sutejo, B., Rizki, I. H., Handayani, T. M., & Rinaldi, M. (2024). E-Commerce dan Pengetahuan Kewirausahaan dalam Meningkatkan Minat Berbisnis Masyarakat Ligkungan XX Tanjung Mulia. *Studi Ilmu Manajemen dan Organisasi, 5*(2), 317-327. doi:https://doi.org/10.35912/simo.v5i2.3584

Sutrisno, S. (2018). Educating Cooperative members to Increase Its Values (A study on the Members Education in KSU Makmur Sejati Malang and Koperasi Kredit Sangosay, Ngada Nusa Tenggara Timur). *Dinamika Pendidikan, 13*(1), 42-53. doi:https://doi.org/10.15294/dp.v13i1.15113

Ting, H., Memon, M. A., Thurasamy, R., & Cheah, J.-H. (2025). Snowball Sampling: A Review And Guidelines For Survey Research. *Asian Journal of Business Research (AJBR), 15*(1), 1-15. doi:https://10.14707/ajbr.250186

Voigt, L., & Oelsnitz, D. V. D. (2024). A framework of HRM in cooperatives: A systematic literature review and future research agenda. *Journal of Co-operative Organization and Management, 12*(1), 1-11. doi:https://doi.org/10.1016/j.jcom.2024.100232