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THE EFFECT OF THE COOPERATIVE'S ROLE, MEMBER PARTICIPATION, AND BUSINESS INNOVATION ON CLIENTS' ECONOMIC WELL-BEING AT THE KAMON OFFICE COOPERATIVE, BERELIKU VILLAGE, MALAKA REGENCY, EAST NUSA TENGGARA PROVINCE

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Abstract

This study aims to analyse the influence of the cooperative's role, member participation, and business innovation on clients' economic well-being at the Kamon Office Cooperative in Bereliku Village, Malaka Regency, East Nusa Tenggara Province. The research employed an exploratory quantitative design, with a population comprising all 110 active members of the Kamon Office Cooperative. A saturated sampling (census) technique was used, in which the entire population served as the sample, while data were collected through a structured online questionnaire distributed via Google Forms. Data were analysed using Partial Least Squares Structural Equation Modelling (PLS-SEM) with SmartPLS 4 software. The structural model results indicate that the cooperative's role has a positive but non-significant effect on clients' economic well-being ($\beta = 0.160$, $t = 1.436$, $p = 0.151$). Member participation likewise shows a positive but non-significant effect on clients' economic well-being ($\beta = 0.119$, $t = 1.345$, $p = 0.179$). In contrast, business innovation exerts a positive and significant effect on clients' economic well-being ($\beta = 0.649$, $t = 4.933$, $p = 0.000$). The R-square value indicates that 75.8% of the variance in clients' economic well-being is explained jointly by the three independent variables, while the remaining 24.2% is explained by variables outside the model. These findings demonstrate that business innovation is the most dominant driver of improved economic well-being among clients of the Kamon Office Cooperative, underscoring the need for cooperatives to modernise their services and operational systems alongside strengthening their institutional role and member participation.

Keywords: business innovation; economic well-being; member participation; PLS-SEM; role of cooperatives.

INTRODUCTION

Cooperatives are one of the people's economic institutions that play an important role in improving community welfare through access to capital, financial services, and the economic empowerment of members, serving as an instrument of economic development grounded in economic democracy, mutual cooperation, and kinship. The Government of Indonesia, through Law Number 6 of 2023 on Job Creation, affirms that developing cooperatives and micro, small, and medium enterprises (MSMEs) is one of the strategies for improving the national economy, creating employment, and increasing community welfare through facilitation, protection, and empowerment. Based on 2025 data from the Ministry of Cooperatives, the number of active cooperatives in Indonesia reached 131,617 units, up from 130,119 in 2023, confirming their role as an important pillar of national economic development in strengthening community business activity and members' welfare.

In East Nusa Tenggara (NTT) Province, the number of active cooperatives grew from 3,339 units in 2022 to 6,244 units in 2025, yet this growth has not been matched by an equitable improvement in member welfare, and the province's poverty rate in 2024 remained high at 18.60–19.02 percent (BPS NTT Province, 2025; NTT Provincial Office of Cooperatives and SMEs, 2025). The Kamon Office Cooperative in Bereliku Village, Malaka Regency, is a savings and loan cooperative intended to help members' economic welfare, yet of its 150 registered members, 40 (26.67%) remain inactive, and its assets have fluctuated sharply, from Rp446,678,250 in 2021 to a low of Rp236,486,250 in 2024. Administrative management is still largely manual, indicating a need for greater business innovation alongside stronger member participation to sustain the cooperative's performance. Previous studies have generally examined the cooperative's role, member participation, or business innovation separately, each finding a positive relationship with member or business welfare, but rarely testing all three simultaneously. Research on their combined effect on clients' economic welfare, particularly in rural cooperatives such as those in Malaka Regency, remains very limited, and the Kamon Office Cooperative has not previously been examined, offering novelty for this study. This study therefore examines the influence of the cooperative's role, member participation, and business innovation on the economic well-being of clients of the Kamon Office Cooperative using Partial Least Squares Structural Equation Modelling (PLS-SEM), grounded in Welfare Theory. The cooperative's role refers to its function in economic empowerment, welfare improvement, and provision of capital access and financial services; member participation refers to members' active involvement in cooperative activities and decision-making; and business innovation refers to the cooperative's capacity to improve its products, services, processes, technology, and management. Based on this reasoning, the following hypotheses are proposed:

H1: The cooperative's role has a positive and significant effect on clients' economic well-being at the Kamon Office Cooperative, Bereliku Village, Malaka Regency.

H2: Member participation has a positive and significant effect on clients' economic well-being at the Kamon Office Cooperative, Bereliku Village, Malaka Regency.

H3: Business innovation has a positive and significant effect on clients' economic well-being at the Kamon Office Cooperative, Bereliku Village, Malaka Regency.

RESEARCH METHODOLOGY

Research Design and Participants

This study employed a quantitative explanatory research design to examine the effects of the cooperative's role, member participation, and business innovation on clients' economic well-being. The research was conducted at the Kamon Office Cooperative, located in Bereliku Village, Malaka Tengah Sub-district, Malaka Regency, East Nusa Tenggara Province. As a rural savings-and-loan institution, the Kamon Office Cooperative focuses its operations on providing affordable access to capital, mobilising member savings, and strengthening members' productive economic activity, guided by the value of mutual cooperation (gotong royong) to strengthen members' financial independence.

The population of this study comprised all active members of the Kamon Office Cooperative, Bereliku Village, Malaka Regency. Active members were selected as the population because they represent individuals who directly utilise the cooperative's services and are therefore best positioned to assess the cooperative's role, their own participation, and the cooperative's business innovation. Based on 2025 data from the Kamon Office Cooperative, the total membership was 150 people, comprising 110 active members and 40 inactive members. Because the population size was relatively limited and all active members shared comparable characteristics, this study used a saturated sampling (census) technique, in which the entire population of 110 active members was used as the research sample.

Data Collection Procedure

Primary data were collected through a structured questionnaire distributed online via Google Forms over the period 20 June to 1 July 2026. Secondary data were also used, obtained indirectly from sources such as the cooperative's institutional records and relevant government agencies. All items were measured on a five-point Likert scale ranging from 1 (“strongly disagree”) to 5 (“strongly agree”).

Measurement of Variables

The cooperative's role (X1) was operationalised through six indicators: economic empowerment of members, improvement of member welfare, provision of capital access and financial services, encouragement of member participation and independence, promotion of economic equity, and social role in community development. Member participation (X2) was measured through seven indicators: attendance at member meetings, involvement in cooperative decision-making, compliance with member obligations, utilisation of cooperative services and products, involvement in cooperative activities or programmes, provision of suggestions and constructive criticism, and a sense of ownership and responsibility toward the cooperative. Business innovation (X3) was measured through five indicators: product innovation, service innovation, operational process innovation, technology innovation, and managerial innovation. Clients' economic well-being (Y) was measured through five indicators: increased income, ability to meet living needs, financial stability and security, development of business and economic activity, and economic independence.

Data Analysis Technique

Data were analysed using Partial Least Squares Structural Equation Modelling (PLSSEM) with the aid of SmartPLS 4 software. The analysis proceeded in two stages: assessment of the measurement model (outer model) and assessment of the structural model (inner model).

Measurement Model Assessment (Outer Model)

Convergent validity was assessed through outer loadings and Average Variance Extracted (AVE), with the criterion that outer loadings should exceed 0.70 and AVE should exceed 0.50. Discriminant validity was assessed using the Fornell–Larcker criterion, crossloadings, and the Heterotrait-Monotrait Ratio (HTMT). Construct reliability was evaluated using Cronbach's alpha and Composite Reliability (CR), with values of 0.70 or above indicating good reliability.

Structural Model Assessment (Inner Model)

The structural model was evaluated using the coefficient of determination (R^2), predictive relevance (Q^2), effect size (f^2), and the Standardised Root Mean Square Residual (SRMR) together with the Normed Fit Index (NFI) as model-fit indices. R^2 values of 0.75, 0.50, and 0.25 respectively indicate substantial, moderate, and weak explanatory power. Predictive relevance is confirmed when Q^2 exceeds zero, while f^2 values of 0.02, 0.15, and 0.35 respectively indicate small, medium, and large effects.

Hypothesis Testing

Hypothesis testing was conducted using the bootstrapping procedure in SmartPLS 4. A hypothesised relationship was considered statistically significant, and therefore accepted, when the t-statistic exceeded 1.96 and the p-value was below 0.05 at a 5% significance level (twotailed); otherwise, the hypothesis was rejected.

RESULTS

Respondent Profile

Of the 110 respondents, 75 (68.2%) were female and 35 (31.8%) were male, indicating that women made up the majority of active clients of the Kamon Office Cooperative. By age, respondents were fairly evenly distributed across the productive age range: 17 (15.5%) were between 18 and 25 years old, 32 (29.1%) were between 26 and 35 years old, 32 (29.1%) were between 36 and 45 years old, and 29 (26.4%) were between 45 and 55 years old, indicating that the cooperative's client base spans multiple generations of economically active adults.

In terms of the type of service most frequently used, 44 respondents (40.0%) most often used loan services, 42 respondents (38.2%) used a combination of savings and loan services, 16 respondents (14.5%) used savings services only, and 8 respondents (7.3%) used other business services. This distribution indicates that access to financing through the loan product is the primary reason members engage with the cooperative, reflecting the institution's core function as a rural savings-and-loan provider.

Measurement Model

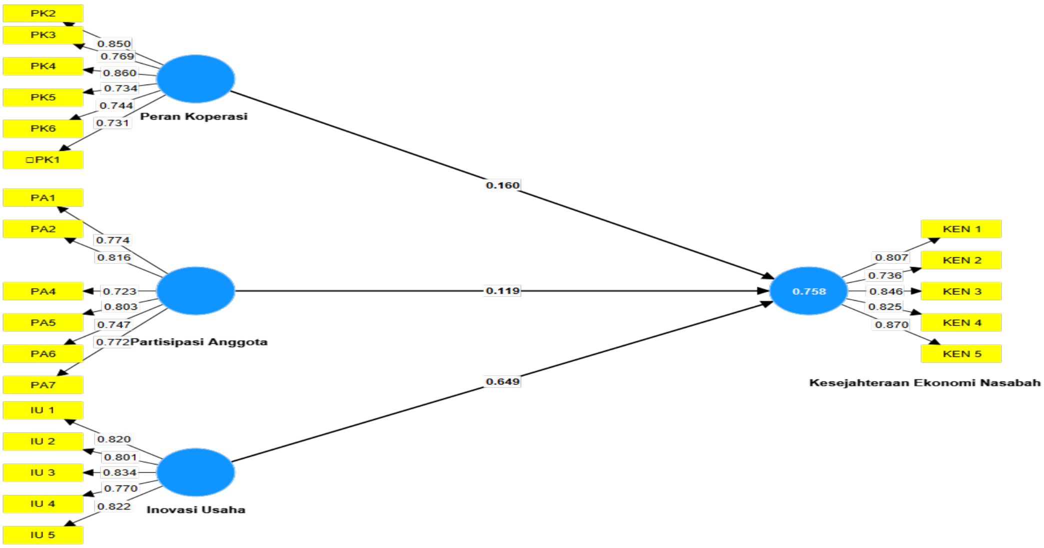

Figure 1. Structural (Outer) Measurement Model of the Study

Note: figure reproduced as generated in SmartPLS 4. Construct labels: Peran Koperasi (X1) = Cooperative's Role; Partisipasi Anggota (X2) = Member Participation; Inovasi Usaha (X3) = Business Innovation; Kesejahteraan Ekonomi Nasabah (Y) = Clients' Economic Well-Being. Source: processed with SmartPLS 4.

The outer loadings of the lower-order constructs are presented in Figure 1 above. Convergent validity was confirmed across all constructs. Outer loadings for the cooperative's role indicators (PK1–PK6) ranged from 0.731 to 0.860; for member participation (PA1, PA2, PA4, PA5, PA6, PA7 indicator PA3 was removed after failing to meet the minimum loading criterion) they ranged from 0.723 to 0.816; for business innovation (IU1–IU5) they ranged from
0.770 to 0.834; and for clients' economic well-being (KEN1–KEN5) they ranged from 0.736 to 0.870. All loadings exceeded the 0.70 threshold. Average Variance Extracted (AVE) values were 0.614 for the cooperative's role, 0.597 for member participation, 0.656 for business innovation, and 0.669 for clients' economic well-being, all exceeding the minimum 0.50 threshold, confirming adequate convergent validity for all constructs.

Composite reliability values (rho_c) ranged from 0.899 to 0.910, and Cronbach's alpha values ranged from 0.865 to 0.876, both comfortably exceeding the recommended 0.70 threshold and confirming that all constructs are internally consistent and reliable. Discriminant validity was assessed using the Fornell–Larcker criterion, cross-loadings, and the Heterotrait-Monotrait Ratio (HTMT). Under the Fornell–Larcker criterion, the square root of the AVE for each construct exceeded its correlations with other constructs, supporting discriminant validity. However, the HTMT analysis indicated a very close relationship between business innovation and clients' economic well-being (HTMT = 0.974) and between the cooperative's role and business innovation (HTMT = 0.900), both of which exceed the conservative 0.85–0.90 threshold, while the remaining construct pairs (HTMT ranging from 0.776 to 0.847) fell within acceptable limits. This indicates that, although the constructs are generally empirically distinct, the boundary between business innovation and the other exogenous constructs should be interpreted with some caution and may warrant refinement of the innovation indicators in future research.

Structural Model

The structural model produced an R^2 of 0.758 for clients' economic well-being, with an adjusted R^2 of 0.751, indicating that the cooperative's role, member participation, and business innovation jointly explain 75.8% of the variance in clients' economic well-being — a substantial level of explanatory power. Predictive relevance was supported, with Q^2predict values for the indicators of clients' economic well-being ranging from 0.349 to 0.602, all exceeding zero and confirming that the model has meaningful predictive capability.

Effect size (f^2) analysis showed that business innovation had a large effect on clients' economic well-being ($f^2 = 0.575$), while member participation ($f^2 = 0.027$) and the cooperative's role ($f^2 = 0.037$) both had small effects, just above the minimum 0.02 threshold. This indicates that business innovation is by far the most influential predictor of clients' economic well-being in this model, while the cooperative's role and member participation, though positively associated, contribute comparatively modest unique explanatory power.

Model fit was evaluated using the Standardised Root Mean Square Residual (SRMR) and the Normed Fit Index (NFI). The SRMR value of 0.082 for both the saturated and estimated models falls within the commonly accepted range (below 0.10), while the NFI value of 0.674 indicates that the model fit is acceptable but not optimal. The Chi-square value was 653.045, with d_ULS of 1.700 and d_G of 1.149. Taken together, the fit indices suggest that the structural model is reasonably well specified, although there remains room to improve overall model fit in future refinements of the measurement instrument.

Direct Effect Testing (H1–H3)

Table 1 presents the bootstrapping results for the direct path hypotheses at $\alpha = 5\%$ (tstatistic > 1.96; $p < 0.05$).

Table 1. Bootstrapping Results for Direct Path Hypotheses

Hyp.	Path	β	T-Statistic	p-value	Decision
H1	Cooperative's Role → Economic Well-Being	0.160	1.436	0.151	Rejected
H2	Member Participation → Economic Well-Being	0.119	1.345	0.179	Rejected
H3	Business Innovation → Economic Well-Being	0.649	4.933	0.000	Accepted

Note: Significance threshold: $p < 0.05$.

H1 was rejected: the cooperative's role has a positive but non-significant effect on clients' economic well-being ($\beta = 0.160$, $t = 1.436$, $p = 0.151$). H2 was rejected: member participation has a positive but non-significant effect on clients' economic well-being ($\beta = 0.119$, $t = 1.345$, $p = 0.179$). H3 was accepted: business innovation exerts a positive and significant effect on clients' economic well-being ($\beta = 0.649$, $t = 4.933$, $p = 0.000$). Overall, of the three independent variables examined, only business innovation shows a statistically significant influence on clients' economic well-being at the Kamon Office Cooperative.

DISCUSSION

The Cooperative's Role and Clients' Economic Well-Being (H1)

The cooperative's role was found to have a positive but non-significant effect on clients' economic well-being (H1 rejected), with a path coefficient of 0.160, a t-statistic of 1.436, and a p-value of 0.151. The descriptive analysis showed that the cooperative's role indicator obtained a relatively high mean score of 3.93, suggesting that members generally perceive the cooperative's services positively. However, this positive perception has not yet translated into a statistically measurable improvement in members' economic condition, indicating a gap between the quality of service as perceived by members and the tangible economic outcomes they experience.

Member Participation and Clients' Economic Well-Being (H2)

Member participation was found to have a positive but non-significant effect on clients' economic well-being (H2 rejected), with a path coefficient of 0.119, a t-statistic of 1.345, and a p-value of 0.179. The descriptive analysis showed that member participation obtained a mean score of 3.73, which, while still in the high category, was the lowest mean among the three exogenous constructs. This suggests that although members report a reasonably active level of engagement, the quality and consistency of that participation may not yet be sufficient to generate a measurable improvement in economic well-being. Cauk ***et al***

This condition is reinforced by the characteristics of the Kamon Office Cooperative's membership, which still includes 26.67% inactive members. Although this study surveyed only active members, the presence of a substantial inactive segment within the broader membership base reflects an institutional environment in which participation is not yet fully embedded as a shared norm. This finding is consistent with participation theory's general premise that cooperative success depends on active member involvement, yet it also shows that participation intensity alone, without corresponding gains in participation quality or decision-making influence, may not be sufficient to significantly improve members' economic well-being. The result differs from prior studies that found a significant positive effect of participation on member welfare, again pointing to the importance of local institutional context.

Business Innovation and Clients' Economic Well-Being (H3)

Business innovation was found to have a positive and significant effect on clients' economic well-being (H3 accepted), with a path coefficient of 0.649, a t-statistic of 4.933, and a p-value of 0.000. This is the strongest and only statistically significant relationship in the model, and the effect-size analysis confirms that business innovation is the dominant driver of clients' economic well-being ($f^2 = 0.575$, a large effect). The descriptive analysis showed that business innovation obtained a mean score of 3.92, in the high category, indicating that members already perceive meaningful innovation efforts by the cooperative despite its administration still being conducted largely manually.

This finding supports the theoretical proposition that organisations capable of sustained innovation whether through product development, service improvement, more efficient operational processes, technology adoption, or improved managerial systems tend to achieve stronger performance and deliver greater value to their stakeholders. For the Kamon Office Cooperative specifically, this result suggests that even incremental improvements to service delivery and business processes are strongly associated with members' perceived improvement in income, financial stability, and business development. The finding is consistent with prior research showing that innovation positively affects cooperative performance and business continuity, and it reinforces the conclusion that, of the three factors examined, strengthening business innovation offers the most direct and effective pathway to improving clients' economic well-being at the Kamon Office Cooperative.

CONCLUSIONS

This study examined the determinants of clients' economic well-being at the Kamon Office Cooperative, Bereliku Village, Malaka Regency, East Nusa Tenggara Province, using PLS-SEM. The findings show that: (1) the cooperative's role has a positive but non-significant effect on clients' economic well-being (H1 rejected); (2) member participation has a positive but non-significant effect on clients' economic well-being (H2 rejected); and (3) business innovation has a positive and significant effect on clients' economic well-being (H3 accepted), making it the most dominant factor in the model. Jointly, the cooperative's role, member participation, and business innovation explain 75.8% of the variance in clients' economic wellbeing ($R^2 = 0.758$), indicating substantial explanatory power for the overall model even though only one of the three individual paths reached statistical significance.

These findings extend Welfare Theory into the context of rural cooperative management by demonstrating that institutional presence and member involvement alone are not sufficient to significantly improve members' economic condition unless accompanied by genuine business innovation. Practically, the results imply that the management of the Kamon Office Cooperative should prioritise the modernisation of services — including the transition Cauk ***et al*** from manual to digital record-keeping and transaction systems — alongside continued efforts to strengthen the cooperative's institutional role and to deepen the quality, not merely the frequency, of member participation. Local government and cooperative supervisory bodies are encouraged to support this transformation through training, digital infrastructure assistance, and continued monitoring of rural cooperatives such as Kamon. This study is subject to several limitations. First, the sample was confined to active members of a single rural cooperative, limiting generalisability to other cooperative settings. Second, the cross-sectional design precludes causal inference. Third, the HTMT results indicate that business innovation and the other exogenous constructs are closely related, suggesting that future studies should refine the measurement of business innovation to sharpen its conceptual boundaries. Future research is encouraged to replicate this model across multiple rural cooperatives, incorporate longitudinal designs, and consider additional variables such as financial technology adoption, financial literacy, and institutional trust to provide a more comprehensive understanding of cooperative-driven economic well-being.

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