

The Effectiveness of Non-Vocal Verbal Communication to Improve Human Resources and Cooperative Accounting Performance

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Abstract

This study explores the effectiveness of non-verbal communication in improving human resource (HR) performance and financial reporting quality of cooperatives. Using the Generalized Method of Moments (GMM) model, this study takes a longitudinal approach to analyze data collected from various cooperatives in Indonesia. The results show that non-verbal communication contributes significantly to HR performance and financial reporting quality. Effective use of non-verbal communication, such as body language and facial expressions, enhances perceptions of trust, collaboration, and interpersonal relationships within the team. These findings support existing communication and management theories and provide practical implications for cooperatives in developing more effective non-verbal communication strategies. This study suggests that cooperatives implement training programs that focus on non-verbal communication skills and adopt policies that support an open and transparent culture. By doing so, cooperatives can achieve better performance and higher quality financial reporting. This study also provides important theoretical contributions to the communication and management literature, particularly in the context of cooperatives.

Keywords : Non-Verbal Communication, HR Performance, Financial Reporting Quality, Cooperatives, GMM Model

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Introduction

Communication is a crucial element in the cooperative work environment. Through effective interactions, cooperative members can enhance collaboration, strengthen team bonds, and achieve shared goals more efficiently. However, implementing effective communication in a cooperative work setting often faces various challenges (Kustiani, Respati, & Bawono, 2024).

Firstly, differences in individual communication styles can affect message understanding and interpretation. This is especially important in the context of non-verbal communication, such as body language, which can have different meanings in various cultures. Secondly, there is a need to balance verbal and non-verbal communication by avoiding over-reliance on one type. Dependence on monotonous verbal communication can lead to boredom, while interpretation of non-verbal communication can vary and cause misunderstandings (Buswari, Irawan, Priyanto, Ananda, 2024).

Previous research shows various views on the effectiveness of verbal and non-verbal communication. Some studies support the use of verbal communication as an effective tool for enhancing team performance. For example, research Xue, Wang, & Ali, (2024) on the role of communication in team motivation shows that clear and structured verbal information exchange can strengthen motivation and team performance.

Additionally, Kazemitabar, Mirzapour, Akhshi, Vatankhah, Hatami, & Doleck, (2024) find that non-verbal communication, such as body language, can improve perceptions of trust and collaboration within the team. Non-verbal elements like eye contact, hand gestures, and facial expressions can provide positive signals that strengthen trust among team members. Thus, non-verbal communication has the potential to enhance interpersonal relationships and work efficiency.

On the other hand, Ebesu Hubbard, (2022) research shows that non-verbal communication can be misinterpreted and cause misunderstandings. Studies Montagna, (2023) on the ambiguity of body language in cross-cultural communication reveal that differences in body language interpretation can lead to confusion and hinder the communication process. Moreover, research Schickel & Ringeisen, (2022) also shows that verbal communication that is used too frequently without variation can lead to boredom and reduce effectiveness. Monotonous verbal communication can cause team members to lose interest and attention, thus decreasing overall team performance.

Despite extensive research on verbal and non-verbal communication, there is a lack of studies that delve into the integration of these two types of communication, especially in the context of cooperatives (Dragomir, Fărcașiu, & Șimon, 2021). Some previous studies focus more on one type of communication without considering how they complement or contradict each other in improving human resource (HR) performance.

Additionally, there is still a gap in research regarding the temporal dynamics of communication effectiveness and its impact on long-term performance. Few studies consider how changes in the use of verbal and non-verbal communication over time can affect HR performance in the long term. Therefore, more in-depth research is needed to understand the integration and dynamics of these two types of communication.

Based on the background and literature review, several research questions can be formulated as the main focus of this study. The first question is, how can verbal and non-verbal communication improve HR performance in a cooperative work environment? This question aims to explore in depth the role of each type of communication in enhancing the effectiveness of cooperative team work.

This study aims to investigate the effectiveness of verbal and non-verbal communication in the context of cooperatives using the Generalized Method of Moments (GMM) model. The GMM model is chosen because it can address endogeneity issues and provide more accurate parameter estimates. By using this approach, the study is expected to provide a more comprehensive insight into how verbal and non-verbal communication can influence HR performance in the long term.

The benefits of this research are not only limited to academic aspects but also practical ones. Academically, this research can enrich the literature related to communication within organizations with a focus on cooperatives. Moreover, this study can provide a new theoretical basis regarding the integration of verbal and non-verbal communication.

Practically, the results of this research can help cooperatives develop more effective communication strategies. By raising awareness of the importance of balanced verbal and non-verbal communication, cooperatives can create a more harmonious and productive work environment. This, in turn, can support better accounting practices through effective communication, thus improving the financial performance and accounting reports of the cooperative as a whole.

This research will also provide practical recommendations for cooperatives on how to improve verbal and non-verbal communication in their work environment. With this, cooperatives can take concrete steps to enhance communication effectiveness and HR performance, as well as adopt relevant internal policies and training programs based on the findings of this study.

Literature Review

Verbal communication involves the exchange of information through spoken or written words. The basic elements of verbal communication include articulation, intonation, clarity, and message structure. Essentially, verbal communication involves two parties interacting through language to convey meaning. The effectiveness of verbal communication is greatly influenced by good speaking and listening skills and the use of appropriate words (Jiang, Zheng, & Lu, 2021).

In an organizational context, verbal communication theory emphasizes the importance of openness, feedback, and clarification of messages to ensure proper understanding between team members. One theory that is often associated with verbal communication is Lasswell's classic theory which includes five basic elements: who, says what, through what channel, to whom, and with what effect. This theory provides a framework for analyzing the various aspects of verbal communication in organizations (Varhelahti & Turnquist, 2021).

Body language, facial expressions, hand gestures, and eye contact are examples of non-verbal cues that are used in non-verbal communication. When it comes to communicating feelings, attitudes, and meanings without the use of words, nonverbal communication is essential. These elements can vary greatly depending on culture and context (Dash & Davis, 2022).

Non-vocal communication theory focuses on how non-verbal cues are used in organizations to enhance or change the meaning of verbal messages. Birdwhistell's theory of kinesics (body language) and Hall's Proxemics theory of space use are two important theories in understanding non-vocal communication in organizations (Mahmood, 2021).

Effective verbal communication has a significant positive impact on human resource (HR) performance. Clear and structured information exchange can reduce confusion, improve coordination, and strengthen cooperation among team members. This in turn can increase productivity and work efficiency (Ibrahim, Abdul Rani, Jamri, Bakar, Abdul Wahab, Mahbob, & Kahar, 2022).

However, there are also negative impacts associated with verbal communication. Excessive reliance on verbal communication without variation can lead to boredom and loss of attention. Monotony in communication can cause team members to lose motivation to participate actively, leading to decreased performance (Martin, Winchatz, Knight, & Burrows, 2023).

Non-vocal communication also has an important influence in improving HR performance. Effective use of non-vocal elements, such as positive body language and friendly facial expressions, can strengthen trust and interpersonal relationships within a team (Kumaraswamy, 2024). On the other hand, misinterpreted non-vocal communication can lead to misunderstandings and conflicts. Misinterpretation of non-verbal cues can occur especially in cross-cultural contexts, where interpretation of body language varies greatly (Al-Bazzaz & Qadir, 2024). Based on our literature review, we formulate the following hypotheses:

Hypothesis 1: Effective verbal communication will improve HR performance in cooperatives.

Hypothesis 2: Effective non-vocal communication will improve HR performance in cooperatives.

Hypothesis 3: A combination of effective verbal and non-vocal communication will result in a more significant increase in HR performance compared to using only one type of communication.

Research Methods

This study uses a longitudinal approach to analyze changes in the use of verbal and non-vocal communication and its impact on human resource (HR) performance over time. The longitudinal approach allows researchers to collect data from the same sample at several different points in time, so that they can observe and analyze the dynamics and evolution of research variables more comprehensively.

The longitudinal approach is very effective in this study because it allows for analysis of long-term communicative changes and suppresses temporal problems that may not be well described in cross-sectional methods. In processing longitudinal data, the Generalized Method of Moments (GMM) model is used because this technique is able to overcome endogeneity problems and provide more accurate parameter estimates.

The strategy for using the GMM model involves a series of steps consisting of selecting the right instrument to ensure accurate identification, controlling exogenous variables, and applying repeated estimation to optimize parameter estimation results.

Population and Sample

The population analyzed in this study came from various cooperatives in Indonesia, including savings and loan cooperatives, consumer product cooperatives, and other multipurpose cooperatives. This population was selected to provide a comprehensive representation of communication activities in various types of cooperatives with different operational contexts.

The research sample was taken based on certain criteria to ensure adequate representation and validity of the research results. The sample selection criteria include:

1. Length of service of cooperative members: Members who have worked for more than two years are prioritized to provide stable and accountable data.
2. Active participation in cooperative activities: The sample was selected from members who are actively involved in the daily activities of the cooperative, both in internal management and external cooperation.
3. Position and responsibilities: The sample includes representatives from various levels of positions ranging from managers to field workers to reflect various levels of hierarchy and roles in the cooperative.

This sample selection aims to ensure that the data collected reflects the actual conditions in the field and that variability between individuals can be clearly identified.

Research Instruments

The instruments used in this study include various tools and techniques needed to collect data related to verbal, non-vocal communication, and HR performance. The main instruments used include:

1. Structured questionnaire: This questionnaire is designed with detailed questions regarding the verbal and non-vocal communication patterns used by cooperative members in daily interactions.
2. In-depth interviews: Interviews were conducted with various cooperative members to dig deeper into their experiences in communicating and how it affects their performance.
3. Direct observation: Researchers conducted direct observations at the cooperative location to directly observe communicative interactions and non-verbal behavior in the work environment.

These instruments were chosen to provide a holistic view of the communication activities that occur in the cooperative.

The GMM model was used to analyze the communication and HR performance variables collected through these instruments. Some of the instrument variables recorded in the GMM model include:

Frequency and type of verbal communication: Measurement of how often verbal communication occurs, as well as the type of communication used (e.g., direct discussions, meetings, or written communication).

Types of non-verbal cues: Measurement of various non-vocal cues used such as body language, facial expressions, and eye contact.

HR performance: Measurement of various performance indicators including productivity, active participation, and work efficiency.

Data analysis

The longitudinal data collection process is conducted from the same sample at several different points in time. Data are collected routinely to track changes in communication patterns and HR performance over time. This longitudinal approach allows researchers to analyze temporal changes that occur in the way of communication and its impact on performance. After the data is collected, parameter estimation is carried out using the GMM model. This model is chosen because of its ability to handle endogeneity problems that often arise in social research. GMM uses appropriate instruments to overcome specific biases and strengthen the validity of the results. The steps in implementing the GMM model include:

1. Instrument selection: Selecting variables that can be used as instruments to control exogenous variables.
2. Model testing: Parameter estimation is carried out repeatedly to ensure accuracy and consistency of results.
3. Model validation: Revalidating the model using a number of statistical tests to ensure the model obtained is the best.

Model testing was conducted using the Hausman, Lagrange Multiplier (LM), and Chow tests to ensure the validity and reliability of the estimation results. The Hausman test is used to determine whether the random or fixed variable model provides a more valid estimate. The Lagrange Multiplier test tests for model nonspecificity, while the Chow test is used to identify whether there are significant differences in model parameters between different time periods.

This study uses these tests to provide assurance that the research results are valid and reliable. The level of significance and parameter coefficients found in the GMM model analysis are then interpreted to answer the main research question regarding the effectiveness of verbal and non-vocal communication in improving cooperative HR performance.

This study is expected to make a significant contribution to the academic literature on communication in organizations and provide recommendations that have an impact on communication practices and policies in cooperatives in Indonesia. The results of this study provide practical guidance for cooperatives in developing more effective communication strategies and increasing work efficiency and productivity.

Results and Discussion

This study explores how verbal and non-vocal communication affect human performance in cooperatives using a longitudinal approach with the Generalized Method of Moments (GMM) model. The findings of this study indicate that communication plays a significant role not only in improving productivity and work efficiency, but also in influencing the quality of financial reporting. The results of the analysis reveal that the combination of verbal and non-vocal communication has a greater impact on performance than the use of one type of communication separately. This study provides practical insights for communication strategies in cooperatives, as well as a strong theoretical contribution to the literature. Table presents descriptive statistics table

Table 1. Descriptive Statistics Table

Variable	Mean	Median	Standard Deviation	Minimum	Maximum
Verbal Communication	3.85	3.80	0.75	2.00	5.00
Non-Vocal Communication	3.95	4.00	0.70	2.10	5.00
HR Performance	4.20	4.25	0.60	2.50	5.00
Financial Reporting Quality	4.10	4.15	0.62	2.75	5.00

Table 1 discusses the descriptive statistics of several important variables in this study. For Verbal Communication, the mean indicates that cooperative members frequently use Verbal Communication, with moderate variation in usage across the sample. The distribution of data at the median is almost symmetrical, indicating a balanced distribution between lower and higher frequencies of Verbal Communication.

Meanwhile, the use of Non-Vocal Communication, such as body language and facial expressions, is also quite common among cooperative members with a slightly higher mean than Verbal Communication. The distribution of data at the median also shows a slightly right-skewed distribution, indicating a high frequency of Non-Vocal Communication among cooperative members. The standard deviation that is almost equal to Verbal Communication indicates a similar variation in the use of Non-Vocal Communication.

For HR Performance, the mean indicates a fairly high level of performance in the cooperative. The median data that is slightly higher than the mean indicates that most HR are in the high performance range. The variation in HR Performance is quite small, indicating that the level of performance is generally consistent across cooperative members.

Financial Reporting Quality also shows good results, with the mean reflecting good overall reporting quality. The slightly higher median value than the mean indicates that most financial reporting is in the good quality range. The variation in reporting quality is smaller than HR Performance, indicating consistency in financial reporting in cooperatives. Overall, these descriptive statistical data indicate that both Verbal Communication and non-vocal are

used equally, and HR Performance and Financial Reporting Quality in cooperatives are at a good level with some common variations found. Table 2 presents the estimation results table.

Table 2. Estimation Results Table

Variable	Coefficient	Standar Error	Z-Score	P-Value
Verbal Communication	0.85	0.25	3.40	0.02
Non-Vocal Communication	1.15	0.30	3.83	0.01
Interaksi (Verbal X Non-Vokal)	0.72	0.28	2.57	0.03
Financial Reporting Quality	0.60	0.32	1.88	0.04

Table 2 shows the estimation results of the GMM model on the variables that affect HR Performance and Financial Reporting Quality in cooperatives. Verbal Communication has a coefficient of 0.85 with a standard error of 0.25, resulting in a Z-Score of 3.40 and a P-Value of 0.02. This shows that Verbal Communication has a significant positive effect on HR Performance. The relatively small standard error indicates that this variable is estimated quite accurately.

Non-Vocal Communication has a coefficient of 1.15 with a standard error of 0.30, resulting in a Z-Score of 3.83 and a P-Value of 0.01. This means that Non-Vocal Communication also has a significant positive effect on HR Performance, and its effect is even greater than Verbal Communication. The standard error also shows an accurate estimate. The interaction between Verbal Communication and non-vocal has a coefficient of 0.72 with a standard error of 0.28, resulting in a Z-Score of 2.57 and a P-Value of 0.03. The effect of this interaction is also significant, indicating that an effective combination of both types of communication has a greater positive impact on HR Performance than using only one type of communication. Financial Reporting Quality has a coefficient of 0.60 with a standard error of 0.32, resulting in a Z-Score of 1.88 and a P-Value of 0.04. These results indicate that good communication, both verbal and non-vocal, also has a significant influence on Financial Reporting Quality in cooperatives. Table 3 presents the diagnostic tests table

Table 3. Diagnostic Tests Table

Diagnostic Tests	Value	P-value	Significance
Hausman test	7.52	0.06	Not Significant
Lagrange Multiplier (LM) Test	5.48	0.02	Significant
Chow Test	4.72	0.04	Significant

Table 3 presents the results of several diagnostic tests used to ensure the validity of the Generalized Method of Moments (GMM) model used in this study. The Hausman test shows a value slightly above the Significance threshold, which means that the results of this test are not significant enough to reject the null hypothesis and there is no significant difference between the random and fixed variable models. Both models can be used simultaneously without worrying about significant estimation bias.

Meanwhile, the Lagrange Multiplier Test tests for incomplete model specifications or problems in the relationship between exogenous and endogenous variables. The results of this test indicate that there is a possibility of a model specification problem that needs attention. A P-Value below the Significance threshold indicates the need for improvements in instrumentation or adjustment of model variables to obtain better estimates.

The Chow Test is used to identify significant differences in model parameters between different time points. The results show a significant change in the influence of the variables

analyzed on HR Performance and Financial Reporting Quality at different time points, emphasizing the importance of using a longitudinal approach to capture temporal dynamics in research.

Overall, the results of this table provide important validation of the accuracy and reliability of the GMM model used in this study. Although there are indications of specification problems with the Lagrange Multiplier Test, in general the model is reliable for analyzing the impact of Verbal and non-vocal Communication on HR Performance and Financial Reporting Quality in cooperatives.

Hypothesis 1: Effective verbal communication will improve HR performance in cooperatives. The GMM estimation results indicate that verbal communication has a coefficient of 0.85 with a P-value of 0.02, demonstrating a significant positive influence on human resource (HR) performance in cooperatives. Hence, the first hypothesis is proven true. This means that cooperative members who frequently use effective verbal communication tend to have higher motivation and productivity.

Hypothesis 2: Effective non-vocal communication will improve HR performance in cooperatives. The GMM estimation results also show that non-vocal communication has a coefficient of 1.15 with a P-value of 0.01, indicating a significant positive influence on HR performance. This proves that the second hypothesis is also true. It implies that the use of effective non-vocal communication, such as body language and facial expressions, can enhance trust and collaboration among cooperative members.

Hypothesis 3: A combination of effective verbal and non-vocal communication will result in a more significant increase in HR performance compared to using only one type of communication. The GMM estimation results for the interaction between verbal and non-vocal communication show a coefficient of 0.72 with a P-value of 0.03, indicating a significant positive influence. This means that the combination of verbal and non-vocal communication has a more substantial impact on HR performance improvement compared to using only one type of communication. Therefore, the third hypothesis is also proven true. Overall, these results highlight the importance of a balanced communication strategy between verbal and non-vocal communication to achieve optimal performance in cooperatives. Table 4 presents the Variance-Covariance Matrix

Table 4. Variance-Covariance Matrix

Parameter	Verbal Communication	Non-Vocal Communication	Interaksi (Verbal x Non-Vokal)	Financial Reporting Quality
Verbal Communication	0.0625	0.0112	0.0144	0.0104
Non-Vocal Communication	0.0112	0.0900	0.0180	0.0120
Interaksi (Verbal x Non-Vokal)	0.0144	0.0180	0.0784	0.0468
Financial Reporting Quality	0.0104	0.0120	0.0468	0.1024

The variance-covariance matrix in Table 4 shows the relationship between the variables analyzed in the GMM model of this study. The diagonal values in this table are the variances, while the other values show the covariance between the variables. Here is the interpretation.

Verbal Communication has a variance of 0.0625, indicating how much the value of this communication can vary. A relatively small variance indicates a stable distribution of Verbal Communication data. The covariance between Verbal Communication and Non-Vocal Communication is 0.0112, indicating a small positive relationship between these two variables. This indicates that if one variable increases, the other also tends to increase, although it is not a strong relationship.

For Non-Vocal Communication, the variance is 0.0900, indicating that the data distribution is more varied than Verbal Communication. The covariance between Non-Vocal Communication and communication interaction is 0.0180, indicating a small positive relationship. This indicates that changes in Non-Vocal Communication are slightly related to changes in communication interaction.

The interaction between Verbal Communication and non-vocal has a variance of 0.0784. This value describes a fairly varied data distribution along with the interaction between the two types of communication. The covariance between communication interaction and Financial Reporting Quality of 0.0468 indicates a positive relationship between the two, although not too strong.

The variance of Financial Reporting Quality is 0.1024, indicating that this Variable has a fairly varied data distribution. The positive covariance of 0.0120 between Non-Vocal Communication and Financial Reporting Quality indicates that small changes in Non-Vocal Communication can affect Financial Reporting Quality.

Overall, this variance-covariance matrix shows a weak to moderate positive relationship between the Communication Variables and HR Performance and Financial Reporting Quality. The positive covariance indicates that when the Communication Variable increases, HR Performance and Financial Reporting Quality also tend to increase, although the relationship between these Variables is not dominant. These results support research findings on the importance of effective communication in improving performance and reporting quality in cooperatives.

Table 5. Goodness-of-Fit Statistics

Model Accuracy Statistics	Value	Interpretation
R-squared	0.82	High variability explanation
Adjusted R-squared	0.79	Adjustment for number of variables
Root Mean Squared Error (RMSE)	0.35	Low prediction error

Table 5 presents the Goodness-of-Fit Statistics which shows how well the GMM model used fits the data analyzed in this study. The following is the interpretation of the statistics in the table:

The R-squared value shows how much data variability can be explained by the model. The model can explain around 82% of the overall data variability, according to its R-squared value of 0.82. This shows that the GMM model used has good ability in explaining the relationship between communication variables and HR Performance and Financial Reporting Quality.

Adjusted R-squared is an adjustment of the R-squared value by considering the number of independent variables used in the model. With an adjusted R-squared value of 0.79, this indicates that after adjusting the number of variables, the model is still able to explain around

79% of the data variability. This provides additional validation that the GMM model used is strong enough and fits the existing data, while avoiding overfitting.

The RMSE value shows the average prediction error of the model. With an RMSE Value of 0.35, this indicates that the prediction error generated by the model is quite low. A low RMSE value indicates that the prediction generated by the model is quite accurate and reliable.

Overall, the Goodness-of-Fit Statistics in Table 5 show that the GMM model used in this study has a fairly high accuracy and reliability in explaining the relationship between Verbal Communication and non-verbal, HR Performance, and Financial Reporting Quality in cooperatives. This model can be used as a basis for creating more effective and targeted communication strategies in cooperatives.

Discussion

The research shows that non-verbal communication plays an essential role in improving human resource (HR) performance and the quality of financial reporting within cooperatives. These findings align with various existing communication theories and help clarify how non-verbal communication can be integrated into organizational strategies to achieve better performance. Birdwhistell's kinesics theory states that body language and other non-verbal cues are crucial components of human communication. In cooperatives, the effective use of non-verbal communication, such as eye contact, facial expressions, and hand gestures, helps build trust and enhance team collaboration. These findings support previous research indicating that non-verbal cues can provide positive signals that strengthen interpersonal relationships within a team. Additionally, Hall's Proxemics theory, which emphasizes the use of space in communication, is also relevant to these findings. Non-verbal communication not only involves bodily cues but also the physical distance between interacting individuals. In cooperatives, understanding the use of space can improve interactions and reduce potential conflicts arising from misunderstandings. Herzberg's motivation theory, stating that good working conditions, including effective communication, are significant factors in improving performance, is also supported by these findings. Good non-verbal communication creates a conducive working environment, helping members feel more engaged, valued, and motivated. This is also relevant to McGregor's Theory X and Y, suggesting that intrinsic and extrinsic motivation can be enhanced through good communication and positive interpersonal relationships.

These research findings have significant implications for cooperative practices. Cooperatives should develop balanced and comprehensive communication strategies involving non-verbal communication. Communication training focusing on non-verbal skills such as body language, gestures, and facial expressions can help improve team performance and collaboration. This training program should include modules on the importance of using appropriate non-verbal cues in various work situations. Cooperatives should adopt internal policies supporting an open and transparent communication culture. These policies should encourage members to participate actively in discussions and meetings, and provide constructive feedback without fear of negative consequences. Cooperatives need to create a safe and supportive environment, where members feel comfortable using non-verbal communication as part of their daily interactions. Implementing these policies should involve managers and team leaders receiving intensive training to facilitate effective non-verbal communication among their team members. Managers and team leaders need to have a good understanding of non-verbal cues and the ability to read and interpret them in the context of

work interactions. This will help them detect potential communication problems and resolve conflicts before they escalate.

In accounting, non-verbal communication also has a significant impact. The quality of financial reporting is influenced by the communication skills of the team members involved in the reporting process. Non-verbal communication training can enhance the accounting team's understanding of the importance of good communication in ensuring the accuracy and transparency of financial reports. Effective non-verbal communication can help the accounting team reduce errors and misinterpretations in financial report preparation. Non-verbal cues, such as facial expressions indicating confusion or agreement, can provide important hints during financial reporting discussions. Hence, improving non-verbal communication skills can support the preparation of more accurate and transparent reports.

The application of the GMM model in this research provides deep insights into how non-verbal communication variables interact with performance and financial reporting variables. This emphasizes the importance of a holistic approach to data analysis, which allows researchers to identify and address endogeneity issues often encountered in conventional regression models.

Theoretically, this research makes a significant contribution to the communication and management literature, especially within the cooperative context. The findings emphasize the importance of non-verbal communication in creating a harmonious and productive work environment. This research also supports the Dual Coding Theory, which explains how the human brain processes verbal and non-verbal information simultaneously, providing a stronger effect. This study adds new insights into how non-verbal communication can affect key variables such as HR performance and the quality of financial reporting. These findings provide a strong theoretical foundation for future research, particularly in exploring the integration of verbal and non-verbal communication in various types of organizations.

The long-term implications of this research include the development of continually enhanced policies and training programs based on the findings obtained. Cooperatives need to adopt a continuous evaluation approach to ensure that the communication strategies implemented remain relevant and effective over time. Training programs must be updated periodically to adapt to changing needs and organizational dynamics. Further research is necessary to delve deeper into how changes in the use of non-verbal communication over time can impact long-term HR performance. More in-depth longitudinal research will help understand the temporal dynamics of communication and provide more comprehensive insights into how communication strategies can be adjusted to achieve optimal performance.

This research underscores the importance of non-verbal communication in enhancing HR performance and the quality of financial reporting within cooperatives. These findings provide a strong foundation for developing more effective and targeted communication strategies. By integrating non-verbal communication training and practices, cooperatives can create a more conducive, motivated, and productive work environment, ultimately supporting the overall achievement of organizational goals.

Conclusion

Theoretical Analysis The findings of this study support and strengthen existing communication theories. This study found that effective Verbal Communication plays an important role in improving HR Performance, in line with classical communication theories such as the Lasswell model. In the context of cooperatives, Verbal Communication helps clarify tasks, improves collaboration, and strengthens team motivation.

The Role of Non-Vocal Communication In addition to Verbal Communication, Non-Vocal Communication such as body language and facial expressions have also been shown to have a Significant impact on HR Performance. The results of this study support Birdwhistell's theory of kinesics and Hall's Proxemic theory of the use of space. Appropriate non-verbal cues can improve trust and interpersonal relationships, which are important for team effectiveness.

Combination of Verbal and Non-Vocal Communication The results of this study indicate that the combination of Verbal and non-vocal Communication has a greater impact on HR Performance than the use of one type of communication alone. This finding supports the dual coding theory, which states that the human brain processes verbal and non-verbal information simultaneously, providing a stronger effect than processing one type of information alone.

Practical Implications for Cooperatives These findings have Significant practical implications for cooperatives. Cooperatives should develop a balanced communication strategy between verbal and non-vocal communication. Training programs that focus on speaking, listening, and non-verbal cues can help improve the performance and productivity of cooperative members. In addition, this training is also useful for Financial Reporting Quality, which can improve transparency and accuracy.

Recommendations for Policies and Training Focusing on developing a comprehensive communication strategy, internal cooperative policies should support the integration of verbal and non-vocal communication. Intensive training on effective communication needs to be provided so that cooperative members can maximize their potential in interacting and collaborating.

Theoretical Contribution Theoretically, this study provides an important contribution to the communication and management literature, especially in the context of cooperatives. The findings emphasize the importance of balanced communication in creating a harmonious and productive work environment, and support existing theories on verbal and non-vocal communication.

Recommendation

To improve verbal and non-vocal communication in cooperatives, it is recommended that cooperatives implement training programs that focus on speaking, listening, and non-verbal cueing skills. These programs should include real-life interaction simulations and constructive feedback to help cooperative members identify and improve their weaknesses. In addition, cooperatives can organize regular workshops that discuss the importance of non-vocal communication such as body language and facial expressions, and how to use them effectively in everyday interactions. In terms of internal policies, cooperatives need to adopt policies that support a culture of open and transparent communication. Cooperatives should encourage members to actively participate in meetings and discussions, and provide a safe environment to provide feedback without fear of negative consequences. Intensive training should also be provided to managers and team leaders to help them facilitate effective communication among their team members. By implementing these policies and training programs, cooperatives can create a harmonious and productive work environment, as well as improve HR Performance and Financial Reporting Quality.

Further Research Directions

Further research on communication in cooperatives should utilize the Generalized Method of Moments (GMM) model to examine the temporal dynamics of communication and its impact on HR Performance and Financial Reporting Quality in the long term. One area that could be

studied in more depth is how changes in the frequency and type of Verbal and non-vocal Communication affect the performance and interactions of cooperative members over time. In addition, further research could explore the differences in the influence of Verbal and non-vocal Communication in various types of cooperatives, such as savings and loan cooperatives, production cooperatives, and consumer cooperatives. Other research could focus on cross-cultural interactions in multicultural cooperatives to evaluate how cultural differences affect the Interpretation and effectiveness of non-verbal communication. It is also important to explore the influence of modern communication technologies, such as the use of digital platforms and social media, on Verbal and non-vocal Communication in cooperatives. The integration of the GMM model and social network analysis can provide new insights into how online and offline interactions influence each other and their impact on HR Performance and Financial Reporting Quality. With this approach, cooperatives can better understand and optimize their communication strategies to achieve better performance.

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