

The Influence of Agricultural Extension Competence on Performance in Bengkalis Regency

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Abstract

This study aims to investigate the influence of agricultural extension competence and continuance commitment on the performance of extension officers in Bengkalis Regency. Utilizing a quantitative approach with a census method, data were collected from 57 respondents comprising civil servants and contract-based extension workers. Structured questionnaires measured continuance commitment, competence, and performance using validated instruments. Statistical analysis was conducted through SPSS version 25 employing multiple linear regression to test both direct and indirect relationships. The findings reveal that both competence and continuance commitment significantly and positively influence job performance. Competence serves not only as an independent variable but also as a mediating factor, reinforcing the performance outcomes associated with continuance commitment. This research contributes to the literature by integrating commitment and competence within a unified framework, highlighting their interdependence in enhancing public service performance. The focus on continuance commitment dimension often overlooked in favor of affective or normative forms offers new insights into employee behavior in the public sector, particularly in rural bureaucracies characterized by job security and limited alternatives. Practically, the results suggest that local governments should prioritize capacity-building initiatives and professional development for extension officers while maintaining job stability to strengthen employee commitment. Human resource policies should integrate competence-oriented training with retention strategies to create a more resilient and high-performing workforce. This study's originality lies in its localized context and its theoretical contribution to understanding how continuance commitment and competence jointly shape performance in public agricultural institutions.

Keywords : Agricultural Extension, Commitment, Competence, Performance, Public Sector

I. Introduction

Agricultural development remains a central pillar of national economic stability and food security, particularly in agrarian nations such as Indonesia. Among the key agents in this sector are agricultural extension workers, who act as the vital linkage between research institutions, government policies, and farming communities. Their performance directly influences the adoption of innovation, productivity improvements, and the sustainable livelihoods of rural populations. In Bengkalis Regency, where agriculture constitutes a significant portion of the local economy, the performance of extension workers is not only a metric of institutional effectiveness but also a determinant of rural socio-economic development.

Despite their critical role, empirical studies focusing on the factors that influence the performance of agricultural extension workers especially within local government institutions remain limited. Prior research has emphasized the role of organizational commitment (Erdal et al., 2022; Kuswanti et al., 2021), but few have explored how specific dimensions of commitment, such as continuance commitment, interact with competency in affecting work outcomes. Most importantly, there is a paucity of research that explicitly positions *competence* as a mediating variable in this relationship. This gap is particularly pertinent in developing regions, where extension services face structural, resource-related, and motivational challenges (Kasogela, 2019).

The present study contributes to the literature by addressing this research gap through an empirical investigation of the influence of agricultural extension competence on job performance in Bengkalis Regency. Uniquely, this research places competence as both an independent and mediating variable, offering a nuanced understanding of how extension workers' capabilities translate into practical outcomes. It also focuses on the relatively under-researched dimension of continuance commitment, a form of organizational commitment driven by perceived costs of leaving the organization rather than emotional attachment or moral obligation (Allen & Meyer, 1990). By exploring the interplay between continuance commitment and competence, this study proposes a more realistic lens for analyzing public sector performance, especially in rural bureaucracies with high job security and limited alternative employment options.

The novelty of this research lies in its integrative model that empirically tests the mediating effect of competence in the relationship between continuance commitment and job performance within the context of agricultural extension. Previous models have primarily treated commitment and competence as separate constructs without considering their potential interdependence (Handayani & Ekhsan, 2022; Laras et al., 2021). Moreover, this study contributes to the science of human resource management in the public sector by providing evidence from a localized, rural government setting an area that has often been overlooked in favor of urban and corporate research environments.

The central objectives of this article are threefold: first, to examine whether continuance commitment has a direct impact on the performance of agricultural extension workers in Bengkalis Regency; second, to assess the extent to which extension competence affects performance; and third, to evaluate whether competence mediates the relationship between continuance commitment and performance. These objectives are articulated through the following research questions: (1) Does continuance commitment directly influence the performance of extension workers? (2) To what extent does extension competence affect job performance? and (3) Does competence mediate the relationship between continuance commitment and performance?

To achieve these objectives, the study employed a quantitative approach using a cross-sectional design. Data were collected from 57 extension officers at the Department of Food Crops, Horticulture, and Livestock in Bengkalis Regency through structured questionnaires. The constructs measured included continuance commitment, competence, and performance, each operationalized through validated scales adapted from Allen and Meyer (1990), Sutrisno (2019), and Griffin (2015), respectively. The data analysis was conducted using multiple linear regression through SPSS Version 25, allowing for the assessment of both direct and indirect relationships among the variables.

This article is structured into five sections. Following this introduction, the literature review provides a theoretical framework encompassing human resource management, organizational commitment, and performance evaluation. It also includes a synthesis of prior studies that justify the research model and hypotheses. The methodology section outlines the research design, population and sample characteristics, data collection techniques, and statistical methods used. The results and discussion section presents the empirical findings and interprets them in light of existing theories and contextual factors. Finally, the conclusion and implications section summarizes the key findings, acknowledges limitations, and proposes recommendations for both policy and future research.

In summary, this research offers an original contribution to the understanding of how extension workers' competence functions within the dynamics of organizational commitment to influence public sector performance. It highlights the need for competency-based development strategies in agricultural extension services and provides practical insights for local government institutions seeking to enhance the effectiveness of their personnel.

2. Literature Review and Hypotheses Development

2.1 Literature Review

Agricultural extension services are widely recognized as a cornerstone in promoting rural development and food security, particularly in agrarian economies like Indonesia. Extension workers (commonly referred to as *penyuluh*) function as knowledge brokers and change agents who facilitate the transfer of agricultural innovations to farming communities. Their competence is crucial in ensuring that modern agricultural practices are effectively adopted at the grassroots level. The performance of these professionals, in turn, influences broader policy objectives such as productivity improvement and rural welfare.

Prior studies have extensively examined the relationship between employee competencies and organizational performance across various sectors. However, relatively fewer studies have specifically focused on agricultural extension personnel within local government agencies in Indonesia, making this topic both relevant and underexplored.

One of the earliest works in this domain was conducted by Kasogela (2019), who explored the impact of continuance commitment on job performance among public sector employees in Tanzania. His study found that while continuance commitment had some degree of influence, the effect was significantly moderated by social and human capital, implying that competency elements are indispensable to enhancing job performance. Similarly, Meisy Kuswanti et al. (2021) confirmed that continuance commitment partially affected job performance, although their research did not incorporate competency as a mediating variable. These findings underline a theoretical gap in understanding the mechanisms that link commitment to performance especially the mediating role of competence.

Moreover, Handayani and Ekhsan (2022) emphasized that employee competence serves as a bridge between organizational commitment and job performance. They argued that competence not only enhances task execution but also serves to actualize the motivational impetus derived from commitment. This view was echoed by Laras et al. (2021), who focused on public service sectors, including agricultural extension, and confirmed that competence has both direct and indirect effects on performance.

In contrast, studies such as those by Nurgul Erdal et al. (2022) nuanced the role of continuance commitment by suggesting that its effect on performance becomes significant only when mediated by trust in the organization. This indicates that continuance commitment alone, which is largely driven by extrinsic factors such as job security and benefits, may not be sufficient to motivate performance unless supported by enabling variables like competence or organizational trust.

From a psychological standpoint, continuance commitment is considered the weakest form of commitment compared to affective and normative commitment (Meyer & Allen, 1997). Nonetheless, in public organizations with limited employment alternatives and high job security such as in the case of government agricultural offices continuance commitment remains a valid and influential factor. Nizarwan Hadi and Fatwa Tentama (2020) pointed out that continuance commitment, although often passive, is particularly relevant in civil service contexts due to job stability and long-term career trajectories.

Furthermore, the theoretical underpinnings of this research are supported by the Goal Setting Theory introduced by Locke (1968), which posits that individual performance is strongly influenced by goal clarity and motivational drivers. In the context of extension work, competence not only defines the capability to set and pursue goals but also determines how effectively agricultural knowledge is communicated and implemented in the field. Sutrisno (2019) and Marwansyah (2016) described competence as a multidimensional construct encompassing knowledge, skills, attitudes, and values that collectively determine performance quality.

The reviewed literature illustrates several key points. First, prior studies have explored similar themes, especially in the broader context of organizational behavior and human resource development. Second, while most research confirms a positive association between commitment and performance, the role of competence as a mediator is less frequently addressed particularly in agricultural public service settings. Third, different perspectives have been discussed, ranging from psychological theories to organizational models, providing a multi-layered understanding of the subject. Fourth, the current research distinguishes itself by focusing specifically on *continuance commitment* and *agricultural extension competence*, thus contributing a new lens to an established topic. Finally, by situating this research within the Bengkalis Regency, the study offers localized empirical evidence that complements and extends the existing body of knowledge.

In summary, the literature review establishes that while competence is universally acknowledged as a performance enhancer, its mediating role in the commitment-performance relationship especially in the context of agricultural extension in local government institutions remains insufficiently examined. This provides a strong rationale for the present study.

2.2 Hypotheses Development

The development of hypotheses in this study is grounded in both theoretical frameworks and empirical findings from previous literature. The research aims to examine the direct and indirect influence of continuance commitment on the performance of agricultural extension officers, with competence serving as a mediating variable. The following hypotheses are derived from the literature:

1. The Influence of Continuance Commitment on Extension Worker Performance

Continuance commitment reflects an individual's attachment to an organization based on perceived costs of leaving, rather than emotional attachment or moral obligation. According to Allen and Meyer (1990), individuals with strong continuance commitment tend to remain in their positions due to the potential loss of benefits associated with resignation. While some critics argue that continuance commitment may result in minimal motivation to excel, others suggest that in the presence of structured environments like civil service, such commitment can still yield satisfactory performance outcomes (Kuswanti et al., 2021). Given the job security and institutional stability within public agricultural agencies, it is reasonable to expect that continuance commitment positively affects employee performance albeit perhaps to a lesser extent than affective commitment.

H1: Continuance commitment has a significant positive effect on the performance of agricultural extension workers.

2. The Influence of Competence on Extension Worker Performance

Competence is widely recognized as a predictor of job performance across various sectors. In the context of agricultural extension, competence encompasses not only technical know-how but also interpersonal skills, problem-solving abilities, and pedagogical knowledge (Mangkunegara, 2019; Sutrisno, 2019). Competent extension workers are more likely to execute their duties effectively, adapt to challenges in the field, and contribute to organizational objectives such as productivity and rural development. Numerous studies, including those by Handayani and Ekhsan (2022) and Laras et al. (2021), have substantiated the strong correlation between competence and job performance. Hence, this study posits:

H2: Competence has a significant positive effect on the performance of agricultural extension workers.

3. The Influence of Continuance Commitment on Competence

Although competence is often treated as a relatively stable trait, it can also be influenced by motivational and contextual factors, including organizational commitment. Employees who are committed to staying within an organization for the long term may invest more in developing their skills and adapting to institutional goals (Allen & Meyer, 1990). Thus, continuance commitment despite being driven by practical considerations can lead to competence improvement if it fosters stability and encourages skill acquisition over time. Supporting this, Handayani and Ekhsan (2022) observed that organizational commitment, including its continuance component, fosters learning and professional development, particularly in stable work environments such as government institutions.

H3: Continuance commitment has a significant positive effect on the competence of agricultural extension workers.

3. Method

This study employed a quantitative approach with a causal research design aimed at testing the direct and indirect relationships between variables. The research was conducted at the Department of Food Crops, Horticulture, and Animal Husbandry in Bengkalis Regency, which is responsible for agricultural extension services in the region. The study population comprised all agricultural extension workers employed by the department, totaling 57 individuals, including both civil servants (ASN) and contract-based personnel (P3K).

Considering the limited population size, a census sampling technique was adopted, in which the entire population was surveyed without selecting a sample. Data were collected through a structured questionnaire using a Likert scale to measure responses to items related to the three key variables: sustainable commitment, extension competence, and employee performance.

The operationalization of variables was as follows: (1) Sustainable commitment was defined as the employee's psychological attachment to the organization due to perceived costs of leaving, with indicators covering monetary, social, and professional dimensions; (2) Extension competence referred to the knowledge, skills, attitudes, and work behaviors required to effectively perform extension duties, encompassing indicators such as technical knowledge, communication skills, and problem-solving abilities; and (3) Performance was measured based on quality, quantity, timeliness, effectiveness, and independence in task execution.

Data analysis was carried out using SPSS version 25. Descriptive statistics were first employed to describe the demographic characteristics of respondents and the distribution of variables. Subsequently, a series of inferential analyses were conducted, including instrument validity and reliability testing (using Pearson correlation and Cronbach's Alpha), classical assumption testing (normality, multicollinearity, and autocorrelation), and hypothesis testing through simple and multiple linear regression models. The coefficient of

determination (R^2) and F-tests were also used to assess the explanatory power and significance of the regression models. Through this rigorous methodological process, the study aimed to explore the extent to which extension competence mediates the relationship between sustainable commitment and employee performance.

4. Result and Discussion

4.1 Respondent Profile and Data Distribution

This study involved 57 respondents working as agricultural extension officers in Bengkalis Regency. The demographic analysis revealed that most respondents were male (52.63%), aged between 31–35 years (56.14%), and had a tenure of 6–10 years (43.86%). These characteristics suggest that the majority of respondents were in the productive working age group with moderate experience in extension services, which supports the validity of their assessments of competence and performance. The data met the classical assumption tests, including normality, multicollinearity, and heteroskedasticity, confirming its appropriateness for further analysis using regression methods.

4.2 Descriptive Analysis of Research Variables

4.2.1 Competence of Agricultural Extension Officers

The descriptive analysis indicated that the overall competency level of respondents was categorized as "good," with an average score of 4.18 out of 5. This finding reflects the respondents' positive perceptions of their knowledge, skills, interpersonal ability, and the appropriateness of their tasks. The statement "The tasks in my job are mentally challenging and align with my capabilities" received the highest rating (4.23), suggesting that the respondents felt intellectually engaged and capable in their roles.

Competence, in this study, encompasses both technical and behavioral dimensions as proposed by Sutrisno (2019), covering knowledge, understanding, capability, values, and attitudes. These components are essential in ensuring effective agricultural extension, particularly when introducing new technologies or promoting behavioral changes among farmers. As supported by Spencer and Spencer (1993), competence significantly determines one's job success and is closely linked to consistent performance.

4.2.2 Performance of Agricultural Extension Officers

The performance variable, assessed through indicators adapted from Griffin (2015) namely quality, quantity, timeliness, efficiency, and independence also received a "good" category with an average score of 4.02. The statement with the highest mean score (4.11) was "I can complete my work independently without continuous supervision," indicating a strong sense of autonomy among the extension officers.

This degree of autonomy and self-management is crucial in field-based roles like agricultural extension. It reflects the officers' capacity to operate with minimal oversight while ensuring task completion. Meanwhile, the lowest-rated statement, "I can use resources efficiently to achieve maximum work results" (3.91), implies potential areas for improvement in resource utilization strategies such as budgeting time, equipment, or manpower.

4.3 Inferential Analysis: Impact of Competence on Performance

The regression analysis demonstrated that competence significantly affects performance, with a standardized coefficient of 0.438 ($p < 0.001$). This confirms the hypothesis (H2) that higher levels of competence are associated with better employee performance.

This finding is consistent with previous studies (e.g., Laras et al., 2021; Handayani & Ekhsan, 2022), which found that individual competence particularly in understanding tasks, problem-solving, and interpersonal communication contributes positively to job performance. The link can be theoretically explained through the lens of Human Capital Theory, which posits that investments in employees' skills and knowledge enhance their productivity (Becker, 1993).

Extension officers who possess technical proficiency and interpersonal effectiveness are better equipped to deliver impactful agricultural guidance, adapt to dynamic field challenges, and build trust with farming communities. These factors collectively contribute to achieving institutional goals, such as increased agricultural productivity and farmer empowerment.

4.4 Impact of Continuance Commitment on Performance

Continuance commitment, conceptualized as an employee's perceived cost of leaving the organization (Meyer & Allen, 1991), was also found to positively influence performance ($\beta = 0.413$; $p < 0.001$). This validates hypothesis (H1), affirming that extension officers with strong continuance commitment tend to exhibit higher performance.

While often regarded as a “less desirable” form of commitment due to its instrumental rather than affective nature, the results suggest that it still serves a functional role in sustaining employee performance. Employees who perceive limited external opportunities or significant personal investments in their current role are more likely to remain and maintain acceptable work standards (Kasogela, 2019; Kuswanti et al., 2021).

The positive relationship indicates that even in the absence of deep emotional attachment, perceived obligations or consequences of leaving may motivate employees to perform adequately, if not optimally. In the context of public sector employment, especially in rural and less dynamic regions, such pragmatic attachment may be critical in retaining talent and stabilizing service delivery.

4.5 Joint Effect of Competence and Commitment on Performance

The F-test results revealed that competence and continuance commitment jointly have a significant effect on performance ($F = 34.259$, $p < 0.001$), with an adjusted R^2 of 0.543. This means that approximately 54.3% of the variance in performance can be explained by the combination of these two independent variables.

This finding demonstrates a synergistic effect, where both competence and commitment mutually reinforce performance outcomes. Employees with high competence are better prepared to handle technical tasks, while those with high continuance commitment tend to stay longer and apply their capabilities consistently. Together, these factors foster a more stable, efficient, and goal-oriented workforce.

This result echoes the findings of Dharmayati (2015) and Widyaputra & Dewi (2017), who argued that commitment and competence act as dual pillars in enhancing employee performance, particularly in mission-driven sectors such as public agricultural services. Their interplay ensures not only task execution but also long-term alignment with institutional objectives.

4.6 Theoretical and Practical Implications

From a theoretical standpoint, this study enriches the discourse on continuance commitment by highlighting its practical benefits in contexts where emotional attachment might be minimal but functional engagement is essential. While affective commitment is often idealized, the results show that continuance commitment remains a relevant predictor of behavior in structured, rules-based organizations such as government agencies.

Moreover, the findings reaffirm the critical role of employee competence in shaping performance. This supports the competency-based HRM approach, which emphasizes aligning personnel development with organizational needs and service delivery outcomes.

Practically, the results call for strategic HR planning in Bengkalis' agricultural sector. First, capacity development should be prioritized through structured training, mentorship, and periodic evaluations. Second, commitment-enhancing interventions such as career clarity, job security, and performance-based incentives can reduce turnover intentions and stabilize the workforce. Lastly, leadership development is essential particularly in improving communication and guidance from superiors, which was identified as an area of relative dissatisfaction among respondents.

4.7 Limitations and Recommendations for Future Research

While this study provides valuable insights, several limitations should be acknowledged. The sample size, limited to 57 extension officers, may not fully represent all functional units within the region. Future research may benefit from larger, more diverse samples across multiple regencies to increase generalizability.

Additionally, the study focuses only on continuance commitment and competence. Exploring other dimensions of commitment such as affective and normative commitment and their interplay with organizational culture or leadership style could yield deeper understanding. Longitudinal studies are also encouraged to observe how changes in commitment and competence over time affect long-term performance.

5. Conclusion

This study aimed to investigate the influence of agricultural extension competence and continuance commitment on the performance of extension officers in Bengkalis Regency. The findings demonstrated that both competence and continuance commitment significantly and positively affect employee performance, whether assessed independently or collectively. Competence emerged as a critical determinant of successful performance, reflecting the officers' ability to deliver relevant technical knowledge, communicate effectively with farmers, and adapt to field challenges. Likewise, continuance commitment although often viewed as a passive form of organizational attachment proved to be a pragmatic force sustaining stable and consistent work behavior in a government setting characterized by job security and limited mobility.

The practical implications of these findings are substantial. For policymakers and local government managers, investing in structured capacity-building programs that enhance technical and interpersonal

competencies among extension officers is imperative. Training programs should be tailored to local agricultural challenges while promoting adaptive learning and problem-solving skills. At the same time, fostering a supportive work environment that ensures job security, recognizes employee efforts, and offers career advancement pathways can reinforce continuance commitment in productive ways. These combined interventions may lead to a more competent, committed, and performance-driven public workforce.

Despite the value this study brings, it is important to recognize its limitations. The research was confined to a relatively small sample of 57 respondents from a single regency, which may constrain the generalizability of the findings across broader regions or institutional contexts. Additionally, the study exclusively focused on continuance commitment, excluding other influential dimensions such as affective and normative commitment, which could offer a more holistic understanding of employee motivation and performance. The cross-sectional design also limits the ability to observe causal relationships over time.

To enhance future research, several directions are recommended. First, subsequent studies should consider expanding the scope to include larger, multi-regional samples for more comprehensive insights. Second, integrating other commitment dimensions especially affective and normative could enrich the analysis and clarify the complex dynamics between employee attitudes and performance. Third, exploring additional mediating or moderating variables, such as organizational culture, leadership style, or psychological empowerment, would deepen the theoretical contribution of similar studies. Finally, longitudinal research designs could offer valuable perspectives on how competence and commitment evolve and influence performance across various stages of employment.

In conclusion, this study affirms that in public agricultural institutions, particularly within rural bureaucracies, both professional capability and a sense of attachment however pragmatic are essential to fostering performance. Competence must be continuously developed, and commitment, though rooted in obligation, should be managed to produce long-term organizational benefits. Bridging these elements through targeted policy and human resource strategies is key to enhancing the effectiveness and impact of agricultural extension services in Indonesia.

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