

## Educational Attainment and Sales Performance in the Insurance Industry: Evidence from AJB Bumiputera 1912 in Palangka Raya

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ARTICLE HISTORY	ABSTRACT
<p><i>Submitted : June 12<sup>th</sup>, 2025</i>  <i>Revised : August 3<sup>rd</sup>, 2025</i>  <i>Accepted : September 10<sup>th</sup>, 2025</i></p> <p><b>Keywords :</b></p> <p><i>customer acquisition;  educational attainment;  insurance industry;  sales performance;  sales agents</i></p>	<p><i>Employee quality remains a critical issue in the life insurance industry, particularly in relation to sales performance and customer acquisition. Educational attainment is often assumed to enhance communication skills, analytical ability, and professional behavior, which are essential for insurance sales agents who interact directly with potential customers. This study examines the effect of educational level on sales performance, measured by customer acquisition and income generation, among sales agents at AJB Bumiputera 1912 in Palangka Raya, Indonesia. A quantitative comparative approach was employed using primary data obtained from company records and field observations. The population consisted of insurance sales agents with senior high school and undergraduate educational backgrounds. A census method was applied to undergraduate agents, while a random sampling technique was used for senior high school agents to ensure equal sample sizes. Data analysis was conducted using non-parametric difference tests to compare average customer acquisition and income between the two educational groups. The results indicate statistically significant differences in both customer acquisition and income levels. Sales agents holding undergraduate degrees demonstrate higher average customer acquisition and greater monthly income compared to those with senior high school education. These findings suggest that higher educational attainment contributes to improved sales effectiveness in the insurance sector through enhanced communication competence, problem-solving ability, and customer engagement. The study provides practical implications for human resource management policies in insurance companies, particularly in recruitment, selection, and incentive system design. Emphasis on educational qualifications may support sustainable sales performance and organizational competitiveness in the long term.</i></p>

### INTRODUCTION

Human resource quality plays a strategic role in sustaining organizational performance, particularly in service-based industries where employees interact directly with customers. The insurance industry represents a sector in which sales agents serve as the primary interface between companies and potential policyholders. Sales agents are responsible not only for promoting insurance products but also for educating customers, clarifying contractual terms, and building long-term trust. These responsibilities require strong communication skills, analytical ability, and professional conduct, which are frequently associated with an individual's level of education.

Educational attainment has long been considered an important criterion in recruitment and placement decisions within human resource management. Formal education is assumed to shape cognitive capacity, problem-solving skills, and behavioral attributes that influence job performance. In insurance services, educational background is expected to affect the ability of sales agents to explain complex products, persuade potential customers, and manage objections effectively. Higher educational attainment may also improve adaptability to training programs, regulatory compliance, and ethical standards, which are essential in the highly regulated insurance sector.

Empirical findings regarding the relationship between education and sales performance remain inconclusive. Several studies suggest that sales outcomes are influenced more strongly by experience, motivation, and incentive systems than by formal education. Other studies report that higher educational attainment enhances communication competence, customer orientation, and sales effectiveness. These mixed results indicate the need for contextualized empirical evidence, particularly in service industries that rely heavily on personal selling.

The life insurance industry in Indonesia provides a relevant setting for examining this relationship. Insurance penetration remains relatively low in many regions, requiring sales agents to perform both selling and educational roles. AJB Bumiputera 1912, as one of the oldest life insurance companies in Indonesia, relies extensively on personal selling strategies to acquire customers. Sales agents employed by the company originate from diverse educational backgrounds, primarily senior high school and undergraduate levels. This diversity creates a natural comparison group for analyzing differences in sales performance based on educational attainment.

Empirical conditions at AJB Bumiputera 1912 in Palangka Raya indicate an imbalance in the distribution of sales agents across educational levels. Table 1 presents the number of sales agents classified by educational background.

**Table 1.** Distribution of Sales Agents by Educational Level at AJB Bumiputera 1912, Palangka Raya

Educational Level	Number of Sales Agents
Undergraduate (Bachelor's Degree)	19
Senior High School	48
Total	67

*Source: AJB Bumiputera 1912 Palangka Raya, 2024.*

Table 1 shows that the majority of sales agents hold senior high school qualifications, while a smaller proportion possess undergraduate degrees. Recruitment policies at AJB Bumiputera 1912 set senior high school education as the minimum requirement, mainly due to labor market availability and practical considerations. However, management assumptions often suggest that higher educational attainment may lead to superior sales performance, particularly in customer acquisition and income generation. Empirical validation of this assumption remains limited, especially within regional insurance markets.

Palangka Raya, as an emerging urban center in Central Kalimantan, presents distinctive market characteristics related to customer awareness, income levels, and trust in insurance products. Sales agents operating in this environment must demonstrate strong communication and persuasion skills to overcome skepticism and limited financial literacy. Understanding whether educational attainment contributes to improved sales performance in this context is essential for developing effective recruitment, training, and compensation strategies.

This study aims to examine differences in sales performance between insurance sales agents with undergraduate and senior high school educational backgrounds at AJB Bumiputera 1912 in Palangka Raya. Sales performance is measured through customer acquisition and income generation, which

represent key indicators of effectiveness in insurance sales activities. A comparative quantitative approach is employed to provide empirical evidence regarding the role of educational attainment in sales-oriented service industries. The findings are expected to contribute to the human resource management and service marketing literature while offering practical implications for insurance companies seeking to enhance sales effectiveness and organizational competitiveness.

## **LITERATURE REVIEW**

### **Educational Attainment and Human Resource Quality**

Educational attainment is widely regarded as a fundamental component of human resource quality. Formal education contributes to the development of cognitive abilities, analytical thinking, and behavioral competencies that shape individual performance in organizational settings. Higher levels of education are associated with broader knowledge acquisition, improved problem-solving skills, and greater adaptability to organizational demands. These attributes are particularly important in service-based industries, where employees are expected to respond flexibly to customer needs and complex service environments.

Human resource management literature emphasizes education as a key criterion in recruitment and placement decisions. Educational qualifications serve as signals of an individual's learning capacity, discipline, and potential for long-term development within an organization. Employees with higher educational backgrounds are often considered more capable of absorbing training content, understanding organizational procedures, and complying with regulatory requirements. This perspective aligns with human capital theory, which views education as an investment that enhances productivity and work performance.

In sales-oriented occupations, the relevance of education becomes more complex. Sales performance does not rely solely on technical knowledge but also on interpersonal skills, persuasion ability, and emotional intelligence. Formal education may indirectly influence these competencies by shaping communication styles, confidence levels, and professional attitudes. Differences in educational attainment are therefore expected to result in variations in how sales agents interact with customers and manage selling situations.

### **Sales Performance in the Insurance Industry**

Sales performance represents a critical determinant of organizational success in the insurance industry. Insurance companies rely heavily on sales agents to acquire customers, maintain policy continuity, and generate revenue. Sales performance in this context is commonly measured through indicators such as customer acquisition, premium volume, and income earned by sales agents. These indicators reflect both individual effectiveness and organizational sustainability.

The nature of insurance products increases the complexity of sales activities. Insurance services are intangible, involve long-term commitments, and often require customers to understand abstract concepts related to risk, protection, and financial planning. Sales agents must therefore act not only as sellers but also as educators and advisors. Effective sales performance depends on the agent's ability to explain product benefits clearly, build trust, and address customer concerns.

Individual characteristics play an important role in determining sales outcomes. Prior studies highlight the influence of communication skills, product knowledge, motivation, and experience on sales effectiveness. Educational attainment may enhance these factors by providing a stronger foundation for learning, reasoning, and professional interaction. In the insurance sector, where

credibility and trust are essential, educational background may also influence customer perceptions of agent competence.

### **Educational Level and Customer Acquisition**

Customer acquisition is a key performance indicator for insurance sales agents. Acquiring new customers requires agents to identify prospects, communicate value propositions, and overcome resistance to purchasing insurance products. Educational attainment may influence this process by shaping communication competence and persuasion strategies. Sales agents with higher educational backgrounds are often perceived as more articulate and knowledgeable, which can enhance customer confidence. The ability to present information logically and respond to questions effectively is particularly important in insurance sales, where customers often lack prior knowledge. Higher education may also improve analytical skills, enabling agents to tailor product recommendations to customer needs more accurately.

Empirical studies examining the relationship between education and customer acquisition present mixed findings. Some research reports a positive association between higher education and customer acquisition rates, suggesting that education enhances selling effectiveness. Other studies find no significant relationship, emphasizing the role of experience and motivation instead. These inconsistent findings indicate that the impact of education on customer acquisition may depend on industry characteristics and local market conditions.

### **Educational Level and Income Generation**

Income generation represents another important dimension of sales performance. In the insurance industry, sales agent income is typically derived from commissions, incentives, and operational allowances linked to sales achievements. Higher income levels generally reflect stronger sales outcomes and greater productivity. Educational attainment may influence income generation through its effect on sales effectiveness. Agents with higher education may be better positioned to close sales, retain customers, and manage larger or more complex policies. These capabilities can lead to higher commission earnings and more stable income streams. Education may also support better financial planning and goal-setting behavior among sales agents.

However, income generation in sales occupations is also influenced by organizational policies, incentive structures, and market conditions. Education alone may not guarantee higher income if incentive systems are weak or market potential is limited. This complexity highlights the need for empirical analysis that isolates the role of educational attainment while considering organizational context.

### **Research Gap and Hypothesis Development**

The existing literature demonstrates that educational attainment plays an important role in shaping human resource quality and sales performance. Evidence regarding its direct impact on customer acquisition and income generation remains inconclusive, particularly in service industries that rely heavily on personal selling. Most prior studies focus on large-scale organizations or metropolitan markets, leaving regional contexts underexplored.

Limited empirical research examines the insurance industry in developing urban areas, where customer awareness and market maturity differ significantly from national averages. The case of AJB Bumiputera 1912 in Palangka Raya offers a relevant context for investigating whether differences in

educational attainment translate into measurable differences in sales performance. Understanding this relationship is important for refining recruitment and compensation policies in insurance companies operating in similar environments.

Based on the theoretical arguments and empirical findings discussed above, this study proposes that differences in educational attainment lead to differences in customer acquisition and income generation among insurance sales agents.

## **METHODS**

### **Research Design**

This study employs a quantitative comparative research design to examine differences in sales performance based on educational attainment among insurance sales agents. The comparative approach enables objective evaluation of performance differences between two independent groups classified by educational level. The analysis focuses on measurable outcomes rather than perceptual data, ensuring empirical rigor. The research is conducted at AJB Bumiputera 1912 in Palangka Raya, Indonesia. The organization relies extensively on personal selling activities, making sales agents a critical unit of analysis. Variation in educational background among sales agents provides a suitable basis for comparative statistical testing.

### **Population and Sample**

The population consists of all active sales agents employed by AJB Bumiputera 1912 in Palangka Raya during the observation period. Sales agents are divided into two groups based on educational attainment: senior high school graduates and undergraduate degree holders. A census method is applied to all undergraduate sales agents due to their limited number. A simple random sampling technique is used to select an equal number of senior high school sales agents. This procedure ensures balanced group sizes and comparability of statistical estimates. Each group comprises 19 sales agents, resulting in a total sample of 38 observations.

### **Data Collection Techniques**

Primary data are collected through documentation and direct observation. Documentation involves extracting individual sales performance data from company records, including customer acquisition and monthly income. These records provide objective and verifiable performance indicators. Observation is conducted to obtain contextual insight into sales activities, customer interaction patterns, and organizational conditions. Observational data support interpretation of quantitative findings without influencing statistical calculations.

### **Research Variables and Measurement**

Educational attainment serves as the independent variable and is categorized into two levels: senior high school and undergraduate degree. This variable reflects formal educational background. Sales performance is the dependent variable and is measured using two indicators. Customer acquisition is defined as the average number of new customers acquired by a sales agent within a specific period. Income generation is defined as the average monthly income earned by sales agents, including operational allowances and sales commissions.

The average value for each indicator is calculated using the following formula:

$$\bar{X} = \frac{\sum X_i}{n}$$

where

$\bar{X}$  : mean value of customer acquisition or income,

$X_i$  : individual observations,

$N$  : number of observations.

### Variance and Standard Deviation

To measure data dispersion within each group, variance is calculated using the following formula:

$$S^2 = \frac{\sum (X_i - \bar{X})^2}{n}$$

where

$S^2$  : variance,

$X_i$  : individual observations,

$\bar{X}$  : the group mean, and

$n$  : number of observations.

The pooled standard deviation is calculated to estimate overall variability between the two groups:

$$S_p = \sqrt{\frac{n_1 S_1^2 + n_2 S_2^2}{n_1 + n_2 - 2}}$$

where

$S_p$  : pooled standard deviation

$S_1^2$  and  $S_2^2$  : variances of each group

$n_1$  and  $n_2$  represent sample sizes of each group.

### Hypothesis Testing

Differences in mean sales performance between educational groups are tested using a non-parametric difference test. The test statistic is calculated as follows:

$$t_h = \frac{(\bar{X}_1 - \bar{X}_2) - \mu(1-2)}{S_p \sqrt{\frac{1}{n_1} + \frac{1}{n_2}}}$$

where

$\bar{X}_1$  : mean performance of undergraduate sales agents

$\bar{X}_2$  : mean performance of senior high school sales agents,

$\mu(1-2)$  : hypothesized mean difference (equal to zero),

$S_p$  : pooled standard deviation, and

$n_1 ; n_2$  : sample sizes.

The null hypothesis states that no significant difference exists between the two groups. The alternative hypothesis states that a significant difference exists in sales performance favoring sales agents with higher educational attainment. Statistical decisions are made at a five percent significance level by comparing the calculated test statistic with the critical value.

## RESULT AND DISCUSSION

### Descriptive Results of Sales Performance

The initial analysis focuses on descriptive statistics to illustrate differences in sales performance between insurance sales agents with undergraduate and senior high school educational backgrounds. Sales performance is assessed using two key indicators: customer acquisition and income generation. These indicators reflect both productivity and financial outcomes of individual sales agents in the insurance industry.

The mean value of customer acquisition for each educational group is calculated using the arithmetic mean formula:

$$\bar{X} = \frac{\sum X_i}{n}$$

The results indicate that sales agents holding undergraduate degrees achieve a higher average number of customers compared to those with senior high school education. Undergraduate sales agents record an average customer acquisition of 11.20 customers, while senior high school sales agents record an average of 8.00 customers. This descriptive difference suggests that educational attainment may influence the ability to identify prospects, communicate product value, and close sales effectively.

A similar pattern emerges for income generation. The average monthly income of undergraduate sales agents reaches IDR 11,436,666.67, whereas senior high school sales agents earn an average of IDR 7,126,666.67. Income differences reflect variations in commission earnings and operational incentives linked to sales outcomes. These descriptive results provide preliminary evidence that higher educational attainment is associated with superior sales performance.

From a theoretical perspective, these findings align with human capital theory, which argues that education enhances individual productivity through improved knowledge, skills, and competencies (Becker, 1993; Husnan & Heidjrachman, 2010). In the context of insurance sales, higher education may strengthen analytical ability and professional communication, which are essential for explaining complex insurance products and managing customer relationships (Kotler & Keller, 2016; Swastha & Irawan, 2010).

### Variability of Sales Performance Across Educational Levels

Variance analysis reveals that undergraduate sales agents demonstrate relatively more stable performance compared to senior high school sales agents. Lower dispersion around the mean indicates more consistent customer acquisition and income levels. Consistency in performance is particularly important in the insurance industry, where long-term customer relationships and policy continuity are critical for organizational sustainability.

The pooled standard deviation serves as a key parameter in hypothesis testing and reflects combined variability across educational groups. The presence of moderate variability suggests that while individual performance differences exist, systematic differences between educational levels remain observable and statistically testable.

Prior studies emphasize that performance stability is often linked to cognitive and behavioral competencies shaped through formal education (Handoko, 2012; Martoyo, 2008). Employees with higher education tend to exhibit better self-regulation, planning ability, and adaptability, which contribute to more consistent job performance over time (Noe et al., 2021).

### **Hypothesis Testing on Customer Acquisition Differences**

The first hypothesis examines whether differences in customer acquisition between educational groups are statistically significant. The calculated test statistic for customer acquisition equals 2.697. This value exceeds the critical value at the five percent significance level, indicating rejection of the null hypothesis. The results confirm a statistically significant difference in customer acquisition between undergraduate and senior high school sales agents.

This finding supports theoretical arguments that educational attainment enhances selling effectiveness by improving communication skills and persuasive ability (Prawiramidjoyo, 2013; Kotler, 2014). Insurance sales agents must convey abstract concepts such as risk, protection, and long-term financial planning, which require structured explanation and logical reasoning. Higher education may provide the cognitive framework necessary to perform these tasks effectively. Empirical evidence from service marketing literature also suggests that customer trust and perceived competence are influenced by the professionalism and communication clarity of service providers (Zeithaml et al., 2020; Lovelock & Wirtz, 2021). Customers may perceive undergraduate sales agents as more credible, leading to higher acceptance rates during the sales process.

### **Hypothesis Testing on Income Generation Differences**

The second hypothesis examines differences in income generation across educational levels. Using the same test statistic formulation, the calculated value for income differences equals 2.858. This value exceeds the critical threshold, leading to rejection of the null hypothesis. The significant income difference indicates that undergraduate sales agents generate higher financial returns compared to their senior high school counterparts. Income in the insurance industry is closely linked to sales volume, policy value, and customer retention. Higher income suggests greater effectiveness in closing sales and maintaining productive customer portfolios.

This result aligns with studies highlighting the role of education in enhancing individual earning potential through improved productivity and job performance (Mincer, 1974; Becker, 1993). In sales-oriented occupations, education may indirectly influence income by improving negotiation skills, strategic selling approaches, and customer relationship management (Churchill et al., 2020). Organizational factors such as incentive systems and commission structures also interact with educational attainment. Sales agents with higher education may better understand performance targets and incentive mechanisms, allowing them to optimize selling strategies to maximize income (Dessler, 2020).

### **Education, Communication Competence, and Sales Effectiveness**

The significant differences observed in both customer acquisition and income generation highlight the mediating role of communication competence. Education shapes language proficiency, confidence, and the ability to structure arguments logically. These competencies are particularly relevant in personal selling contexts, where face-to-face interaction dominates the sales process. Insurance products are characterized by intangibility, inseparability, and high perceived risk (Kotler & Keller, 2016; Lovelock & Wirtz, 2021). Sales agents must therefore reduce customer uncertainty through effective explanation and reassurance. Undergraduate education may enhance the ability to translate technical information into understandable messages, thereby increasing customer acceptance.

Prior research in service quality emphasizes that employee competence directly influences perceived service quality and customer satisfaction (Parasuraman et al., 1988; Zeithaml et al., 2020).



Higher education contributes to competence by expanding knowledge base and critical thinking skills. These attributes strengthen the persuasive power of sales agents and support sustainable sales performance.

### **Contextual Interpretation: Insurance Market in Palangka Raya**

Regional context plays an important role in interpreting the results. Palangka Raya represents a developing urban market where insurance literacy remains limited. Sales agents often function as educators who introduce insurance concepts to potential customers. Educational attainment becomes particularly relevant in such contexts, as agents must bridge knowledge gaps and address customer skepticism.

Studies on emerging markets suggest that customer trust is strongly influenced by interpersonal interaction and perceived professionalism (Sheth, 2020; Malhotra et al., 2022). Undergraduate sales agents may be better positioned to establish trust through articulate communication and structured explanation. This advantage translates into higher customer acquisition and income generation. The findings underscore the importance of aligning recruitment policies with market characteristics. In regions with low insurance awareness, higher educational qualifications may provide a competitive advantage by enhancing sales agent credibility and effectiveness.

### **Managerial Implications and Theoretical Contribution**

From a managerial perspective, the results provide empirical support for incorporating educational attainment into recruitment and placement decisions. While senior high school graduates may fulfill basic job requirements, undergraduate sales agents demonstrate superior performance outcomes. Insurance companies may consider prioritizing higher educational qualifications or strengthening training programs for less-educated agents.

Theoretically, this study contributes to the human resource management and service marketing literature by providing contextual evidence on the education–performance relationship in insurance sales. The findings extend human capital theory by demonstrating that education enhances performance not only through technical skills but also through communication competence and customer engagement. The integration of quantitative results with service marketing theory strengthens the explanatory power of the study. Education emerges as a strategic asset that supports sustainable sales performance in service-based organizations.

## **CONCLUSION**

This study investigates the effect of educational attainment on sales performance among insurance sales agents at AJB Bumiputera 1912 in Palangka Raya, Indonesia. Sales performance is measured through customer acquisition and income generation, which represent key indicators of effectiveness in the insurance sales function. Empirical results demonstrate that sales agents holding undergraduate degrees outperform those with senior high school education in both indicators. Statistically significant differences confirm that higher educational attainment is associated with superior sales outcomes. The findings support human capital theory, which posits that education enhances individual productivity through improved knowledge, skills, and competencies. In the context of insurance sales, higher education contributes to better communication competence, analytical ability, and customer engagement. These attributes are particularly important in marketing intangible and high-risk financial

products, where customer trust and understanding play a central role in purchase decisions. From a managerial perspective, the results highlight the strategic importance of educational qualifications in human resource planning within insurance companies. Recruitment policies that prioritize higher educational attainment may improve sales effectiveness and financial performance. Organizations may also consider targeted training programs to enhance communication and selling skills among sales agents with lower educational backgrounds. Strengthening human capital through education and capability development can support sustainable competitiveness in the insurance industry. The study contributes to the literature on sales performance and human resource management by providing empirical evidence from a regional insurance market context. Educational attainment emerges as a critical determinant of sales success, reinforcing the role of education as a long-term investment in organizational performance.

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