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## Effect of Company Visits on Students' Academic Knowledge with Material Relevance as Mediator

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### Abstract

*This study examines the effect of company visit activities on students' academic knowledge, with material relevance serving as a mediating variable. Grounded in experiential learning theory, the research explores how real-world industrial exposure enhances students' conceptual understanding. Data was collected through a structured questionnaire administered to 41 students at a private university in Jakarta who participated in a company visit to CRSN, representing diverse academic programs. The analysis employed Structural Equation Modeling (SEM) using SmartPLS to assess both measurement and structural models. The outer model evaluation confirmed good reliability and validity of all constructs. The results indicate that company visit activities have a significant and positive direct effect on students' academic knowledge and significantly influence their perception of material relevance. However, material relevance does not have a substantial direct effect on academic expertise and does not mediate the relationship between company visit activities and academic knowledge. These findings suggest that although students recognize the value of relevant material during visits, direct experiential exposure remains the primary driver of knowledge development. The study further indicates that reflective or structured academic activities should complement company visits to maximize their educational impact. It also suggests that reflective or structured academic activities should follow company visits to maximize their educational implications.*

## **INTRODUCTION**

The integration of industrial practice and academic theory is an essential aspect in higher education (Billett, 2014). One activity designed to bridge industrial practice and educational theory in higher education is company visits. Company visits are student visits to companies to gain a direct understanding of how concepts learned in lectures apply in the real world of work (Bennett & Raymond, 2019).

Previous studies have shown that company visits have a positive impact on students' understanding of theoretical concepts, analytical skills, and motivation in the learning process. In a similar context, Okolie et al. (2021) emphasized the importance of implementing innovative learning approaches that combine theory and real-world practice to develop students' critical thinking skills. Some methods considered adequate for supporting this development include project-based, problem-based, and inquiry-based learning, all of which encourage students' active involvement in addressing real-world problems. According to Shore and Dinning (2023), experiential learning activities, such as company visits or field projects, provide students with opportunities to engage directly with real-world challenges. Through this involvement, students are encouraged to reflect on their experiences, thereby deepening their understanding of professional demands while linking them to the application of theories learned in an academic setting. Adib (2024) highlighted that experiential learning methods, such as business simulations, are effective in enhancing students' understanding of sustainability concepts and forming positive attitudes towards sustainable practices in the professional world. Although this study focused on business simulations, the findings can be extended to company visits, as both provide hands-on experiences that connect theory to real-world practice.

Previous studies have emphasized the importance of company visits in supporting student learning, especially in bridging the gap between academic theory and industry practice. This activity has been proven to improve students' understanding of theoretical concepts, hone analytical skills, and trigger learning motivation through direct exposure to a professional work environment.

However, implementing company visits in Indonesia remains a significant challenge. Its implementation has not been systematic or evenly integrated into the curricula of various higher education institutions. Many study programs have not made company visits part of their formal learning strategy, but rather treat them only as additional initiatives from student organizations or lecturers in charge of courses. Creates inconsistencies in students' learning experiences across study programs and between institutions, which ultimately may affect graduates' readiness to meet the demands of the world of work.

This condition highlights the urgency of conducting a comprehensive study on the effectiveness of company visits as a learning method in higher education. Accordingly, this research seeks to examine the extent to which company visit experiences empirically influence students' academic knowledge, with particular attention to the mediating role of material relevance. The study focuses on assessing how these experiences contribute to students' conceptual understanding, analytical thinking, and motivation to learn across various academic disciplines. The results are expected to provide empirical insights that can inform curriculum policymakers in designing a more contextualized, applicable, and industry-relevant educational framework.

The following research questions were formulated:

1. Does the company visit have a positive effect on students' academic knowledge?
2. Does the company visit have a positive effect on the material relevance presented during the visit?
3. Does the material relevance have a positive effect on students' academic knowledge?
4. Does the material relevance mediate the relationship between the company visit and students' academic knowledge?

This study is expected to contribute both theoretically and practically to the field of education, particularly in higher education.

This study provides factual support for the idea that company visits are an experiential learning method that influences students' academic knowledge. In addition, this study offers a deeper understanding of learning mechanisms outside the classroom by investigating the mediating role of material relevance. In the context of interdisciplinary education, this study also advances the creation of a theoretical framework for knowledge acquisition and learning motivation.

In practice, the results of this study can serve as a guide for curriculum developers, instructors, and higher education institutions in creating and incorporating company visit programs as an official component of academic programs. To help universities align their learning methodologies with industry expectations, this study emphasizes how the relevance of the material can enhance the success of the visits. Furthermore, policymakers can leverage research findings to provide more relevant, context-specific learning opportunities that equip students with critical thinking skills and real-world preparation, alongside academic knowledge.

## **LITERATURE REVIEW**

### **Company Visits as an Experiential Learning Approach**

Company visits are widely recognized as a form of experiential learning that exposes students to real organizational environments and practices. Adib (2024) argues that experiential learning plays a vital role in strengthening conceptual understanding because students can observe how theoretical principles operate in authentic business contexts. Similarly, Acut (2024) reports that field-based activities and work immersion programs help students bridge the gap between classroom instruction and real-world skills, making their learning more meaningful and applied.

Corporate engagement programs are also shown to enhance learning outcomes. Bennett and Raymond (2019) note that interaction with industry practitioners enables students to integrate theory with practice, particularly when learning occurs onsite. In the same vein, Chmielewski-Raimondo et al. (2016) emphasize that field environments can serve as an effective extension of the classroom, encouraging active participation and deeper comprehension. These studies collectively suggest that company visits can directly and positively influence students' academic knowledge through hands-on exposure to industry settings.

### **Material Relevance and Its Role in Company Visit**

Material relevance is often considered a crucial factor in determining whether experiential activities effectively support academic learning. Billett (2014) highlights that meaningful learning occurs when students can clearly recognize how classroom concepts relate to real-world practice.

When the content aligns with what students encounter during industry observations, it tends to enhance both engagement and understanding.

Previous research supports this premise. Stavrova and Urhahne (2010) found that modifying educational programs to reflect relevant scientific concepts improved students' attitudes and comprehension. Likewise, S. Gallardo, Pérez, and Montaña (2009) showed that empirically based case studies can strengthen motivation and content learning, particularly when students perceive the materials as connected to actual workplace scenarios.

However, the influence of material relevance is not always uniform. Shore and Dinning (2023), for example, argue that while relevance supports skill development and work readiness, direct experiences themselves often serve as the primary source of deeper learning. These findings indicate that although relevant materials enhance learning conditions, they may not always function as potent mediators between experiential activities and academic outcomes.

### **Company Visits and Their Impact on Academic Knowledge**

Exposure to professional environments can directly shape students' academic understanding by reinforcing theoretical knowledge through practical observation. Owoyemi and Olowofela (2012) demonstrated that learning-company approaches significantly improve academic performance when students engage with real business processes. Similarly, ElGewel and Nadim (2020) found that immersive learning tools that mirror industry practices, such as building information modeling (BIM), positively affect students' technical comprehension.

These studies provide strong support for the idea that company visits can directly enhance academic knowledge by helping students contextualize theories and recognize their practical applications.

### **The Link Between Material Relevance and Academic Knowledge**

Although material relevance is commonly viewed as a factor that facilitates learning, its relationship with academic knowledge is complex. Okolie et al. (2022) emphasize that pedagogical innovations aligned with course content can promote critical thinking. However, knowledge transfer does not depend solely on perceived relevance; it also requires rich learning experiences that intellectually challenge students.

Some researchers suggest that relevance alone may not fully determine learning gains. For example, Shore and Dinning (2023) observe that experiential activities often have a more substantial influence on understanding than students' perceptions of how closely materials align with course content. This perspective helps explain why material relevance may not always serve as a significant mediator between company visits and academic knowledge.

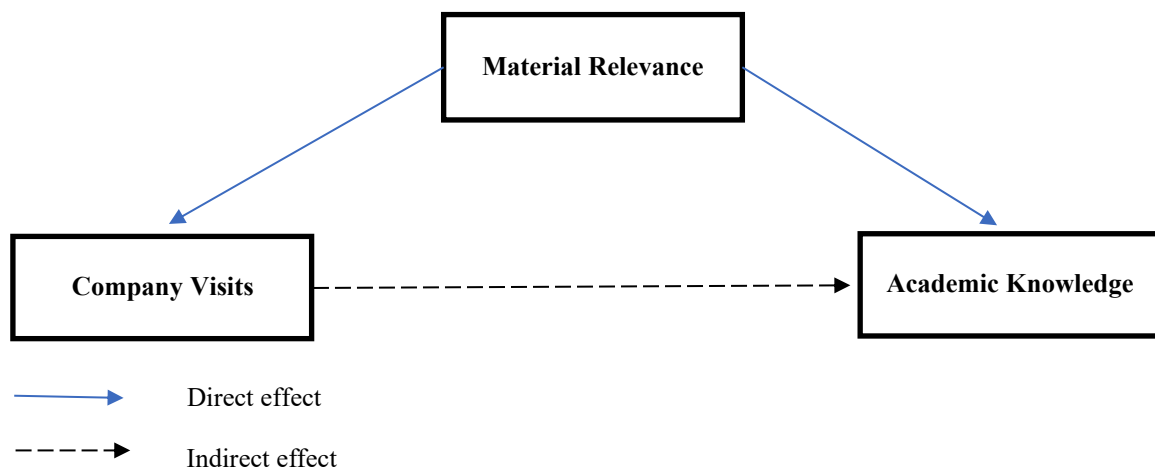
### **Use of PLS-SEM for Testing the Research Framework**

Research models involving both direct and indirect relationships, such as in the proposed framework, are typically analyzed using Partial Least Squares–Structural Equation Modeling (PLS-SEM). According to Memon et al. (2021), PLS-SEM is suitable for prediction-oriented studies, small sample sizes, and models containing mediating variables. The method also enables a comprehensive evaluation of the measurement and structural components of the model, ensuring the reliability and validity of constructs before assessing causal paths.

## METHODS

### Research Design

This study uses primary data collected via a structured questionnaire distributed to students who participated in a company visit to CRSN in April 2025. This study adopts a quantitative, verificatory research design to examine the linear relationships among variables related to company visit experiences, material relevance, and students' academic knowledge. The research seeks to test the theoretical model empirically by analyzing direct and mediated effects. Figure 1 illustrates the conceptual framework of this study, which examines the relationship between Company Visits and Academic Knowledge, with Material Relevance acting as a mediating variable. The model is designed to explore both the direct and indirect effects among these constructs.



**Figure 1.** Research Framework  
Sources: Compiled by authors (2025)

### Samples/Participants

The population in this study consists of all students from a private university in Jakarta who participated in a company visit program organized in collaboration with CRSN. These students come from diverse academic backgrounds, including Business Management, Accounting, Industrial Engineering, and Information Systems.

The sample comprises 41 students who took part in the company visit to CRSN. These students represent the total number of participants in the visit, making the sample size equivalent to the population. As all members of the population are included, the sample is considered saturated.

This study uses census sampling (also known as total sampling), in which the entire population serves as the research sample (Sari, 2022). This method is appropriate given the limited, manageable number of participants and allows for a complete and accurate representation of the population. By using census sampling, the study ensures that the findings reflect the perspectives of all individuals who have experienced the company visit activity.

## Instruments

The primary instrument used in this study is a structured questionnaire designed to measure three primary constructs: company visit activities, material relevance, and students' academic knowledge. Each construct is represented by several indicators adapted from validated instruments in previous studies and refined to suit the research context.

Table 1 presents the operational definitions of the study's three main variables, Company Visit, Academic Knowledge, and Material Relevance, along with their respective measurement indicators. These definitions are grounded in the established literature and reflect how each construct is conceptualized in this research.

**Table 1.** Operational definition and indicators

Variables	Operational Definition	Indicators
Company Visit (Adib, 2024; Billett, 2014; Bennett & Raymond, 2019; Shore & Dimming, 2023)	Company visits aimed at providing students with direct exposure to professional environments and enhancing their understanding of industry practices.	<ol style="list-style-type: none"> <li>1. Complete and structured information</li> <li>2. Relevance of material to professional context</li> <li>3. Interactive sessions (Q&amp;A, discussion)</li> <li>4. Student participation during visit</li> <li>5. Direct engagement in activities</li> </ol>
Academic Knowledge (Okolie et al., 2022; S. et al., 2009; Chmielewski-Raimondo et al., 2016; Owoyemi & Olowofela, 2012)	Academic knowledge reflects students' perceived improvement in understanding theoretical concepts, analytical thinking, learning motivation, and practical application after participating in company visits.	<ol style="list-style-type: none"> <li>1. Better understanding of classroom theory</li> <li>2. Easier comprehension of academic material</li> <li>3. Ability to connect practice and theory</li> <li>4. Improved analytical skills</li> <li>5. Increased motivation to study</li> <li>6. Encouraged enthusiasm for related courses</li> <li>7. Application of knowledge in coursework</li> <li>8. Gained practical insight beyond the classroom</li> </ol>
Material Relevance (Stavrova & Urhahne, 2010; Acut, 2024; ElGawely & Nadim, 2020)	Material relevance refers to the degree to which the information presented during company visits aligns with academic content and supports the connection between theory and real-world practice.	<ol style="list-style-type: none"> <li>1. Alignment with curriculum</li> <li>2. Clear theory-practice connection</li> <li>3. Real-world examples of academic concepts</li> </ol>

Sources: Compiled by authors (2025)

## Data analysis

To analyze the relationships among variables, the study employs Structural Equation Modeling (SEM) with SmartPLS software (Memon et al., 2021). SEM is selected for its ability to evaluate both measurement (outer) and structural (inner) models. The outer model analysis assesses the validity and reliability of observed indicators representing latent variables. In contrast, the inner model analysis examines the strength and direction of the hypothesized relationships between latent constructs within the proposed research framework. The analysis process was conducted in two stages:

### 1. Outer Model (Measurement Model) Evaluation

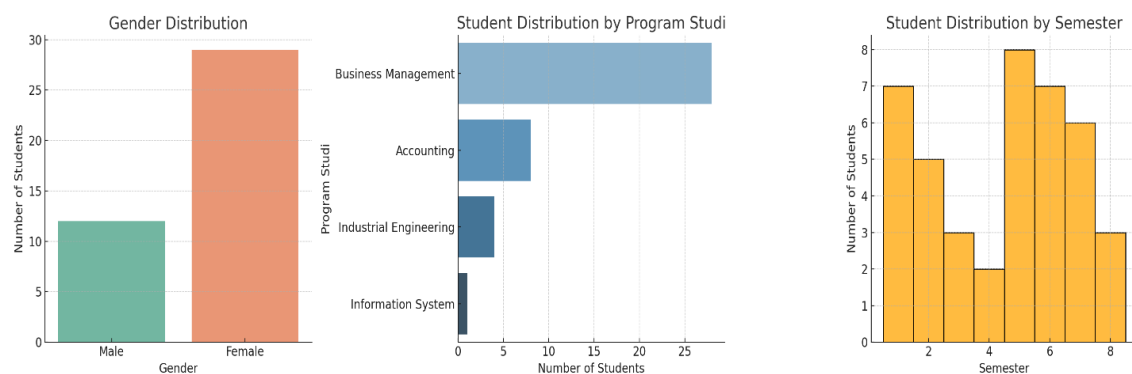
This stage focuses on assessing the reliability and validity of the indicators used to measure each construct:

- a. Convergent Validity: Average Variance Extracted ( $AVE > 0.5$ ), and Composite Reliability ( $CR > 0.7$ ).

- b. Reliability Testing: Cronbach's Alpha values were used to ensure internal consistency of the indicators within each construct.
2. Inner Model (Structural Model) Evaluation  
This stage aims to evaluate the relationships among the latent variables:
  - a. Path Coefficients: To test the strength and direction of the hypothesized relationships.
  - b. t-statistics and p-values: Derived using the bootstrapping method to determine the significance of each path.
  - c. Coefficient of Determination ( $R^2$ ): Indicates the explanatory power of the independent variables on the dependent variable.

## RESULTS AND DISCUSSION

Figure 2 illustrates the distribution of students who participated in the company visit based on gender, academic program, and semester level. The figure shows that most participants were female, with the majority from the Business Management program, followed by Accounting, Industrial Engineering, and Information Systems. In addition, students from various academic levels, ranging from Semester 1 to Semester 8, participated in the visit, reflecting diverse participation at different stages of study.



**Figure 2.** Characteristic Respondents  
Sources: Data processed by authors (2025)

Figure 2 provides an overview of students participating in company visits, showing their distribution by gender, academic program, and semester level. The patterns emerging from the figure provide meaningful insights into who participates in these activities and help us better understand the context of this study's findings.

One of the most striking aspects of the data is the gender distribution. A greater proportion of participants are female, which may reflect the general composition of the university's student body or the programs that contribute the most participants. In many business-related programs, female students tend to dominate enrollment, and their greater representation may also indicate that they are enthusiastic about opportunities that offer real-world exposure. Female students may be more proactive in seeking experiential learning opportunities, as shown in some educational studies, although this requires further investigation to confirm.

Another notable pattern is the distribution across academic programs. Students from Business Management programs constitute the largest group of participants. This makes intuitive sense, as company visits often align with business students' need to observe organizational practices, management systems, and workplace dynamics firsthand. Following Business

Management, Accounting, Industrial Engineering, and Information Systems, students also participated, albeit in smaller numbers. Their participation highlights the interdisciplinary appeal of company visits. While business students may find these experiences directly aligned with their courses, engineering students can benefit from seeing how theoretical concepts such as process efficiency, systems integration, or data management apply in a real-world industrial setting. This mix of participants enriches the study, as students from different academic backgrounds may interpret and utilize the experience differently.

The range of semester levels represented in the figure also adds depth to the analysis. Students from Semester 1 to Semester 8 participated in these visits, demonstrating that interest in industry exposure is not limited to a particular stage of academic progress. For first- or second-semester students, these visits can serve as an initial introduction to the professional world, helping them form a clearer picture of their field. Early participation can also increase motivation by giving meaning to theories they will encounter later in their studies.

Conversely, students in higher semesters tend to approach the visits with a more mature understanding of their disciplines. For them, the company visits may have helped reinforce key concepts learned in specific courses or provided insight into the career paths they were preparing for. This combination of first- and final-semester students demonstrates that company visits are a flexible and valuable learning tool, regardless of students' academic stage.

Table 2. The Outer Model Evaluation presents the reliability and validity assessments of the latent constructs used in this study. All three constructs, Company Visit Activities, Material Relevance, and Students' Academic Knowledge, exhibited acceptable levels of internal consistency and convergent validity. Cronbach's Alpha values range from 0.777 to 0.949, indicating good internal consistency for all constructs, with values above the recommended threshold of 0.7. Composite Reliability ( $\rho_c$ ) values are all above 0.847, exceeding the acceptable minimum of 0.7 and confirming the constructs' reliability. Average Variance Extracted (AVE) values are also above the 0.5 threshold, indicating that their respective latent constructs explain more than 50% of the variance in the indicators.

**Table 2.** Outer Model Evaluation

	<b>Cronbach's alpha</b>	<b>Composite reliability (<math>\rho_a</math>)</b>	<b>Composite reliability (<math>\rho_c</math>)</b>	<b>Average variance extracted (AVE)</b>
Company Visit	0.777	0.781	0.847	0.525
Academic Knowledge	0.874	0.880	0.901	0.535
Material Relevance	0.949	0.956	0.967	0.907

Sources: Data processed by authors (2025)

Table 3. Path Coefficient and Significance Test presents the structural model results that address the four research questions proposed in this study. Regarding RQ1, the findings show that company visit activities have a significant positive effect on students' academic knowledge ( $\beta = 0.609$ ,  $t = 3.808$ ,  $p = 0.000$ ). This confirms that experiential learning through company visits directly contributes to students' understanding and knowledge development.

In response to RQ2, the effect of company visit activities on the perceived material relevance is also statistically significant ( $\beta = 0.460$ ,  $t = 2.506$ ,  $p = 0.012$ ), indicating that students consider the material presented during the visit to be relevant to their academic curriculum.

For RQ3, the results reveal that material relevance does not have a significant effect on students' academic knowledge ( $\beta = 0.205$ ,  $t = 0.834$ ,  $p = 0.404$ ). This suggests that although students may perceive the material as relevant, it does not directly enhance their academic knowledge in this context.

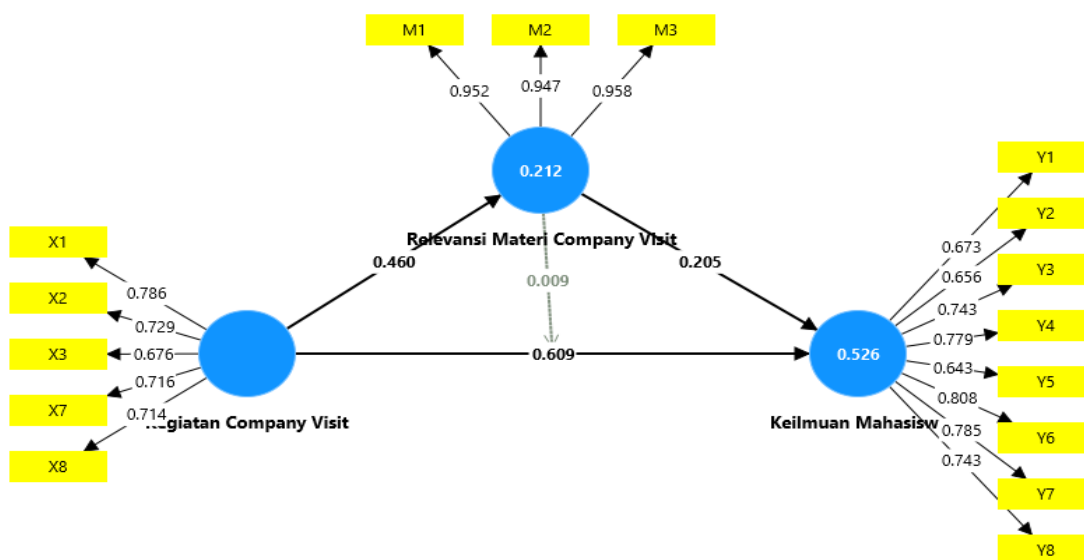
For RQ4, the mediating effect of material relevance on the relationship between company visit activities and students' academic knowledge is not significant ( $\beta = 0.009$ ,  $t = 0.055$ ,  $p = 0.956$ ). This indicates that material relevance does not serve as a meaningful intermediary in the relationship between the company visit and students' knowledge outcomes.

**Table 3.** Path Coefficient and Significance Test

	Original sample	T statistics	P values
Company Visit -> Academic Knowledge	0.609	3.808	0.000
Company Visit -> Material Relevance	0.460	2.506	0.012
Material Relevance -> Academic Knowledge	0.205	0.834	0.404
Material Relevance x Company Visit -> Academic Knowledge	0.009	0.055	0.956

Sources: Data processed by authors (2025)

Figure 3. The Structural Equation Modeling (SEM) model illustrates the relationships among company visit activities, material relevance, and students' academic knowledge using the PLS-SEM approach. The model shows that company visit activities have a direct positive effect on both material relevance (path coefficient = 0.460) and academic knowledge (path coefficient = 0.609). Material relevance also positively influences academic knowledge (0.205), although its mediating effect appears minimal ( $p$ -value = 0.009). The  $R^2$  values indicate that the model explains 21.2% of the variance in material relevance and 52.6% of the variance in academic knowledge.



**Figure 3.** Model Structural Equation Modeling (SEM)

Sources: Data processed by authors (2025)

The results of this study provide important insights into the effectiveness of company visits in enhancing students' academic outcomes, as measured by the constructs of educational knowledge and perceived material relevance.

The results of this study reinforce the importance of company visit activities as a meaningful form of experiential learning that can enhance students' academic outcomes. As shown in Table 2, the outer model evaluation confirms that all constructs in this study (Company Visit Activities, Material Relevance, and Academic Knowledge) demonstrate high reliability and convergent validity, with Cronbach's Alpha, Composite Reliability, and AVE values exceeding recommended thresholds. These findings validate the measurement tools used and provide a strong foundation for interpreting the structural model results.

Table 3 and Figure 3 further reveal that company visits have a significant, positive direct effect on students' academic knowledge ( $\beta = 0.609$ ,  $p = 0.000$ ), consistent with previous research. Studies by Adib (2024) and Bennett & Raymond (2019) emphasize that company visits provide real-world exposure that strengthens students' conceptual understanding by bridging theory and practice. Similarly, Billett (2014) and Shore & Dinning (2023) highlight the role of workplace engagement in developing students' cognitive and professional readiness, as reflected in the strong direct path observed in this study.

In addition, this study finds that company visits significantly affect students' perception of material relevance ( $\beta = 0.460$ ,  $p = 0.012$ ). This supports prior studies such as Stavrova & Urhahne (2010) and ElGewely & Nadim (2020), which suggest that experiential learning environments enhance students' recognition of the connection between academic content and their real-world applications. Acut (2024) also stresses the value of authentic experiences in contextualizing theoretical knowledge, further substantiating the importance of relevant material during company visits.

However, contrary to expectations, material relevance does not have a significant effect on academic knowledge ( $\beta = 0.205$ ,  $p = 0.404$ ). It does not mediate the relationship between company visits and academic knowledge ( $\beta = 0.009$ ,  $p = 0.956$ ). This result diverges from studies such as Okolie et al. (2022) and Chmielewski-Raimondo et al. (2016), which argue that perceived relevance is a key motivational drive for deeper learning. While this study confirms that students recognized the material as relevant, it suggests that relevance alone, without structured integration into academic activities, may not be sufficient to enhance scholarly understanding. This indicates a gap between perceived value and actual cognitive gains, as also noted in S. et al. (2009) and Owoyemi & Olowofela (2012), who recommend continued reflection or curriculum alignment to maximize impact.

## **CONCLUSION**

Based on the results of the measurement and structural model analysis, this study concludes that company visit activities have a significant and direct positive effect on students' academic knowledge and their perception of material relevance. However, while students perceive the material delivered during the visit as relevant, this relevance does not significantly enhance academic knowledge nor mediate the relationship between the visit and learning outcomes. These findings highlight the importance of direct experiential learning in supporting educational development, while suggesting that the impact of material relevance can be optimized only when accompanied by structured academic integration. Thus, universities should not only facilitate

company visits but also strengthen post-visit learning processes to maximize students' cognitive gains.

For higher education institutions, it is recommended to integrate company visits as a formal and structured component of the curriculum, especially in programs that emphasize industry relevance. To enhance the effectiveness of these visits, educators should design follow-up activities such as reflective assignments, guided discussions, or project-based assignments that explicitly link field experiences to academic theory.

In practice, collaboration with industry partners should be deepened to ensure that the material presented during the visits aligns with students' academic learning objectives and provides opportunities for active engagement. This alignment between experiential exposure and structured academic reinforcement is essential to maximize the cognitive and motivational benefits of company visits.

## **ACKNOWLEDGMENT**

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