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Applying Logistics Knowledge for Accounting Students and the TEFA Team at SMK Mitra Industri MM2100

Hally Hanafiah[a], Tony Kristhiofan[b]

[a,b]President University

[*]hally.hanafiah@president.ac.id

Abstract – This community service paper reports the application of logistics knowledge for Grades X-XI Accounting students and the Tutorial Enterprise Factory (TEFA) team at SMK Mitra Industri MM2100, Bekasi Regency. The program was designed in response to competence gaps between accounting knowledge and practical logistics concepts, including transportation and storage costs, inventory valuation, procurement, distribution, and supply-chain decision-making. The activity was conducted on 23 June 2026 through an interactive lecture, case discussion, a question-and-answer session, and games. The accountability report recorded an estimated 30-40 participants, including accompanying teachers. The program introduced logistics fundamentals, the relationship between logistics and accounting, and efficient inventory and distribution strategies while supporting vocational education link and match with industry. The three-hour program used an allocated budget of Rp2,000,000; realized expenditure was Rp693,000, leaving Rp1,307,000. The documented outputs were an accountability report and a proposed article for a Sinta 4 community service journal, subject to availability and publication opportunity. The program provides a structured model for contextualizing logistics in accounting and TEFA learning at an industry-oriented vocational school.

Keywords: logistics education, accounting students, supply chain management, vocational education

Introduction

Industry 4.0 and the digital transformation of the economy have changed the global supply-chain management paradigm. The movement of goods, services, and information requires logistics systems that are increasingly integrated, efficient, and responsive to market demand. In this context, logistics is not merely an operational support function; it is a strategic element that directly affects corporate financial performance, including cost recording, inventory valuation, and cash-flow management (Ballou, 1999; Bowersox et al., 2020).

In Indonesia, the link and match policy between vocational secondary education and business and industry has been strengthened in response to competency requirements in the Industry 4.0 era (Ali et al., 2020). The logistics and supply-chain sector particularly requires personnel with cross-functional understanding of accounting, operations management, and inventory management. This need is increasingly relevant in industrial areas such as Cibitung, Bekasi Regency (ISCEA Indonesia, 2025; ITHB, 2015). Accordingly, an industry-oriented vocational school such as SMK Mitra Industri MM2100 needs to integrate logistics concepts into accounting instruction and its TEFA program so that student competencies remain relevant to industrial requirements.

Initial observation and discussion with teachers at SMK Mitra Industri MM2100 indicated several competency gaps. First, Accounting students generally understood basic financial and cost-accounting concepts but did not yet have a systematic understanding of how logistics information - such as transportation costs, storage costs, and inventory value - is recorded, analyzed, and used in business decisions (Lakeshore Technical College, 2023). Second, integration between logistics and accounting remained largely conceptual, without sufficient practical application connecting both domains to real industrial activities (Ali et al., 2020). Third, although students had participated in a business-simulation TEFA program, the logistics

role in the internal supply chain had not been optimized, limiting students' understanding of procurement, distribution, and financial recording in a practical business environment.

These gaps may reduce graduates' competitiveness in logistics, supply-chain, and manufacturing environments that require strong cross-functional cooperation between accounting and logistics (Robertson College, 2018; ITHB, 2015). Without sufficient understanding, students may also face difficulty applying logistics concepts to inventory planning, operational cost control, and accurate financial reporting (Bowersox et al., 2020; Cooper et al., 1993).

The community service activity entitled "Applying Logistics Knowledge for Accounting Students and the TEFA Team at SMK Mitra Industri MM2100" was therefore designed to strengthen conceptual understanding of logistics and its relationship with accounting; provide practical experience through case simulation and interactive games representing industrial logistics activities; and support link and match implementation between SMK Mitra Industri MM2100 and industry, particularly in the Cibitung industrial area.

The program aimed to introduce logistics applications to Grades X-XI Accounting students and the school's Tutorial Enterprise Factory (TEFA) team. It focused on the relationship between logistics and inventory recording, transportation costs, accounting, finance, and supply-chain management. The intended benefits were to help students understand how logistics supports business processes, particularly accounting and inventory management, and to broaden awareness of career opportunities in logistics and supply-chain industries (Robertson College, 2018; ITHB, 2015).

Method

The activity was organized as an interactive community service training session combining material presentation, case discussion, a question-and-answer session, and games. The target participants were Grades X-XI Accounting students and the Tutorial Enterprise Factory (TEFA) team of SMK Mitra Industri MM2100. The accountability report recorded an estimated 30-40 participants, including accompanying teachers.

The program was conducted on 23 June 2026 for 180 minutes (three hours) in the Auditorium of SMK Mitra Industri MM2100, Jl. Kalimantan Blok DD 1-1, MM2100 Industrial Estate, Cibitung, Bekasi Regency. Each session was supported by an accompanying teacher and information-technology staff who checked computer and Wi-Fi readiness when required. A student master of ceremonies coordinated the event from opening to closing.

Table 1. Organizing Team

Role	Personnel
Program Chair	Dr. Ir. Hally Hanafiah, M.M., CSCA, CSCM, CPLM, FCILT.
Resource Person	Dr. Ir. Hally Hanafiah, M.M., CSCA, CSCM, CPLM, FCILT.
Event Officer	Tony Kristhiofan (Management Student, 2023 batch)
Documentation	Tony Kristhiofan (Management Student, 2023 batch)
Student Coordinators	Kiki Widhia Swasra, S.Pd. and Devin Eldwin, S.Ak. (SMK Mitra Industri MM2100)
Master of Ceremonies	Tony Kristhiofan (Management Student, 2023 batch)
Secretariat	Panca Prasetio Aprilianto, S.I.P. (Management Staff)

The learning content covered the definition and basic principles of logistics, the relationship between logistics and accounting, and inventory and distribution strategies. Logistics was presented as the planning, implementation, and control of flows of goods, services, and information from origin to consumption in order to meet customer requirements

efficiently and effectively (Cooper et al., 1993; Bowersox et al., 2020). In the accounting context, emphasis was placed on purchasing costs, storage costs, transportation costs, inventory valuation, cost of goods sold, ending inventory, and operating costs (Mulyadi, 2016; Kieso et al., 2022).

Table 2. Activity Details

Time	Activity
09.00 – 09.10	Opening and ice-breaking by the master of ceremonies (Tony Kristhiofan)
09.10 – 09.20	Opening remarks by Dr. Ir. Hally Hanafiah, M.M., CSCA, CSCM, CPLM, FCILT.
09.20 – 09.25	Introduction of the speaker
09.25 – 10.45	Material presentation and Q&A: Introduction to Supply Chain Management
10.45 – 11.15	Interactive games led by the master of ceremonies
11.15 – 11.45	Announcement of game winners and closing
11.45 – 12.00	Refreshment and group photograph

Results

The program was implemented according to the three-hour sequence. It began with opening and ice-breaking, followed by opening remarks and introduction of the resource person. The main session presented an introduction to supply-chain management and its relationship with accounting, followed by questions and answers. Interactive games were used to reinforce the learning atmosphere, after which the winners were announced and the program was closed with refreshments and a group photograph.

The program structure connected conceptual explanation with practical examples and interactive participation. The activity also reinforced coordination between President University, SMK Mitra Industri MM2100 teachers, student coordinators, and the school's operational support team.

Table 3. Budget Realization

Expenditure	Details	Amount
Game prizes for student	5 DANA top-ups x Rp. 50,000.00 and 7 GoPay top-ups x Rp. 50,000.00	Rp. 600,000.00
Refreshment	All activity refreshments	Rp. 93,000.00
Total realized expenditure		Rp. 693,000.00
Budget from the Management Study Program		Rp. 2,000,000.00
Remaining funds		Rp. 1,307,000.00

The first output was documentation of the community service activity in an accountability report. The second proposed output was submission of an article to a Sinta 4 community service journal, such as Kreatif: Jurnal Pengabdian Masyarakat Nusantara, when resources and publication opportunities are available.

Discussion

The program design addressed the direct relationship between logistics information and accounting decisions. Purchasing, transportation, and storage costs affect the cost of goods sold, ending inventory, and operating expenses, while logistics data support inventory valuation and financial reporting (Mulyadi, 2016; Kieso et al., 2022). Presenting these connections to vocational Accounting students provides a practical context for concepts that may otherwise remain abstract.

The use of case discussion and games was intended to represent industrial logistics activities and support applied learning. This approach is consistent with the need for vocational

students to understand not only separate accounting and logistics concepts, but also the cross-functional decisions connecting procurement, inventory, distribution, and financial records.

For the TEFA team, logistics is part of the internal supply chain that connects procurement, production or service activity, distribution, and financial recording. Integrating logistics into the TEFA learning environment can help students recognize the operational and financial consequences of inventory movement and distribution decisions. The program also supported the broader link and match agenda between vocational education and business and industry by contextualizing classroom knowledge within the needs of an industrial region (Ali et al., 2020; ISCEA Indonesia, 2025).

The activity was designed to broaden students' understanding of logistics as a field of study and potential career pathway, while strengthening cooperation between the school and President University. The accountability report did not include a pre-test, post-test, or participant survey; consequently, this paper reports the program design, implementation, financial realization, and documentation without claiming measured learning gains.

Documentation



Figure 1. Opening remarks.



Figure 2. Presentation of the learning material by Dr. Hally Hanafiah.

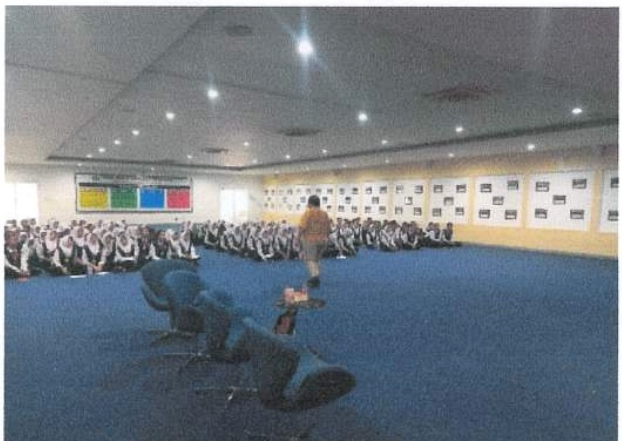


Figure 3. Question-and-answer session.

Conclusions

The community service program applied logistics knowledge to the learning context of Grades X-XI Accounting students and the Tutorial Enterprise Factory (TEFA) team at SMK Mitra Industri MM2100. It translated logistics fundamentals into accounting-relevant topics, including purchasing, transportation, storage, inventory valuation, procurement, distribution, and supply-chain decision-making. The program was delivered through an interactive lecture,

case discussion, questions and answers, and games during a structured three-hour session on 23 June 2026.

Financial accountability recorded an allocated budget of Rp2,000,000, realized expenditure of Rp693,000, and remaining funds of Rp1,307,000. The activity was documented in an accountability report, with a further proposed output of a Sinta 4 community service journal article when publication resources and opportunities are available.

Recommendations

Future implementation should retain the combination of conceptual explanation, applied cases, and interactive games; continue collaboration between President University and SMK Mitra Industri MM2100; and integrate logistics more consistently into Accounting and TEFA learning. The proposed journal publication should be pursued when the required resources and publication opportunity are available.

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