DOI: https://doi.org/10.62985/j.huit_ojs.vol26.no3E.586

DEVELOPING RESILIENT HUMAN CAPITAL THROUGH ENGLISH FOR SPECIFIC PURPOSES (ESP): A STUDY ON THE CAREER ORIENTATION OF ENGLISH MAJORS IN VIETNAM'S LOGISTICS SECTOR

Bui Vu The Duc[1], Nguyen Thu Huyen[2,*]

[1]*Vietnam Aviation Academy*

[2]*FPT University, Greenwich Vietnam, Ho Chi Minh City Campus, Vietnam*

[*]Email: *huyen.gemini206@gmail.com*

Received: 10 April 2026; Revised: 7 May 2026; Accepted: 16 May 2026

ABSTRACT

As Vietnam is becoming more integrated into the global supply chain, the demand for high-quality human capital in the logistics sector has become critical. Projections suggest that by 2030, Vietnam will require approximately 200,000 highly qualified workers; however, only an estimated 4% of the current workforce demonstrates proficiency in professional English. The primary purpose of this study is to explore the role of specialised education in promoting social inclusion, particularly by enabling English language students, traditionally regarded as "non-technical" candidates, to transition into the promising and dynamic logistics industry. A mixed-methods approach is employed, utilising survey data from Business English students at the Vietnam Aviation Academy (VAA) who completed an "English for Logistics" course. Both quantitative and open-ended qualitative responses indicate a significant change in student perceptions: initially, many perceived logistics as a "dry and technical" discipline; through the lens of English for Specific Purposes (ESP), however, they redefined it as a "dynamic and essential" field. Key findings indicate that mastery of industry-specific terminology, such as Incoterms and international shipping documentation, substantially increases students' confidence and their readiness for a career in logistics. Respondents identified explicit professional pathways, including positions such as freight forwarders, logistics coordinators, and documentation staff. The study finds that specialised ESP curricula are fundamental to developing a resilient workforce, ensuring that graduates acquire the linguistic and professional competencies needed for efficient integration into global value chains in the digital era.

Keywords: Human capital, social inclusion, English for logistics, career orientation, English for specific purposes (ESP).

1. INTRODUCTION

The logistics industry in Vietnam, a critical "pivot" for the efficient flow of goods and global market connectivity, is widely distributed across the national economy as a strategic service sector, contributing approximately 5.17% to the country's Gross Domestic Product (GDP) in 2024. In the era of deep international integration and the rapid expansion of cross-border e-commerce, the sector has characterised remarkable growth potential, as reflected in Vietnam's ascent in the World Bank's Logistics Performance Index, rising from 64th in 2016 to 39th in 2018 [1]. Despite global economic instability, the market size is projected to reach 149.9 billion US dollars by 2034, with a constant compound annual growth rate of 6.4% [2].

While market estimates vary, other industry analysts forecast a more conservative but steady growth to USD 42.8 billion by 2034, driven largely by increased manufacturing and the adoption of digital logistics platforms [3]. This expansion is underpinned by a new national strategy to transform Vietnam into a regional logistics hub, supported by notable government investment in mega-infrastructure projects. Key developments include the Long Thanh International Airport, envisioned as an aviation-led growth engine, and the expansion of the Cai Mep - Thi Vai deep-water port system, which is positioned to compete with major international logistics centres in the Asia-Pacific region [4].

According to recent labour market reports, this rapid development has exposed a severe shortage of human capital that threatens the industry's sustainable competitive advantage [5]. While the sector employs nearly 1.2 million workers nationwide, there is a considerable talent crisis characterised by a marked deficit in both expert professionals and proficient labourers [6]. It is forecast that by 2030, the logistics industry will need 2.2 million new workers, including approximately 200,000 highly qualified workers who must fulfil rigid requirements for professional knowledge and English proficiency. However, current training capacity in Vietnam meets only about 10% to 40% of this projected demand [7]. Furthermore, up to 95% of employees in domestic logistics enterprises have not received formal training in the field, primarily operating in low-skilled positions such as warehousing and simple delivery [8].

The principal obstacle to bridging this gap is the critical shortage of personnel proficient in professional English. Research indicates that only about 4% of the current logistics workforce is fluent in professional English, leading approximately 30% of businesses to invest heavily in retraining new hires because of linguistic inadequacies [9]. In a globalised environment where logistics relies heavily on international documentation, Incoterms, and cross-border communication, a weak command of the English language leads to costly errors and operational bottlenecks. For English language majors, traditionally categorised as "non-technical" candidates, this creates both an obstacle and a valuable opening for social inclusion in high-growth technical sectors. As the industry undergoes a digital transformation, the requirement for senior judgment and sophisticated English communication is becoming as essential as technical operational skills [10].

According to modern pedagogical frameworks, the implementation of English for Specific Purposes (ESP) functions as an essential bridge between academic language learning and practical workplace application. ESP training is not merely the acquisition of vocabulary; it is a life-changing process that strengthens students' employability and human resilience by equipping them with the linguistic tools needed to function within complex global supply chains [11]. At VAA, the "English for Logistics" curriculum is designed to replicate real-world scenarios, involving authentic materials such as Bills of Lading and IATA regulations to build professional identity. However, there is a dearth of empirical research exploring how such specialised training influences the career orientation and professional intentions of linguistic students toward the logistics sector. Therefore, this study fills this gap by investigating the determinants of career orientation among Business English students at VAA through a mixed-methods research design.

By integrating quantitative analyses of factors such as self-efficacy and industry attractiveness with qualitative insights into students' perceptual shifts, the research delivers a comprehensive evaluation of how ESP curricula can support resilient human capital. The findings show the key role of intentional curriculum design in facilitating the transition of non-technical graduates into essential roles within Vietnam's digital economy, specifically addressing the intersection of professional readiness and social inclusion.

To achieve the research objectives, this study seeks to answer the following three research questions:

- RQ1: What are the primary latent factors that determine the career orientation of Business English students toward the logistics and supply chain industry in Vietnam?
- RQ2: To what extent does the "English for Logistics" ESP curriculum influence students' self-efficacy and professional intentions?
- RQ3: How do students redefine their professional identity and perceive specific career pathways within the logistics sector following an ESP intervention?

2. LITERATURE REVIEW

2.1. Theoretical Framework

Career Orientation is defined as a complex psychological process that enables individuals to familiarise themselves with and evaluate their suitability for future professional paths. In the Industrial Revolution 4.0, human capital is no longer a static resource but an energetic enabler of organisational resilience and technological governance. To understand how English majors navigate the transition into technical sectors such as logistics, this study integrates two prominent psychological frameworks: the Theory of Planned Behaviour (TPB) and Social Cognitive Career Theory (SCCT).

Ajzen's Theory of Planned Behaviour (TPB), published in 1991, declares that human action is guided by three types of considerations: behavioural beliefs (attitudes), control beliefs (perceived behavioural control), and normative beliefs (subjective norms) [12]. Within this framework, intention serves as the most immediate predictor of behaviour. For university students, the intention to pursue a career in logistics is shaped by their evaluation of the industry's benefits and the perceived pressure from significant others, such as family and peers. Recent empirical evidence from the Vietnamese higher education sector suggests that while social norms remain influential, internal cognitive factors, such as a student's personal interest in global trade, often exert a stronger influence on professional transitions than external social norms [13]-[15].

Complementing the TPB, Social Cognitive Career Theory (SCCT) provides a more granular view of how individual cognitive variables interact with environmental factors to shape career interests and goals [16]. Derived from Bandura's Social Cognitive Theory [17], SCCT emphasises the "triadic reciprocal model of causality" involving personal attributes, external environments, and intentional behaviours [17]. According to Lent et al. [16], the three primary building blocks of SCCT are self-efficacy beliefs, outcome expectations, and personal goals [16].

In this study, SCCT is used to explain how students' confidence in their linguistic abilities (self-efficacy) and their assessment of the benefits of the logistics sector (outcome expectations) converge to form a definitive career goal. This synergy is particularly vital in the digital era, where "Human Resilience" is defined by an individual's ability to adapt their linguistic self-efficacy to meet the demands of automated, cross-border supply chains.

2.2. Determinants of Logistics Career Orientation

2.2.1. Logistics Communication Self-Efficacy

Self-efficacy is depicted as an individual's belief in their ability to manage and execute sequences of actions required to achieve designated goals. It is a central construct in both SCCT and employability literature [18]. Regarding the ESP territory, self-efficacy is task-specific rather than a global trait [19]. According to recent research into linguistic human capital, mastering field-specific registers, such as those used in shipment coordination, customs clearance, and international negotiations, is the primary driver of professional

confidence [19], [20]. Research indicates that when students believe they possess the mandatory tools for professional interaction, they are more likely to pursue challenging roles in global value chains, consequently fostering human resilience in the digital era [20].

2.2.2. Industry Attractiveness and Outcome Expectations

According to the SCCT framework, outcome expectations refer to the personal beliefs regarding the consequences or rewards of performing a specific behaviour. These expectations are often categorised into extrinsic rewards (such as salary and job security) and intrinsic rewards (such as job interest and self-realisation) [13], [21]. In the logistics industry, widely perceived as "dry and technical," industry branding plays a crucial role in attracting diverse talent [22]. For language majors, the attractiveness of the logistics sector is regularly mediated by the cognitive shift that occurs when students move from seeing logistics as simple warehousing to recognising it as a dynamic, technology-driven pillar of the economy. Research on industry branding suggests that potential recruits who perceive high employer brand value in a sector are less deterred by the technical barriers of entry, viewing the career path as a secure investment in their own human capital [22]. Therefore, strategic industry branding, combined with cognitive reframing, can reshape students' outcome expectations, positioning the logistics sector as both a feasible and attractive career pathway for English-language major students.

2.2.3. Social Inclusion and the Role of ESP Education

The integration of non-technical majors into specialised sectors is a key component of "Social Inclusion" in the digital age [23]. For English-language students, inclusion involves addressing the perceived skill mismatch through targeted educational interventions [23], [24]. According to modern pedagogical paradigms, ESP serves as a bridge, enabling linguistic specialists to enter professional fields by connecting academic language skills to vocational demands [24]. By focusing on interdisciplinary knowledge and industry-specific workflows, ESP programs like "English for Logistics" at VAA facilitate a "Resource Gain Cycle": increased academic support leads to enhanced self-efficacy, which ultimately drives career intentions and ensures a more equitable distribution of labour across high-growth industries.

3. METHODOLOGY

3.1. Research Design and Approach

This study adopts a mixed-methods research design, specifically utilising a concurrent triangulation approach to investigate the career orientation of English majors toward the logistics industry [25]. By integrating quantitative survey data with qualitative open-ended responses, the research provides a holistic evaluation of how specialised ESP curricula facilitate the development of resilient human capital. This dual-database approach allows the statistical patterns identified in the quantitative phase to be contextualised and validated by the subjective professional mindsets reported by students [26].

3.2. Participants and Sampling Procedures

The research was conducted at the Vietnam Aviation Academy (VAA), targeting a sample of 102 senior students from the Business English specialisation, who had completed the English for Logistics course. To ensure participants had the necessary academic background to evaluate the curriculum's impact on their career intentions, a purposive sampling technique was utilised. Although sample size recommendations for factor analysis vary, the current sample of 102 fulfils the "Rule of 100," which identifies 100 observations as the practical minimum required to achieve a stable and recognisable factor structure in social science research [27].

3.3. Instrumentation and Data Collection

The primary research instrument consisted of a structured three-part online questionnaire to measure constructs derived from the TPB and SCCT. The survey utilised a 6-point Likert scale (1 = Strongly Disagree to 6 = Strongly Agree) to eliminate neutral midpoint bias and to provide safe or noncommittal answers [27]. The initial instrument comprised 32 items across seven theoretical blocks: Career Intention (B), Industry Attractiveness (C), Self-Efficacy (D), Job Awareness (E), Subjective Norms (F), Perceived Control (G), and Course Impact (H). Following four iterations of Exploratory Factor Analysis (EFA), the scale was refined to 18 items that met the criteria for factor loading (>0.5) and cross-loading avoidance, explaining 80.966% of the total variance. These items were organised into five stable thematic factors:

- Career Intention (2 items): Measuring the plan to apply for logistics roles, adapted from [12].
- Industry Attractiveness (5 items): Assessing outcome expectations regarding salary and growth, derived from [16].
- Communication Self-Efficacy (4 items): Evaluating confidence in professional logistics tasks, adapted from [17] and [16].
- Job Awareness (4 items): Measuring knowledge of entry-level roles, based on [31]
- Course and Peer Impact (3 items): Assessing the combined influence of the VAA curriculum and social validation from peers, synthesised from [12], [15].

Complementing this, the qualitative component included two open-ended questions to capture subjective shifts in perceptions and specific job-role preferences, ensuring a holistic evaluation of resilient human capital development.

3.4. Data Analysis and Refinement Process

The data analysis stage was conducted using IBM SPSS Statistics, following an intensive validation and reduction process. Internal consistency was first evaluated using Cronbach's Alpha, with the initial 32-item scale achieving a coefficient of 0.954, well above the 0.70 threshold for reliability. To ensure structural validity, Exploratory Factor Analysis (EFA) was executed using Principal Component Analysis (PCA) with an orthogonal Varimax rotation [28]. Varimax rotation was applied to produce independent, uncorrelated factors that maximise the interpretability of the career orientation model [29], [30].

The instrument underwent four iterations of EFA to systematically identify and exclude 14 items characterised by low item-total correlations (< 0.3) or significant cross-loadings [27]. The final 18-item measurement model converged into five distinct factors, which serve as the basis for the subsequent analysis [27], [28]. Qualitative data were investigated using thematic content analysis, in which student responses were coded to identify recurring themes regarding the industry's redefinition from "technical" to "essential" [30]. This methodology assures that the findings on social inclusion and human capital readiness are grounded in a statistically robust, conceptually valid framework [25].

4. RESULTS AND DISCUSSION

4.1. Quantitative Results: Scale Validation and Factor Structure

The quantitative phase of this study focused on validating the career orientation instrument and identifying the latent constructs that drive professional intentions among Business English students. Following a systematic data-cleaning process, the final dataset was then subjected to an Exploratory Factor Analysis (EFA) using Principal Component Analysis with Varimax rotation.

4.1.1. Assessment of Sampling Adequacy and Variance

The final EFA iteration demonstrated excellent statistical fit for the 18 retained variables. The Kaiser-Meyer-Olkin (KMO) Measure of Sampling Adequacy was 0.870, significantly exceeding the recommended threshold of 0.60, confirming that the data are highly suitable for factor analysis. Furthermore, Bartlett's Test of Sphericity was statistically significant ($df = 153$, $p < .001$), indicating robust interrelationships among the variables.

The extraction process identified five distinct components with eigenvalues greater than 1.0. Collectively, these five factors explain 80.966% of the total cumulative variance. As illustrated in the Scree Plot (Figure 1), there is a sharp departure from the first five components, followed by a visible "elbow" where the curve flattens. This drop-off confirms that the first five factors capture most of the meaningful information in the data and provide a robust explanation of students' career orientation in the logistics sector.

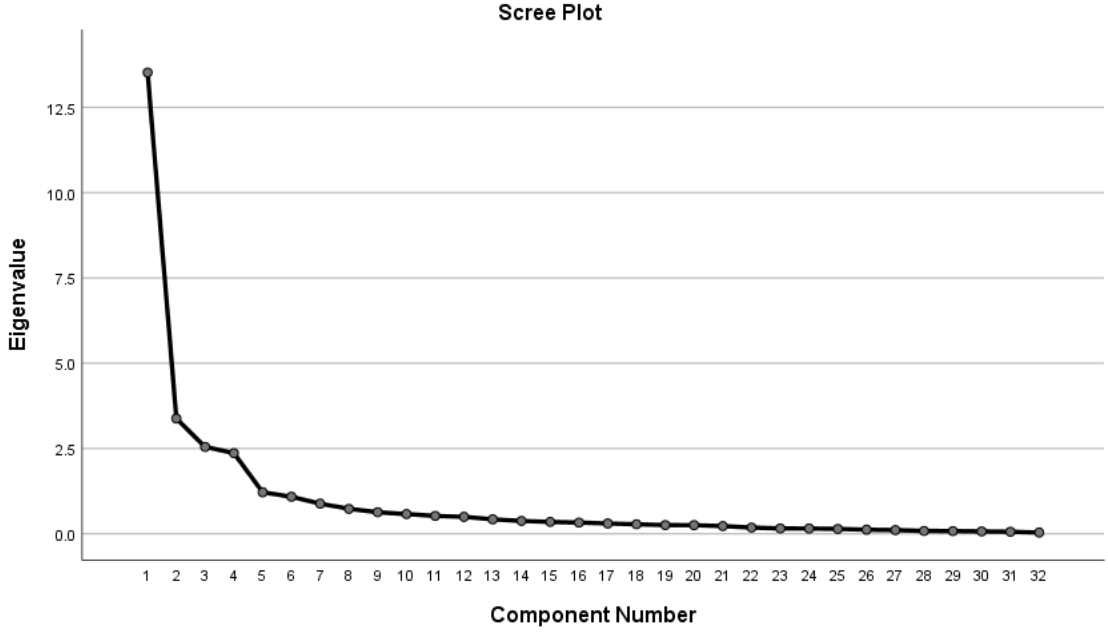

Figure 1. Scree Plot of Eigenvalues for the Logistics Career Orientation Scale.

Source: Own research

4.1.2. Factor Loading and Reliability Analysis

The final Exploratory Factor Analysis (EFA) results, presented in the Rotated Component Matrix, reveal a clean and robust factor structure. All 18 retained items exhibit factor loadings well above the 0.50 threshold for structural significance, ranging from 0.735 to 0.882. Furthermore, the internal consistency of each sub-scale was confirmed using Cronbach's Alpha, with all coefficients exceeding 0.84 (as detailed in Table 1), indicating high reliability and stable measurement properties across all identified constructs.

Table 1. Scale Items and Factor Loadings after EFA

Factor	Items	Measurement Statements	Loading
Career Intention (alpha = 0.899)	B2	I plan to apply for logistics-related positions after graduation.	0.872
	B4	I can imagine myself working in a logistics company in the future.	0.876
Industry Attractiveness (alpha = 0.921)	C1	Logistics jobs offer attractive salaries.	0.824
	C2	Logistics provides strong long-term career growth.	0.882
	C3	Logistics jobs are stable compared to other business fields.	0.786

	C4	Vietnam's logistics sector is expanding and creating more jobs.	0.853
	C5	I find logistics work interesting (coordination, trade, problem-solving).	0.741
Communication Self-efficacy (alpha = 0.918)	D3	I can explain shipment updates or delays clearly in English.	0.835
	D4	I can communicate with foreign partners about export–import tasks.	0.871
	D5	I can handle problem-solving communication in logistics.	0.749
	D6	I feel confident in my English communication for logistics jobs.	0.831
Job Awareness (alpha = 0.908)	E1	I understand common entry-level logistics positions.	0.788
	E2	I know what skills logistics employers expect.	0.768
	E3	I understand basic tasks in freight forwarding and export–import.	0.763
	E4	I know where to find reliable information on logistics jobs.	0.793
Course and Peer Impact (alpha = 0.849)	H2	The course increased my interest in logistics careers.	0.797
	H3	The content is relevant to real logistics job tasks.	0.756
	F2	My classmates think logistics is a promising career.	0.735

Notably, Factor Course and Peer Impact represents a statistical convergence of peer influence (F2) and course relevance (H2, H3), with factor loadings ranging from 0.735 to 0.797. This convergence, supported by a high internal consistency (alpha = 0.849), suggests that within the academic environment of VAA, students do not perceive the ESP curriculum in isolation. Instead, the perceived practical value of the course is inextricably linked to social validation from classmates, creating a unified socio-academic motivational ecosystem.

4.1.3. Regression Analysis Results

A Multiple Regression Analysis was conducted to identify the predictors of Career Intention among English-majored students. The model was statistically significant ($F=11.485$, $p < .001$) and explained 29.3% of the variance in students' career intentions (adjusted $R^2 = .293$). Among the five factors, Job Awareness emerged as the strongest predictor, followed by Industry Attractiveness. Notably, Communication Self-efficacy and Course-Peer Impact did not show a statistically significant effect on intention in this model ($p > .05$). Multicollinearity was not a concern, as all Variance Inflation Factor (VIF) values ranged from 1.464 to 1.986.

Table 2. Multiple Regression Analysis Results

Predictors (Factors)	Unstandardised Beta (ß)	Standardised Beta (ß)	t-value	Sig. (p)
(Constant)	0.664		1.204	0.231
Industry Attractiveness (Mean_C)	0.237	0.205	2.022	0.046*
Communication Self-efficacy (Mean_D)	0.048	0.04	0.365	0.716
Job Awareness (Mean_E)	0.535	0.449	3.817	0.000*
Course and Peer Impact (Mean H)	-0.05	-0.041	-0.348	0.728

**Note: R2 = 0.321; Adjusted R2 = 0.293; F = 11.485; p < 0.001. Significance level: p < 0.05.*

4.2. Qualitative Results: Perceptual Shifts and Career Pathways

The qualitative analysis of open-ended responses provided context to the statistical findings, specifically highlighting the Cognitive Shift experienced by students after the ESP intervention.

4.2.1. Redefinition of Industry Identity

Before the English for Logistics course, most respondents characterised the sector as "dry, technical, and primarily involving warehousing or heavy lifting". However, post-course reflections indicate a transformation in professional identity. Students redefined logistics as a "dynamic, global, and essential" industry that underpins the digital economy. One student highlighted that learning specialised English helped them see logistics not just as "delivery," as they had assumed, but as a professional environment requiring "senior judgment" and "complex problem-solving". This shift is critical for Social Inclusion, as it lowers the psychological barriers for non-technical students to enter specialised fields.

4.2.2. Preferred Professional Pathways

The thematic analysis identified clear professional trajectories that students now feel confident pursuing, reflecting a strategic alignment between their linguistic training and industry needs. Participants primarily identified three roles: Logistics Coordinators, valued for their need for high-level organisational communication; Freight Forwarders, selected by those seeking dynamic international coordination; and Documentation Staff, where Business English majors perceive a significant competitive advantage due to the necessity for absolute linguistic accuracy. Ultimately, the identification of these specific pathways suggests that specialised ESP training does not merely improve language skills but actively constructs a professional roadmap, allowing students to envision themselves as essential contributors to the global supply chain.

4.3. Discussion: Building Resilient Human Capital

The findings reveal a nuanced relationship between ESP education and career orientation. While EFA confirmed that Course Relevance and Peer Influence converged into a single reliable factor, the regression analysis indicated that this factor did not directly drive career intention. This suggests that while the academic environment and peer support provide a conducive learning atmosphere, they are insufficient to trigger a definitive career shift.

Instead, the significant impact of Job Awareness underscores that students are primarily motivated by a concrete understanding of logistics roles and the daily tasks they entail. This aligns with Social Cognitive Career Theory (SCCT), in which career goals are more strongly influenced by specific outcome expectations than by general academic interest alone.

4.3.1. Self-Efficacy as a Catalyst for Inclusion

The high communication self-efficacy scores underscore the transformative power of ESP education. By mastering field-specific registers, such as those used in Incoterms, international shipping documents, and problem-solving communication, students transition from outsiders to legitimate practitioners in the logistics sector. This finding aligns with Social Cognitive Career Theory (SCCT), which suggests that when individuals believe they can perform industry-specific tasks, they are significantly more likely to set ambitious career goals. In the context of Social Inclusion, ESP training serves as the obligatory mechanism that enables linguistic students to overcome the skill mismatch traditionally associated with language degrees in technical markets.

4.3.2. The Synergy of Academic and Social Ecosystems

The merging of course impact and peer influence into Course and Peer Impact suggests that career orientation is not an isolated individual process but a social one. The Resource Gain Cycle, identified in recent research, where academic support increases confidence, which is then reinforced by social norms, appears to be active within the VAA Business English cohort. This synergy is vital for building a resilient workforce. When students perceive an industry as both "attractive" and "socially supported" by their academic community, their "career

adaptability" increases, allowing them to remain competitive amid the rapid shifts of the digital era.

4.3.3. Addressing the Human Capital Void in Vietnam

Only 4% of the current logistics workforce in Vietnam is proficient in professional English. The finding that Business English majors are highly motivated to enter roles such as Logistics Coordinator and Freight Forwarder offers a direct solution to the industry's talent crisis. These students represent a high-quality segment of the $2.2 million workers needed by 2030. The clarity of their "Job Awareness" suggests that intentional curriculum design with strategic, sophisticated, and motivational direction for non-technical students can effectively close the information gap between the education system and the labour market

5. CONCLUSION

This study demonstrates that the "Human Capital" void in Vietnam's logistics sector can be effectively addressed through intentional, interdisciplinary curriculum design. By moving beyond traditional language instruction, the English for Logistics ESP framework investigated at VAA serves as a transformative catalyst, fostering Logistics Communication Self-Efficacy, triggering a profound Cognitive Shift among Business English majors, and promoting social inclusion in the digital age.

The findings indicate that when students perceive a technical industry as both accessible and socially supported, they redefine their professional identity, evolving from non-technical candidates into resilient, high-quality human capital ready for the global supply chain. Qualitatively, the research documents a significant transformation in students' mindsets, shifting from a technical-warehousing stereotype to an essential-global perspective on the logistics industry, which is recognised as the first step toward further investigation into non-technical students' perceptions of technical and engineering career orientation.

5.1. Practical Implications for Higher Education

For educational policy and practice in Vietnam, it is recommended that higher education institutions further integrate technical vocational skills within linguistic programs. Bridging the gap between theory and workplace reality through authentic documentation, industry-driven training, and collaborative needs analysis is essential to ensuring that graduates are not only linguistically proficient but also professionally ready for the complexities of global value chains. Educational institutions should transition from a language-only approach to a Professional Identity Construction model. Curricula must integrate authentic industry real cases, such as digital Bills of Lading and real-world IATA case studies, to build the Senior Judgment required in the 4.0 era. Furthermore, fostering a social validation ecosystem in which, in a positive sense, peer pressure influences and reinforces the prestige of technical careers can significantly enhance the long-term career resilience of linguistic students.

5.2. Implications for Industry and Policy

For the logistics industry, these findings necessitate a shift toward Strategic Industry Branding and a more granular approach to labour market segmentation. Rather than competing in generalist labour markets, which tend to be saturated, companies should collaborate with universities, colleges and academies to reframe the sector's image. For instance, logistics in this study should be redefined from a "technical and labour-intensive" field to a "dynamic and digitally driven" environment. By identifying Business English majors as a high-potential niche talent pool, enterprises can effectively target non-technical candidates who possess both the linguistic agility and sector's specialities required for international operations. This targeted recruitment strategy enables the industry to secure a significant share of highly

qualified workers, transforming a perceived skill mismatch into a sustainable competitive advantage. Ultimately, by bridging the linguistic and professional divide, the logistics sector can pivot from a labour-dependent model to a knowledge-driven ecosystem, ensuring long-term resilience amid global digital transformation.

5.3. Limitations and Future Research

While this study provides a robust evaluation of career orientation, its scope is limited to a single institution, and its sample is small; therefore, the findings should be interpreted within this context. Future research should involve a larger, multi-institutional study and adopt a longitudinal design to enhance generalizability across educational settings in Vietnam. Moreover, expanding the research to include other ESP and English-language students' domains, such as Information Technology, Artificial Intelligence, or Machine Learning, would provide a broader understanding of how ESP can facilitate social inclusion and, in turn, shape new generations' perceptions of technical sectors across Vietnam's entire digital economy.

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