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Developing the Industry Expert Influence Construct for UTAUT Integration: A Systematic Review in Vocational Education Technology Adoption

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Abstract. Amid the accelerated digital transformation of vocational education and training (VET), students often exhibit passive acceptance and authority dependence when using online learning platforms. Although the unified theory of acceptance and use of -technology (UTAUT) is widely applied, its "social influence" construct primarily reflects normative pressure, failing to capture the non-coercive influence exerted by industry experts. This study aimed to conceptually develop and theoretically position a novel construct, Industry Expert Influence (IEI), within the UTAUT framework. Guided by the PRISMA protocol, 27 empirical studies from Web of Science and Scopus (2015–2025) were systematically reviewed. The review revealed that industry experts significantly enhanced students' professional identity, career-driven motivation, self-efficacy, and perceived utility by reinforcing the real-world relevance of learning content. Through hybrid thematic analysis combining deductive and inductive coding, IEI was derived as a novel construct comprising four core dimensions: Expertise, Trustworthiness, Referent Influence, and Rational Influence Strategy. IEI is posited as a critical antecedent of technology adoption, driving behavioral intention by reshaping Performance Expectancy and Effort Expectancy. Future research is recommended to develop a context-specific IEI scale and examine the moderating role of cultural power distance.

Keywords: vocational education; industry expert influence; technology acceptance; UTAUT; systematic literature review

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1. Introduction

In tandem with China's strategic transition from a "demographic dividend" to a "skill dividend" (Central Committee of the Communist Party of China & State Council, 2019), the digitalization of vocational education and the integration of industry and education have been elevated to a national strategy level. Initiatives like China Education Modernization 2035 and the Strategic Action for the Digitalization of Education have accelerated digital infrastructure deployment (Ministry of Education, 2022; Wang et al., 2025). Concurrently, the National Vocational Education Reform Implementation Plan (Ministry of Education, 2019) has mandated integrating industry experts into instruction. This has fostered a collaborative digital ecosystem linking enterprises, colleges, and students (Gao & Wang, 2025; People's Daily Overseas Edition, 2022).

However, despite sustained strengthening of institutional support and technical infrastructure at the macro level, micro-level practices exhibit a complex "implementation gap" (Yang et al., 2023; Ye et al., 2023). Regional investigations reveal significant disparities in the stability of enterprise participation and the quality of expert guidance across different areas (Anhui Provincial People's Government, 2021; Wuhu City Vocational Education Work Department, 2023). More critically, students exhibit a distinct "digitalization paradox" in their technology acceptance behavior.

Despite having access to resource-rich online learning environments, students—who are deeply influenced by traditional Chinese culture emphasizing respect for teachers and high-power distance—tend to use platforms passively under the instruction of teachers or experts, rather than engaging in autonomous inquiry (Cao & Han, 2024; Wang et al., 2025). This "externally driven" usage pattern creates a profound tension with the goals of autonomous learning advocated by digital education.

The unified theory of acceptance and use of technology (UTAUT; Venkatesh et al., 2003) has long been the dominant framework for explaining user adoption of technology. Within this model, Performance Expectancy (PE), Effort Expectancy (EE), and Social Influence (SI) are established as the foundational drivers of user intentions (Venkatesh et al., 2003), a framework that is increasingly applied to analyze learners' behavioral intentions toward online learning platforms (Akbar et al., 2023; Handoko, 2019). While policy mandates to "improve learning efficiency" and "reduce operational burden" align well with PE and EE, respectively (Ministry of Education, 2018; Ministry of Human Resources and Social Security et al., 2022), the model's core construct of Social Influence (SI) presents limitations.

While prior UTAUT extensions have addressed contextual gaps by incorporating hedonic motivation (Tarhini et al., 2017; Venkatesh et al., 2012), none have specifically conceptualized the distinct influence mechanism of industry experts in vocational education. SI typically reflects "compliance with others' requirements" or "external normative pressure" (Venkatesh & Davis, 2000), which fails to adequately explain the non-coercive influence exerted by

"industry experts" in vocational education. Industry experts derive their influence from technical expertise and professional credibility rather than institutional authority (Hanimann et al., 2023; Wang et al., 2025). This represents a qualitatively different influence pathway of cognitive trust, professional identity development, and value internalization that existing SI operationalizations cannot capture (Kelman, 2017; Oliveira et al., 2025). To understand this differentiated mechanism, it is necessary to integrate micro-level theoretical frameworks from social psychology.

Employing a systematic literature review to synthesize empirical evidence from 2015 to 2025, this conceptual study shifts away from empirical model testing, aiming instead to propose and define Industry Expert Influence (IEI) as an independent construct within the UTAUT framework. To provide a transparent roadmap for this theoretical development, the following four core research questions (RQs) are addressed:

RQ1: What specific impacts does industry expert engagement have on learner motivation, learning engagement, and professional identity?
RQ2: What are the key psychological mediating pathways driving these behavioral intentions?
RQ3: What are the core latent sub-dimensions defining the IEI construct based on the synthesized evidence
RQ4: How can the IEI construct be theoretically integrated into the UTAUT framework to explain students' technology adoption behaviors?

2. Literature Review

The IEI construct is theoretically grounded in three complementary frameworks. Social influence theory provides the foundational logic for understanding how external agents shape individual technology adoption decisions, source credibility theory identifies expertise and trustworthiness as the core trait dimensions determining the weight of expert influence and social power theory explains the behavioral mechanisms through which industry experts exercise authority in educational contexts. Together, these frameworks inform the conceptual boundaries and dimensional structure of IEI within the UTAUT context.

2.1 The Socio-Psychological Logic of Influence

Deutsch and Gerard's (1955) foundational distinction between normative and informational social influence offered a critical theoretical lens to differentiate compliance-based pressure from knowledge-driven adoption. The Social Influence construct in UTAUT primarily corresponded to normative influence, where individuals conform to gain approval. In contrast, the role of industry experts aligned more closely with Informational Social Influence—where students, facing task uncertainty, actively accepted suggestions based on the belief that experts possessed accurate industry information (Alslaity & Tran, 2021; McLeod, 2023).

Furthermore, Kelman's (2017) model suggested that while external pressure triggers "Compliance," expert influence is more likely to induce "Identification" and "Internalization," leading students to integrate expert judgments into their own belief systems. Cialdini's (2001) principles of authority and social proof further elucidated how expert status catalyzed trust and attitudinal change. Synthesizing these perspectives, the standard SI construct was deemed insufficient to capture the non-coercive nature of expert guidance, necessitating the proposed IEI construct to explain how informational authority reshapes students' cognitive structures beyond mere social pressure.

2.2 The Credibility Dimensions of Expert Authority

If social influence theory revealed how influence occurred, source credibility theory addressed who could generate it. Source credibility, first conceptualized by Hovland et al. (1951) as comprising Expertise and Trustworthiness, has since been empirically refined and validated across diverse communication contexts (Hanimann et al., 2023). McCroskey and Teven's (1999) three-dimensional model subsequently expanded this framework by adding Goodwill, highlighting the role of perceived benevolent intent in establishing long-term trust. Hanimann et al. (2023) converged on Expertise and Trustworthiness as the two core empirically robust determinants of source credibility.

This two-dimensional framework directly justified the inclusion of Expertise and Trustworthiness as the core trait sub-dimensions of IEI, distinguishing expert influence from generic institutional feedback and grounding it in students' subjective credibility perceptions rather than formal titles. While source credibility theory delineated the internal trait dimensions of IEI, it required integration with social power theory to account for the structural bases through which these traits were exercised.

2.3 The Power Bases of Expert Influence

Social power theory identified distinct bases through which individuals exercised influence over others (French & Raven, 1959). Unlike institutional authorities who typically relied on reward or coercive power, industry experts primarily drew on expert power, rooted in specialized technical proficiency, and referent power, activated when students perceived experts as aspirational models of their future professional selves (Wang et al., 2025). This power configuration positioned industry experts as influential sources capable of shaping students' technology adoption orientations beyond compliance-based pressure.

2.4 Theoretical Differentiation and Boundary of IEI

The three theoretical frameworks reviewed above collectively revealed a gap in existing UTAUT conceptualizations. The conventional SI construct predominantly captured compliance-based normative pressure (Venkatesh & Davis, 2000), failing to account for the credibility-driven and identity-based dimensions of expert influence in vocational education contexts. In vocational systems emphasizing career orientation, industry experts served as critical reference points for students' future professional identities (Merle & Craig, 2017; Ye et al., 2023), and in high power distance cultures, students tended to lean

heavily on expert judgment (Tarhini et al., 2017). These contextual factors collectively indicated the need for a construct that specifically captures expert influence beyond the scope of traditional SI. To address this, IEI was proposed as an independent construct extending the UTAUT framework. A systematic comparative matrix delineating the theoretical boundaries between IEI and UTAUT-SI is presented in Table 1.

Table 1: Comparison between UTAUT Social Influence (SI) and Industry Expert Influence (IEI)

Feature	Social Influence (SI) in UTAUT	Industry Expert Influence (IEI)
Primary Source	Important others (e.g., family, friends, peers)	Industry experts, guest speaker, alumni
Influence Nature	Normative / Subjective Norms	Informational & Referent
Mechanism	Compliance "I use it because others expect me to."	Internalization & Identification "I use it because I trust their expertise and want to emulate their success."
Key Drivers	Social pressure, Group conformity	Professional expertise, Trustworthiness, Career utility
Relevance to Vocational Education	Limited (Students may ignore peer pressure for professional tools)	High (Students seek professional guidance and role models)

3. Methodology

This study employed a methodological approach combining a systematic literature review with hybrid thematic analysis to identify, evaluate, and synthesize empirical evidence regarding industry expert engagement and its influence on students' psychological mechanisms within educational contexts. The literature search and screening procedures followed the PRISMA 2020 guidelines (Page et al., 2021) to ensure transparency and systematic evidence selection.

During the analytical phase, a hybrid deductive–inductive coding strategy was adopted to conduct thematic analysis across the included studies, providing a qualitative foundation for the conceptual development of the Industry Expert Influence construct. In this study, the SLR primarily served as a systematic evidence-collection procedure, whereas construct development emerged through iterative coding, constant comparison, and interpretive synthesis of recurring themes identified across the selected studies.

3.1 Search Strategy

To ensure the quality and comprehensiveness of the data sources, searches were conducted in two authoritative international databases: Scopus and Web of Science (WOS), selected for their extensive coverage and strict indexing

standards, which effectively support systematic reviews in educational technology and social sciences (Mongeon & Paul-Hus, 2016).

Given that Industry Expert Influence is a nascent construct without unified indexing terms, this study followed PRISMA guidelines (Haddaway et al., 2022) and adopted a "Building Block" search strategy (Booth et al., 2016). Through iterative trial searches and synonym expansion, a Boolean logic query was constructed comprising three core semantic modules:

Table 2: Search keywords

Database	Keywords
Scopus and Web of Science	Industry Expert Terms: "industry expert" OR "guest lecturer" OR "guest speaker" OR "industry mentor" OR "visiting professional" OR "external practitioner." Educational Context Terms: "education" OR "vocational" OR "TVET" OR "higher education" OR "university." Mechanism & Outcome Terms: "influence" OR "impact" OR "perception" OR "attitude" OR "trust" OR "credibility" OR "authority" OR "motivation" OR "acceptance."

3.2 Eligibility Criteria

To ensure the included literature precisely addressed the research questions, strict screening criteria were established as seen in Table 3 based on two principles: relevance and methodological quality. Relevance criteria required studies to examine authentic instructional involvement of industry experts or external practitioners, with students as the primary participants. Studies focusing solely on administrative perspectives or technical development without student-level data were excluded.

Methodological quality criteria required empirical studies employing quantitative, qualitative, or mixed methods designs. Studies were assessed based on the clarity of research design, adequacy of reported methodology, and relevance to the conceptual focus of IEI. Specifically, methodological quality was evaluated against three indicators: (1) clarity of research design and data collection procedures, (2) adequacy of participant sampling and reporting, and (3) directness of relevance to student perception of expert influence. Peer-reviewed journal articles published in English between 2015 and 2025 were retained, while editorials, theoretical papers, abstract-only records, and unpublished dissertations were excluded.

Table 3: Inclusion and Exclusion Criteria

Category	Criteria Description
Inclusion Criteria	
Timeframe	Studies were published between January 1, 2015, and December 31, 2025.
Language	Full-text articles written in English.
Participants	The study population comprises students
Topic	The study investigates the actual instructional engagement of industry experts, corporate mentors, or visiting professionals.
Data	The study reports empirical evidence (quantitative, qualitative, or mixed methods) measuring students' psychological mechanisms or learning behavioral outcomes.
Exclusion Criteria	
Type	Editorials, purely theoretical papers, abstract-only conference proceedings, and unpublished dissertations are excluded.
Focus	Studies focusing solely on technical system development (without user/student data) or restricted to instructor/administrator perspectives are excluded.
Access	Studies where the full text is unavailable due to access limitations are excluded.

3.3 Selection Process

The literature selection process adhered to PRISMA guidelines and is illustrated in Figure 1. The initial search yielded 485 records. After automatic deduplication, preliminary title and abstract screening excluded 378 irrelevant records, leaving 107 articles for eligibility assessment. Studies failing to explicitly measure student perception data were further excluded, resulting in 36 articles for full-text review.

Nine articles were subsequently excluded due to inaccessibility or failure to meet inclusion criteria, yielding a final sample of 27 studies. The selection and coding processes were primarily conducted by the lead researcher. To manage potential bias, predefined screening criteria and coding procedures were applied consistently throughout, and ambiguous cases were discussed with a second researcher before final inclusion decisions were made.

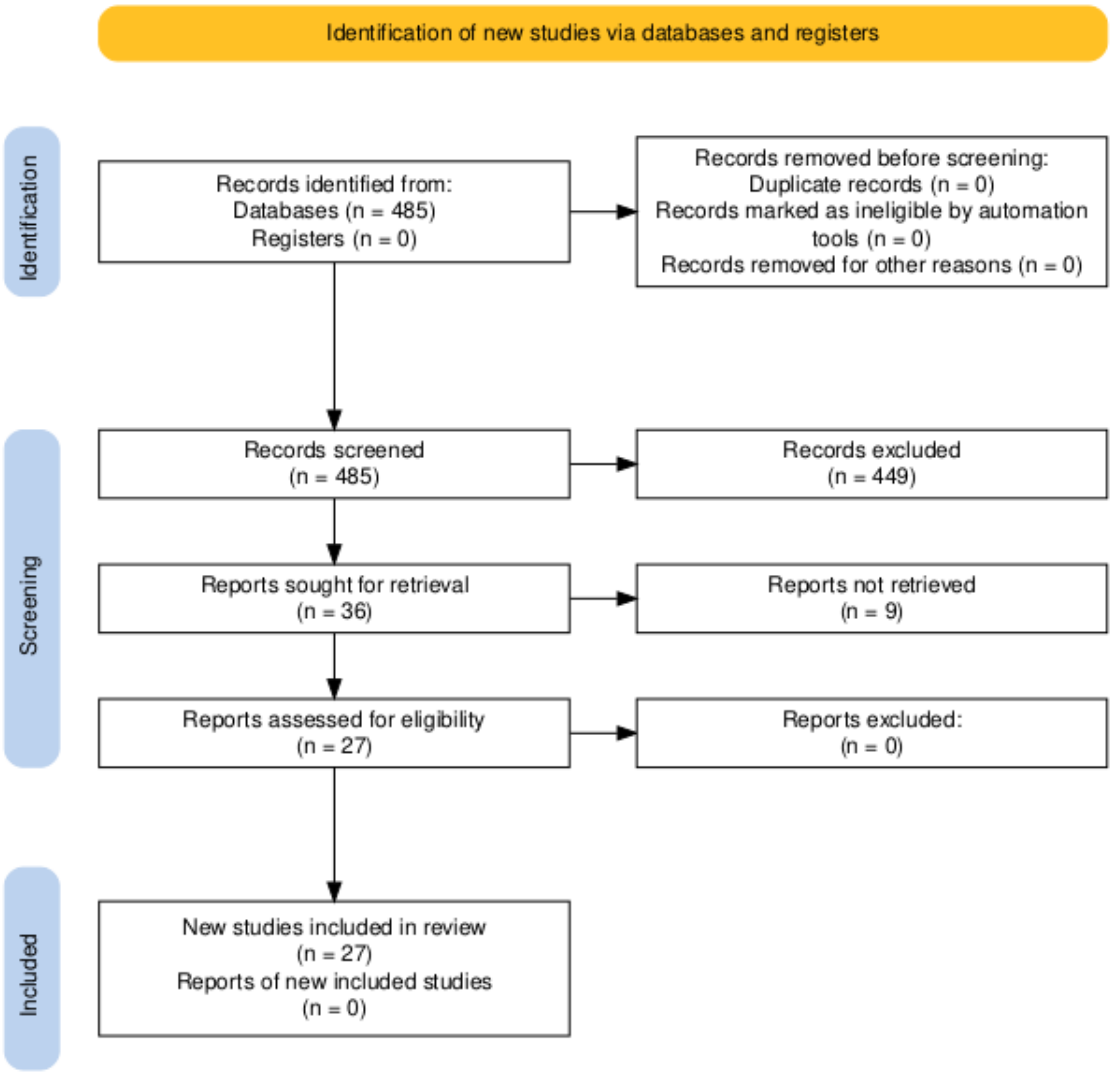

Figure 1: PRISMA Flow Diagram

3.4 Justification of Sample Representative and Saturation

The final sample of 27 studies was considered adequate for conceptual synthesis within this specialized domain. This review focused specifically on the role of industry experts in shaping student perceptions, rather than broader topics such as general online learning or teacher influence, resulting in a highly focused body of empirical literature. All included studies contained micro-level student perception data directly relevant to the construct development process, ensuring the internal validity of the analytical results.

Thematic saturation was observed during data extraction, as illustrated in Figure 2. After reviewing approximately 20 studies, recurring themes such as trust mechanisms and role modeling appeared consistently across the literature, with no substantially new conceptual dimensions emerging thereafter. This indicated that the included studies were sufficient to support stable thematic interpretation and construct refinement.

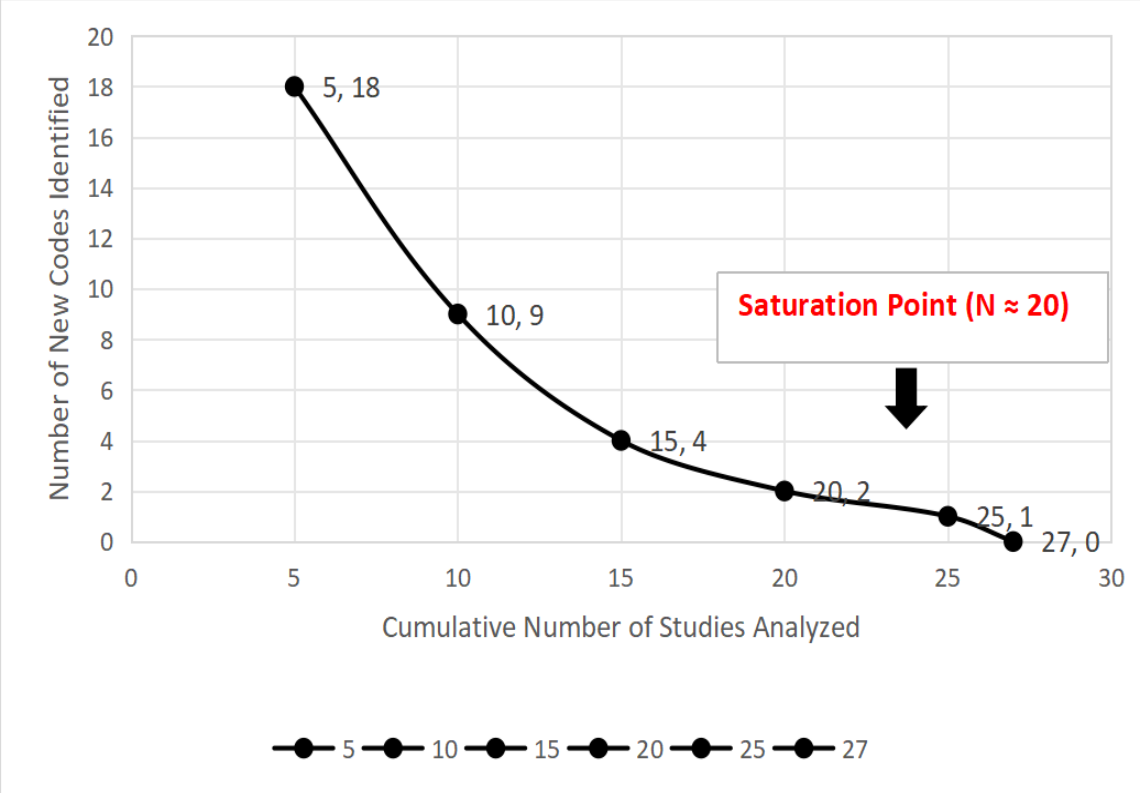

Figure 2: Thematic Saturation Model

3.5 Sample Characteristics and Contextual Applicability

The final selection of 27 studies was predominantly situated within applied higher education disciplines, including engineering, medicine, business management, and hospitality/tourism, with only one study addressing the secondary education level. Although the empirical data in this review originated primarily from applied undergraduate and postgraduate education rather than strictly defined Technical and Vocational Education and Training institutions, this study posited a high degree of isomorphism regarding the "expert-student interaction mechanism" across these contexts.

Whether in engineering education or vocational skills training, the core pedagogical objectives converged on "Work-readiness" and "Professional Identity." In these employment-oriented contexts, industry experts served as "Representatives of Real-world Practice," bridging the gap between academic schooling and industrial demands by demonstrating non-academic practical authority and authenticity. Consequently, these empirical findings from applied disciplines provided support with high ecological validity for constructing the IEI construct within the vocational education context.

3.6 Data Extraction and Coding Analysis

To support construct development, this study employed a hybrid deductive–inductive thematic analysis (Fereday & Muir-Cochrane, 2006). This approach enabled the analysis to be guided by existing theoretical frameworks while remaining open to emergent themes from the data. The coding and analysis process was managed using Microsoft Excel and proceeded in three stages.

Deductive Theoretical Anchoring: Drawing on social power theory, Source Credibility theory, and Social Influence Theory, four priori codes were established to guide the initial analytical framework.

Inductive Evidence Extraction: The researcher conducted a line-by-line review of the "Results" and "Discussion" sections of the 27 included articles. During this phase, the pre-established framework was temporarily bracketed to focus on extracting raw qualitative quotes and quantitative statistics describing student perceptions at the micro-level. These raw data points were assigned descriptive open codes, such as "role modeling by alumni," "authenticity of shared failure stories," or "utilitarian motivation for skill acquisition."

Iterative Mapping and Refinement: Using the constant comparison method, the open codes were iteratively compared and aligned with the theoretical dimensions to refine and consolidate the construct structure.

Table 4: Coding Framework for IEI Development

Construct	Open Codes	Sources	Frequency
Expertise	Knowledgeable / Competent Unique industry perspective / Insider knowledge	Agirre-Basurko et al. (2024); Cadieux et al. (2016); Christensen et al. (2022); Collin et al. (2025); Collins (2019); Craig et al. (2020); Dallas et al. (2024); Emblen-Perry (2022); Gummerson et al. (2021); Hendricks (2025); Houghton et al. (2022); Latorre-Navarro and Meier (2022); Lee and Joung (2017); Malhotra et al. (2023); Matsoso and Benedict (2020); Mavri et al. (2021); Merle and Craig (2017); Morales-Rodríguez et al. (2024); Morra et al. (2022); Murray (2024); Navarro et al. (2021); Thiruchadai Pandeeswari et al. (2022); Quainoo et al. (2024); Raj et al. (2017); Scerri et al. (2020); Scott et al. (2021); Zheng et al. (2018)	27 / 27 (100%)
Trustworthiness	Honesty / Sharing failures Real-time interaction / Safety	Agirre-Basurko et al. (2024); Cadieux et al. (2016); Christensen et al. (2022); Collin et al. (2025); Craig et al. (2020); Dallas et al. (2024); Hendricks (2025); Houghton et al. (2022); Matsoso and Benedict (2020); Mavri et al. (2021); Merle and Craig (2017); Morales-Rodríguez et al. (2024); Morra et al. (2022); Navarro et al. (2021); Quainoo et al. (2024) ;Raj et al. (2017); Scerri et al. (2020); Zheng et al. (2018)	18 / 27 (66.7%)
Referent Influence	Inspiration / Role modeling Professional identity / Career identification	Agirre-Basurko et al. (2024); Cadieux et al. (2016); Christensen et al. (2022); Collin et al. (2025); Collins (2019); Craig et al. (2020); Dallas et al. (2024); Emblen-Perry (2022); Gummerson et al. (2021); Hendricks (2025); Houghton et al. (2022); Latorre-Navarro and Meier (2022); Lee and Joung (2017); Malhotra et al. (2023); Matsoso and Benedict (2020); Mavri et al. (2021); Merle and Craig (2017); Morales-Rodriguez et al. (2024); Morra et al. (2022); Murray (2024); Navarro et al. (2021); Quainoo et al. (2024); Scerri et al. (2020); Zheng et al. (2018)	24 / 27 (88.9%)
Rational influence strategy	Professional connection / Career entry Cognitive belief change / Informed decision	Agirre-Basurko et al. (2024); Cadieux et al. (2016); Christensen et al. (2022); Collin et al. (2025); Collins (2019); Craig et al. (2020); Dallas et al. (2024); Emblen-Perry (2022); Gummerson et al. (2021); Hendricks (2025); Houghton et al. (2022); Latorre-Navarro and Meier (2022); Lee and Joung (2017); Malhotra et al. (2023); Matsoso and Benedict (2020); Mavri et al. (2021); Merle and Craig (2017); Morales-Rodríguez et al. (2024); Morra et al. (2022); Murray (2024); Navarro et al. (2021); Thiruchadai Pandeeswari et al. (2022); Quainoo et al. (2024); Raj et al. (2017); Scerri et al. (2020); Scott et al. (2021); Zheng et al. (2018)	27 / 27 (100%)

4. Results and Findings

Guided by the coding framework mentioned previously, this section presents the main findings of the systematic review. After a descriptive statistical overview of the current state of research, empirical evidence was synthesized into different themes to explore the specific influence of industry experts (RQ1), the underlying psychological mechanisms (RQ2), and the core influence dimensions (RQ3). These findings collectively provided an empirical foundation for the formal construction of the concept of Industry Expert Influence (IEI) and the development of a theoretical research model (RQ4), which is elaborated in Section 5.

4.1 Descriptive Analysis

The temporal distribution of the included literature indicated a generally active trend in research activity post-2020, albeit with notable volatility as seen in Figure 3. Specifically, publications were sporadic between 2016 and 2019, followed by a significant surge in volume after 2020. The data exhibited a bimodal distribution pattern: an initial peak was reached in 2022 (n=6), followed by a transient decline in 2023 (n=1) and a subsequent rebound in 2024 (n=5). Overall, the average publication volume in the post-pandemic era (post-2020) substantially exceeded that of the pre-pandemic period.

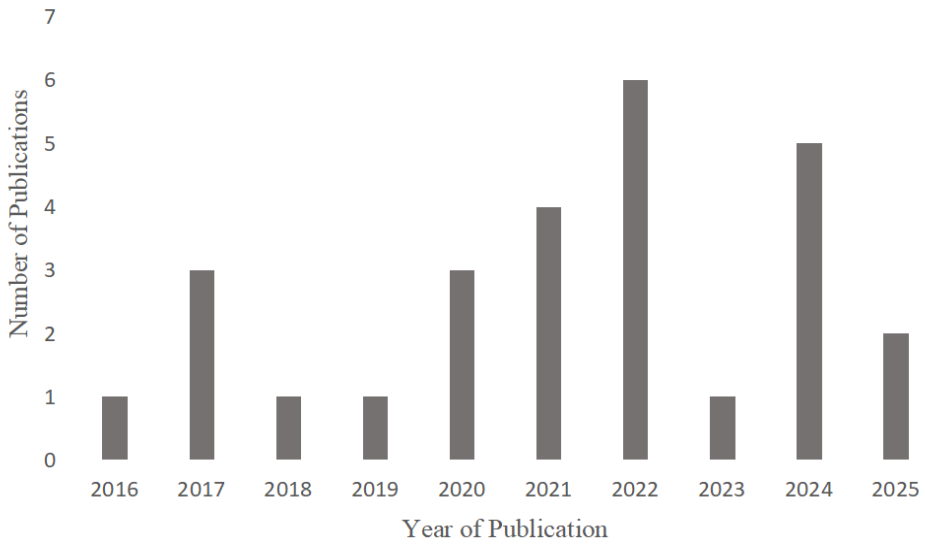

Figure 3: Distribution of the included studies by year of publication (2016–2025)

Geographically, the sample revealed a predominance of studies from developed Western nations, with a notable concentration in the United States and the United Kingdom, collectively accounting for 16 articles (59%) as shown in Table 5. While empirical representation from Asian and African regions was limited, the gathered evidence stemmed primarily from mature vocational and technical education systems. Furthermore, the tracked modalities of industry expert engagement exhibited a high degree of diversity, ranging from short-term

interventions such as guest lectures to medium-term project-based coaching and long-term industry mentorship.

Table 5: Distribution of Studies by Geographic Location and Education Level

Country / Region	Undergraduate	Graduate / Postgraduate	Secondary (K-12)	Total
USA	8	4	0	12
UK	3	1	0	4
Australia	2	0	0	2
India	2	0	0	2
Spain	1	0	0	1
Canada	1	0	0	1
South Africa	1	0	0	1
Mexico	1	0	0	1
Sweden	0	1	0	1
Cyprus	1	0	0	1
Multi-country (Europe)	0	0	1	1
Total	20	6	1	27

Note: One study (Houghton et al., 2022) involved secondary schools across the UK, Finland, Spain, and Hungary.

As shown in Figure 4, the selected studies were evenly distributed across research methodologies, with nine studies each for quantitative, qualitative, and mixed methods approaches. Regarding publication venues, a cross-tabulation revealed that quantitative studies were predominantly published in journals (8/9), whereas mixed-methods research appeared with higher frequency in conference proceedings (5/9).

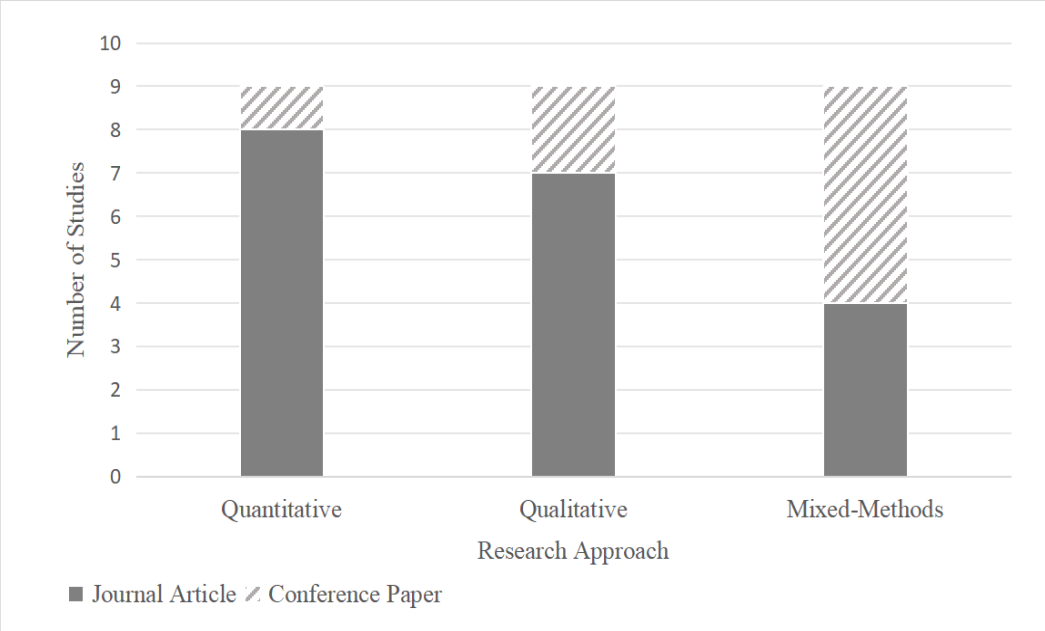

Figure 4: Distribution of research approaches by publication type

4.2 Dimensions and Mechanisms of Industry Expert Influence

Based on the thematic analysis, this section synthesizes the empirical evidence to address the impacts (RQ1), psychological mechanisms (RQ2), and core dimensions (RQ3) of industry expert engagement. The analysis identified four distinct dimensions: Expertise, Trustworthiness, Referent Influence, and Rational Influence Strategy.

Expertise: This dimension referred to the learner's cognitive perception of the expert's specialized knowledge capability. The synthesis identified two key sub-themes: Knowledgeable/Competence and Unique Industry Perspective. First, the gathered data indicated that students prioritized functional competence above other traits. As reported by Craig et al. (2020), students rated "knowledgeable" (M=4.62) as the most critical attribute, suggesting that expert authority may be partly rooted in subject-matter mastery. Second, unlike traditional academic instructors, industry experts frequently offered a unique industry perspective. Zheng et al. (2018) highlighted that experts provided "a beamline scientist's perspective on their own field," sharing tacit knowledge that "could never be shared in any of the publications."

Trustworthiness: This dimension captured the psychological safety and authenticity experienced by students. The coding process revealed two sub-themes: Honesty/Authenticity and Real-time Interaction/Safety. Regarding Honesty (Authenticity), the evidence suggested that students valued transparency over idealized success narratives. Navarro et al. (2022) found that students request an "honest approach," where experts present not only advanced skills but also "common pitfalls (failures)." This vulnerability appeared to render the experts more relatable. Additionally, real-time interaction tended to create a sense of psychological safety. Raj et al. (2017) and Morra et al. (2022) noted that communicating with a "live person" who could answer questions immediately "made students feel safer."

Referent Influence: This dimension captured the motivational power of role modeling. The sub-themes identified were Inspiration/Role Modeling and Professional Identity. Through Role Modeling, experts served as tangible examples of future success. Mavri et al. (2021) quoted a student stating, "I would like to be like him... It was inspirational," indicating that experts triggered a desire for emulation. This process fostered Professional Identity. Gummerson et al. (2021) reported that 57% of students felt that expert interaction "increased their likelihood of choosing a career" in the specific field.

Rational Influence Strategy: This dimension involved persuasion based on logic and professional alignment. The analysis pointed to Professional Connection and Cognitive Belief Change as core sub-themes. Experts provided a clear Professional Connection; Matsoso and Benedict (2020) indicated that expert insight into job descriptions gave students "the ability to connect with their employers at a professional level," validating the practical necessity of specific skills. Furthermore, experts frequently drove Cognitive Belief Change through evidence-based logical persuasion rather than emotional appeal. Morra et al.

(2022) demonstrated that expert intervention led to a statistically significant increase ($p<0.05$) in students perceiving protocols as "safe and effective."

5. Discussion

Building on the empirical findings presented in Section 4, this section addresses RQ4 by constructing Industry Expert Influence as an independent conceptual framework and integrating it systematically into the baseline UTAUT ecosystem. By synthesizing cross-study empirical data through established theoretical lenses, this section defines the operational connotation of IEI and proposes advanced theoretical propositions regarding its potential to guide technology acceptance.

5.1 Constructing IEI: Definition and Dimensions

Synthesizing the gathered literature, this study defined Industry Expert Influence (IEI) as a practitioner-derived informational force that guides students' technology acceptance through personal identity projection and value alignment, operating through internal conviction rather than outward normative compliance. Unlike the generalized Social Influence in the baseline UTAUT model, which often implied peer pressure or institutional mandates, IEI provided a multi-dimensional construct comprising four distinct factors.

5.1.1 Expertise:

This study conceptualized Expertise as the perceived validity signal of industry relevance rather than mere technical proficiency. Rooted in source credibility theory, Expertise represented the market value of knowledge for vocational students. Empirical evidence indicated that students regarded experts' knowledge as exclusive cognitive authority (Craig et al., 2020; Zheng et al., 2018). Within the IEI construct, Expertise appeared to function as a mechanism that reduced students' cognitive uncertainty regarding a technology's utility by offering a high-quality market endorsement (Hendricks, 2025; Scerri et al., 2020).

5.1.2 Trustworthiness:

Within the IEI framework, Trustworthiness captured learners' perception of expert benevolence and authenticity, functioning as a psychological safety net for technical learning. Distinct from the evaluative distance maintained by academic assessors, this dimension is centered on non-evaluative support. The reviewed evidence indicated that by cultivating a safe interactive atmosphere (Agirre-Basurko et al., 2024; Raj et al., 2017) and transparently sharing real-world workplace failures (Navarro et al., 2022), experts appeared to lower the perceived risks of experimentation (Quainoo et al., 2024). Consequently, Trustworthiness may have assisted in transitioning the learning environment from an anxiety-inducing context toward relationship-based technical support (Christensen et al., 2022; Dallas et al., 2024).

5.1.3 Referent Influence:

Drawing on social power theory, Referent Influence operated through identity projection, where the expert served as a tangible embodiment of the student's future professional self. This dimension captured a desire for professional identity assimilation rather than simple admiration. This role modeling

appeared to trigger a personal identification mechanism (Scott et al., 2021) rather than forced compliance. Vocational learners showed a tendency to adopt expert recommendations by interpreting the practitioner's behavior as an achievable template for career success (Gummerson et al., 2021; Mavri et al., 2021).

5.1.4 Rational Influence Strategy:
This dimension emphasizes the quality and logical structure of information content. In vocational environments, experts frequently utilized rational persuasion by deploying industry data and case studies to clarify skill necessities (Matsoso & Benedict, 2020). Learners appeared to accept this influence because practitioners provided transparent career utility logic, including employability and salary prospects. This evidence-based alignment may have rationalized technology adoption behaviors through structured informational support (Latorre & Meier, 2022; Thiruchadai Pandeeswari et al., 2022).

In summary, the four dimensions of IEI described the interactive dynamics between experts and students. Expertise and Trustworthiness defined the structural attributes of the information source, while Referent Influence and Rational Influence Strategy constituted the operational pathways through which expert influence was translated into student acceptance.

5.2 Theoretical Hypothesis
To integrate IEI into the conceptual baseline of technology acceptance, this study advanced four theoretical propositions for future quantitative verification, grounded in the synthesized empirical findings and theoretical logic as seen in Figure 5.

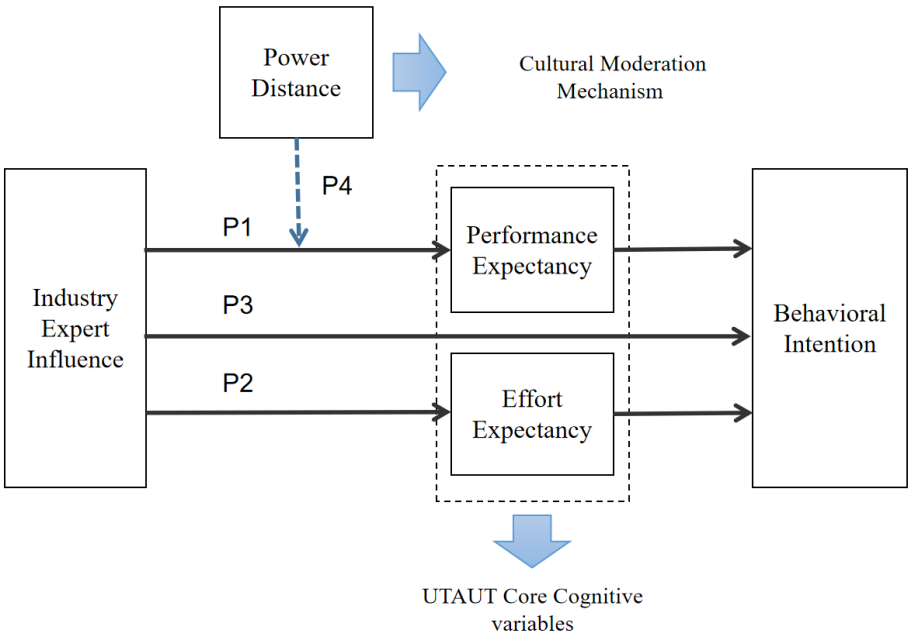

Figure 5: The Integrated IEI-UTAUT Proposed Conceptual Framework

Note: IEI = Industry Expert Influence; PE = Performance Expectancy; EE = Effort Expectancy; BI = Behavioral Intention; PD = Power Distance. The model posits that IEI serves as a key antecedent in the TVET context, influencing BI through both cognitive mediators (PE, EE) and a direct heuristic path. Power Distance is hypothesized to positively moderate these relationships (P1-P4).

Proposition 1: Within the vocational education context, Industry Expert Influence exhibits a positive association with learners' perceptions of technology usefulness, potentially enhancing their Performance Expectancy (PE).

Grounded in signaling theory and its contemporary extensions regarding employer evaluation frameworks (Anderson & Tomlinson, 2021; Spence, 1978), industry experts may function as external screening criteria for the labor market. Their endorsement appeared to reduce information asymmetry regarding whether a technical tool was vocationally useful. The synthesized data indicated that students relied on cognitive authority to evaluate the professional validity of technology (Craig et al., 2020; Zheng et al., 2018). Consequently, when students perceived a high level of expert expertise, they tended to internalize the practitioner's approval as an affirmation of the platform's professional value, suggesting a propensity to elevate Performance Expectancy.

Proposition 2: Within the vocational education context, Industry Expert Influence exhibits a positive association with learners' perceptions of technology accessibility, potentially enhancing their Effort Expectancy (EE).

Based on social learning theory (Bandura, 1977), the demonstration effects of experts provided learners with vicarious experience, which served to lower trial-and-error costs. The synthesis suggested that by sharing operational failures and offering non-evaluative guidance, experts act as a form of cognitive scaffolding (Navarro et al., 2022) while fostering an interactive climate of psychological safety (Raj et al., 2017). This trust-building mechanism appeared highly likely to mitigate technology-related anxieties. Therefore, higher perceived IEI led students to subjectively view a complex system as more manageable, thereby positively supporting their Effort Expectancy.

Proposition 3: Within the vocational education context, Industry Expert Influence exhibits a propensity to directly and positively influence learners' Behavioral Intention (BI) to utilize a technology.

Grounded in Kelman's (2017) framework of social influence processes, IEI was hypothesized to operate through an identity-based path in addition to standard cognitive valuations. Because industry experts embodied the professional projection of the student's future career self (Scott et al., 2021), this identification process, paired with benevolence-based trust transfer (Scerri et al., 2020), may prompt learners to form usage intentions independent of perceived ease of use. This direct path, rooted in emotional and professional identification, provided a plausible explanation for why vocational students may persist in utilizing a technology even when perceiving it as challenging.

Proposition 4: The positive relationship between Industry Expert Influence and learners' Performance Expectancy is likely to be positively moderated by Cultural Power Distance.

Macro-cultural context served as an essential boundary condition for technology acceptance models. In high distance cultures, subordinates and students showed a stronger reliance on recognized authority figures to define performance value and operational importance. According to established cultural frameworks (Hofstede, 2011) and their extended technology acceptance applications in developing educational environments (Tarhini et al., 2017), expert professional endorsements were assigned greater contextual weight in high-PD societies.

Therefore, when an industry expert validated technology, students in high PD cultures were expected to develop a stronger sense of Performance Expectancy than those in low PD cultures. Conversely, this moderating effect was anticipated to be less prominent for Effort Expectancy, as ease of use was determined primarily by individual technical skills and system design rather than authoritative validation.

6. Conclusion

Through a systematic literature review of 27 empirical studies, this research conceptualized Industry Expert Influence (IEI) as a distinct theoretical construct to address a recognized gap in technology acceptance research within vocational education. The synthesis suggested that IEI may be understood as a multi-dimensional framework comprising Expertise, Trustworthiness, Referent Influence, and Rational Influence Strategy, offering a tentative basis for distinguishing specialized professional authority from generalized social influence within the UTAUT model.

The primary theoretical contribution of this study was the proposal of IEI as an independent construct extending the UTAUT framework, grounded in social influence theory, source credibility theory, and social power theory. The proposed framework indicated potential pathways through which expert interactions may enhance performance valuations and support usage intentions via signaling effects and trust transfer in career-oriented educational contexts.

Practically, educational managers may consider front-loading expert interventions to activate students' motivational willingness, while platform designers could integrate verified expert endorsements to make professional authority more visible within digital learning environments. Nevertheless, this study was bound by its reliance on systematic review methodology and lacked direct empirical testing. Future research should therefore prioritize developing a dedicated psychometric IEI scale and deploying structural equation modelling to verify the proposed path coefficients across large-scale student samples. Longitudinal designs are also recommended to monitor the potential long-term effects of practitioner-led interventions on students' professional habit formation.

Conflict of Interest
The authors declare no potential conflicts of interest with respect to the research, authorship, and publication of this article.

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