INTERNSHIP AS ORGANIZATIONAL STRATEGIES: TALENT, TACIT KNOWLEDGE AND IDENTITY WORK IN MALAYSIA'S PRINTING INDUSTRY

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Abstract. This paper investigates how managers in Malaysia's printing industry construct expectations of student interns and describe supervision, skill development, and cultural learning within placements. It addresses two questions: (RQ1) how managers frame interns' roles and value; and (RQ2) how supervision practices mediate learning, identity formation, and cultural socialisation. A qualitative, interpretivist design was employed, using reflexive thematic analysis of semi-structured interviews with five senior supervisors across established printing firms. Documentary sources (e.g. training manuals and university rubrics) provided contextual triangulation. Analysis followed Braun and Clarke's six phases, with attention to reflexivity, audit trails, and credibility criteria. Five themes were developed. Internships were framed as hiring trials, privileging evaluation and risk management; harnessed creativity within constraints, welcoming "fresh ideas" while limiting autonomy; mastery of tacit craft, emphasising judgement, quality, and embodied know-how; symbolic labour for reputational repair, positioning interns as ambassadors for a "niche" sector; and hybrid professionalism, balancing automation with human discretion. Across themes, learning was acknowledged yet often subordinated to organisational imperatives. Managers' preferences for longer placements appeared to diverge from university cycles, and supervision was narrated more as monitoring than mentoring. Recommendations include: (1) align placement duration with evaluative needs while protecting students' developmental aims; (2) embed structured mentoring, feedback, and reflective tasks to support tacit learning; (3) co-design expectations and assessment with universities to reduce mismatch; and (4) make cultural and identity work explicit: preparing interns for reputational dynamics while ensuring fair workload, compensation, and progression. By focusing on a lower-status, technically intensive sector, the study extends internship scholarship beyond generic employability. It highlights internships as organisational, pedagogical, and cultural projects; sites where tacit craft is transmitted, reputations are repaired, and hybrid forms of professionalism are rehearsed. The analysis refines debates on placements as pipelines by theorising their symbolic and identity-forming functions.

Keywords: *internships, tacit knowledge, supervision, hybrid professionalism, identity work, printing industry*

Introduction

Industrial placements are central to professional education, especially in engineering and technical disciplines. They are widely viewed as a bridge between classroom learning and workplace practice, enabling students to apply knowledge, develop industry-relevant skills, and form professional identities. Policymakers and employers link placements to employability, recruitment, and workforce readiness. Yet internships are not neutral; they are negotiated spaces where students, universities, and supervisors balance differing expectations, skills, and cultural practices. Studies show that placements can foster significant learning, though quality varies. Zehr and Korte (2020) found that engineering students often began placements with unclear expectations, relying on informal networks rather than systematic preparation. Supervisors viewed placements as recruitment tools but struggled to assign meaningful tasks. Azmi et al. (2020) identified a structural misalignment: universities focused on short-term,

accreditation-driven arrangements, while employers preferred extended, project-based learning. Such findings suggest that placements are shaped by institutional priorities rather than shared pedagogical aims. Internships extend beyond technical training. Employers increasingly value communication, teamwork, and adaptability. Paknejad (2016) found that technology executives prioritised presentation and leadership skills alongside technical competence. Wang et al. (2025) reported that Chinese postgraduate students identified teamwork and time management as key benefits, though they were dissatisfied with pay and conditions. Placements thus serve as multifaceted learning sites, combining technical and social learning.

Supervision and mentorship strongly mediate these experiences. Goldsmith and Trede (2024) identified supervisory styles from transactional to mentoring approaches, noting limited reflection on supervisors' own learning. Using a job demands–control–support model, Goller et al. (2020) showed that social support predicted collaborative learning. Supervision therefore represents not only task allocation but also a structured space for feedback and theory–practice integration. Research on placements has largely focused on mainstream engineering and manufacturing, neglecting sectors such as printing, which faces rapid technological change. This gap is significant: printing combines technical production and design practices while confronting challenges of digitalisation and university–industry alignment. Existing research typically privileges either student (Wang et al., 2025; Goller et al., 2020) or employer perspectives (Goldsmith and Trede, 2024; Paknejad, 2016), rarely examining their intersection.

Malaysian studies highlight the sector's hybrid nature and alignment challenges. Firms navigate between offset and digital paradigms, with adaptation hindered by equating progress with machinery upgrades rather than process learning. Post-pandemic analyses show resilience in packaging and niche markets but persistent skill gaps (Masod and Zakaria, 2024; 2023). This literature underscores the need to study placements where industrial and educational transitions intersect. Industrial training in Malaysia is compulsory under the Malaysian Qualifications Framework (MQA, 2020), requiring at least three months of workplace learning for undergraduate programmes in creative and technical arts. The Guidelines to Good Practices: Work-Based Learning (MQA, 2016) position employers as co-educators responsible for supervision and authentic assessment. Understanding internship practice in the printing sector is thus both a policy and pedagogical imperative.

This study investigates printing-sector placements through reflexive thematic analysis of industry accounts. By foregrounding employer perspectives, it explores how expectations, supervision, and skill development are co-constructed across institutions. It views internships as relational learning environments shaped by negotiation, structure, and power. The study extends placement scholarship to an underexplored sector and conceptualises internships as spaces of co-constructed learning and professional identity formation.

Internships as learning environments

Internships are experiential learning spaces where students move between academic and workplace settings. They may be examined through lenses such as expectations, learning processes, skills, supervision, culture, and structure, which serve as analytic tools rather than fixed categories (Braun and Clarke, 2021). Placements are therefore multi-level processes in which supervisory practices and student agency jointly shape learning (Omanović and Langley, 2025).

Expectations and preparedness

Expectations strongly influence outcomes. Zehr and Korte (2020) found that engineering students often entered internships with little preparation, while supervisors expected productivity but offered limited guidance. Azmi et al. (2020) noted similar misalignments in Malaysia, where universities prioritised accreditation and employers favoured long-term projects. Students desired clearer preparation and career direction (Wang et al., 2025). Cross-national studies show how expectations vary. In South Africa, financial and institutional barriers left 91 per cent of NATED students without required work-integrated learning (Nogcantsi and Mbatha, 2025). Indian managers in 20-week placements expected project delivery, absorbing half of interns (Patil et al., 2025). Ghanaian managers viewed interns as low-cost labour and recruitment prospects (Arthur and Koomson, 2024). Expectations are thus contingent on programme design, funding, and context.

Learning processes and mechanisms

Learning during placements occurs through interaction, feedback, and reflection. Zehr and Korte (2020) found that trial-and-error and mentoring shaped student learning, while isolation correlated with poor outcomes. Goldsmith and Trede (2024) reported that supervisors often treated learning as "learning by doing," neglecting structured reflection. Goller et al. (2020) showed that supportive but demanding tasks fostered learning, whereas excessive autonomy was counterproductive. Comparable evidence from Sweden, India, and Australia highlights structured and scaffolded approaches: staged review checkpoints, mentoring, and embedded experimentation (Omanović and Langley, 2025; Patil et al., 2025; Hearn et al., 2023). Collectively, these findings indicate that learning depends on supervision quality and opportunities for guided experimentation.

Skills development

Studies consistently show that employers value both technical and soft skills. Paknejad (2016) emphasised software expertise but also teamwork and communication. Azmi et al. (2020) as well as Zehr and Korte (2020) found that students often reported stronger gains in interpersonal than technical skills. Wang et al. (2025) confirmed that teamwork and time management ranked highest among perceived outcomes. Across contexts, soft skills underpin employability. Ghanaian interns highlighted adaptability and communication (Arthur and Koomson, 2024); South African interns without placements reported lower confidence (Nogcantsi and Mbatha, 2025). Long placements in India enhanced teamwork and critical thinking (Patil et al., 2025).

Supervision and mentorship

Supervision quality consistently shapes outcomes. Zehr and Korte (2020) observed that supervisors rarely had formal training. Goldsmith and Trede (2024) described a continuum from micromanagement to mentorship but noted limited self-reflection. Goller et al. (2020) linked collaborative learning to social support, while Wang et al. (2025) reported students' calls for patience and structured mentoring. Evidence from other settings reinforces this. Inclusive managerial practices supported refugee

integration in Sweden (Omanović and Langley, 2025); co-evaluations formalised supervision in India (Patil et al., 2025). Mentorship in Ghana and Australia promoted experimentation and identity formation (Arthur and Koomson, 2024; Hearn et al., 2023). Mentorship thus shapes both skills and professional culture.

Workplace culture and structural conditions

Internships also socialise students into workplace cultures. Zehr and Korte (2020) described how interns learned organisational norms, while Paknejad (2016) emphasised etiquette and diversity. Some Malaysian cases involved exploitation (Azmi et al., 2020). Goldsmith and Trede (2024) found that paid internships mirrored employment logics, whereas unpaid ones were framed as mentoring. Students valued fair pay and conditions (Wang et al., 2025). Cross-national data show that integration requires support. Refugee interns in Sweden and students in South Africa navigated structural and identity tensions (Nogcantsi and Mbatha, 2025; Omanović and Langley, 2025). In Ghana and Australia, placements enhanced confidence and promoted innovation (Arthur and Koomson, 2024; Hearn et al., 2023). Workplace culture therefore requires deliberate scaffolding.

Duration and structure

Placement duration significantly affects learning. Azmi et al. (2020) found that Malaysian employers preferred six-month placements, while universities limited length to reduce risk. Similar patterns appear in the United States (Paknejad, 2016). Goller et al. (2020) noted that short placements constrained learning, and Wang et al. (2025) reported conflicts with academic timetables. Longer placements improve outcomes: 21-week programmes in India enhanced employability (Patil et al., 2025); six-month placements in Ghana raised income (Arthur and Koomson, 2024). Underfunded work-integrated learning in South Africa hindered graduation (Nogcantsi and Mbatha, 2025). Duration thus shapes credibility and workforce alignment. Existing studies on industrial placements often privilege either student perspectives (Wang et al., 2025; Goller et al., 2020) or employer and supervisor accounts (Goldsmith and Trede, 2024; Paknejad, 2016), with limited integration of how these perspectives intersect in practice. Moreover, research has tended to frame technical and soft skills as distinct rather than interdependent, and to focus on sectors such as engineering and manufacturing while neglecting industries like printing. This study addresses these gaps by examining how managers in the Malaysian printing sector construct and interpret internships as spaces where organisational, pedagogical, and cultural logics converge. Specifically, it investigates: (1) how managers construct expectations of student interns, and (2) how they describe supervision, skill development, and cultural learning within placements.

Materials and Methods

This qualitative study employed an interpretivist design using reflexive thematic analysis (TA) (Braun and Clarke, 2019; 2006). Interpretivism assumes that realities are socially constructed and context-dependent; accordingly, the study explored how supervisors in the Malaysian printing sector made sense of internships rather than seeking generalisable truths. Researcher subjectivity was treated as a resource shaping and shaped by interpretation. Reflexive TA was selected for its flexibility and its

alignment with the aim of theorising learning across institutional boundaries. It facilitated engagement with participants' meanings without pre-determined coding frames, generating interpretive rather than descriptive themes. Participants were purposively drawn from five established Malaysian printing firms that hosted and planned for interns. Supervisors were chosen for their direct involvement in training and decision-making, ensuring data reflected organisational practice rather than second-hand accounts. Sampling targeted information-rich cases to capture both opportunities and tensions in internship design (Patton, 2002). The final sample comprised five senior managers: Operations Directors, Executive Directors, and Human Resource Managers; with professional experience ranging from two to over thirty years. Their perspectives offered longitudinal insight into university–industry relations.

Data were collected through semi-structured interviews and documentary sources, including training manuals, internship guidelines, and university rubrics. Interviews, conducted face-to-face and online, lasted 45–60 minutes and explored expectations, supervision, learning processes, and internship value, with probes eliciting examples of alignment and tension between academic and workplace logics. All sessions were recorded with consent, transcribed verbatim, and anonymised. Reflexive notes captured impressions and positionality after each session, while documents provided contextual grounding. The interview protocol, designed as a flexible heuristic rather than a rigid schedule, began with background questions and progressed to supervision, workplace culture, and improvement. Analytic rigour was maintained through reflexivity and transparency. The researcher's position as a university lecturer informed questioning and interpretation, and divergences between pedagogical and managerial priorities were treated as analytic opportunities. Trustworthiness was achieved through an audit trail, reflexive memos, and triangulation between interviews and documents. Member checking was not used, consistent with reflexive TA's emphasis on researcher-led interpretation; instead, quality was assessed through resonance, coherence, and transparency (Tracy, 2010). Ethical approval and informed consent were obtained, and participants were assured of confidentiality and the protection of institutional relationships.

Table 1. *Profiles of participating firms and respondents.*

Firm	Size & years of operation	Location	Segment / specialisation	Respondent position
Firm A	Medium–Large; >25 years	Klang, Selangor	Commercial printing (packaging, books, materials)	Operations Director
Firm B	Medium–Large; >25 years	Sungai Petani, Kedah	Commercial printing (books, packaging)	HR Manager
Firm C	Large; >30 years	Johor Bahru, Johor	Packaging printing (leaflets, cartons)	HR Manager
Firm D	Small; >20 years	Klang, Selangor	Labels & packaging (stickers, variable-data printing)	HR Manager
Firm E	Large; >20 years	Shah Alam, Selangor	Commercial printing (publishing, Qur'an printing)	Executive Director

The analysis followed Braun and Clarke's six recursive phases of reflexive thematic analysis. Familiarisation involved repeated reading of transcripts and documents, accompanied by early memos noting preliminary insights such as "training and filtering." Inductive, semantic coding remained close to participants' language,

supported by reflexive notes on the discursive function of key phrases. Related codes were then clustered into candidate themes—for example, "duration," "pre-placement assessment," and "trial for future hires" combined to form the theme of internships as recruitment pipelines. Themes were reviewed for coherence and distinction, compared across firms to identify points of convergence and divergence, and named to capture their interpretive focus (e.g., Creativity Within Limits, Learning the Unwritten Rules). Writing integrated illustrative quotations with analytic commentary to connect themes to the research questions and wider debates on workplace learning and professional identity. Rigour was maintained through established quality frameworks (Tracy, 2010; Lincoln and Guba, 1985). Credibility was supported by prolonged engagement and peer debriefing, dependability through an audit trail of coding and theme development, and confirmability through reflexive memos. Transferability was strengthened by detailed contextual description. Practical measures included a coding spreadsheet linking excerpts to analytic notes, colour-coded transcripts tracking different stakeholder perspectives, and matrices comparing theme expression across firms. Through this iterative process, five themes were identified (*Table 2*): internships as recruitment trials, constrained creativity, tacit apprenticeships, professional rebranding, and balancing automation with human judgement. *Table 2* provides the analytic bridge to the findings.

Table 2. *Major themes identified in the thematic analysis.*

Theme	Frequency (firms)	Analytic definition	Illustrative quotes
1. From Learning to Hiring	4/5	Internships framed primarily as recruitment trials. Supervisors emphasised duration, supervision, and assessments as filters for future hires.	Firm B: "Six months is good. Three months is too short." / Firm C: "Pre-placement assessment… virtual… 30 minutes."
2. Creativity Within Limits	3/5	Interns' "fresh ideas" welcomed but constrained by tight boundaries. Placements positioned as controlled spaces of managed creativity.	Firm E: "Fresh ideas are welcome." / Firm A: "Interns can assist, not make major decisions."
3. Learning the Unwritten Rules	5/5	Tacit knowledge—quality judgement, troubleshooting, embodied craft—treated as central to professional identity.	Firm C: "…knowledge… not in the book." / Firm B: "Quality, quality, quality."
4. Rebranding Printing as a Profession	3/5	Internships used to counteract perceptions of printing as "low class." Managers emphasised pride and prestige to attract talent.	Firm D: "Printing industry is quite niche… not sexy enough." / Firm B: "Passion for printing… contagious excitement."
5. Balancing Automation and Human Judgement	4/5	Technology positioned as backbone but insufficient without human discretion. Interns located at the intersection of automation and tacit expertise.	Firm C: "Garbage in, garbage out." / Firm D: "Stand in the customer's shoes."

Results and Discussion

This study addressed two research questions: (RQ1): How do managers in the printing industry construct expectations of student interns? (RQ2): How do managers describe supervision practices, skill development, and cultural learning within placements? Analysis produced five interconnected themes. Together they show internships framed as recruitment pipelines, managed spaces of creativity, apprenticeship sites for tacit craft, platforms for reputational work, and arenas where automation is balanced with human judgement.

Internships as hiring trials

This theme speaks most directly to RQ1, as managers tended to construct internships primarily as recruitment pipelines rather than as educational experiences. Supervisors frequently described placements as cost-effective hiring strategies. Duration was presented as critical to this evaluative process. One HR manager insisted that *"six months is good. Three months is too short"* (Firm B), emphasising that internships needed to be long enough for employers to judge interns' potential as future employees. Pre-placement assessments reinforced this orientation. For instance, Firm C required a "*virtual… 30 minutes"* screening to identify which students merited further investment. Supervision practices were described in calculative rather than developmental terms. One manager explained that *"interns can assist, not make major decisions"* (Firm A), signalling a strategy that prioritised organisational protection over student growth. The implication was that interns were positioned less as learners than as trial employees whose productivity was monitored and evaluated. Such accounts suggest that the educational logic of placements was consistently overshadowed by a managerial calculus of risk and return. Internships were narrated as strategic spaces for filtering future talent rather than as developmental arenas centred on students' learning trajectories. This structural reframing resonates with prior research in engineering, where supervisors viewed internships as recruitment pipelines rather than learning platforms (Zehr and Korte, 2020).

Harnessing creativity, containing risk

The second theme addresses both RQ1 and RQ2, showing how managers expected interns to provide creative energy while simultaneously describing supervisory practices that constrained autonomy. Supervisors praised interns' digital fluency and innovative outlook. One director remarked that *"fresh ideas are welcome"* (Firm E), positioning interns as a source of vitality for firms navigating technological change. Yet such enthusiasm was often hedged. As noted earlier, Firm A reminded that "interns can assist, not make major decisions," highlighting that creative input was tightly bounded by managerial oversight. Attempts to broaden exposure were also curtailed by structural constraints. For example, one firm experimented with department rotations but acknowledged that *"capacity [is] constrained"* (Firm D). Creativity was thus narrated as both desirable and risky, encouraged symbolically but contained structurally. This dual framing reflects an organisational paradox: managers viewed interns as potential carriers of innovation yet simultaneously policed boundaries to prevent disruption. Placements emerged as controlled spaces of managed creativity, where supervisors actively mediated the balance between openness and control. The findings resonate with research on organisational learning cultures, where innovation was celebrated rhetorically but often constrained by hierarchical practice (Hearn et al., 2023).

Mastering the invisible craft

This theme speaks directly to RQ2 by foregrounding supervision, skill development, and the transmission of tacit knowledge. Managers consistently emphasised that professionalism in printing extended beyond formal technical knowledge. One supervisor repeatedly stressed *"quality, quality, quality"* (Firm B), signalling that judgement rather than technical literacy was central to workplace legitimacy. Similarly, another noted that "*tacit knowledge… [is] not in the book"* (Firm C), underscoring that valued expertise was acquired experientially rather than through formal curricula. A

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third explained the subtlety of "*how to buy off the colour*" (Firm A), describing an embodied skill that could only be learned through apprenticeship-style guidance. Internships were thus narrated as apprenticeship-like spaces in which students learned by entering the ethos of the profession. Supervisory practices were described as relational, guiding interns not simply in technical procedures but in developing professional dispositions, including patience, sensitivity to materials, and aesthetic discernment. Success was measured by interns' ability to internalise unspoken standards and participate in professional communities of practice. This theme highlights the importance of tacit and embodied learning, echoing earlier findings that workplace learning often depends on socialisation into local norms and practices rather than explicit instruction (Goller et al., 2020). In this context, printing internships appeared to operate as gateways into hidden crafts, where supervision was as much about transmitting cultural knowledge as technical expertise.

Repairing the industry's reputation

The fourth theme contributes to both RQ1 and RQ2, as managers described expectations of interns alongside cultural learning objectives aimed at rehabilitating the industry's image. Supervisors openly acknowledged the negative perceptions surrounding the printing sector. One manager lamented that the "*printing industry is quite niche… not sexy enough*" (Firm D), suggesting a deficit in attracting new talent. Internships were framed as stages for rebranding. Strategies included elevating job titles—such as reclassifying interns as "*printing specialists/engineers*" (Firm E)—and promoting enthusiasm as part of the supervisory role. One participant described a desire to instil "*passion for printing… [and]… excitement*" (Firm B). Here, supervision extended beyond technical mentoring to symbolic labour. Managers expected interns to absorb and transmit pride in the sector, positioning students as cultural ambassadors tasked with projecting legitimacy to peers and the wider public. Although less frequently voiced than other themes, this perspective highlights the symbolic dimension of placements, aligning with research that views internships as sites of identity construction and reputation management (Goldsmith and Trede, 2024). In this case, placements were not only pedagogical but also cultural interventions designed to reposition printing as a desirable career path.

Between machines and human judgement

The final theme aligns with RQ2 by illustrating how supervisors narrated supervision and learning as a balancing act between digital systems and embodied expertise. Managers consistently acknowledged the importance of technology, particularly enterprise resource planning (ERP) systems and automation, for efficiency and accuracy. Yet they also stressed limitations. As one HR manager explained, "*garbage in, garbage out*" (Firm C), indicating that technological systems could amplify rather than correct poor judgement. Others highlighted the necessity of empathy and discretion. One manager noted the importance of "*stand[ing] in the customer's shoes*" (Firm D), while another summarised the challenge as "*balancing automation vs. operators' expertise*" (Firm E). Internships were described as crucibles in which students learned this balance. Supervisors expected interns to be disciplined by digital systems but guided by human sensitivity, positioning discretion as the defining feature of professional identity. This resonates with scholarship on hybrid professional learning,

where technology and tacit expertise must be integrated rather than treated as opposing forces (Omanović and Langley, 2025).

Internships as organizational strategy

Taken together, the five themes reveal that internships in the Malaysian printing sector were constructed not as neutral educational bridges but as organisationally strategic sites. Supervisors framed placements as recruitment trials, celebrated interns' creativity while curbing autonomy, positioned learning as apprenticeship into tacit craft, enlisted students in symbolic identity repair, and emphasised the balance between automation and human judgement. Across these accounts, the educational logic of placements was consistently subordinated to organisational imperatives, whether talent acquisition, risk management, cultural repair, or professional identity formation. Learning was acknowledged but reframed as instrumental to broader industrial goals. By situating these findings within broader debates on work-based learning and professional socialisation, the study highlights how internships may operate simultaneously as pedagogical, cultural, and organisational projects. The implications of this reframing are developed further in the discussion.

The thematic map (*Figure 1*) consolidates the five themes into three interconnected domains, illustrating how internships are consistently framed as organizational strategies rather than primarily educational opportunities. At the center, Internships as Organizational Strategy anchors the analysis, emphasizing how managerial logics shape the purpose and conduct of placements. Radiating outward, the first domain, Organizational Strategy & Control, shows how internships are mobilized as hiring trials and sites for containing risk, where student learning is subordinated to firm imperatives of efficiency and retention. The second domain, Professional Identity & Craft, captures the symbolic and embodied dimensions of the industry, from mastering tacit expertise to repairing its reputation in the eyes of new entrants. The third domain, Technology–Human Balance, situates interns at the intersection of automation and judgment, highlighting the hybrid competencies demanded by Industry 4.0. Arrows across domains make visible the tensions: creativity is celebrated but tightly managed; tacit craft complements digital automation; reputation repair cuts across both strategic and professional registers. This framework demonstrates that internships are not discrete training episodes but sites where organizational, cultural, and technological imperatives converge, reproducing industry identity while channeling interns into future workforce roles.
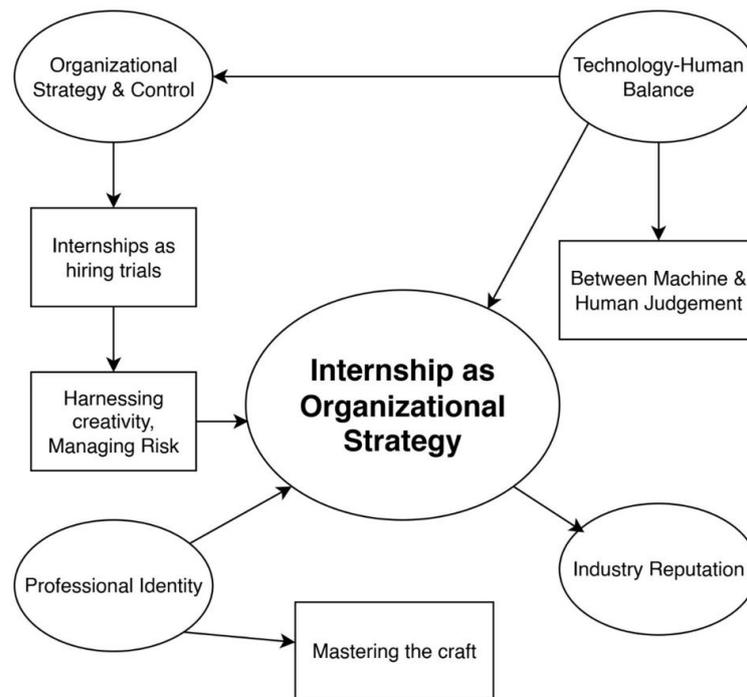
Figure 1. Thematic map of internship as organizational strategy.

This study examined how managers in the Malaysian printing industry constructed expectations of interns (RQ1) and described supervision, skill development, and cultural learning (RQ2). The findings suggested that internships were framed less as student-centred learning spaces and more as organisational strategies. While interns were positioned as energetic contributors and potential recruits, their learning tended to be subordinated to imperatives of risk management, reputational repair, and professional reproduction. The findings extend existing scholarship that has framed internships largely as recruitment pipelines (Azmi et al., 2020; Zehr and Korte, 2020). Printing managers echoed these patterns, prioritising evaluation and control over learning, yet they also revealed additional dimensions. The tension between innovation and hierarchy illustrates how creativity was welcomed rhetorically but tightly managed, reflecting earlier research on constrained autonomy in workplace learning (Goller et al., 2020; Paknejad, 2016). Such findings reinforce the view that placements often serve organisational objectives first, situating student learning within managerial logics of efficiency and risk containment. Beyond recruitment, this study contributes conceptually by highlighting the cultural and hybrid character of learning in the printing sector. The emphasis on tacit, embodied judgement expands prior work that foregrounded technical and soft skills, demonstrating that professional identity is cultivated through apprenticeship and ethos transmission (Goldsmith and Trede, 2024). At the same time, the use of internships for reputational repair and for balancing automation with human discretion underscores their symbolic and hybrid functions. Internships thus emerge not only as pedagogical platforms but as arenas where organisational, cultural, and technological imperatives intersect, reproducing professional legitimacy amid industrial transformation.

Theoretically, the findings suggest that internships should be conceptualised as sites of co-construction, where organisational imperatives, symbolic identity work, and student learning intersect. They extend Zehr and Korte (2020) framing of internships as

pipelines by showing that placements may also function as cultural stages and apprenticeship sites. Practically, the findings highlight risks of subordinating student learning to managerial logics. Without safeguards, placements risk becoming one-way pipelines rather than reciprocal learning spaces. Educators might consider frameworks that incentivise firms to embed mentoring, reflective practices, and structured dialogue with universities (Azmi et al., 2020). At the policy level, the study underscores the importance of regulating internship duration, supervision quality, and transparency. Aligning curricular timetables with industry preferences and strengthening mechanisms for authentic assessment may help ensure that placements serve both student development and organisational needs.

Conclusion

This study explored how managers in the Malaysian printing industry constructed expectations of interns and described supervision, skill development, and cultural learning. Five themes emerged: internships as hiring trials, controlled spaces of creativity, apprenticeships in tacit craft, stages for reputation repair, and arenas balancing automation with human judgement. Collectively, these reveal that internships operated less as educational transitions and more as organisational strategies for recruitment, control, and professional reproduction. By examining a lower-status, technical field, the study extends prior research on recruitment pipelines and supervision (Goldsmith and Trede, 2024; Azmi et al., 2020; Zehr and Korte, 2020), showing how placements also perform symbolic labour that mediates tensions between technology and embodied craft. Theoretically, the study reframes internships as organisational and cultural-symbolic sites where industries sustain legitimacy and transmit professional identity. Empirically, it demonstrates how tacit craft and hybrid professionalism define adaptation in the printing sector. Practically, it highlights the risks of managerial dominance over learning and calls for shared responsibility between universities and employers. Future research should include interns' perspectives and compare across sectors to assess whether reputation repair and symbolic labour similarly characterise other low-status or transitional industries. For policy and practice, effective placements require closer alignment between academic and industrial aims. Coordinating duration, supervision, and learning goals can prevent internships from functioning solely as recruitment pipelines. Universities should prepare students for tacit and cultural dimensions of work, while firms integrate mentorship and reflective practice into production contexts. Recognising internships as negotiated spaces of professionalism and identity formation enables more balanced, dialogic, and developmentally meaningful practices across creative and technical fields.

Acknowledgement

Conflict of interest

The authors confirm that there is no conflict of interest involve with any parties in this research study.

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