



INFLUENCE OF ORGANISATION TYPE ON FUNCTIONAL COMPETENCY DEVELOPMENT AMONG ARCHITECTURAL INTERNS IN SOUTHWEST, NIGERIA

*¹Ndashiru Martins, ²Atolagbe Anifowose Michael Oladele, ²Odunjo Oluronke Omolola, ³Ayankola Ayangbemi Segun, and ⁴Akewusola Ridwanullahi Abiodun

¹Kwara State College of Education (Technical), Lafiagi, Kwara State, Nigeria.

²Ladoke Akintola University of Technology, Ogbomosho, Oyo State, Nigeria.

³University of Ilorin, Ilorin, Kwara State, Nigeria.

⁴University of Abuja, FCT Abuja, Nigeria.

*Corresponding authors' email: ndashirum@gmail.com Phone: +2348065854800

ABSTRACT

Internship in architectural education serves as a window for exposure to the world of professional practice. However, there is a dearth of empirical knowledge on how placement across diverse organisations with varying tasks shapes architectural competency exposure, particularly in a largely unstructured placement system like Nigeria's. The study examined the influence of organisation type on functional competency development among architectural interns in Southwest Nigeria. A survey of 263 final-year students (2025 cohort) from nine accredited institutions was conducted using structured questionnaires. Data collected were analysed using descriptive and inferential statistics. Findings revealed that competency development is unevenly distributed and closely aligned with operational focus, with moderate exposure range observed across all five organisation types. Construction companies demonstrate the highest overall competency exposure (REI = 0.598), particularly in construction technology and management domains. Architectural firms provide relatively high exposure in design-related competencies, while government agencies show comparatively stronger contributions to practice management knowledge. In contrast, real estate and interior design firms exhibit narrower competency profiles with lower overall exposure. ANOVA results confirm that differences in competency exposure across organisation types are statistically significant ($p = 0.002$). Post-hoc comparisons show that interns in construction companies have significantly higher functional competency exposure than those in real estate, interior design firms, and government agencies, while no statistically significant difference was observed compared to architectural firms. Structured competency-based internship frameworks and improved collaboration between academic institutions and industry are recommended to ensure balanced and comprehensive competency acquisition among architectural interns.

Keywords: Internship, Architectural Education, Functional Competency, Exposure, Work-Integrated Learning, Organisation Type

INTRODUCTION

Internship, as a form of work-integrated learning, is a central component of architectural education that bridges academic learning and real world of practice, providing platform for competency development among students (Salama, 2015, Adegbite & Hoole, 2024; Ferns *et al.*, 2024). However, the transition from academic training to professional practice remains a critical challenge, particularly in contexts where opportunities for structured practical exposure vary significantly. In Nigeria, architectural internship programmes are often shaped by diverse organisational settings, ranging from small private firms to large multidisciplinary consultancies and public sector establishments, each offering different forms of professional exposure. This variations may influence the extent to which internship experiences support the development of functional competencies required for professional practice.

Functional competencies are concerned primarily with the ability to perform role-specific and operational tasks (Mills *et al.*, 2020). Architectural competency frameworks emphasise functional capabilities such as design capabilities, construction knowledge, project coordination, and professional administration knowledge required for professional practice (RIBA, 2014; ARCON, 2017). The development of functional competencies is strongly influenced by experiential learning processes within professional environments. Meanwhile, studies of architectural internship suggests that the workplace serves as

a key site where professional knowledge is constructed through participation in real projects (Gündeş & Atakul, 2017; Erbaş 2023).

Workplace learning theory emphasises that learning is inherently context-dependent, influenced by the structure, culture, and operational focus of the host organisation (Billett & Choy, 2013). In architectural practice, "organisation type" can be understood in terms of structural and operational characteristics, such as firm size, ownership (private or public), scope of services, and project complexity. Consequently, interns placed in different organisational settings may develop different competency profiles depending on the nature of tasks and responsibilities they encounter. (Billett & Choy, 2013; Adegbite & Hoole, 2024).

In the Nigerian context, where internship placements are often secured through informal networks and institutional coordination remains limited, students are distributed across diverse organisational settings with varying functional orientations. These include architectural firms, construction companies, government agencies, and other specialised organisations, each characterised by distinct roles, workflows, and areas of professional engagement. Such differences are likely to shape the nature and scope of tasks to which interns are exposed, thereby influencing the development of specific functional competencies. However, there is a paucity of empirical studies that systematically examine how these variations in organisation type affect competency development among architectural interns in Nigeria. This lack

of context-specific evidence constrains the ability of academic institutions to design informed placement strategies and optimise competency acquisition during internship. This study therefore addresses this gap by examining how different organisation types influence the level of exposure to functional tasks and knowledge during architectural internship in Southwest Nigeria. By explicitly linking organisational context to competency development, the study provides a more nuanced understanding of internship experiences within the Nigerian architectural education system. The findings offer important implications for improving internship placement strategies, strengthening collaboration between academic institutions and industry, and ensuring that graduates acquire the competencies required for effective professional practice.

MATERIALS AND METHODS

The study covers all departments of architecture that have existed for a minimum of 10 years in universities within the Southwest region of Nigeria. Nine universities fall into this category (Table 1). The benchmark of a decade is to ensure that schools included in the study have developed a stable academic programme structure and have produced sets of students for architectural internship over time. In determining the population for the study, purposive sampling was used to select the student population that have completed internship programme, which makes the final year students most appropriate for the study (400 and 500 Level students for four and five year academic programme respectively). The sample size was derived through Yamen’s formula ($n = N/(1+N(e)^2)$) at a 95% confidence level and 5% margin of error. (Table 2). The instrument for data collection was a structured questionnaire. A set of 330 questionnaires were randomly administered to students across the nine schools captured in the study based on the calculated sample size. However, only 263 questionnaires were deemed valid for analysis. Architects’ competency construct developed by Ndashiru (2025) was adopted in the design of the questionnaire. The framework conceptualised functional competency into four domain – Design, Construction technology and material

knowledge, construction management, and practice management domains – representing the core curricula focus of architectural training. Respondents rated exposure levels to specific activities within each domain using a five-point Likert scale, where 1 = To no extent, 2 = To a small extent, 3 = To a moderate extent, 4 = To a great extent, and 5 = To a very great extent. Operational focus was used in classifying organisation types into five, namely: architectural firm, government agency, construction company, real estate firm, and interior decoration firm.

To ensure the validity and reliability of the research instrument, both content and construct validation procedures were undertaken. Content validity was established through expert review by academics and industry professionals in architecture, who assessed the relevance, clarity, and coverage of the questionnaire items in relation to the defined competency domains. The feedback received informed minor revisions to improve item precision and eliminate ambiguities. Construct validity was examined through a pilot survey conducted with a small sample of students outside the study population, which helped confirm the logical grouping of items within their respective competency domains. In addition, internal consistency reliability was assessed using Cronbach’s alpha coefficient, yielding values above the acceptable threshold of 0.70 for all competency domains, indicating satisfactory reliability of the instrument.

Data were analysed using descriptive and inferential statistical methods. The Relative Exposure Index (REI) was computed for each competency area and activity, enabling comparative analysis and standardised interpretation across domains. Statistical significance for all inferential tests was evaluated at $p < 0.05$. The following classification framework was adopted to interpret REI values:

- $REI \leq 0.40$: Low exposure
- $0.41 \leq REI \leq 0.60$: Moderate exposure
- $REI \geq 0.61$: High exposure

This classification approach aligns with established methodologies employed in similar empirical studies assessing skills and competencies in professional education contexts (Toyin & Mewomo, 2023).

Table 1: Universities that Offer Architecture in the Southwest

S/N	Name of School	Establishment Year of Architecture Department	Ownership Type	Existed up to 10 Years
1	Afe-Babalola University, Ado-Ekiti	2019	Private	No
2	Ajayi Crowther University, Oyo	2016	Private	No
3	Bells University of Technology, Ota	2010	Private	Yes
4	Caleb University, Lagos	2009	Private	Yes
5	Covenant University, Ota (CU)	2003	Private	Yes
6	Crescent University, Abeokuta	2016	Private	No
7	Federal University of Technology, Akure (FUTA)	1989	Public	Yes
8	First Technical University, Ibadan	2021	Public	No
9	Joseph Ayo Babalola University, Ikeji-Arakeji (JABU)	2008	Private	Yes
10	Lagos State University (LASU)	2023	Public	No
11	Ladoke Akintola University of technology, Ogbomosho (LAUTECH)	1990	Public	Yes
12	Lead City University, Ibadan (LCU)	2017	Private	No
13	Obafemi Awolowo University, Ife (OAU)	1982	Public	Yes
14	Oduduwa University, Ipetumodu (OU)	2019	Private	No
15	Olabisi Onobanjo University, Ago-Iwoye (OOU)	2003	Public	Yes
16	Redeemers University, Ede	2019	Private	No
17	University of Ibadan (UI)	2018	Public	No
18	University of Lagos (UNILAG)	1971	Public	Yes

Source: NUC (2024)

Table 2: Distribution of Respondents across Institutions

S/N	Name of School	Sampling Frame	Calculated Sample Size	Number of Questionnaire Administered	Number of Valid Responses
1	BELLSTECH	62	23	30	24
2	CALEB	110	40	50	40
3	CU	55	20	30	23
4	FUTA	112	41	50	41
5	JABU	53	20	30	21
6	LAUTECH	85	31	40	33
7	OAU	62	23	30	24
8	OOU	72	26	30	26
9	UNILAG	82	30	40	31
Total		693	254	330	263

Source: Author’s Compilation (2025)

RESULTS AND DISCUSSION

Demographic Distribution of Respondents

Gender Distribution

The gender distribution of student respondents shows that 59.7% were male, while 40.3% were female (Figure 1). This indicates a higher representation of male students among the

participants. The observed gender disparity aligns with trends commonly reported in architectural education in Nigeria and other developing contexts, where male enrolment typically exceeds female participation in the discipline (Enwerekwe & Mangden, 2019; Olayeni & Adisa, 2019).

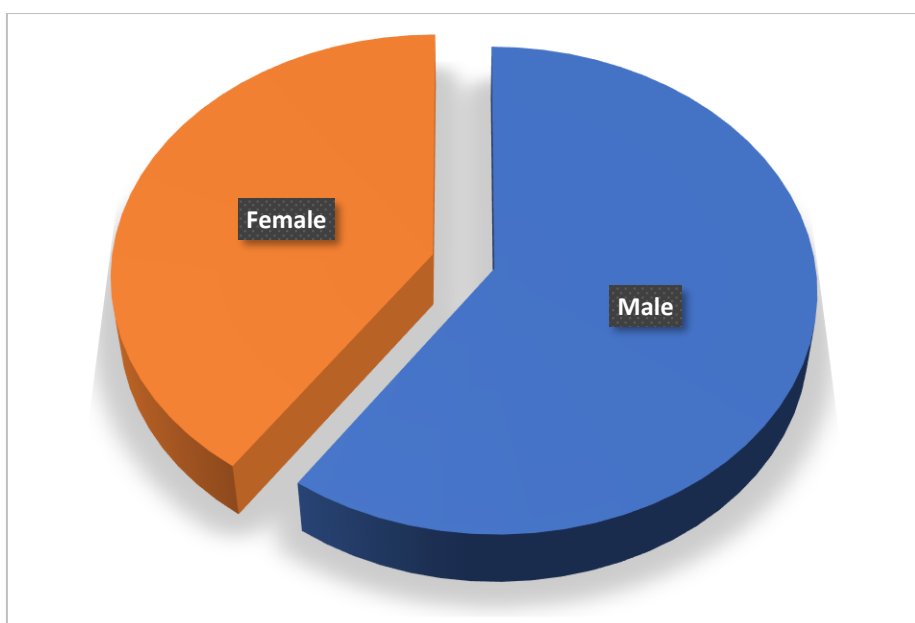


Figure 1: Gender Distribution of Student Respondents

Source: Author’s Field Survey (2025)

Distribution across Organisation Types

As shown in Figure 2, the majority of respondents (60.1%) undertook their internship in architectural firms, while 15.2% were placed in construction companies. Additionally, 11.4% of the respondents were attached to government agencies, while 10.3% were placed in real estate firms. A relatively small proportion of the respondents (3.0%) specified interior

design firms as their place of internship. The high concentration of students in architectural firms suggests that most students prioritise placements that closely aligned with the core competencies of the discipline. Furthermore, it underscores the centrality of architectural firms as the primary training ground for bridging theoretical knowledge acquired in school with practical industry application.

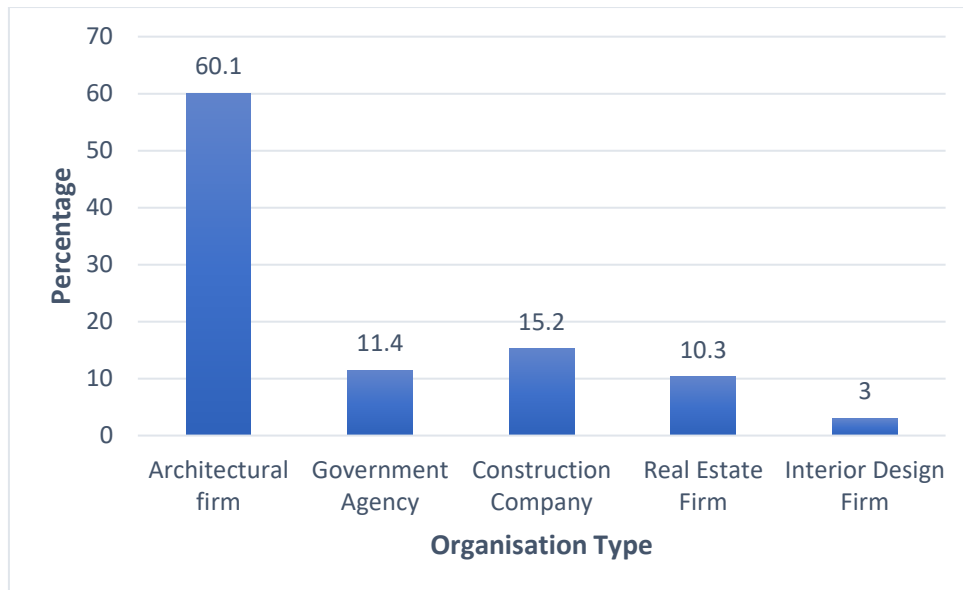


Figure 2: Internship Organisation Type
Source: Author’s Field Survey (2025)

Personnel Sizes of Internship Placements

The analysis of the personnel size of organisations where students undertook their internships indicates a clear concentration within smaller firms. Specifically, 34.2% of respondents were placed in organisations with 1–10 personnel, while 23.6% completed their internships in firms employing 11–20 staff. A further 18.3% were attached to organisations with 21–30 employees, whereas only 8.7% trained in organisations with 31–40 personnel. Meanwhile,

15.2% of the respondents interned in organisations with more than 40 staff members (Figure 3). This distribution demonstrates that the majority of students were exposed to small- and medium-sized organisations. The pattern suggests that such firms constitute the primary training environment for architectural interns within the study area, reflecting the structural composition of professional practice and internship placement opportunities in the local context.

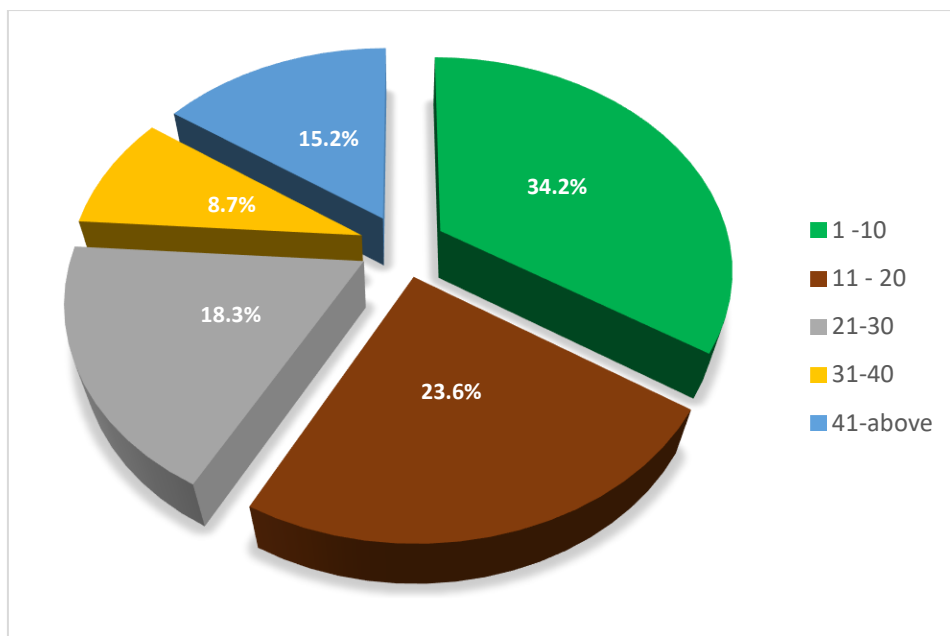


Figure 3: Personnel Size of Internship Placement Organisations
Source: Author’s Field Survey (2025)

Domain-Specific Analysis of Functional Competency Development by Organisation Type

To gain deeper insight into the pattern of exposure among interns across different organisation types, each domain in functional competency cluster was analysed, comparatively, across the various internship placements (Figure 4 & Table 1).

Exposure in Design Domain

Interns attached to architectural firms reported the highest engagement in design-related tasks, with a REI of 0.607. This indicates a high exposure level and underscores the centrality of architectural firms in design functions. Students who had their internship in construction companies (REI = 0.552) and interior design firms (REI = 0.550) followed closely, though

within the moderate exposure band. Meanwhile, respondents who had their internship in government agencies and real estate firms indicated a comparatively lower exposure in design competencies, with REI of 0.489 and 0.449 respectively. This suggests that students who interned in these organisations were minimally involved in design-related tasks.

Exposure in Construction Technology and Material Knowledge (CTMK)

Respondents who interned in construction companies experienced the greatest exposure in construction technology and material knowledge competencies (REI = 0.676). This was followed by those attached to architectural firms (REI = 0.581). Next to these, down the ranking, are those who interned in government agencies and real estate firms who both recorded a REI of 0.532 each. However, students who interned in interior design firms indicated the least exposure in CTMK, reflected in a REI of 0.404.

The findings revealed a high level of exposure to construction technology and material knowledge competencies among interns attached to Construction Company, a low level of exposure among those who interned in real estate firms, and moderate exposure across the other assessed organisation types. This pattern indicates that CTMK competencies are most strongly developed in organisations directly involved in on-site building operations.

Exposure in Construction Management Knowledge

Internships in construction companies indicated the highest level of exposure in construction management knowledge, with a REI of 0.646, signifying a high level of exposure. This was followed by internships in interior design firms (REI = 0.561), architectural firms (REI = 0.554), and government agencies (REI = 0.522), which ranked second, third, and fourth, respectively. Meanwhile, students who interned in real estate firms reported the lowest level of exposure to construction management knowledge, reflected in a REI of 0.457.

With the exception of construction company placements, which demonstrated a high level of exposure to construction management knowledge, all other organisation types recorded moderate levels of exposure at varying degrees, with real estate firms indicating the least. This pattern is consistent with the technical and operational focus, as well as the level of involvement, of the host organisations in construction activities.

Exposure in Professional Practice Management

Students who interned in Government agencies indicated the highest exposure to Professional Practice management with REI of 0.576, while those of construction companies and architectural firms followed downward the ranking with relative exposure indices of 0.516 and 0.511, respectively. Meanwhile, comparatively lower exposure was recorded by interns in real estate firms (REI = 0.441), while those attached to interior design firms indicated the least with REI of 0.400. This pattern underscores, generally, a persistent gap in the development of practice-related administrative and

management skills during internship. The relatively higher exposure observed in Government agency internship placement may be due to the bureaucratic and administration-oriented nature of the organisation, which afford interns the privilege of observing activities such as documentation, procurement, tendering process and project approval processes, all of which formed part of the key indicators assessed in this study.

Synthesis of Domain-Specific Competency Development

Across the four competency domains, a clear but uneven pattern of exposure was observed, indicating that internship learning is largely shaped by the functional orientation of host organisations rather than a uniform training structure. Architectural firms mainly enhance design competencies, construction companies strengthen technical and site-based skills, and government agencies provide greater exposure to professional practice management perhaps, due to their regulatory and procedural responsibilities, particularly in areas such as documentation, procurement, and approvals. In contrast, real estate and interior design firms offer narrower, more specialised learning experiences with limited engagement in technical and managerial domains.

This distribution suggests that competency development during architectural internship is not holistic but functionally segmented, with each organisation type reinforcing a specific subset of professional capabilities. While such differentiation may reflect the realities of industry specialisation, it simultaneously limits the breadth of learning achievable within a single placement. This reinforces work-integrated learning studies which emphasis that outcomes are shaped by the design and structure of placement experiences rather than by participation alone (Jackson, 2015; Rowe & Zegwaard, 2017).

Overall, exposure levels are mostly moderate, indicating that interns are often involved in partial or observational roles rather than sustained hands-on practice. This suggests limited depth of learning, where familiarity is achieved without full competency development, and reflects a systemic limitation in internship design, as learning is largely incidental and dependent on organisational workflows. This observation supports claims that limited access to meaningful workplace participation constrains the conversion of exposure into competence (Jackson, 2015), with unstructured internships often leading to surface-level rather than deep learning (Ferns *et al.*, 2024).

Furthermore, the findings demonstrate that no single organisation type offers comprehensive competency development; instead, each contributes selectively, resulting in fragmented rather than integrated skill acquisition and constraining the development of holistic professional proficiency. This reinforces concerns that professional competence develops piecemeal across multiple experiences rather than a single placement (Bridgstock *et al.*, 2019), while challenging assumptions that such fragmentation naturally leads to integration without deliberate coordination (Jackson, 2015).

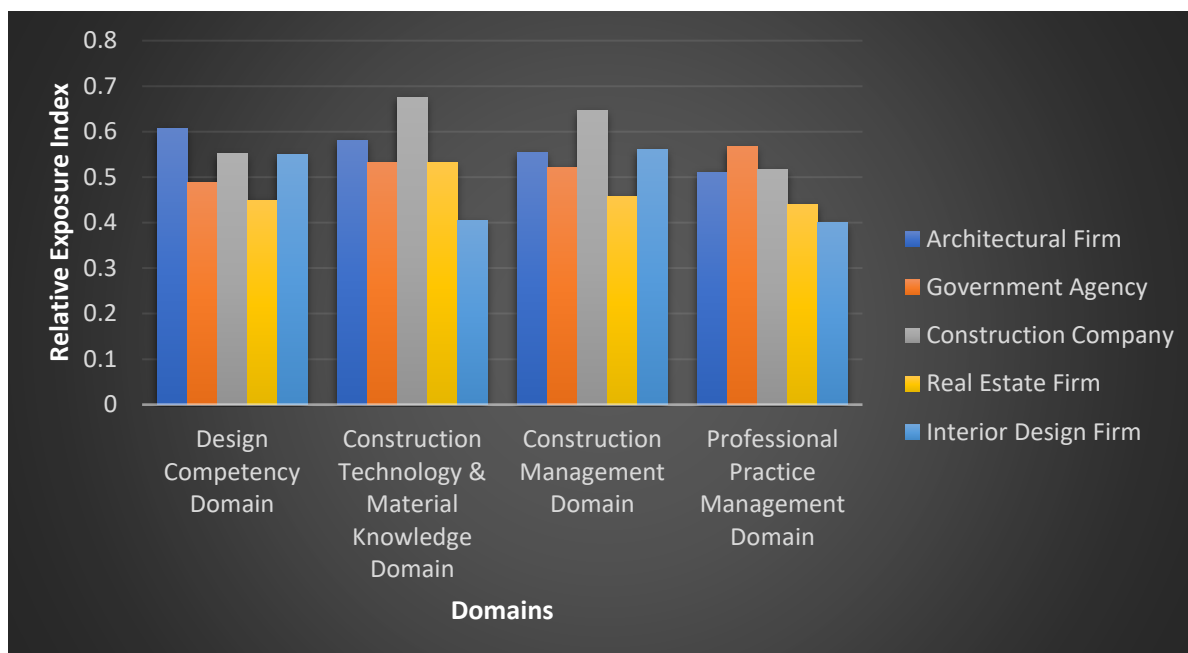


Figure 4: Functional Competency Development across Different Organisation Types
Source: Author’s Field Survey (2025)

Comparative Analysis of Overall Exposure across Organisation Types

The overall functional competency exposure to all domain engagements across the different organisation types was assessed to determine the placements that offered the most comprehensive opportunities for competency development. As shown in Table 3, students who interned in construction companies indicated the highest overall competency exposure (REI = 0.598), closely followed by architectural firms, and government agencies with REI of 0.563 and 0.528, respectively. Next to these down the ranking were students who undertook their internships in interior decoration firms (REI = 0.479), while those in real estate firms recorded the least competency development (REI = 0.470). Though, a moderate exposure range was observed across all five organisation types, the findings nevertheless suggest that construction companies offer the most extensive opportunities for functional competency development.

A one-way analysis of variance (ANOVA) was conducted to determine whether these variations are statistically significant (Table 4). The analysis yielded an F-value of 4.517 with 4 and 258 degrees of freedom (df) and a significance level (p-value) of 0.002. Since the p-value is less than 0.05, the differences in mean functional competency scores among the organisation types are considered statistically significant. To further assess the magnitude of this effect, effect size estimates were computed, yielding η^2 (eta squared) = 0.065 and ω^2 (omega squared) = 0.051. These values indicate a small-to-moderate effect, suggesting a modest influence of organisational context on overall competency exposure. In simple terms, this means that while the type of organisation does affect what interns are exposed to, it does not cause large differences in overall learning outcomes. Instead, interns across different organisations tend to have fairly similar experiences, with differences mainly in focus areas rather than completely different levels of training or learning quality. This aligns with Abaei *et al.* (2026), who posited that variations in competency

development are more strongly influenced by factors such as supervision quality, task allocation, and structured learning support during internships rather than organisational category alone.

The post-hoc analysis (Table 5) further clarifies the source of these differences. Statistically significant differences were observed between internship in construction companies and real estate firms (mean difference = 0.525, p = 0.010), as well as between construction companies and interior design firms (mean difference = 0.724, p = 0.030), with construction companies consistently demonstrating higher competency scores. This is consistent with the findings of Erbaş (2023), who observed that construction site internships provide substantial experiential learning opportunities that enhance students’ professional understanding and career orientation. On the other hand, no significant differences were found between internships in construction companies and architectural firms, indicating comparable levels of competency development across these two core practice environments. Similarly, differences among government agencies, real estate firms, and interior design firms were not statistically significant, suggesting a relatively homogeneous level of exposure within this group.

The findings indicate a partial stratification of internship experiences, with construction companies and architectural firms forming a higher-exposure cluster that provides the most extensive opportunities for developing functional skills. In contrast, government agencies, real estate firms, and interior design firms constitute a comparatively moderate and statistically indistinguishable group, offering relatively limited opportunities for functional competency development. Notably, however, these findings should be interpreted with caution given the sample size imbalance, particularly the very small number of respondents in interior design firms (n = 8). This underrepresentation may have affected the stability of mean estimates and the robustness of the statistical comparisons.

Table 3: Functional Competency Development across Internship Organisation Types

S/N	Competency Domain	Architectural Firm (N = 158)		Government Agency (N = 30)			Construction Company (N = 40)			Real Estate Firm (N = 27)		Interior Design Firm (N = 8)				
		M	REI	R	M	REI	R	M	REI	R	M	REI	R			
1.	Design Domain	3.03	0.607	1	2.44	0.489	4	2.76	0.552	3	2.24	0.449	3	2.75	0.550	2
2.	Construction Technology & Material Knowledge Domain	2.91	0.581	2	2.66	0.532	2	3.38	0.676	1	2.68	0.532	1	2.02	0.404	3
3.	Construction Management Domain	2.77	0.554	4	2.61	0.522	3	3.23	0.646	2	2.73	0.457	2	2.29	0.561	1
4.	Practice Management & Administration	2.56	0.511	3	2.83	0.567	1	2.58	0.516	4	2.21	0.441	4	2.00	0.400	4
	Composite Score	2.82	0.563		2.64	0.528		2.98	0.598		2.46	0.470		2.26	0.479	

a. N = Number of student respondents within each internship organisation type.
 b. M = Mean Score, indicating the average level of functional competency development reported for each domain.
 c. REI = Relative Exposure Index.
 d. R = Rank, based on the descending order of mean scores within each organisation type.
 Source: Author’s Field Survey (2025)

Table 4: One-Way ANOVA of Functional Competency Scores across Internship Organisation Types

Organisation Type	Sum Squares	Df	Mean Square	F	Sig.	Decision
Between Groups	7.362	4	1.841	4.517	.002	Significant
Within Groups	105.121	258	.407			
Total	112.483	262				

a. Df = Degrees of freedom.
 b. The analysis was conducted at a 0.05 level of significance (p<0.05).
 Source: Author’s Field Survey (2025)

Table 5: Post-Hoc Multiple Comparison Analysis of Functional Competency Scores by Organisation Type

(I) Organisation Type	(J) Organisation Type	Mean Difference (I-J)	Std. Error	Sig.
Architectural Firm	Government Agency	.17973	.12712	.619
	Construction Company	-.17128	.11298	.553
	Real Estate Firm	.35331	.13293	.063
	Interior Design firm	.55269	.23132	.122
Government Agency	Architectural Firm	-.17973	.12712	.619
	Construction Company	-.35100	.15417	.156
	Real Estate Firm	.17358	.16933	.844
	Interior Design firm	.37297	.25399	.584
Construction Company	Architectural Firm	.17128	.11298	.553
	Government Agency	.35100	.15417	.156
	Real Estate Firm	.52458*	.15899	.010
	Interior Design firm	.72397*	.24722	.030
Real Estate Firm	Architectural Firm	-.35331	.13293	.063
	Government Agency	-.17358	.16933	.844
	Construction Company	-.52458*	.15899	.010
	Interior Design firm	.19938	.25695	.937
Interior Design firm	Architectural Firm	-.55269	.23132	.122
	Government Agency	-.37297	.25399	.584
	Construction Company	-.72397*	.24722	.030
	Real Estate Firm	-.19938	.25695	.937

Source: Author’s Field Survey (2025)

CONCLUSION

This study examined the influence of organisation type on functional competency development among architectural interns in Southwest Nigeria. The findings demonstrate that

internship learning is structurally differentiated by organisational context, with each organisation type contributing in complementary but uneven ways to competency development. A key overall finding is the

predominance of moderate exposure across domains, which implies that interns are frequently engaged at observational or assistive levels rather than in sustained, autonomous professional roles. This points to a structural limitation in current internship arrangements, where learning depth is constrained by the incidental nature of exposure rather than systematically planned competency development.

From a practical standpoint, these findings highlight the complementary nature of internship environments within the architectural training ecosystem and underscores the need for strategic internship placement that aligns organisational strengths with desired competency outcomes. Rather than viewing organisation types as competing training sites, they can be strategically integrated to provide a more holistic competency development pathway. This supports the need for structured internship models, such as rotational placements or competency-based internship frameworks, that deliberately expose students to design, technical, managerial, and practice-oriented domains in a balanced manner. Improved collaboration between academic institutions and host organisations to ensure balanced exposure across all domains of architectural practice is also important. Such improvements are essential for producing well-rounded graduates equipped with the functional competencies required for effective professional practice.

Finally, the study is limited by uneven sample distribution across organisation types, particularly the small representation of interior design firms, which may affect the stability of some comparative estimates. Future research could adopt longitudinal or mixed-method approaches to better capture competency development over time and explore how specific internship structures influence professional readiness after graduation.

REFERENCES

Abaei, G., Shahin, M., & Spichkova, M. (2026). One-year internship program on software engineering: students' perceptions and educators' lessons learned. *European Journal of Engineering Education*, 1–24. <https://doi.org/10.1080/03043797.2026.2651427>

Adebite, W. M., & Hoole, C. (2024). The Nexus of Work-Integrated Learning and Skills among Engineering Students in Nigerian Universities: A Structural Equation Model Approach. *Journal of Teaching and Learning for Graduate Employability*, 15(1), 91–107. DOI: <https://doi.org/10.21153/jtlge2024vol15no1art1824>

Adepeju, A., Ibem, O., & Oluwatayo, A. (2022). Architectural Firms as Schools: Factors that Influence the Satisfaction of Architecture Students during Industrial Experience Programmes. In *INTED2022 Proceedings*, pp. 10098–10109. doi: [10.21125/inted.2022.2657](https://doi.org/10.21125/inted.2022.2657)

Architects Registration Council of Nigeria. (2017). *Conditions of engagement and scale of professional fees for architectural services*. Abuja: ARCON.

Billett, S. & Choy, S. (2013). Learning Through Work: Emerging Perspectives and New Challenges. *Journal of Workplace Learning*, 25(4), DOI: [10.1108/13665621311316447](https://doi.org/10.1108/13665621311316447)

Bridgstock, R., Grant-Iramu, M., Bilsland, C., Tofa, M., Lloyd, K., & Jackson, D. (2019). Going beyond “getting a job”: Graduates' narratives and lived experiences of employability and their career development. In J. Higgs, W. Letts, & G. Crisp (Eds.),

Education for employability (Vol. 2): Learning for future possibilities (pp. 89–104). <https://doi.org/10.1163/9789004418707008>

Erbaş, İ. (2024). The Influence of Construction Site Internships in Architecture Education: A Study on Kolb's Experiential Learning Theory. *PROSTOR*, 2(66). DOI: [https://doi.org/10.31522/p.31.2\(66\).12](https://doi.org/10.31522/p.31.2(66).12)

Enwerekowe, E. O. and Mangden, D. D. (2019). Why does female underrepresentation persist in Nigerian architecture? *Civil Engineering and Architecture*, 7(4), 89–98. DOI: [10.13189/cea.2019.070401](https://doi.org/10.13189/cea.2019.070401)

Ferns, S., Zegwaard, K., Pretti, T. J., & Rowe, A. (2024). Defining and Designing Work-Integrated Learning Curriculum. *Higher Education Research & Development*, 44, 1 - 15. <https://doi.org/10.1080/07294360.2024.2399072>

Gundes, S., and Atakul, N. (2017). Internship Practices in Architectural Education: Student Perspectives, *Megaron*, 12(3), 355–364. <https://ssrn.com/abstract=3693209>

Jackson, D. (2015). Employability Skill Development in Work-Integrated Learning: Barriers and Best Practice. *Studies in Higher Education*, 40(2), 350–367. <https://doi.org/10.1080/03075079.2013.842221>

Mills, J. A., Middleton, J., Schafer, A., Fitzpatrick, R., & Short, S. (2020). Competency frameworks in health and human resources: A systematic review and analysis. *Human Resources for Health*, 18, 1–14. <https://doi.org/10.1186/s12960-019-0443-8>

Mulder, M. (2014). Conceptions of Professional Competence. In S. Billett, C. Harteis, & H. Gruber (Eds.), *International Handbook of Research in Professional and Practice Based Learning* (pp. 107–137). Springer. https://doi.org/10.1007/978-94-017-8902-8_5

Ndashiru, M. (2025). Evaluation of Career Competency Development in Undergraduate Architectural Internship Practices in Southwest Nigeria; *Unpublished Ph.D. Dissertation*, Ladoko Akintola University of Technology (LAUTECH), Ogbomosho.

Olayeni, K. P., & Adisa, B. (2019). Gender and Architectural Profession in Nigeria: Are Female Architects Up to the Task. *International Journal of Gender and Women's Studies*, 7, 102–110. DOI: [10.15640/ijgws.v7n2p11](https://doi.org/10.15640/ijgws.v7n2p11)

Rowe, A. D., & Zegwaard, K. E. (2017). Developing graduate employability skills and attributes: Curriculum enhancement through work-integrated learning. *Asia-Pacific Journal of Cooperative Education*, 18(2), 87–99. <https://doi.org/10.1080/03075079.2017>

Royal Institute of British Architects. (2014). *RIBA Plan of Work 2013*. London: RIBA Publishing.

Salama, A. M. (2015). *Spatial design education: New directions for pedagogy in architecture and beyond*. Routledge/Taylor & Francis. <https://doi.org/10.4324/9781315610276>

Toyin, O. J. and Mewomo, C. M. (2023). Assessing the Innovative Skills and Competencies Required of Construction Management Graduates. *Organisation, Technology and Management in Construction*, 23(15), 90–106. DOI: <https://doi.org/10.2478/otmcj-2023-0002>

