Professional Registration of Quantity Surveyors in South Africa: Barriers and Pathways Forward

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SUMMARY

Professional registration is a critical milestone for quantity surveyors in South Africa, ensuring competence, ethical practice, and recognition within the construction industry. Despite the availability of a formal registration pathway under the South African Council for the Quantity Surveying Profession (SACQSP), many graduates face challenges transitioning from university education to professional practice. This study adopts a structured literature review of academic research, SACQSP policy documents, and international professional frameworks (RICS) to examine barriers affecting SACQSP registration and identify pathways for improvement. Findings indicate that graduates encounter multiple obstacles, including limited mentorship opportunities, misalignment between curricula and professional competencies, uneven workplace exposure, and socio-economic constraints that hinder candidacy progression and APC completion. Drawing on these insights, the paper proposes actionable measures to strengthen the registration system, including structured mentorship tied to SACQSP competencies, enhanced APC guidance and preparatory workshops, curriculum co-design with industry, financial and access support, and digital competency-tracking platforms for candidacy and competency development. The study contributes to understanding how academic and professional institutions can collaborate to improve graduate readiness, streamline registration pathways, and enhance the quality and inclusivity of the South African quantity surveying profession.

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INTRODUCTION

The construction industry is a multidisciplinary sector that encompasses various professions, including architects, quantity surveyors, engineers, and project managers (Obaju *et al*., 2022). Each profession is regulated by statutory bodies to ensure accountability, ethical practices and quality standards. Achieving professional registration serves as both a significant career milestone and a means of protecting public interests while ensuring quality standards are upheld in the built environment.

The South African Council of the Quantity Surveying Profession (SACQSP), established under the Quantity Surveying Profession Act 49 of 2000, is responsible for regulating the quantity surveying profession (Republic of South Africa, 2000). Quantity Surveyors provide expert services, mainly focusing on the financial aspect, ensuring that clients receive the best value for money (Olanrewaju & Anahve, 2015).

Despite the availability of a formal regulatory pathway, many South African quantity surveying graduates struggle to transition into registered professional status. Aspiring quantity surveyors face several challenges during the registration process, which include administrative complexities, limited access to well-structured mentorship, inadequate workplace exposure, and the financial and time costs associated with candidacy and the APC process.

These challenges highlight the need to comprehend the barriers within the professional registration pathway. Accordingly, this study reviews literature on factors that hinder candidacy progression and proposes pathways to strengthen professional registration in South Africa.

THE SACQSP REGISTRATION PATHWAY

To become a Professional Quantity Surveyor (PrQS), the prospective QS undergoes three distinct stages, which include the applicant, candidacy, and professional quantity surveyor. At the applicant stage, prospective professionals must submit required documentation, along with a registration fee, upon approval (SACQSP, 2013; Mshiyi *et al*., 2019).

Once accepted, the candidacy period commences as a Candidate Quantity Surveyor (CanQS), typically lasting the minimum duration required by the SACQSP, during which they obtain practical experience and professional independence under the guidance of the employer and mentor (Mshiyi *et al*., 2019; SACQSP, 2014). Following completion of this period and passing

of the Assessment of Professional Competence (APC) interview, the candidate is officially registered as a PrQS and receives a certificate of registration (Mshiyi *et al*., 2019).

In comparison, this professional registration framework is broadly aligned with that of global regulatory bodies such as the Royal Institution of Chartered Surveyors (RICS). However, notable differences exist in assessment methods, candidacy periods, and mentorship structures. SACQSP accredits quantity surveying programs in Southern Africa, emphasising the development of knowledge, professional skills, and ethical conduct, which ensures alignment between education and required professional registration competencies (SACQSP, 2022).

However, international regulatory bodies offer transparent assessment processes and highly structured mentorship frameworks. These approaches provide helpful insight into areas that the SACQSP could work on improving for the South African registration pathway. Despite accreditation, many graduates face difficulties transitioning from university to professional registration. In the South African context, high youth unemployment worsens the challenges faced by graduates as they struggle to secure practical work experience required to register as SACQSP candidates and progress through the registration pathway (Du Toit *et al*., 2018; Statistics South Africa, 2022).

Consequently, academic programmes must align their curricula more closely with SACQSP policies and requirements, which influence objectives, student outcomes, and the overall design of the curriculum (Ahmed *et al*., 2014). Existing research identifies multiple key factors contributing to gaps in preparedness for professional registration, such as insufficient exposure to workplace training, limited structured mentorship, and curriculum-registration misalignment. Employers also emphasise professional registration as a marker of employability, in addition to technical competence, soft skills such as interpersonal interaction, situational awareness, and professional judgment are often underdeveloped during university training, despite their importance in professional practice (Mavasa & Terblanche, 2023).

Professional registration is a critical milestone in the career development of quantity surveyors, ensuring competence, accountability, and recognition within the construction industry. While a significant amount of literature exists on competency assessment and professional registration in general, there is research specifically examining the challenges faced by quantity surveyors within the South African context. Candidates often encounter considerable barriers when navigating the process.

Accordingly, this study aims to identify the key barriers faced by South African quantity surveying graduates during the SACQSP professional registration process, compare SACQSP's registration mechanisms with those of international bodies, and propose practical pathways to strengthen the registration system and enhance graduate progression from candidacy to full professional status.

METHODOLOGY

This study adopted a secondary research design based on a structured review of academic

literature, policy documents, and professional regulatory frameworks relevant to quantity surveying education and SACQSP registration. Searches were conducted in Google Scholar, complemented by a targeted review of SACQSP documents, DHET publications, Stats SA labour-market data, and publicly available materials from RICS for international comparison.

A benchmarking exercise was conducted to evaluate the SACQSP against the RICS, utilising a document analysis approach that focused on competency frameworks, assessment procedures, mentorship structures, and digital support tools. RICS' global recognition made it the most suitable international benchmark for enabling a systematic evaluation of SACQSP processes and providing comprehensive guidance.

The search strategy used combinations of terms such as “quantity surveying and registration,” “SACQSP and competence,” “graduate employability and built environment,” and “APC and South Africa,” focusing on sources published between 2000 and 2025. Documents were included if they addressed QS education, graduate readiness, mentorship, workplace training, or professional registration processes. Sources were excluded if they were unrelated to built-environment professional regulation, did not focus on entry into QS registration or lacked relevant methodological detail for analysis.

All selected material was analysed thematically. The literature was grouped into four clusters: (i) graduates’ readiness for SACQSP registration, (ii) employability skills in quantity surveying, (iii) graduates’ unemployment and labour market challenges, and (iv) academia-industry alignment in quantity surveying. These themes structured the synthesis presented in the Results and Discussion.

The study is limited by its reliance on secondary sources, with no primary data from Candidates, firms, or SACQSP officials, and by the predominance of English-language material. Nonetheless, the approach provides a robust evidence base for evaluating barriers to SACQSP registration and identifying potential pathways for strengthening the system.

LITERATURE KEY FINDINGS

Graduates’ Readiness for SACQSP Registration

Graduate readiness for SACQSP registration is a critical factor, as insufficient exposure to professional practice can delay entry into candidacy, ultimately hindering the successful completion of the APC. Universities in developing countries are often criticised for their curricula that fail to sufficiently address the industry needs (Tessema & Abejehu, 2017). Recent research highlights the importance of partnerships among higher education institutions, professional organisations, and employers in cultivating job-ready graduates (Lawson *et al*., 2011; Larsen *et al*., 2016).

In the South African context, both the Council of Higher Education (2016) and SACQSP (2014) emphasise the need to align educational curricula with professional skills. However, persistent

discrepancies remain between academic training and actual practice, which contribute to challenges faced during registration. This misalignment affects candidates' progression during both the candidacy and APC stages, as many commence the process without practical knowledge and workplace exposure.

Professional bodies, such as the SACQSP, play a role in curriculum accreditation; yet, many graduates still face challenges during registration, suggesting that certification alone is insufficient to resolve the ongoing gap between academic preparation and workplace expectations.

These gaps in graduates' readiness create tangible barriers to SACQSP candidacy entry, as candidates are expected to demonstrate foundational technical competence upon registration. Insufficient academic grounding slows APC progress and increases the reliance on workplace mentoring, which is already limited in availability. These challenges highlight the importance of employability skills, which will be examined in the next section.

Employability Skills and Their Influence on Registration

Building on graduate readiness, another critical factor that affects professional competency development is the acquisition of employability skills. While employability skills are generally widely understood, within the SACQSP context, these skills are particularly crucial for developing professional competencies assessed during the candidacy period. Haupt and Armoed (2017) demonstrate that a discrepancy exists between the skill sets that graduates possess and the expectations of employers, reflecting a mismatch between the priorities of higher education institutions and the demands of the job market.

Research across various fields reveals that employers are increasingly seeking graduates who combine technical proficiency with transferable skills such as communication, teamwork, problem-solving, and critical thinking (Chu *et al*., 2017; Khodeir & Nessim, 2019). However, in Quantity Surveying, most research focuses predominantly on core technical competencies, with limited investigation into the broader range of employability skills that employers seek (Oke *et al*., 2019; Chamikara *et al*., 2018; Chandramohan *et al*., 2020). In South Africa, this gap is significant given the SACQSP's strong focus on technical skills and professional conduct. Mentorship reports, workplace tasks, and APC interviews often reveal gaps in skills such as professional communication, teamwork, and problem-solving, indicating that insufficient attention to employability skills may undermine graduates' preparedness for professional practice.

The South African construction industry has undergone considerable changes, prompting Quantity Surveyors to expand their responsibilities to include value engineering, risk analysis, and dispute resolution. This shift requires graduates to balance technical expertise with soft skills to meet the demands of a competitive job market (Chu *et al*., 2017). Although there is a growing acknowledgement of these essential skills, studies indicate persistent discrepancies

between the competencies cultivated through higher education and those required by employers, undermining graduates' employability and readiness for the workforce (Hou *et al*., 2021). Such methodologies enable candidates to translate academic knowledge into professional capabilities, thereby enhancing the technical and behavioural skills required for successful SACQSP registration (Gamar Eldeen *et al*., 2018; Du Plessis & Holtzhausen, 2025).

Higher education programs must adapt by integrating both the creation and application of emerging construction technologies along with the practical skills and abilities required to navigate the challenges these technologies bring (Du Plessis & Holtzhausen, 2025). Improving this alignment ensures that graduates are better positioned to progress through the APC and attain complete professional registration.

This misalignment has consequences, as graduate unemployment remains significant, partly due to educational programs that fail to align with industry requirements adequately and lack practical experience (Stats SA, 2022; Aliu & Aigbavboa, 2020). Employers emphasise the need for graduates to combine their technical expertise with soft skills, critical thinking, and adaptability to effectively address workplace challenges (Mavasa & Terblanche, 2023).

Ultimately, bridging the disconnect between academic training and labour market demands requires incorporating hands-on experience, exposure to new construction technologies and developing versatile skills (Aliu & Aigbavboa, 2020; Du Plessis & Holtzhausen, 2025).

Weak employability competencies, particularly communication, report writing, and problem-solving, also hinder progression through the APC. Reflective submissions, project reports, and professional interviews require high levels of professional communication; thus, employability limitations extend beyond job access and directly influence registration success.

Graduates' Unemployment and Labour Market Challenges

High unemployment among graduates not only hinders career advancement but also restricts access to the practical work experience required by the SACQSP, making it difficult for them to register. In South Africa, the unemployment rate among higher education graduates is currently estimated at 30-40%. These figures underscore the consequences of the persistent mismatch between the higher education output and labour market demands (Stats SA, 2023; DHET, 2023).

Closely linked to skills gaps is graduates' unemployment, which directly affects candidates' ability to accumulate the practical experience required for the APC portfolio, thereby slowing registration timelines (Oke *et al*., 2019; Chandramohan *et al*., 2020). These challenges place dual pressures on graduates: they must secure employment to gain practical experience while simultaneously meeting the SACQSP competency standards. Existing studies highlight that bridging the disconnect between academic training and the demands of the labour market

requires incorporating hands-on experience, exposure to new construction technologies and the development of versatile skills (Aliu & Aigbavboa, 2020; Du Plessis & Holtzhausen, 2025).

Persistent unemployment among QS graduates has a direct impact on SACQSP registration outcomes, as candidates must secure structured workplace opportunities to begin logging their competency hours. Without employment in an approved environment, graduates cannot enter or progress through candidacy, which may result in potential registration delays or the abandonment of their candidacy. This section leads into a discussion of academia-industry alignment, which is critically significant for improving graduate employability and facilitating the transition to professional registration.

Academia-Industry Alignment in Quantity Surveying

Collaboration among universities, professional regulatory bodies, and industry is essential to overcome challenges related to registration. Graduates often possess misperceptions about the skills and competencies expected of entry-level professionals, which negatively affect their preparedness when applying for jobs or working within built environment organisations (Ballim *et al*, 2014). The SACQSP competency frameworks emphasise technical knowledge and ethical conduct (SACQSP, 2014). However, workplace behaviours, professional judgement and attitudes required for achieving professional success are often insufficiently developed during university training (see Figure 1).

The CHE (2016) highlights that the duty of producing skilled and competent graduates does not rest solely with universities. Instead, it is a collective responsibility involving higher education institutions, statutory professional councils, and registered professional bodies, such as the SACQSP. Central to this process are students, who must be equipped with the knowledge, skills, and values essential for a successful transition into the workforce as a qualified professional.

Conceptual models help clarify how these gaps emerge in professional practice. Figure 1 highlights the distinction between knowledge and competence, where competence refers to the technical knowledge and skills gained through formal education. In contrast, professional competence encompasses the behaviours, judgment, and qualities essential for effective practice. In quantity surveying, SACQSP-accredited programs are designed to cultivate competence. At the same time, the candidacy and mentorship stages concentrate on developing competency, thereby explaining why graduates might encounter difficulties transitioning into professional practice.

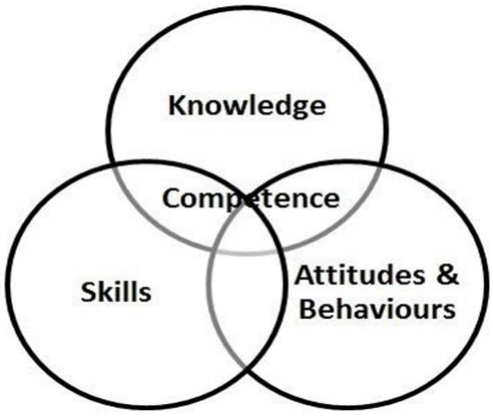

***Figure 1**: Knowledge Vs. Competence in Quantity Surveying*
Source: Warier (2014)

Misalignment between academic training and workplace expectations widens the gap between graduate competence and SACQSP's APC requirements. When curricula do not sufficiently reflect industry competencies, employers must provide extended remedial training, which slows APC progression and reduces the number of firms willing to mentor candidates.

DISCUSSION

The transition from academic education to professional practice remains a significant challenge for South African quantity surveying graduates, including a lack of practical experience, limited exposure to real-world situations, and inadequate mentorship throughout the candidacy period (Mshiyi *et al*., 2019; Buys, 2019). This gap highlights the need for SACQSP to focus not only on technical skills but also transferable skills, such as communication, teamwork, problem-solving, and adaptability (Haupt & Armoed, 2017; Oke *et al*., 2019).

Collectively, these studies suggest that integrating work-based learning and encouraging partnerships between universities and industry could help develop candidates' transferable skills, such as adaptability and problem-solving, which are crucial for successful registration with the SACQSP (Chhinzer & Russo, 2018; Aliu & Aigbavboa, 2020; Gamar Eldeen *et al*., 2018). These findings underscore the need for SACQSP to support initiatives aimed at bridging theoretical education and practical work experience, so that the graduates are equipped with technical competence and broader employability competencies, thereby improving their readiness for both local and international job markets.

Conceptual models help to illustrate how gaps between the academic training and professional practice can affect candidates' readiness for registration. While graduates may acquire technical knowledge through formal education, they still need to develop employability skills by engaging in practical experiences, reflecting on those experiences, integrating theory, and actively experimenting. These challenges are linked to broader systemic issues, including unequal access to mentorship, socio-economic challenges, and historical underrepresentation

of specific demographic groups (Warier, 2014). Figure 1 illustrates the distinction between academic knowledge and applied competence. Furthermore, highlighting how insufficient practical experience and employability skills can hinder candidates' progress toward SACQSP registration and highlighting the need for structured interventions to support equitable outcomes.

Consequently, without sustainable employment opportunities, candidates are likely to face challenges in completing the practical components of the APC, which ultimately delays their ability to obtain professional registration. The literature highlights that clear and more structured collaboration and cooperation among all stakeholders are necessary, with an acknowledgement of the distinct contributions each makes toward improving the quality of higher education and ensuring that graduates are adequately prepared for professional practice.

CONCLUSION

This study highlights several structural and systemic barriers that impede South African quantity surveying graduates from progressing through the SACQSP professional registration pathway. The key challenges can be summarised as follows: (i) limited availability of structured mentorship opportunities, (ii) misalignment between academic competencies and SACQSP's APC requirements, (iii) socio-economic constraints that limit access to stable work and developmental opportunities, and (iv) administrative uncertainties that create confusion about required processes and timelines.

Addressing these barriers requires coordinated action among universities, regulatory bodies and employers. Strengthening industry-academia collaboration can ensure curricula better align with APC competencies. Expanding mentorship capacity, including targeted incentives for firms to host and support candidates, will improve access to structured training. In addition, more transparent SACQSP communication, simplified administrative procedures, and targeted financial support mechanisms can reduce socio-economic and procedural barriers.

By focusing on these pathways forward, South Africa can enhance the effectiveness of its professional registration system and support a more inclusive and sustainable pipeline of registered quantity surveyors. Future studies should prioritise evaluating the effectiveness of structured mentorship initiatives and curriculum alignment interventions. This should be followed by examining the lived experiences of candidates during mentorship and APC preparation and assessing the feasibility of adapting international best practices to the South African context.

This study synthesises South African and international literature to analyse the barriers hindering the successful professional registration of candidates and proposes a competency-based pathway framework. By linking mentorship, curriculum alignment, and APC support to the competence-competency transition, it offers practical guidance to strengthen the registration

process. Moreover, it contributes to the reform of professional practice and ongoing policies within the quantity surveying profession.

PATHWAYS FORWARD

Figure 1 illustrates the critical distinction between academic knowledge and professional competence, demonstrating how candidacy and structured mentorship bridge the gap between university learning and SACQSP registration requirements. Building on this framework, five actionable measures are proposed to enhance the registration pathway and address identified barriers.

First, structured mentorship schemes should be implemented, explicitly tied to SACQSP competencies. Clear mentor-mentee expectations, standardised competency logbooks, and reflective exercises ensure that candidates develop professional behaviours and judgment, complementing the technical knowledge gained during university training.

Second, APC guidance should be strengthened through practical support, including sample competency portfolios, mock APC interviews, and structured preparatory workshops co-facilitated by universities and employers. These measures clarify expectations, reinforce the link between academic learning and professional practice, and enhance candidate readiness.

Third, curriculum-registration alignment should be promoted through the co-design of selected modules with SACQSP and industry partners. Work-integrated learning experiences that target specific competencies enable students to apply theoretical knowledge in practice, directly addressing the areas where graduates typically encounter challenges.

Fourth, socio-economic and access barriers must be addressed through targeted support mechanisms. These may include bursary-linked internships, reduced registration fees for low-income candidates, transport or relocation support for those in rural areas, and partnerships with public-sector organisations to expand training opportunities.

Lastly, digital tools can support both candidates and mentors in managing the registration process. Examples include online competency-tracking portals, mentor feedback dashboards, digital logbooks, and integrated CPD management systems. These tools enhance monitoring and transparency, ensuring a structured progression from competence to competency.

Implementation may require a phased adoption due to resource, capacity, and coordination constraints, with gradual integration recommended. By explicitly linking these measures to the conceptual model in Figure 1, the SACQSP registration pathway becomes more structured, actionable, and responsive to the transition from academic preparation to professional practice, thereby enhancing candidate preparedness and overall system effectiveness.

REFERENCES

Ahmed, S.M., Yaris, C., Farooqui, R. U., & Saqi, M. (2014). Key attributes and skills for curriculum improvement for undergraduate construction management programs. *International Journal of Construction Education and Research*, 10(4), 240–254. https://doi.org/10.1080/15578771.2014.900833

Aliu, L. & Aigbavboa, C. (2020). Graduate employability in the South African construction industry: challenges and strategies. *Journal of Construction in Developing Countries*, 25(2), pp.45–62. https://doi.org/10.1108/jedt-05-2020-0189

Ballim, Y., Mabizela, S. & Mubangizi, J.C. (2014). Professional Bodies and Quality Assurance of Higher Education Programmes in South Africa: Towards an Appropriate Framework, Unisa Press. ISSN 1011–3487. https://doi.org/10.20853/28-4-386

Chamikara, P.B.S., Perera, B.A.K.S. & Rodrigo, M.N.N. (2018). Competencies of the quantity surveyor in performing sustainable construction. *International Journal of Construction Management*, 20(3), pp.237–251. https://doi.org/10.1080/15623599.2018.1484848

Chandramohan, A., Perera, B.A.K.S., & Dewagoda, K.G. (2020). Diversification of professional quantity surveyors' roles in the construction industry: the skills and competencies required. *International Journal of Construction Management*, 22(7), pp.1374–1381. https://doi.org/10.1080/15623599.2020.1720058

Chandrasekaran, S., Stojcevski, A., Littlefair, G. & Joordens, M. (2013). Project-oriented design-based learning: aligning students' views with industry needs. *International Journal of Engineering Education*, 29(5), 1109–1118.

Chhinzer, N. & Russo, R. (2018). An exploration of employer perceptions of graduate student employability. *Education & Training*, 60(1), pp.104–120.

Chu, S.K.W., Reynolds, R. B., Tavares, N. J., Notari, M., & Lee, C.W. Y. (2017). 21st-century skills development through inquiry-based learning from theory to practice. Singapore: Springer. https://doi.org/10.1007/978-981-10-2481-8

Council on Higher Education (CHE), (2016). *South African higher education reviewed: Two decades of democracy.* Pretoria: Council on Higher Education.

Department of Higher Education and Training (DHET), (2023). *National Skills Development Plan: Annual Report 2022/23*. Pretoria: Department of Higher Education and Training.

Du Plessis, H. and Holtzhausen, S. (2025). Bridging academia and the industry: a framework for enhancing graduate attributes in South Africa's construction 4.0 landscape. *Acta Structulia*, 32(1), p.1–33. https://doi.org/10.38140/as.v32i1.9147

Du Toit, M., De Witte, H., Rothmann, S. & Van den Broeck, A. (2018). Unemployment Experiences in Context: A Phenomenological Study in Two Townships in South Africa. *Journal of Psychology in Africa*, 28(2), pp.122–127. http://doi.org/10.1080/14330237.2018.1454575

Gamar Eldeen, A.I., Abumalloh, R.A., George, R.P., & Aldossary D.A. (2018). Evaluation of Graduate Students Employability from Employer Perspective: Review of the Literature. International *Journal of Engineering & Technology*, 7(2.29), pp.961–966.

Haupt, T.C. & Armoed, Z. (2017). Investigating the impact of accreditation on quantity surveying programmes and the professional preparedness of graduates. *Proceedings of the 11th Built Environment Conference*, Durban, South Africa, pp.72–83. Association of Schools of Construction of Southern Africa (ASOCSA).

Hou, A. Y. C., Hill, C., Justiniano, D., Yang, C., & Gong, Q. (2021). The relationship between 'employability' and 'higher education' from the global ranker and accreditor's perspective: Does a gap exist between institutional policy-making and implementation in Taiwan's higher education? *Journal of Education and Work*. https://doi.org/10.1080/13639080.2021.1922619

Khodeir, L.M. & Nessim, A.A. (2019). Changing skills for architecture students' employability: An analysis of the job market versus architecture education in Egypt. *Ain Shams Engineering Journal*, 11(3), pp.811–821. https://doi.org/10.1016/j.asej.2019.11.006

Kolb, D.A. (1984). *Experiential learning: experience as the source of learning and development*. Englewood Cliffs, NJ: Prentice-Hall.

Larsen, K., Bandara, D. C., Esham, M. & Unantenne, R. (2016). Promoting university-industry collaboration in Sri Lanka: status, case studies, and policy options. The World Bank.

Lawson, R., Fallshaw, E., Papadapoulos, T., Taylor, T. & Zanko, M. (2011). Professional learning in the business curriculum: engaging industry, academics and students. *Asian Social Science*, *7*(4), pp.61–68. https://doi.org/10.5539/ass.v7n4p61

Mavasa, T. & Terblanche, R. (2023). PrQS firms' perspectives impacting on the employability of quantity surveying graduates: QS Graduate Employability, *Journal of Construction Project Management and Innovation*, 13(2), pp. 53–54.

Mshiyi, F., Olanrewaju, R. & Anahve, L. (2019). Quantity Surveying Registration Process in South Africa: Challenges and Opportunities. *Journal of Construction Education*, 24(2), pp.77–90.

Obaju, B., Musa, S. & Abass, J.O. (2022). Registration challenges in the built environment professions within professional institutions. *International Journal of Advances in Scientific Research and Engineering*, 8(9), pp.42–48. https://doi.org/10.31695/IJASRE.2022.8.9.6

Oke, A.E., Ogunsemi, D.R. & Adeyelu, M. (2019). Quadrant and gap analysis of required and exhibited quantity surveyors' competencies. *Journal of Engineering, Design and Technology*, 17(6), pp.1161–1173. https://doi.org/10.1108/JEDT-01-2019-0029

Olanrewaju, R. & Anahve, L. (2015). Duties and responsibilities of quantity surveyors in the procurement of building services engineering. *Procedia Engineering*, 123, pp.352–360. https://doi.org/10.1016/j.proeng.2015.10.046

Republic of South Africa (RSA). (2000). *Quantity Surveying Profession Act 49 of 2000*. Pretoria: Government Printer.

South African Council for the Quantity Surveying Profession (SACQSP). (2013). *Registration guidelines for candidate quantity surveyors.* Johannesburg: SACQSP.

South African Council for the Quantity Surveying Profession (SACQSP). (2014). *Competency framework for the Quantity Surveying Profession*. Johannesburg: SACQSP.

South African Council for the Quantity Surveying Profession (SACQSP). (2022). *Mutual recognition agreement with RICS.* Johannesburg: SACQSP.

Statistics South Africa (Stats SA). (2022). *South Africa's youth continue to bear the burden of unemployment.* Statistics South Africa.

Statistics South Africa (Stats SA). (2023). *Quarterly Labour Force Survey: Q1: 2023*. Statistics South Africa.

Tessema, B. S., & Abejehu, S. B. (2017). University-Industry collaboration in curriculum development: analysis of banking and finance graduates' attributes from educators' and industry's perspective. *Education Journal*, 6(2), pp. 87–93. https://doi.org/10.11648/j.edu.20170602.13

Warier, S. (2014). *Competence and Competency Management*: The Practitioner's Handbook. Cognition Knowledge Services.

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