Professional Registration and Candidate Mentoring in South Africa's Built Environment: Challenges and Solutions

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Abstract
Candidates' articulation as registered professionals continue to be a challenge. This study examined professional registration trends and challenges concerning candidate mentorship in the South African construction industry (SACI). Data were collected through document analysis and panel discussion during a Construction Industry Conversation organised by the Association of Construction Project Managers in South Africa. The panel's composition consists of registered professionals from selected professional bodies in the construction industry. Content analysis revealed that the ratio of professionals to candidates was inadequate, with high age and gender differences. The challenges of candidate mentorship include inconsistency, unavailability of work or limited projects, insufficient exposure to practical training, unwillingness of professionals to mentor others and relationships. The structure, timing and skills (hard and soft) to be developed at various educational levels including basic education, higher education and in the workplace could contribute to effective programmes. The study informs on the trend and demographics of professional registration, candidate mentoring challenges, and proposed programmes to increase professional registration and sustain the industry.

Keywords
Built Environment, Graduates, Mentoring, Professionalism, Registration

1. Introduction

The construction industry is globally acknowledged as an economic driver. Part of the success of the economy is the role played by skilled professionals and professionalism (Oladimeji, 2019). Business, managerial and professional skills are required to improve workforce productivity project performance (Oke et al., 2018). Construction project delivery depends on professionals in the Built Environment (BE) to acquire and maintain relevant skills. According to the International Labour Organisation (ILO) (2011), countries, sectors and organisations perceive skills development as strategic, and continuously seek opportunities to invest in upskilling of professionals. This is because the level of success in construction activities partly depends on the quality of the professionals regarding managerial, financial, technical, and organisational performance (Oladimeji, 2019). These professionals include architects, contractors, project managers, land surveyors, quantity surveyors, structural and service engineers, town planners, etc. Construction professionals take enormous risks and huge decisions, which influence the lives of others, including the public. Therefore, in fulfilling their professional obligations, they need to be registered as this contributes towards improving their performance and eventual outcome of projects. The registration of professionals results in carefully designed career routes, independent decision-making, and a commitment to abide by externally laid down structures of professional conduct, thereby ensuring the highest levels of quality and professionalism (Engineering Council of South Africa (ECSA), n.d.).
However, the low number of professionals is a concern, with the percentage at 8% in 2018 (Oke et al., 2018). Some of the factors that hinder professional registration are the requirement of candidate mentorship in the professional bodies, the number of ongoing projects and professionals' unwillingness to mentor others (Massey, 2018). Therefore, one of the ways of improving professional registration numbers is through mentoring (Hudson, 2013).
A mentor is "a person who guides and advises through the training period to achieve maximum possible professional development and professional registration in the shortest possible time (ECSA, n.d.). Mentoring provides additional support and accelerates the personal and professional development of mentees. Organisations need to train and mentor graduate employees for professional registration. Mentoring has been associated with career-related support, higher

job satisfaction, work-life balance, job security, knowledge production and transfer, positive perceptions of procedural and distributive justice and other vocational and psychosocial development outcomes (Hoffmeister et al., 2011; Bjursell & Sädbom, 2018). Effective mentorship is an opportunity to increase professional growth for both the mentor and mentee (Hudson, 2013). Mentorship plays a significant role in career development, labour force and growth of professionals in the construction industry for infrastructure planning and delivery. Effective mentoring among professionals improves their productivity and enhances the performance of construction projects (Oke et al., 2017). Hence, mentoring must be aimed at upskilling and empowering upcoming professionals to rise through the ranks to achieve professional status and improve their performance/productivity in the industry.

Compared to other industries, the construction industry is poor at providing a structured learning and training environment (mentoring and or coaching) to ensure that the right lessons are learned (Massey, 2018). According to Yokwana (2015), the main purpose of any mentor-mentee relationship is to empower both parties; thus, it is important and prudent to maintain an endless commitment to the objectives set and be guided by the rules and ethics. However, mentorship, which is critical for new entrants in the construction industry, is fraught with obstacles. Mentorship, which commences at the university level and depends on the workplace availability for experiential learning, may lead to gaps in the professional development pipeline at various stages. While the quality of tertiary education is important, it is how the recruits or graduates are nurtured that is critical. Although mentoring programmes are provided in certain circumstances, they do not always translate to professional registrations (Massey, 2018). These gaps pose obstacles to the numerical growth of professionals and the construction industry, which warrants investigation on mitigation and improvement strategies.

Previous studies have identified and addressed challenges that occur during mentoring. For example, Bjursell and Sädbom (2018) undertook a literature review and found a theoretical gap on mentorship research in general and in the manufacturing industry. Hoffmeister et al. (2011) focused on mentoring characteristics as contributors to effective mentoring in the construction industry. However, the study, conducted among union workers in the United States, was directed at jobsite mentoring. Oke et al.'s (2017) quantitative study examined challenges facing mentees and mentors in the construction industry in South Africa; and more recently, Talbert et al. (2021) examined scholars and mentees' perspectives in a structured academic mentoring program to improve skills and identified misaligned interests and competing demands on time as key challenges. However, none of the studies addressed the issues of the trend of professional registration in terms of mentors–mentees ratio, age difference, youth, and female registration. Assessment of registration profiles, existing competencies and possible skills gaps as well as mentoring challenges is important to achieve the desired performance and skills at work (ILO, 2019). Therefore, this study's objective was to examine the perceptions of built environment professionals on mentoring challenges, both in the skills pipeline and mentorship programmes, as well as ways to improve candidate mentorship. The findings are envisaged to be beneficial in developing ways to bolster growth in professional registrations in different relevant bodies within the SACI.

2. Literature Review

Mentoring in the construction industry

The construction industry is complex and generally complicated in its scope of work, involving interactions of professionals with different skills and abilities, interdependencies, and interrelationships between parts of a project and organisational aspects of a project (Wood & Gidado, 2008). Candidates are directed on how to apply and use the theoretical knowledge received during formal education; and are guided to define, pursue, and achieve their career objectives and goals. The effectiveness of mentoring relationships is mostly based on the parties' ability to maximise the available opportunities (Sage & Hamlin 2011).

Bjursell and Sädbom (2018) undertook a literature review on mentorship in the manufacturing industry and showed theoretical gaps about mentorship program structures and characteristics and concerns regarding mentoring relationships, professionals' management and organisational mentorship. Hoffmeister et al. (2011) examined mentoring characteristics on a "superior", "average", or "poor" mentor response scale, among 170 union construction workers in the United States. Although the study focused on job site mentoring, it emphasised the need to undertake targeted research on mentoring given the industry's unique attributes with tight deadlines, working with other trades, diverse and rapid tasks, and the short-term relationships between mentors and mentees.

Oke et al. (2017) examined challenges facing mentees and mentors in the construction industry in one province of South Africa. A questionnaire survey among conveniently selected professionals showed that individual dispositions and attitudes were the main challenges facing the mentoring process. Likewise, Adedeji et al. (2019) investigated mentorship barriers and impact but focused on women's career development. Christine et al. (2011) and Sage and Hamlin (2011) concurred that an effective mentor-mentee relationship is beneficial to organisations and industries if strictly followed and effectively managed. Amelink (2010) also noted that an effective mentor-mentee relationship promotes the mentee's career development through the exposure to practice, industry networks and potential

employment or partnerships. Therefore, mentoring has a positive impact on an individual's growth and development, personally and professionally.

Mentoring candidates for professional registration

Due to its complex and competitive nature, training and mentoring of upcoming professionals are critical to ensure the future sustainability of the industry. Fresh graduates should be encouraged to access and establish mentoring relationships based on seniority in the organisations. Through the mentoring process, the registered professionals (mentors) assist the candidates, and upcoming professionals (mentees) to discover potential and improve skills to contribute to the growth of the construction industry (Yokwana, 2015).

The quality of the mentor-mentee relationship between the registered professional (mentor) and the upcoming professional (mentee) or candidate, is a vital element to ensure successful and effective mentoring (Christine et al., 2011). To ensure effective and successful mentor-mentee relationships, both parties should adopt and apply the "pulling and pushing mentoring" style (Nicholas, 2016). Sage and Hamlin (2011) defined this style as providing a safe and conducive environment for the upcoming professional to feel safe, and be able to share, and express career objectives and goals. This creates an avenue where support and assistance are given through listening, and the opportunity is given to ask relevant and important questions for solutions, motivating the mentee to think and arrive at answers to problems, providing relevant knowledge, adequate and appropriate tools, techniques, and ideas that could promote productively, enhance thinking ability for better performance.

Professional mentoring can develop effective mentoring relationships by creating a conducive avenue, listening without unfair or biased judgment, supportive and objective views, and acknowledging, appreciating, and accepting differences in each party (Wong & Premkumar, 2007). Stone (2007) and Sage and Hamlin (2011) identified the qualities of good mentors including interpersonal qualities, crediting achievements, supervision, accepting uncertainties, setbacks and risks, readiness to promote/support the mentees' growth, attentive listening, asking relevant questions, setting achievable objectives and goals, and maintaining and developing proper management connections through empathy and consent. In the same vein, the qualities of a good mentee were identified as intelligence, commitment, taking initiative, expressing needs clearly, seeking input from a mentor, helping to identify development goals, showing commitment by following targets and attending meetings, maintaining confidentiality, seeking to understand and apply rules, boundaries, and responsibilities (Stone, 2007; Sage and Hamlin, 2011). These suggest that the responsibility for a good and effective mentor-mentee relationship does not solely depend on the mentor's help, required guidance, and support; the capabilities and qualities of the mentee are essential in mentor-mentee relationships, a view supported by Akerele et al. (2019).

Professional Registration

Candidates may apply for professional registration in the respective area of speciality: Professional Construction H&S Officer, Professional Construction Project Manager, Professional H&S Agent, Professional Construction Manager, Professional Construction Mentor, Professional Construction H&S Manager, or Candidate Construction Project Manager, Candidate Construction H&S Manager, Candidate Construction Manager, Candidate Construction H&S Officer, Candidate Construction H&S Agent, or Candidate Construction Mentor (section 1(2) of SACPCMP registration policies and guidelines). A registered candidate is expected to undergo training (mentorship) under a registered professional for a maximum period of four years, after which they may apply for professional registration. Upon assessment (based on qualifications, area of specialisation, and experience (reflected in projects report and logbook), they are invited to attend a professional interview and then be registered in the category applied for (SACPCMP Registration Policies and Guidelines, section 1(3.2).

Challenges of Professional Registration in South Africa

The recent challenges concerning mentoring and registration highlight the need for quality education and training systems for professionals. The construction industry today requires adaptable and broadly skilled professionals who can cope with challenges such as globalisation, responsible leadership, and rapid technological advancements. In South Africa, the urgent need for effective and relevant mentoring is highlighted by the shortage of high-level skills, and graduate unemployment (which points to mismatches between the outcomes of higher education and the professionals' needs). Recent studies relating to education for the profession and professionalism have highlighted the importance of collaboration between academics and practitioners in conducting professional education research on trainee competencies (Chaffer & Webb, 2017).

Lansdell et al. (2019) investigated the practical experience obtained during the training period to determine the effective development of professional skills, including intellectual, technical, functional, personal, communication, and organisational skills. Although university programmes aid students in developing professional skills, employers observe inadequately developed skills (Aliakbarlou et al., 2020). Therefore, practical experience is crucial in acquiring professional skills like problem-solving, leadership, strategic thinking, listening, writing, the ability to influence others and critical thinking (Lansdell et al., 2019).

Mentoring Strategies in the South African Construction Industry

The emphasis of professional mentoring strategy has switched from the teaching of technical knowledge to the consideration and inclusion of competencies associated with professionalism, professional skills and critical thinking, during both the structured university education and the industrial training. The education of professionals in South Africa is unique in the sense that the professional bodies have strong control over education and training through the accreditation process.

The Act No. 43 of 2000, which established the Council for the Built Environment (CBE) in South Africa, also empowers the council to coordinate the administration of the professional bodies. CBE in conjunction with the professional organisation under the BE have the mandate to develop conditions relating to professional competence by re-education and training through CPD (SACPCMP, 2017). The common CPD techniques that have been employed and encouraged by the BE professional bodies and providers include workshops, seminars, conferences, colloquiums, educational designated short courses, mentoring, further studies, teaching, facilitation of training programmes and research and publications among others (SACPLAN, 2018). CPD programmes structured towards participants' field and job skills have positive impacts (deepening and broadening the knowledge base, aligning knowledge to practice, creating job confidence, and improving performance and competence. Despite several CPD programmes that are organised by professional bodies and accredited service providers, tailored towards gaining new competencies to match evolving technologies and methodologies in the industry, there is still increased dissatisfaction regarding the industry's performance. This, therefore, questions the positive impact of enhancing competencies as expected by the CPD activities. Research has identified low participation in CPD programmes as one of the major shortcomings of CPD effectiveness. Further to this, researchers have attributed the non-compulsion of CPD for all participants in the industry except for the registered persons, non-specific framework, lack of personal interest, lack of funds and lack of time among other issues, as attributes contributing to the CPD low participation (Kwofie & Mpambela, 2017). The resonance from the literature supported a relook at ways to assist professional bodies to attract high participation by registered professionals.

3. Settings and Methods

The study employed a qualitative approach. Focus group (panel) discussion (FGD) were utilised. The FGD is a research tool frequently used to collect in-depth qualitative data among a group of people discussing topics of interest (Nyumba et al., 2018). This method was adopted because it allowed the opportunity to capture deeper information more economically than through individual interviews (ibid.).

The FGD characteristics met the conditions described in Krueger (2022). The panelists were carefully recruited by the facilitating organization, through their respective professional bodies. The members of the panel were registered professionals mentoring candidates for professional registration in the construction industry. They had more than five years of experience (post-professional qualification). Thus, the panel was purposively selected to include experts, from similar backgrounds (construction industry) and those relevant to the topic of discussion and central importance (ibid.; Andrew & Jonathan, 2006).

One member was selected from the following professional bodies: Association of Construction Project Managers (ACPM), CBE Professions, and the six BE professions in South Africa including ECSA, South African Council for the Architectural Profession (SACAP), South African Council for the Landscape Architectural Profession (SACLAP), South African Council for the Project Management Professions (SACPCMP), South African Council for the Property Valuers Profession (SACPVP), South African Council for the Project and Construction Professions (SACPMP), and the South African Council for the Quantity Surveying Profession (SASQSP). These professional bodies were selected because they are the registered bodies in South Africa that mentor and register professionals. The Center of Applied Research and Innovation in the BE (CARINBE), at the University of Johannesburg, participated as the recorder and research partner. Other participants included the Resolve Business Organisation, Department of Public Works (DPW), Construction Management Foundation (CMF), Proserve Consulting (PC), Technical and Vocational Education and Training (TVET), SKM Project and Consulting, professionals and practitioners, and university students in the BE in South Africa.

The participants made up an eight-member panel. Krueger (2002) and Nyumba et al. (2018) suggested six to eight people in a discussion group. Moreover, the FGD approach obtains data from a purposely selected group of individuals rather than from a statistically representative sample (Nyumba et al., 2018). Therefore, the number (eight) was observed to be sufficient to provide reliable insights and recommendations on the candidate mentoring challenges and strategies to improve professional registration in the construction industry.

One of the crucial elements in FGD is the moderator (facilitator) who moderates the discussions (Krueger, 2002). The moderator asked participants to reflect on the entire discussion and then offer their positions/opinions on the pre-determined questions including whether mentoring should be compulsory for professional registration, challenges faced in the skills pipeline, candidate mentoring programmes available, implementation challenges and suggestions to support mentoring and improve professional registration. These strategically focused prompts helped the researchers to capture participants' responses in real space and time and in the context of the environment and interactions (Onwuegbuzie et al., 2009). The duration of the discussions was two hours. Notes were taken by the researchers during the session (Nyumba et al., 2018).

The transcripts from the panel discussion were analysed using content analysis (Krippendorff, 2012). This entailed the following, as suggested by Nyumba et al. (2018).

- Coding – This entailed focused coding, where the information was identified and combined, and irrelevant or unrelated information was eliminated based on the pre-determined codes. Initial coding was based on the pre-determined questions, thus a deductive approach to the data analysis. Focused coding was used to group the information provided by the members who contributed substantive statements or examples to a category or theme (consenting or dissenting views). Emerging ideas were grouped under the relevant themes.
- Content analysis – This involved systematically coding and organising the information into categories to discover patterns and answers to the research questions.
- Reporting – consolidating the results into a coherent narrative report.

The results are presented in the next section. The trends are analysed and presented in tables and charts, while the qualitative information is described under relevant themes.

3. Findings and Discussion

3. 1 Demographic profile of participants

Table 1 depicts the background of the experts selected to participate in the focus group discussion. Eight professional bodies in the construction industry were represented by an experienced member who is involved in the candidate mentoring to their professional bodies. The selected professionals have more than five years of post-professional experience and currently have at least two candidates under their mentorship. This provides reliable and credible data to draw conclusions and recommendations.

Table 1. Demographic profile of the panelists

Item	Professional Body	Years of Experience	Area of Specialisation	No. of Candidate Mentoring
1	Association of Construction Project Managers (ACPM),	6 years	Project Management	2
2	Council of Built Environment Professions (CBEP)	10 years	Architecture	3
3	Engineering Council of South Africa (ECSA),	8 years	Civil Engineering	2
4	South African Council for the Architectural Profession (SACAP),	13 years	Project Management	3
5	South African Council for the Landscape Architectural Profession (SACLAP),	15 years	Architecture	6
6	South African Council for the Project Management Professions (SACPCMP),	7 years	Project Management	4
7	South African Council for the Property Valuers Profession (SACPVP),	8 years	Quantity Surveying	3
8	South African Council for the Project and Construction Professions (SACPMP),	11 years	Project Management	5

3.2 Panel discussion findings

The findings from the panel discussion are presented in this section, regarding views on the importance of mentoring, available candidacy programmes, challenges of mentoring within the skills pipeline and mentorship programmes, and strategies for effective or successful candidacy programmes.

Importance of candidate mentoring - Should it be made Compulsory for Registered Professionals?

Mentorship of candidates is not an option but a requirement for registration, hence compulsory to upgrade to professional status. It was agreed that mentoring is a powerful development and empowerment tool as it helps candidates progress in their careers. Mentorship plays an important role in an individual's development from candidacy to professional registration. This is even proven by the fact that for a professional to maintain professional status, the (SACPCMP) requires the individual to go through the Continues Professional Development (CPD). Without mentorship, it will be difficult to produce professionals that can make informed decisions and confidently run projects. It was further observed that "*to provide a meaningful platform for development in South Africa, there is a need to invest in facilities and infrastructure, and qualified, competent and experience; We need mentors who will regard the task of mentorship as a requirement for the profession's sustainability; Mentorship is not an option (section 18(3) PCM Act 48 of 2000) but a must; there is a need to transfer knowledge from experienced professionals to upcoming ones to sustain the future of the industry."*

Further, one such programme to transfer knowledge and skills exists, as was revealed by one panelist - the National Department of Public Works (NDPW) candidacy programme, known as the young professionals' programme. *"The NDPW Candidacy programme is a structured programme in which training is provided under the supervision of registered mentors through regular monitoring sessions. This is done to ensure secondment opportunities."* The objectives of this programme are to contribute towards building technical capacity for the state and accelerate the registration of professionals in the BE through structured mentorship.

These views are consistent with findings by Akerele et al. (2019), which found that most interviewees in their study were explicitly aware of the significance of mentoring as a symbiotic relationship as mentors have the practical knowledge to share with mentees, and mentees can transfer technology skills and innovative ways to handle some technical challenges.

Challenges in the skills pipeline

The participants agreed that the skills pipeline is critical to the emergence of new entrants into the construction industry; however, it is fraught with obstacles which often seem insurmountable. This issue commences at the university level with the shortage of workplace experiential learning, which is the greatest inhibitor to the skills development pipeline, culminating in the pipeline developing leaks at various stages of university education and ongoing development. These leaks involve individuals either using their technical skills to enter another profession or transfer to another avenue of study, which is becoming a stumbling block to the profession's transformation.

According to the panelists, "*the annual average percentage increase of professional registration in the SACI is less than 3%".* The reasons for less registration (candidates struggling to upgrade to professional status) were identified as "*Failure to submit logbook annually or to understand the need for it; candidates not being properly mentored; difficulties in securing a mentor (unwillingness of registered professionals to mentor the upcoming professionals); inadequate support from employers, and insufficient exposure to all the competencies required, limited work in the construction industry, and some of the new graduates changing their professions*". The leak continues as individuals get an opportunity for employment and take it up while aspiring to register only to find that their development is hamstrung by a lack of work, a development plan and meaningful input from seniors.

Challenges faced in the implementation of mentorship programmes

The following challenges were identified by the panelists in their experience and knowledge of mentoring candidates: *"Inconsistency, one mentor throughout candidacy, which is not ideal; unavailability of work or limited projects for training, surplus of candidates; limited involvement in projects, mentor maintains control of project and candidate merely assists; and unwillingness of professionals to mentor candidates."*

The inability to apply theoretical knowledge to practical problems and inadequate mentoring were also identified by Akerele et al. (2019). Additionally, Oke et al. (2017) identified that the key challenges are the dispositions and attitudes of both the mentor and the mentee, which have adverse effects on professional development. Therefore, it is imperative to develop approaches to sustain professional development in the industry. Also, trainee professionals need to be highly encouraged to consider their critical role in practical skill acquisition and development, as supported by Lansdell et al. (2019).

Strategies for improving candidate mentoring

From the panel's deliberations, strategies for effective mentorship of candidates towards increasing professional registrations. The panelists highlighted the attributes of an effective candidacy mentorship programme. These were related to the structure, timing and skills to be developed.

Development of structured programmes

The development of structured mentorship programmes was highlighted as essential for candidates. According to the panelists, "*Mentorship programmes must be structured in a way that addresses all the important elements of the project management profession; It must aim at developing the candidate's skills, knowledge, ethics and values, and adding value to the industry."* This aligns with ECSA's (n.d.) recommendations that mentorship programmes should

be structured to ensure that candidates who apply for professional registration can develop and acquire the required competencies to add value to the industry. In addition, such programmes should prescribe clear roles and responsibilities to assist both parties (mentor and mentee) in fulfilling their obligations through the training period.

Timing of programmes and skills to be developed

Concerning the timing, it was emphasised that mentorship should take place in all six stages of the project management life cycle. In addition, since it is part of education and training, it should be seen as a holistic form of training that must start from basic education through to the university. In the panelists' views, *"Mentorship is part of education and training and therefore we should use our already existing education system to improve the industry. It is critical to incorporate mentorship in our basic education by introducing teacher support programme, career guidance and support programme from basic to university level; We should look at TVET support programme, for support of lecturers and professional development in the university, and construction management secondment. Artisan support programme, University support programme to promote and support student leadership development in construction management should also be looked at."*

Specifically, the following structure and activities were suggested to cater for training at different stages or levels of training in the skills pipeline, that is, from basic education to higher education and workplace mentorship.

- **Mentorship in Basic Education –** These could include:

"Teacher support programmes to support teachers by creating professional development workshops to enhance their ability to provide career advice on careers in the construction sector."
"A foundation programme to support learners to enter various NQF qualifications in the PSET system."

- **Mentorship in Higher Education –** These include TVET colleges and university support programmes.

"TVET programmes to support lecturer professional development and ensure quality teaching and learning in construction management-related subjects; Construction management professionals can be seconded to teach courses; Create TVET student support programmes aimed at enhancing the understanding of various career opportunities in the construction sector".
"University support programmes could promote and support student leadership development in construction management schools; Establish an integrated bursary support programme to ensure student success in construction management degrees founded on various sources including NSFAS; Establish an initiative to collect project case studies that can be disseminated for teaching and learning."

- **Mentorship in the workplace -** This should consider the following:

"Labour market and skill planning - Ensure support and co-ordinate reporting of data and statistics on skills, education, and training in the construction sector; Develop strategies on open learning systems and distance education for various construction degrees."
"Skills development and training - Establish an executive development programme for established registered company executives to improve business and innovation skills; Host and support various conferences, summits, and meetings aimed at discussing various issues in construction management."
"Artisan and apprenticeship programmes - Create an initiative aimed at increasing the number of qualified artisans for the construction sector; Create a platform to ensure increased opportunities for workplace-based learning and experience."

The panelists viewed that mentorship programmes should consider skills needed in the market or sector in contemporary times, including project management, digitalisation and soft skills (which influence attitudes and the ability to give and receive feedback). "*Labour market and skills planning are important to assist companies and newly recruit graduates to meet professional registration requirements*." These findings are consistent with views by Bjursell and Sädbom's (2018), Adedeji et al. (2019) and ECSA's (n.d.) that hard and soft skills are important to develop and acquire the necessary range and level of competencies and outcomes-based training required.

Furthermore, the panelists highlighted that mentoring could be provided in various forms to equip candidates with practical experience. These include on-the-job training, industry placements and guided individual development planning, as per their comments: "*Assigning projects to the mentees and allowing them to be part of the project decision-making process. This should be done responsibly through constant guidance and coaching from a registered professional; Exposing them to various types of projects and stages (from inception to close out)*; H*aving a dedicated mentor; Candidate understanding the company objectives; A balanced relationship between the mentor and the mentee; A well-informed Individual Development Plan (IDP)* [a schedule for career development outlining a plan to acquire experience to advance specific skills*]. This assists in guiding individual training and development with a holistic approach; the IDP must be tailor-made for the individual's career goals and align with the objectives as a*

strategy to achieve the individual goals; there must be short- and long-term goals and a tracking mechanism to identify the progress and shortcomings for positive results."

Individual performance assessments ensure that training and development opportunities heighten the individual's performance and support continued learning throughout the professional journey.

The above formats could provide sufficient exposure to the industry and aid in ensuring that programmes have a clear purpose and respond to individual needs. Concurring with this view, Bjursell and Sädbom (2018) expressed that mentorship programs require a clear purpose, and adaptation to organisation, individual and the profession's needs. Mentoring can be used to engage candidates in industry projects for experiential learning and practical knowledge (Akerele et al., 2019).

In addition, the criticality of updating mentees' skills, especially digitalisation and relationship skills, was emphasised (Bjursell & Sädbom, 2018). This is consistent with findings by Adedeji et al. (2019) and Oke et al. (2017) who found that individual dispositions, characteristics and attitudes are barriers to effective mentoring. These affect relationships, professionalism and the ability to give or receive feedback. Further, the importance of continuous training for mentors was highlighted, in resonance with Adedeji et al.'s (2019) views that for mentoring programs to be effective, both mentors and mentees should go through a mentoring training/workshop. This ensures that the profession's principles and tenets are known and upheld, a view supported by ECSA (n.d.), which expressed that the future of a profession depends largely on the qualities of individuals entering the profession.

4. Conclusions

The study presented the views of construction industry experts regarding candidate mentoring challenges and strategies to support professional registration. It was shown that the current mentor-mentee ratio is inadequate for professionals to mentor candidates for professional registration since most professional bodies did not meet the minimum 1:1 ratio. Vast age and gender differences were also noted among the groups, indicating a need to increase mentorship initiatives to cater for the young and female groups. Government, professional bodies, and educational institutions should develop a support system to motivate female and young graduates for the industry's sustainability. The study identified the challenges as inconsistency in mentoring, limited exposure to practical experience, and relationships. Ground-breaking and feasible solutions at different educational levels were identified to assist candidates' mentoring and professional growth. Mentoring for professional registration should include basic education to stimulate the interest of the young ones through academic progression as proposed. Experienced professionals should be encouraged and motivated to offer mentorship to upcoming candidates.

The study employed secondary data, which were available during the panel discussion were used, looking at a five-year trend. Further studies could incorporate a wider span as the data becomes available. The sample was also limited to the panel discussants. Future studies could employ more participants and evaluate the extent of influence of the identified challenges and strategies on mentoring and professional registration in different BE sectors.

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