Journal of African Real Estate Research
Volume 10, Issue 1
https://journals.uct.ac.za/index.php/JARER/index

Gender Diversity and Inclusiveness in the Valuation Surveying Discipline: Examining Workforce Composition and the Influence of Organisational Policies in Uganda

Charles Mugalu*[1] (https://orcid.org/0009-0008-7330-5741) and Linda Barasa[2] (https://orcid.org/0009-0003-0162-5715)

[1] Department of Construction Economics and Management, College of Engineering Design Art and Technology (CEDAT), Makerere University, Kampala, Uganda
[2] East African Consulting Surveyors and Valuers, Kampala, Uganda

To cite this article: Mugalu and Barasa (2025) Gender Diversity and Inclusiveness in the Valuation Surveying Discipline: Examining Workforce Composition and the Influence of Organisational Policies in Uganda. *Journal of African Real Estate Research,* 10(1), pp. 1-15. DOI: 10.15641/jarer.v10i1.1542

Abstract

This study investigated the gender composition within Uganda's valuation surveying discipline. It examined the influence of organisational policies on this composition through mixed-methods explanatory sequential research design. Initially, quantitative data were gathered through a desk review, followed by the collection and analysis of qualitative data obtained from semi-structured interviews with representatives of valuation surveying firms affiliated with registered valuation surveyors of Uganda. The study's findings revealed a significant underrepresentation of women in Uganda's valuation surveying discipline, with women comprising only 22% compared to 78% of men. This disparity is attributed to educational barriers, stereotypes, and organisational barriers that have considerably affected women's participation in the profession relative to men. The findings contribute to the broader discourse on gender equity in STEM fields, offering insights pertinent to promoting a gender-inclusive valuation surveying profession in alignment with global efforts to achieve gender equality and women's empowerment, as outlined in Goal 5 of the Sustainable Development Goals.

Keywords: *surveying, valuation, gender, diversity, inclusion, Uganda*

*Corresponding author's email address: mugalucharles@yahoo.com

1. Introduction

Workplace demographic differences have historically been a peripheral subject in academic discourse. However, the increasing global emphasis on addressing social inequities, particularly those related to gender and economic disparities, has necessitated rigorous scholarly engagement with diversity and inclusion within organisational contexts. Although often used interchangeably, the concepts of diversity and inclusion are distinct. As defined by Thomas (1991), diversity refers to the presence of differences among individuals encompassing both visible attributes, such as race and gender, and invisible ones, including educational levels and sexual orientation. In contrast, inclusion denotes the active and intentional strategies through which organisations integrate these differences into their processes (Roberson, 2006).

Among the various dimensions of diversity, gender diversity has emerged as a particularly salient area of inquiry. The persistent gender gaps observed across multiple industries, most notably in science, technology, engineering, and mathematics (STEM) fields, have drawn scholarly attention due to their longstanding roots in social, cultural and legal exclusions. For instance, Carrie de Silva (2023) notes that in the United Kingdom, the Solicitors Act of 1843 explicitly excluded women from the definition of "persons'', thereby legally barring their entry into certain professions. Cross-cultural examinations further reveal systemic marginalisation, with women in ancient Greece and various African societies frequently restricted to domestic roles and denied access to formal education and public participation (Kleiner, 1995; Uchem and Ngwa, 2014). Despite significant advances in international human rights laws, such as the institutionalisation of gender equality as a standalone objective formalised as Goal 5 in the United Nations Sustainable Development Goals (SDGs), gender disparities in professional participation persist (UN, 2015). Empirical studies confirm that women continue to be significantly underrepresented in high-paying STEM careers (Sassler et al., 2017; Foley et al., 2019; Shrestha et al., 2020). This is also true for surveying, a STEM field. A 2023 insight report by the Royal Institution of Chartered Surveyors (RICS) revealed that women comprise only 17% of the surveying workforce in the United Kingdom and Ireland (RICS, 2023). The gender gap is even more pronounced in the United States and Australia, where women account for merely 3% and 5% of surveyors, respectively (Woodbury, 2002; The Surveyor's Trust, 2022). However, a substantial gap exists in research regarding the gender composition of the surveying profession in developing countries, particularly in Africa, except for Nigeria, where a recent study by Kesiena and Omamuyovmi (2020) also indicated wider gender gaps, with women comprising merely 3%. This research gap is notably pronounced in Uganda, where no empirical investigations have examined the gender dynamics within the valuation surveying discipline.

This study, therefore, addresses this gap by exploring three primary research questions:

1. What is the gender composition of Uganda's valuation surveying discipline?
2. What are the factors that contribute to the identified composition?
3. How do organisational policies influence this composition?

Through the examination of these questions, the study offers empirical insights to inform evidence-based interventions aimed at promoting gender equity in surveying. Furthermore, it contributes to the broader discourse on gender disparity in STEM fields, providing comparative relevance for other developing countries encountering similar challenges. Ultimately, the findings have direct implications for policymakers, professional associations and firms striving

to align with global efforts to achieve gender equality and women's empowerment while also enabling organisations to benefit from diverse workforces.

Beyond its empirical contributions, this research advances theoretical debates on workplace gender diversity, particularly within underrepresented STEM fields in developing countries. By focusing on the valuation surveying discipline, an under-studied yet economically significant profession, it lays the foundation for future interdisciplinary research and policy development.

2. Literature review

2.1 The surveying practice: A brief history

The assertion that surveying is one of the oldest known professions in the world is substantiated by historical evidence. By 3000 BC, the Egyptians had established a comprehensive land register that provided detailed information on the location and ownership of each parcel, indicating the involvement of land surveyors in these processes (Swee, 2020). Surveyors are also believed to have conducted construction surveys for the erection of the Great Pyramids and played a crucial role in land tax assessments in Ancient Egypt, utilising calibrated ropes for precise parcel measurements, as noted by Paulson (2005). However, what remains unclear is when the current disciplines of surveying were integrated with land surveying, as these too have long been practised even before their formal designations. Baiyekusi (2021) contends that quantity surveying services were sought as early as the Neolithic period, while Bowles and Le Roux (1992) cite Luke 14:28 from the Bible to establish the early presence of the quantity surveying profession. Conversely, there is no substantial evidence of the historical practice of valuation surveying, suggesting it is a more modern discipline. Particularly, the formal training of valuation surveyors in Uganda at the degree level commenced only in 2003, following a prolonged period of reliance on outsourcing valuation services from within the East African region since the 1970s (Magembe, 2022; Wesonga et al., 2022).

In contemporary practice, surveying encompasses diverse disciplines, with classifications varying depending on the regulatory body or geographical region. In Uganda, for instance, the Institution of Surveyors of Uganda (ISU), the country's professional body for surveyors, categorises the surveying profession into three distinct chapters: Land Surveying, Quantity Surveying and Valuation Surveying according to ISU (2018). However, the definition of a surveyor under the Surveyors Registration Act of 1974 extends beyond these to include, for example, Building Surveyors and Land Agents. This classification is similar to that in the UK under the Royal Institution of Chartered Surveyors (RICS), where the aforementioned disciplines are part of a broader classification of surveying pathways, including facilities management, planning and development, and commercial real estate (RICS, 2018). In contrast, the valuation discipline is distinctly separate from the surveying industry in regions such as the United States, Canada, and Australia, and is governed by different regulatory bodies, with terms such as valuer or appraiser more prevalent than valuation surveyor.

Conclusively, the aforementioned historical overview of surveying lacks specific details regarding the gender composition within the field and its temporal evolution. This deficiency underscores the necessity for a comprehensive discussion on the intersection of surveying and gender, which will be elucidated in the subsequent section.

2.2 Women's participation in the surveying profession

The historical subordination and marginalisation of women, perpetuated by cultural and societal norms and reinforced by legal frameworks, have historically deterred women from entering not only the surveying industry but the workforce in general. These factors resulted in male-dominated workplaces and required significant global events, such as the Second World War, which created labour shortages that necessitated the inclusion of women in the workforce (Woodbury, 2002; Barton and Harris, 2017). In other countries, such as the UK, more deliberate efforts, such as the removal of gender-discriminatory legislation like the Solicitors Act of 1843, were necessary to foster more gender-inclusive workplaces. Indeed, Carrie de Silva (2023) argues that the enactment of the Sex Disqualification (Removal) Act of 1919 marked a pivotal moment for women in the UK to enter previously male-dominated professions, including surveying.

Whilst it is challenging to identify the very first woman to practice any surveying discipline due to fragmented historical records during the nineteenth and early twentieth centuries, extant literature commonly highlights two pioneers: Alice Fletcher and Irene Barclay (Woodbury, 2002; Guida Team, 2021; Carrie de Silva, 2023). Alice Fletcher is widely recognised as an ethnologist and anthropologist despite having engaged in some surveying activities. Irene Barclay, out of the two women, is the first recognised woman surveyor, having achieved chartered surveyor status in 1922 through the RICS, a globally recognised professional body in surveying.

Since the time of these pioneers, the representation of women in the surveying profession has seen a modest increase globally. In the UK and Ireland, women now comprise approximately 17% of the total surveying workforce, according to RICS (2023). These figures are slightly lower in the United States and Australia, where women constitute about 3% and 5% respectively, while there is limited data about the gender composition of the surveying profession in Africa (Woodbury, 2002; Surveyor's Trust, 2022). Bichard (2022) and RICS (2023) provide the gender composition of RICS members from North, South, and Sub-Saharan Africa, although these are merely a fraction of the many unaccounted women practising surveying in their countries as they are not members of RICS. However, recent studies by Kesiena and Omamuyovmi (2020) indicated that women surveyors in Nigeria constitute about 3% of the total surveying workforce. Notably, no such studies have been conducted in Uganda, leaving a critical gap in understanding the gender dynamics within the Ugandan surveying profession. Nevertheless, the available limited data suggests that women have significantly impacted the valuation surveying discipline. They have established successful practices that employ and mentor valuation surveyors, advise major financial institutions such as banks on real estate investments, educate young valuation surveyors in tertiary institutions within survey departments, and some oversee the implementation of billion-dollar infrastructure projects in the country, such as oil and gas investments (Aheebwa, 2022; Muhereza, 2022).

2.3 Gender dynamics and their influence on workplace diversity

Surveying has a substantial and well-documented history characterised predominantly by male participation. Although historical factors discussed in Sections 2.1 and 2.2 above elucidate the historical predominance of men in the surveying profession, they do not sufficiently account for the continued underrepresentation of women in this field. For instance, the legislative measures put forward by Carrie de Silva (2023) that were undertaken in the UK to enhance

women's participation in various professions were influenced by women pioneers in the UK surveying profession. RICS (2023, p. 2) highlighted the persistent and significant gender gap in RICS membership from the enrolment of the first woman surveyor to date. Similarly, the initiatives launched in 1983 by the National Society of Professional Surveyors (NSPS) Forum for Women in Surveying to address gender disparities in the United States surveying profession did not produce the intended results (Woodbury, 2002). These efforts reflect the historical reliance on liberal feminism, which, according to Arat (2015), advocated for deliberate institutional reforms to promote meritocracy in male-dominated spheres. Bichard (2022) also recently advocated this in his recommendations for RICS to achieve a more diverse and inclusive surveying profession. Unfortunately, the desired outcomes were not delivered as illustrated above, suggesting the existence of more complex gender issues that perpetuate wider gender gaps in the surveying profession. The mere provision of equal opportunities as a means of addressing workplace gender disparities has also been challenged by contemporary feminist literature, such as decolonial feminism and anti-racist feminist theory. These emphasise the need for a deeper understanding of workplace gender issues and the specific challenges faced by women, who have historically been marginalised (Webb, 1997; Fotaki and Pullen, 2023).

Turrell et al. (2002) identified the absence of role models as a significant impediment to the career advancement of women in the surveying profession. More recent investigations by González-Pérez et al. (2020) and Tal et al. (2024) have examined the substantial influence of role models on career choices regardless of gender or career stage, while acknowledging that role models exert a more pronounced impact on women's career trajectories compared to men's. Role models also mitigate against negative stereotypes that contribute to attrition in STEM education and improve the retention of STEM professionals in the workplace (Lubaale, 2021; Tal et al., 2024). These stereotypes are not unusual in Uganda and create gender imbalances in STEM disciplines at Kyambogo University.

Table 1: General gender stereotypes in Uganda

Men are:	Women are:
Public	Private
Active	Passive
Leaders	Followers
Independent	Dependent
Strong	Weak
Courageous	Timid
Risk takers	Avoid risks
Aggressive	Polite
Rational (reason)	Intuitive/emotional
Sciences	Arts
Tough	Tender
Assets	Liabilities
Superior	Inferior
Handsome	Beautiful
Rulers	Ruled
Dominants	Subordinates

Source: Lubaale (2021)

It has been observed that role models and stereotypes, while influential, are not the sole factors in the increased attrition rates of women in STEM fields. Other factors such as lack of promotion opportunities, work-life balance issues, lack of male patronage, and education barriers also play significant roles (Kesiena and Omamuyovmi, 2020). Additionally, Turrell et al. (2002) identified a lack of awareness about the profession as a significant barrier to entry for women. However, this issue primarily targets increasing the number of women entering the profession rather than retaining them, which is entirely influenced by other factors. Nevertheless, this aspect cannot be overlooked, as retention is inherently linked to recruitment, and it is impossible to retain individuals who have not been recruited. In conclusion, while historical factors may not entirely account for the increasing gender disparities in the field of surveying, they offer valuable insights into the profession's persistent male dominance. Existing research on gender gaps within STEM disciplines provides a valuable framework for comprehending the gender dynamics that sustain these disparities in surveying, underscoring the necessity for more comprehensive and intersectional strategies to address these issues.

2.4 The need for workplace gender diversity and inclusion

Promoting gender inclusivity within the surveying profession not only aligns professional bodies and organisations with global efforts to achieve gender equality but also offers tangible benefits to organisations. Research by Milliken and Martins (1996), Richard and Johnson (2001), and Bichard (2022) highlighted that diverse workforces enhance organisational effectiveness and efficiency by integrating individuals with varied skills, fostering better decision-making through representation of diverse market perspectives, and driving innovation and creativity through competitive dynamics. Furthermore, a workforce that reflects the diversity of the community in which an organisation operates can enhance social acceptance and expand market reach.

However, achieving gender diversity in the workplace requires deliberate strategies, as diverse workforces do not emerge by chance. Organisations tend to attract, hire, and retain individuals who share similar characteristics, a phenomenon explained by the Attraction-Selection-Attrition (ASA) hypothesis (Schneider, 1987), which will be further examined in the subsequent section. Therefore, organisations committed to fostering gender diversity, whether as part of broader gender equality initiatives or to leverage the advantages of a diverse workforce, must implement intentional policies and practices to counteract these natural tendencies.

2.5 Measuring diversity in organisations

Measuring workforce diversity in practising firms is vital in ascertaining the contribution of firms to the observed gender gaps, since a fully diverse workforce in any organisation does not occur coincidentally. Those who seek organisational heterogeneity must have deliberate strategies beyond legal compliance and social acceptance (Richard and Johnson, 2001; Schneider, 1987). This ideology supports the ASA hypothesis, which contends that organisations typically draw in, employ, and keep individuals with similar characteristics.

Various metrics have been proposed in the measurement of workforce diversity in organisations through the SHRM theory, although most of them are micro-oriented as they only focus on how human resource (HR) practices influence individuals in the organisation. For example, job satisfaction, job retention and employee participation, which is the trust employees have in diversity programs adopted by the organisation. 'Whether employees believe diversity

programs have significance or are a ruse to pacify affirmative action demands depends upon employee perceptions of management's seriousness in policy implementation' (Richard and Johnson, 2001, p. 181). This creates a methodological challenge in measuring the level of management's commitment to the implementation of programmes from the perspective of employees, some of whom have not spent a significant amount of time with the organisation, yet there are actual makers and implementors of these programmes (management). This is why today, in addition to micro relationships, macro relationships are now considered when evaluating the effects of HR practices on the organisation's goals, like the business strategy, such as profits, sales, quality, and growth (Butler et al., 1991). In addition, there have been developments around the SHRM theory to include the configuration theory, which proposes the integration of the adopted HR practices to direct the organisation towards diversity and diversity management, since these policies must supplement each other. This was termed as diversity orientation by Richard and Johnson (2001).

Similarly, this study moves beyond a micro-focus and adopts diversity orientation as discussed above. Organisations working towards a fully diverse workforce beyond legal requirements must satisfy the following key principles, which serve as the basis for measuring diversity in this study:

- The existence of a will or desire for diversity expressed through a formal commitment, such as a policy statement or objective,
- The requirement for this initiative to not only to surpass legal compliance and social acceptance, but rather to be an integral part of the organisation's strategy, whether in the business or human resource environment.
- The existence of well-defined practices or procedures towards achieving a highly inclusive work environment, and lastly, evident results in terms of workforce gender composition.

3. Methodology

The study utilised a mixed-methods explanatory sequential design to determine the gender composition within Uganda's valuation surveying discipline. Initially, quantitative data were collected and analysed, followed by semi-structured interviews to obtain qualitative insights (Creswell et al., 2003; Ivankova et al., 2006; Johnson et al., 2007). This methodology aimed to achieve a comprehensive understanding of the gender composition and the impact of organisational policies on it within Uganda's valuation surveying discipline.

3.1 Quantitative phase

Quantitative data were collected through a desk review of published lists of registered licensed surveyors in the Uganda Gazette, for the post-pandemic period (2020-2022). This timeframe was selected due to significant shifts in the economic and business landscape following the COVID-19-induced lockdowns, which, according to the World Bank (2021), exacerbated gender disparities in Uganda. The lists are issued by the Registrar of Surveyors of Uganda, an office established under Section 11 of the Surveyors Registration Act of 1974, whose responsibilities include the registration of surveyors and the issuance of annual practising certificates or licences. The dataset comprised a total of 355 surveyors, of whom 103 were valuation surveyors, the primary focus of this study. To address the first research question, a total enumeration of the surveyors was conducted, and the data collected were analysed using descriptive statistics.

3.2 Qualitative phase

To obtain the qualitative insights necessary to elucidate the factors influencing the gender composition of Uganda's valuation surveying discipline, particularly the impact of organisational policies on this composition, semi-structured interviews were conducted with a representative from each valuation firm where registered surveyors are affiliated. The selected group was required to possess the most comprehensive understanding of the organisation's strategy (Richard and Johnson, 2001). A total of 57 firms were identified in the Uganda Gazette, and a total enumeration of the population was conducted to eliminate sampling bias. Interviews were conducted face-to-face, with participants' consent obtained for recording, and subsequently transcribed verbatim. This qualitative data was then manually analysed using a reflexive thematic analysis approach, following the procedural steps proposed by Braun and Clarke (2006), thereby addressing the remaining research questions.

Table 1: Braun and Clarke's six-phase framework for doing a thematic analysis

Step 1: Become familiar with the data, Step 2: Generate initial codes, Step 3: Search for themes,	Step 4: Review themes, Step 5: Define themes, Step 6: Write-up

Source: Maguire and Delahunt (2017)

4. Results

4.1 Gender composition of Uganda's valuation surveying discipline

An examination of the published lists of practising registered surveyors in Uganda indicated that, among the 103 registered valuation surveyors, 28 are women and 80 are men. The percentage composition of these figures is depicted in Figure 1 below.

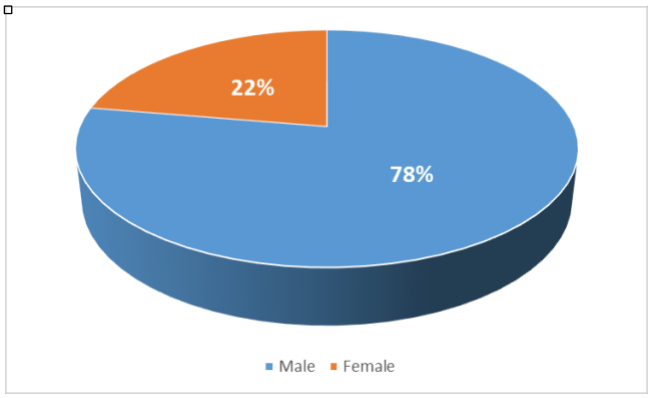

Figure 1: A pie chart illustrating the gender-based percentage distribution of practising registered surveyors in Uganda

These findings revealed a significant underrepresentation of women in the valuation surveying discipline in Uganda, with women comprising only 22% of the registered professionals compared to 78% of their male counterparts. Although these statistics pertain solely to registered valuation surveyors, it is important to note that there are additional practitioners in Uganda who are not registered. According to Section 19 (3) of the Surveyors Registration Act

of 1974, the legal practice of surveying in Uganda is restricted to those who are registered and licensed.

4.2 Qualitative phase

4.2.1 Demographic data of participants

The study achieved a response rate of 30 (53%), which is deemed sufficient for generalising the findings, considering that all participants possessed a comprehensive knowledge of the affiliated organisations and had extensive experience in Uganda's valuation surveying profession. Furthermore, Taherdoost and Madanchian (2025) acknowledged the absence of a universally accepted minimum response rate across research fields, and Nulty (2008) noted that even existing studies specifying certain percentages lack theoretical justification. The demographic data about the participants is illustrated as follows:

Table 2: A frequency table showing the demographics of interview participants based on their levels of experience

	Frequency	Percent	Cumulative percent
Under 4 years	0	0	0
Between 5–9 years	22	73.3	73.3
Above 10 years	8	26.7	100.0
Total	**30**	**100.0**	

With respect to the reliability and validity of interviewees' responses, Table 3 above shows that all participants possessed substantial experience in this field. Thus, they should be able to contribute meaningfully to the discourse on factors influencing gender composition within Uganda's valuation surveying discipline. Similarly, to address the third research question, participants needed to possess a comprehensive understanding of their respective organisations, as the question primarily focused on examining organisational strategies and policies. Figure 2 illustrates that all 30 participants satisfied this criterion as they all occupied managerial positions.

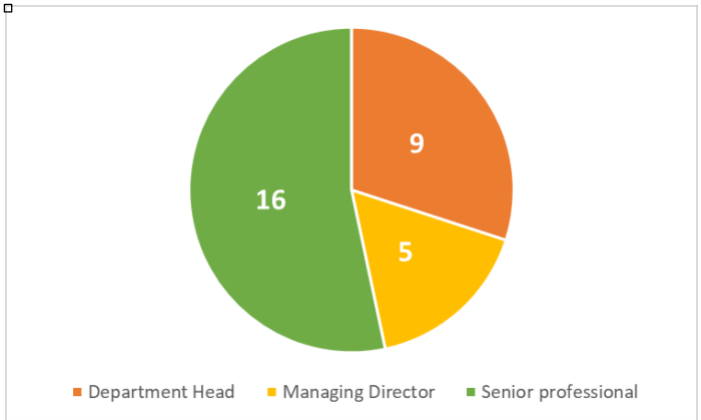

Figure 2: A pie chart showing the demographics of interview participants based on the position held in the firm

4.2.2 Factors influencing gender composition

The analysis of the factors influencing the gender composition of Uganda's valuation surveying discipline followed a reflexive thematic analysis, and the identified themes were refined into main themes after thorough coding of descriptive phrases that pertained to the participants' explanations for the identified gender composition. These themes are education barriers, stereotypes and organisation barriers as depicted in Table 4 below.

Table 3: Identified main themes for the study

Theme	Codes
Education barriers	Lack of role models, lack of awareness of the profession, and high entry points
Stereotypes	Cultural, societal, and religious
Organisation barriers	Lack of workplace benefits, lack of mentorship

4.2.2.1 Education barriers

Participants recognised educational barriers as a significant factor contributing to the widening gender gaps in Uganda's valuation surveying discipline. The majority of the participants cited high entry requirements for the course at universities as a hindrance to pursuing a career in valuation, in contrast to other fields such as the social sciences. For example, Participant P015 noted as follows:

> "When I was joining the University, the cutoff points for the course on private sponsorship, I think, were 48 points something, and these points could get you, for example, a course in humanities on government sponsorship."

When asked about how these cut-off points favour boys over girls, participants emphasised that few girls in Uganda study STEM subjects, which are essential for enrolment in the course. "Valuation surveying is a STEM field, and for one to apply for the course at the campus, they must have done Mathematics at A-Level, and this at times goes with Physics, yet few girls study these subjects at A-Level". These low participation rates discourage other girls from pursuing STEM subjects, which participants attribute to a lack of role models. Furthermore, there is limited public awareness of the profession, exacerbating enrolment barriers. Participant P002 stated:

> "Most of us pursued valuation because someone told us it was a good course. If students have no clue about the course, it is hard for them to rank it among top choices when applying."

4.2.2.2 Stereotypes

Participants also identified prevailing stereotypes as a significant factor contributing to the observed gender disparities in Uganda's valuation surveying discipline. These stereotypes are primarily influenced by cultural and religious norms that dictate gender roles in society. One participant noted that valuation surveying is predominantly field-based, and many cultures groom women to be private and tender, with some cultures not expecting them to work. Additionally, societal stereotypes exist that portray surveying as a disreputable profession. Participant P026 remarked:

> "The actions of unscrupulous, quack surveyors have labelled us as thieves within the society because land rights are considered sacred in our country, and any mischievous activities on land are acts against the society."

These stereotypes discourage young aspirants, particularly women, from entering the profession, thereby significantly reducing enrolments.

4.2.2.3 Organisation barriers

Although the study explicitly structured the impact of organisation policies as a distinct research question, organisation barriers emerged as a theme during the interviews, with most responses aligning with organisational policies. More than half of the participants acknowledged that the lack of workplace benefits for women, such as paid maternity leave, flexible working arrangements and recognition or awards, as factors that increase the attrition of women in the profession. Participant P017 highlighted the societal expectation that, as a woman, she is expected to establish a family and expressed the necessity that her employment will remain secure upon her return from maternity leave, ideally with continued remuneration during this period.

> "These are the types of workplaces that many women aspire to join; however, they are unfortunately among the least prevalent, discouraging women's progress in the profession".

Additionally, participants underscored the importance of mentorship as a critical factor in career advancement and development, noting that mentorship is particularly essential for women due to the distinct challenges they encounter in the workplace compared to men. Several participants emphasised that recognising exceptional women within the profession serves as a source of inspiration for emerging professionals and enhances the desire for mentorship. However, the majority felt that this recognition is more impactful when executed by professional bodies rather than locally within organisations.

When questioned about the presence of organisational policies supporting gender inclusion in recruitment within their firms, 23 participants acknowledged the absence of such policies, although some recognised their importance. Participant P019 stated specifically as thus:

> "Ours is a merit-based recruitment system that gives no advantages to a particular group of people".

While all participants concurred that women possess the same potential as men, they acknowledged their distinct challenges necessitating specific considerations.

5. Discussions and conclusion

The findings of this study indicate a pronounced gender disparity within Uganda's valuation surveying discipline, with women comprising a mere 22% of registered practitioners. This underrepresentation is consistent with patterns observed in the surveying industry and other male-dominated STEM fields, where women encounter substantial barriers to entry and retention (Sassler et al., 2017; Foley et al., 2019; Shrestha et al., 2020; RICS, 2023). Qualitative insights from 30 experienced professionals, all holding managerial positions, illuminate the

multifaceted challenges contributing to this disparity, including educational barriers, stereotypes, and organisational policies that inadequately address women's unique needs.

Educational barriers emerged as a fundamental issue, where high entry requirements and the STEM-centric nature of the field disproportionately disadvantage female students, creating a pipeline problem. This is attributed to the scarcity of role models, who have been studied by Tal et al. (2024) to significantly influence women's enrolment in STEM subjects more than men. STEM subjects are prerequisites for pursuing a career in valuation at universities. Furthermore, the lack of awareness about the profession further limits female participation, as career choices are often influenced by exposure and guidance (Turrell et al., 2002). Interventions such as collaboration between surveyors and institutions on educational reforms and career fairs in schools targeting young women could address this issue, and the involvement of women would close the role model gap, thereby delivering a significant impact. Stereotypes were also identified as significant inhibitors, as entrenched cultural and religious norms discourage women from engaging in mobile work, confining them to domestic roles. Moreover, negative stereotypes associating the profession with unethical actor further deters potential entrants, especially women who may fear reputational risks, compounding the challenge and making the profession less appealing. Public awareness campaigns that challenge these stereotypes and media representations of successful women in the profession could reshape societal perceptions and create a more supportive environment for aspiring female surveyors.

Organisational barriers, such as the absence of gender-sensitive workplace policies, lack of mentorship, and limited recognition of women's achievements, were also identified as major contributors to the attrition and consequently the underrepresentation of women in the profession. The absence of affirmative policies by organisations to promote gender-diverse workforces in favour of meritocratic recruitment systems suggests a passive approach that inadvertently maintains the status quo, despite awareness of the distinct challenges faced by women in their careers. Firms could implement gender-sensitive policies to foster retention and career advancement for women.

In conclusion, the findings of this study align with existing literature that highlighted persistent gender disparities within Uganda's valuation surveying discipline, a field within STEM. These disparities are attributed to educational barriers, stereotypes, and organisational obstacles. Consequently, the study recommends essential interventions, including collaborative educational reforms, the promotion of the profession to young women in schools and the broader public to counteract negative stereotypes, and the implementation of gender-sensitive policies by organisations to enhance retention and career advancement for women. These measures aim to create a more inclusive valuation surveying profession, in line with global efforts to achieve gender equality. Although the study's focus on the valuation surveying discipline introduces limitations typical of case study research, such as challenges in generalising findings, potential researcher bias, and concerns regarding data rigour, its validity is strengthened through the triangulation of qualitative insights with quantitative data.

References

Aheebwa, P. (2022). Uganda's oil and gas projects: The value at stake. *Petroleum Authority of Uganda (PAU),* 13 September 2022. Available at: https://www.pau.go.ug/ugandas-oil-and-gas-projects-the-value-at-stake/ (Accessed: 16 February 2023).

Arat, Z. F. K. (2015). Feminism, women's rights, and the UN: Would achieving gender equality empower women? *American Political Science Review*, 109(4), pp. 674-689. https://doi.org/10.1017/s0003055415000386

Baiyekusi, A. (2021). What is the history of quantity surveying? 4 important origins to know. *Quantity Surveying,* 26 June 2021. Available at: https://costecon.com/history-of-quantity-surveying/ (Accessed: 05 November 2022).

Barton, G., and Harriss, H. (2017). Gendered, non-gendered, re-gendered tools for spatial production. *Architecture and Culture*, 5(3), pp. 475-485. https://doi.org/10.1080/20507828.2017.1383796

Bichard, M. (2022). *The Bichard RICS review*. Royal Institution of Chartered Surveyors. https://www.rics.org/uk/about-rics/corporate-governance/the-bichard-rics-review/?cid=smo|linkedin|bichard|rics.org|content||21-June

Bowles, J. E., and Le Roux, G. K. (1992). *Quantity surveying: An introduction* (2nd ed). Centrahil: QS Publications.

Braun, V., and Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3(2), pp. 77-101.

Butler, J.E., Ferris, G.R. and Napier, N.K. (1991). *Strategy and human resource management.* Ohio: Southwestern.

Carrie de Silva. (2023). Irene Barclay (1894-1989): The extraordinary career of the first woman-chartered surveyor, and the development of the housing management profession. *Women's History Review*, pp. 1–15. https://doi.org/10.1080/09612025.2022.2138200

Creswell, J.W., Plano Clark, V.L., Gutmann, M. and Hanson, W. (2003). Advanced mixed methods research designs, In *Handbook on mixed methods in the behavioral and social sciences*. Thousand Oaks: Sage, pp. 209-240.

Foley, M., Cooper, R. and Mosseri, S. (2019). Gender equitable recruitment and promotion: Leading practice guide. WGEA Commissioned Research Paper, The Australian Women's Working Futures (AWWF) Project, University of Sydney, Sydney, Australia. https://www.wgea.gov.au/sites/default/files/documents/Recruitment_and_Promotion_0.pdf

Fotaki, M. and Pullen, A. (2023). Feminist theories and activist practices in organization studies. *Organization Studies*, 45(4), pp. 593-616. https://doi.org/10.1177/01708406231209861

González-Pérez, S., Mateos de Cabo, R. and Sáinz, M. (2020). Girls in STEM: Is it a female role-model thing? *Frontiers in Psychology*, *11*, Article 2204. https://doi.org/10.3389/fpsyg.2020.02204

Guida Team. (2021). Women's history month: Celebrating the past and future of women in surveying *Guida Surveying Inc*, 8 March 2021. Available at: https://guidainc.com/team-news/womens-history-month-celebrating-the-past-and-future-of-women-in-surveying/#:~:text=TheFirstFemaleLandSurveyors,first%20known%20American%20land%20surveyor (Accessed 12 October 2022).

ISU. (2018). Constitution as Amended in 2018. Institution of Surveyors of Uganda (ISU).

Ivankova, N.V., Creswell, J.W. and Stick, S.L. (2006). Using mixed-methods sequential explanatory design: From theory to practice. *Field Methods*, 18(1), pp. 3-20. https://doi.org/10.1177/1525822X05282260

Johnson, B.R., Onwuegbuzie, A.J. and Turner, L.A. (2007). Toward a definition of mixed methods research. *Journal of Mixed Methods Research*, 1(2), pp. 112–133. https://doi.org/doi:10.1177/1558689806298224

Kesiena, A.E. and Omamuyovmi, A.E. (2020). Women-in-surveying making waves and breaking records in the shores of Nigeria. *FIG Working Week 2020*, Amsterdam, May 10-14, 2020: FIG, pp. 1-18. https://www.fig.net/resources/proceedings/fig_proceedings/fig2020/papers/ts04d/TS04D_etuonovbe_etuonovbe_10738.pdf

Lubaale, G. (2021). Gender imbalance in science disciplines at Kyambogo University of Uganda and development implications. *Journal of Science & Sustainable Development*, 8(1), pp. 17-31.

Magembe, T.K. (2022). The valuation department/office of the chief government valuer. [PowerPoint presentation]. *Inception of trainees into the Ministry of Lands Housing and Urban Development*. Crested Towers Kampala. Unpublished.

Maguire, M. and Delahunt, B. (2017). Doing a thematic analysis: A practical, step-by-step guide for learning and teaching scholars. *All Ireland Journal of Teaching and Learning in Higher Education,* 8(3), pp. 3351–33514. http://ojs.aishe.org/index.php/aishe-j/article/view/335

Milliken, J.F. and Martins, L.L. (1996). Searching for common threads: Understanding the multiple effects of diversity in organizational groups. *Academy of Management Review*, 21(2), pp. 402-433.

Muhereza, K. (2022). CEO of the week: Meet Judy Rugasira Kyanda, the frank knight of Uganda's real estate industry. *CEO East Africa*. Available at: https://www.ceo.co.ug/ceo-of-the-week-meet-judy-rugasira-kyanda-the-frank-knight-of-ugandas-real-estate-industry/amp/ (Accessed: 20 November 2022).

Nulty, D.D. (2008). The adequacy of response rates to online and paper surveys: What can be done? *Assessment & Evaluation in Higher Education,* 33(3), pp. 301-314. https://doi.org/10.1080/02602930701293231

Paulson, F.J. (2005). Surveying in ancient Egypt. FIG. https://www.fig.net/resources/proceedings/fig_proceedings/cairo/papers/wshs_02/wshs02_02_paulson.pdf

Richard, O.C. and Johnson, N.B. (2001). Understanding the impact of human resource diversity practices on firm performance. *Journal of Managerial Issues*, 13(2), pp. 177-195.

RICS. (2018). *RICS requirements and competencies guide*. Available at: https://www.rics.org/content/dam/ricsglobal/documents/join-rics/pathway-guides-requirements-and-competencies-280224.pdf (Accessed: 11 April 2024).

RICS. (2023). *Women in surveying: Insight report.* Available at: https://www.rics.org/content/dam/ricsglobal/documents/reports/Womenin-Surveying_FINAL.pdf (Accessed 15 February 2025).

Roberson, Q.M. (2006). Disentangling the meanings of diversity and inclusion in organizations. *Group and Organization Management*, 31(2), pp. 212-236.

Sassler, S., Glass, J., Levitte, Y. and Michelmore, K.M. (2017). The missing women in STEM? Assessing gender differentials in the factors associated with transition to first jobs. *Social Science Research*, 63, pp. 192–208. https://doi.org/10.1016/j.ssresearch.2016.09.014

Schneider, B. (1987). People make the place. *Personnel Psychology*, 40, pp. 437-453.

Shrestha, B.K., Choi, J.O., Shrestha, P.P., Lim, J. and Nikkhah Manesh, S. (2020). Employment and wage distribution investigation in the construction industry by gender. *Journal of Management in Engineering*, 36(4), Article 06020001. https://doi.org/10.1061/(ASCE)ME.1943-5479.0000778

Kleiner, G.S.B.H. (1995). Sex discrimination in employment: Everyone's problem. *Equal Opportunities International,* 14(6/7), pp. 54-60.

Swee, N. (2020, March 18). 'Interesting Facts & History of Surveying'. *Interesting Facts & History of Surveying*. Available at: https://www.mooreengineeringinc.com/2020/03/18/interesting-facts-history-ofsurveying/#:~:text=Surveying is one of the,the locations of this land (Accessed: 09 August 2022).

Taherdoost, H. and Madanchian, M. (2025). The impact of survey response rates on research validity and reliability. In A. Rahal and M. Adorján (Eds.), *Design and validation of research tools and methodologies* (pp. 177-206). IGI Global Scientific Publishing. Hershey, PA. https://doi.org/10.4018/979-8-3693-1135-6.ch009

Tal, M., Lavi, R., Reiss, S. and Dori, Y.J. (2024). Gender perspectives on role models: Insights from STEM students and professionals. *Journal of Science Education and Technology*, 33(5), pp. 699-717. https://doi.org/10.1007/s10956-024-10114-y

The Surveyor's Trust. (2022). *The Australian surveying and spatial workforce–A national roadmap, industry report.* Available at: https://www.thesurveyorstrust.org.au/resources/Documents/Surveying_Spatial%20Workforce_A%20National%20Roadmap_April2022.pdf (Accessed: 12 October 2022).

Thomas, R.R. (1991). *Beyond race and gender: Unleashing the power of your total work force by managing diversity*. AMACOM. New York.

Turrell, P., Wilkinson, S. J., Astle, V. and Yeo, S. (2002). A gender for change: the future for women in surveying. *FIG XXII International Congress,* Washington, D.C., April 19-26 2002: FIG, pp. 1-12.

Uchem, N.R. and Ngwa, S.E. (2014). Subordination of women in 21stcentury Africa: Cultural sustainability or a new slavery? Implications for educational development. *Developing Country studies,* 4(24), pp. 143-150. https://core.ac.uk/download/pdf/234682096.pdf

UN. (2015). The 17 goals. *United Nations*. Available at: https://sdgs.un.org/goals (Accessed: 22 January 2022).

Webb, J. (1997). The politics of equal opportunity. *Gender, Work & Organization*, 4(3), pp. 159-169. https://doi.org/10.1111/1468-0432.00032

Wesonga, R., Kaweesi, R., Acheng, P.A., Kibwami, N. and Manga, M. (2022). Evaluation of the education and training of valuation surveyors in Uganda. *Journal of African Real Estate Research*, 7(1), pp. 78-94. https://doi.org/10.15641/jarer.v7i1.1141

Woodbury, W.J. (2002). Advances and reflections: Efforts to include women in United States surveying and mapping, 1981-2001. https://www.fig.net/resources/proceedings/fig_proceedings/fig_2002/Js11/JS11_straight.pdf

World Bank. (2021). Investing in gender equality in Uganda is smart economics. *World Bank Group*, 01 December 2021. Available at: https://www.worldbank.org/en/country/uganda/publication/investing-in-gender-equality-in-uganda-is-smart-economics (Accessed: 09 June 2022).