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Evaluation of the Education and Training of Valuation Surveyors in Uganda

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Abstract

In the developing world, matching the education and training of Valuation Surveyors with the needs of the industry is increasingly becoming challenging. This is primarily due to globalisation, commercialisation, and information and communications technology advancements, among others. In Uganda, while curricula are reviewed at least every five years, the technologies and the market requirements continue to evolve, affecting the skills and knowledge passed on to graduates at universities and other tertiary institutions. Through a stakeholder survey, this paper evaluates the education and training of Valuation Surveyors in Uganda to determine the gaps in training and suggest ways to fill the gaps and consequently improve the valuation surveying curriculum. A questionnaire designed to capture both quantitative and qualitative data was administered to valuation practitioners and students. Almost half of the respondents suggested the need for constant review of the curriculum and adopting a more practical approach to learning as one of the significant ways of bridging the gap between the education system and the changing industry. The study's findings can be used by stakeholders in the education sector to identify and prioritise the training needs of valuation students in different institutions for quality improvement purposes.

Keywords: valuation surveying, education, training, curriculum

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1. Introduction

The overarching role that is publicly ascribed to a Valuation Surveyor is to deliver an opinion on the value of different asset classes for various purposes. West (2014) describes Valuers as 'warriors for the truth: the true client for the appraiser is the public trust.' In other words, a valuation is a generic approach to objectifying the critical dimensions of the quality of an asset from all perspectives (Bartke and Schwarze, 2021). As assessors, Valuers provide an expert assessment of an asset by objectively assessing the various market risks and uncertainties involved. Therefore, Valuers are neither required to give their subjective opinion on value nor exploit market opportunities for the benefit of their clients; instead, they are meant to provide a well-founded expert assessment of value, returns, and interests, as well as the prevailing market risks (Bartke and Schwarze, 2021). Under professional, statutory, international, national, or local laws and regulations, a Valuer is usually required to develop appraisal reports subject to the principles, guiding norms of good practice and appraisal methods codified in international and regional standards (IVSC, 2020). Despite ongoing debates in some nations over the variations in the nationally recommended methods, Valuers are expected to guide and lead to comparable results (Schnaidt and Sebastian, 2012). Hence, a Valuer is not only an individual professional expert but rather an actor operating in a regulated environment (Ramsey, 2004; Bartke and Schwarze, 2021).

Professional standards and national laws reflect the role of valuers and valuation in general, with the explicit traditional roles including valuations, property management, and conducting investment appraisal. However, the roles of a broader Land Economist are diverse in the Built Environment. These roles include the agricultural and conservation aspects of land management (Lally, 1998), property and asset valuation (Amidu et al., 2008) and acting as middlemen counteracting information uncertainties in the real estate market (Bartke and Schwarze, 2015). Also, alongside the traditional valuation of real estate as an alternative investment asset, Valuation Surveyors engage in the valuation of other intangibles, including roles in finance and accounting, portfolio management, and investment performance measurement and accounting (Mun, 2002). However, in practice, most valuation professionals exist mainly as a client's property valuation consultant and property manager, typically under two main stages of the construction process, primarily offering pre-construction and post-construction advice. Therefore, proper training of prospective Valuers should not only deal with passing on knowledge but also proper practice-based grooming, focusing on the divergent roles to be played by these Valuers. This is essential if they are to fit into both the national and international built environments.

In the developing world, matching the education and training needs of Valuation Surveyors with the industry needs is becoming more challenging than ever due to globalisation, commercialisation, and advancements in information and communications technology (Ibisola, Oni, and Nkolika, 2015). While curricula may be reviewed regularly, the technologies and the market requirements continue to evolve rapidly, affecting the skills and knowledge passed on to graduates at universities and other tertiary institutions in countries like Uganda. For the industry to survive and compete in the current business world, these institutions, coupled with the valuation firms, need to nurture talent and teams that can recognise and seize strategic opportunities amidst the constantly changing conditions (Oleyede, Ayedun, and Ajibola, 2016). Adebola and Oluyinka (2021) elaborate that in Nigeria, most Valuation Surveying firms are small-scale with less than ten employees. As such, they are not ready to employ graduates that do not possess the skills required to execute tasks. This situation is not different for Valuation firms in Uga; therefore more, fit-for-purpose training is critical.

Galuppo and Worzala (2004) argue that the Valuation Surveyors should possess combined multi-disciplinary skills and competencies ranging from technical proficiency to technological and social skills. Priority and the need for particular skills and competencies could differ based on the practice segment. For example, whereas general property valuation skills could include research methods, calculation, measurement, report writing, negotiation, law, management and business finance, information technology skills, working knowledge of economics and politics, knowledge of building construction, and awareness of the environment (Blackledge, 2016); those required in Corporate Real Estate related to strategy, business structure, portfolio management, construction, leasing, property finance, procurement and sales (Gibler Black, and Moon, 2002; Epley, 2004). Pace et al. (2002) add that core and spatial statistics are vital for valuers as it provides a unifying intellectual framework for reconciling appraisal practices with statistical theory and seeks a shift to traditional hedonic pricing models based on an impressive corpus.

However, in the wake of the digital age, Valuation Surveyors require adequate skilling and training in computer and communication skills as well as knowledge in building pathology, commercial content, property development and land economics, coupled with the ability to relate theory to practice (Callanan and Mccarthy, 2003). All these skills and competencies can be acquired through academic study, field practice and continuous professional development (Blackledge, 2016). With education and training taking the lead in shaping a graduate Valuer, there is a need to adequately prepare and impart the required competencies in the form of knowledge, skills, and attributes that reflect the changing dynamics of the industry. This enables the graduates to not only gain employment on completion of the degree but also adhere to the changing dynamics through innovation, creativity and critical thinking, and ultimately drive the market towards increased productivity (Olaleye and Adama 2018).

1.1 Valuation Surveying in Uganda

In Uganda, the Department of Construction Economics and Management (DCEM), established in 2003 at the current College of Engineering Design Art and Technology (CEDAT) in Makerere University, was the first department to provide valuation training at the degree level. This was through the Land Economics programme that was aimed at incrementally addressing real estate sector issues and filling the domestic gap of Valuation Surveyors. The majority were sourced from within the East African region. DCEM sought to create professionals that were bound by the global professional and ethical standards (for instance, RICS (2019)) that require them to act with integrity, always provide a high standard of service, to act in a way that promotes trust in the profession, treat others with respect and to take responsibility for their actions and decisions regarding professionalism.

The Valuation Surveying profession in Uganda is governed by the codes of ethics and conduct set by the Surveyors' Registration Board (SRB), established by the Surveyors Registration Act 1974. However, until 2019, the Surveyors Registration Act 1974 did not regulate surveying firms as corporate entities, but only regulated individual registered Surveyors. As such, SRB's efforts to develop a policy that governs surveying firms to enhance professional standards of ethics and professionalism (Knight Frank, 2019). The Valuation Surveying profession has the potential to elevate all other productive sectors in Uganda by creating professionals who are trusted to deliver an authentic opinion of value in different sectors of the economy. This would further translate into the performance of all sectors.

Given that land is the ultimate resource and factor of production facilitating livelihoods, infrastructure, service provision and economic development (MoLHUD, 2019), the valuation training in Uganda is skewed towards the land and real estate sector. Although the roles of Valuation Surveyors include advising clients (public or private) on the value of land purchased, sold or rented for preparation of rating, payment of stamp duty, acquisition of loans, and investment opportunities, amongst others (Obaikol and Ogwapit, 2017), the approaches applied especially concerning investment on land, often do not provide the true value of the land to the landowners in light of the benefits from the investment. While the investment principle seeks to leave the people better off than before the investment, this may not be true in Uganda (Obaikol and Ogwapit, 2017). The 3rd National Development Plan (2020/21-2024/25) for Uganda indicates that one of the problems faced in implementing the past two development plans was costs associated with land compensation for infrastructure development. In many cases, the total costs associated with compensation were higher than the actual project cost, despite the ultimate benefits outweighing the cost. This dramatically impacts planning considerations and budgeting, leading to referred budgeting of the implied cost. Though NPA (2020) attributes this to corruption tendencies, a greater responsibility lies with valuation surveyors to provide timely and well-researched valuations that do not aggravate development programmes.

Valuation Surveyors in both the private and public sectors are faced with the challenge of fulfilling sector-specific strategic goals, and contrary to the Ministry of Land, Housing and Urban Development Land Sector Strategic Plan 2019-2020, Uganda lacks the intermediary Valuation Surveying professionals to spearhead partnerships between the private and public sector, and with the different stakeholders. Also, amidst the current challenges such as the loss of assessment territories to other assessors as those attached to insurance companies, and the poor performance of the mortgage subsector, the valuation professional is facing binding professional judicial precedents that require Valuers to take on extra obligations of third parties as was the case of KCB Bank Uganda Limited Vs Sendagire Joseph, Eddie Nsamba Gayiiya and UAP Insurance Uganda, Kintu Paul T/A Terrian Consult- Third Party, 2021. Nevertheless, the profession is shifting to new territories that require a paradigm shift from traditional valuations that are static to rather dynamic valuations that require future expectations (Mun, 2002). More professionals seeking new knowledge and venturing into broader aspects such as financial assets face a harsh reality while valuing these assets, given limited background training in these segments (Pereiro, 2002). Thus, education and training that is holistic in nature in terms of the curriculum is such a valuable asset to produce creative and dynamic valuation professionals.

1.2 Valuation Curriculum and Training

The curriculum is the vehicle through which educational expectations of society are translated into reality. It encompasses the process of transmitting knowledge to the learner and applying the skills acquired (Ezema, Oluwatayo, Adewale, and Aderonmu, 2014). Due to the constantly changing global demands, flexibility in the structure, content and delivery modes are important to achieve the intended outcomes. Professional disciplines and the educational process are transitioning from "teaching" and "processing numbers" to an approach that combines different teaching and training methods (Źróbek and Grzesik, 2013). Higher institutions like Makerere University must employ the appropriate methods and encompass programmes that will prepare graduate valuers to provide sound advice on important investment decisions in the real estate market. However, due to the continuous technological advancements, a big gap and/or imbalance has been created in the demand and supply

of valuation curricula. Several studies have shown deficiencies in the curricula on a global scale (Nzioki, Kariuki, and Murigu, 2006; Obeng-Odoom and Ameyaw, 2010; Nasir, Eves, and Yusof, 2012; Ayedun, Oloyede, and Durodola, 2012; Vasović and Gućević, 2013; Oloyede and Adegoke, 2014; Xiao, 2015; Woga and Akujuru, 2016).

A study by Oloyede and Adegoke (2014) found that young graduates of estate management in Nigeria were deficient in valuation, agency, feasibility and viability appraisal, and property management. The situation was not different from other countries, including China, where most real estate academics had no practical experience (Xiao, 2015). In addition, several studies reveal that although valuation and property management are the most desired areas of specialisation, other areas, such as environmental valuation, plants, equipment and machinery valuation, and infrastructure and facilities management, have been neglected (Nasir, Eves, and Yusof, 2012; Woga and Akujuru, 2016). Xiao (2015) found that the inconsistency in the quality of valuation graduates in China was due to such factors as limited research in the discipline caused by insufficient research funding, deficiency of necessary knowledge and skills, including economics and finance, computer, and soft skills like communication, limited industry exposure of students and lack of cooperation and frequent communication between the educational and professional institutions. These challenges, in turn, have detrimental consequences on the profession, as depicted in research by Ayedun, Oloyede, and Durodola (2012). They ranked experience and educational background as the top two causes of inaccuracy and variance in the Nigerian valuation practice.

Therefore, to keep abreast of the new and emerging issues in the education and training of Valuers, several researchers have suggested workable solutions in their respective countries (Nzioki, Kariuki, and Murigu, 2006; Ayedun, Oloyede, and Durodola, 2012; Oloyede and Adegoke, 2014; Xiao, 2015). In Uganda, the burden lies with academic institutions, in this case, DCEM, to improve the quality of graduates to match the market's requirements and achieve the global sustainable development goal of providing quality education for all. This research, therefore, sought to evaluate the education and training of valuation surveyors in Uganda.

2. Materials and Methods

A stakeholder survey was conducted from 20th April 2020 to 4th May 2020, using a questionnaire designed to capture both quantitative and qualitative data to gather views and suggestions about the current university valuation surveying training curriculum and how to match the education and training needs with the market needs. The target population consisted of Valuation Surveyors who are members of the Institution of Surveyors of Uganda (ISU), who fall into six categories: Fellows, Professional Members, Associate Members, Graduate Members, Technicians, and Students (ISU, 2020; Kibwami et al., 2021). Consideration was also made for members registered by the Surveyors Registration Board and the Royal Institute of Chartered Surveyors (RICS). According to the 2020 directory of ISU, there are a total of 416 members registered under the Valuation Chapter. However, only 177 members had renewed their membership as of March 2020, out of whom a sample of 121 respondents was randomly selected for the research based on the Krejcie and Morgan formula (Krejcie and Morgan, 1970).

The questionnaire was created using Google Forms, from which a link was copied and shared with the target group, the majority of whom formed part of the ISU WhatsApp platform, through which contact was made. However, a few responses from those who did not form part of the WhatsApp group were obtained through email. The questionnaire consisted of two sections. Section one covered

the demographic background of the respondents, capturing specific aspects that were likely to influence their responses, such as designation, highest qualification, and whether they were alumni of Makerere University. Section two assessed the relevance of Valuation Surveyors in the current construction industry based on a 5-point Likert scale. The section provided an open-ended question where respondents were required to give their opinion on what could be done to improve the students' skills to bridge the gap between education, training, and the industry. A summary of the existing Valuation Surveying curriculum depicting the current course units taught and their scheduling over the four years of the program was presented to inform and facilitate the respondents' judgement.

The first section covering the respondents' demographics and other participant characteristics, which were primarily categorical in nature, were analysed descriptively. Cross tabulations created using IBM SPSS statistics version 20 were used to evaluate differences in responses across different groups, and results were presented in the form of tables and graphs. The open-ended questions were qualitatively assessed through thematic analysis using 'Quirkos Software. All responses were carefully studied, and a codebook was collaboratively developed to reflect major themes identified from the data. Summary statements of the responses were then grouped based on the main themes created. Codes were then applied independently in 'Stata version 13' software, and interpretations were drawn based on the evaluation of the individual responses vis-à-vis the demographic data gathered to answer two critical questions; (1) Are the Valuation Surveyors still relevant in the current construction industry, and (2) How can the training and education curriculum of Valuation Surveyors be tailored to match the needs of the current industry.

3. Results

3.1 Demographic Data

The research obtained a response rate of 72%, compared to the average online response rate of 33% obtained by Nulty (2008) and Nair and Adams (2009), which was considered sufficient to enable the generalisation of the results to the target population. This rate was attributed to the mixed approach combining email surveys and internet-based response mechanisms, boosted by scheduled reminders. Out of the 87 respondents, the most considerable number were graduate members (36), 32 were Student members, 7 Professional members, 4 Fellows, 4 Associate members, 2 Technicians, and the remaining 2 were Members of the Royal Institute of Chartered Surveyors (MRICS) as shown in Figure 1.

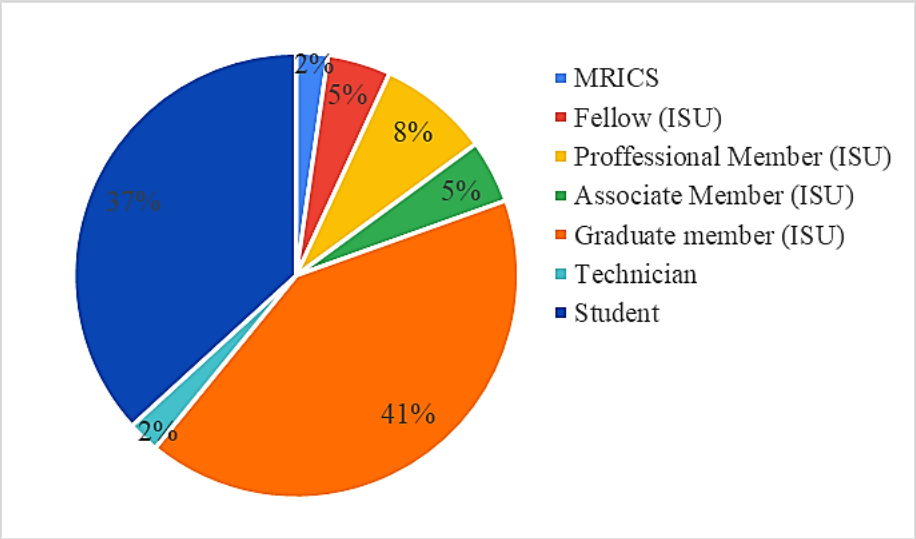

Figure 1: Professional Status of the Respondents

Regarding the education levels and whether or not they were alumni of Makerere university, the results presented in Figure 2 show that the biggest percentage of the respondents, 38%, had Bachelor degrees (with 64% of these being alumni of the DCEM under the CEDAT), 22% had a Masters' degree (with 53% as alumni), 2% had a postgraduate degree and were all alumni, and the remaining 38% were current students pursuing a Bachelor's degree under the DDCEM Makerere University.

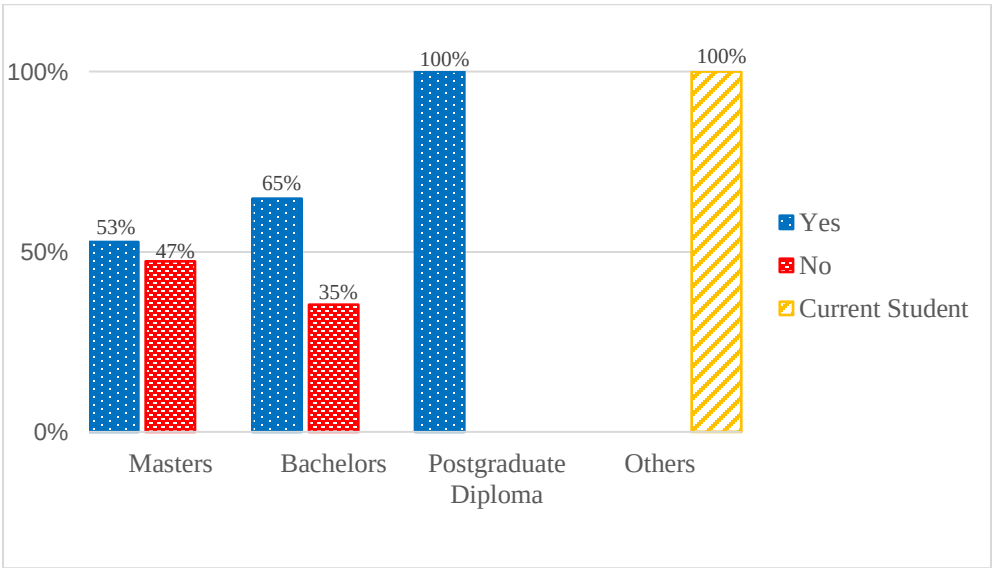

Figure 2: Education Level of the Respondents

There was an even distribution of the respondents' professional status ranging from the student level and graduate level to the professional level registered under both ISU and RICS, as well as their level of education, especially under the master's and bachelors' degree levels. Therefore, reliability and accuracy of information gathered from the respondents were expected. In addition, with 39% of the

all respondents being former students and another 37% current students pursuing a bachelor's degree in Land Economics at the university, the respondents were better placed to suggest strategies for improvement of the course based on their own experiences with the existing university system and teaching curriculum. These students, who are the final consumers of the curriculum, are usually sent out to the field for industrial training, where they get to share experiences and understand the gaps that exist in the university curriculum being taught. In addition, many of these students practice as they study and thus, could validly evaluate the valuation curriculum.

3.2 Relevance of a Valuer

Given the changing landscape of the valuation profession requiring dynamic rather than static valuations, it was imperative to assess the extent to which a Valuation Surveyor is still relevant. More than half of the respondents (59%) suggested that a Valuer is still relevant to a great extent, 32% to a great extent, 8% to a moderate degree, and only 1% to a small extent. When the responses were gauged based on the respondents' designation, as depicted in Figure 3, it was noted that all the MRICS and most of the other ISU members suggested that a Valuer was still relevant to a very great extent. However, one Fellow member, an associate member, two graduate members and three students thought that a Valuer was relevant only to a moderate degree, and one graduate member thought otherwise, suggesting very little or no relevance of a valuer in the current industry. Pearson Chi-square results indicated that there was no association between the respondents' status and their responses to the relevance of a Valuer in the current industry $= 11.811, df = 18, N = 87, p = .857)$ since the p-value was greater than 0.05 (considering a 95% confidence level). The correlation analysis showed a negative but very weak insignificant relationship between the professional status of the respondents and their responses to the relevance of a valuer in the current industry $(r = -.177, p = .860 < .05)$. These statistics suggested that all respondents, regardless of status, shared similar opinions regarding the relevancy of a Valuer.

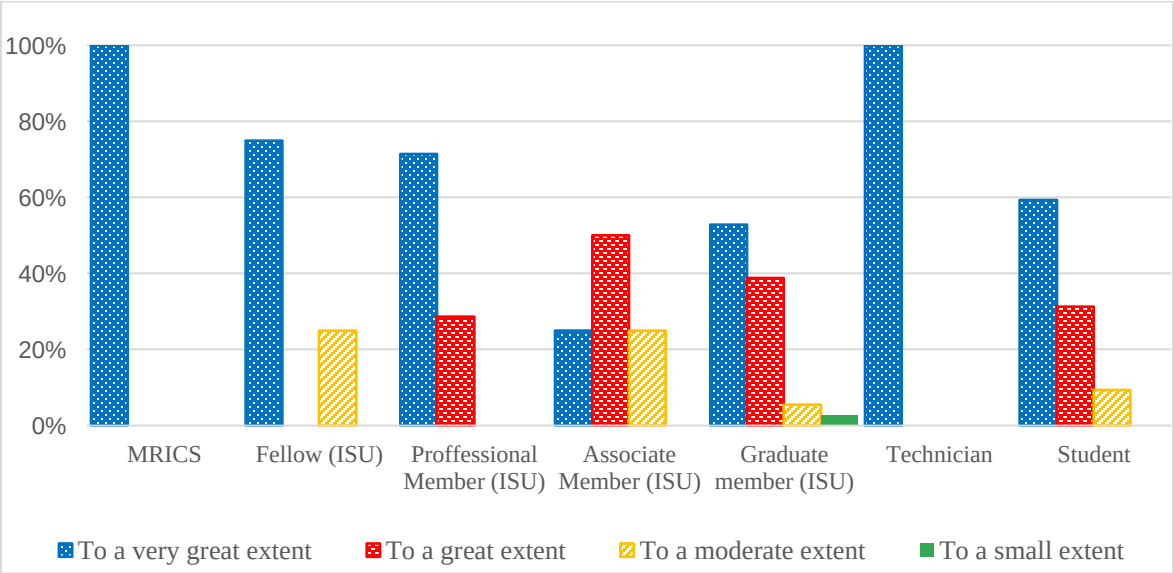

Figure 3: Relevance of Valuation Surveying

3.3 Strategies for Improving Valuation Surveying Training

Using Quirkos software, all the responses were reviewed and grouped to create four main themes with varying sub-themes, as summarised in Figure 4. The biggest percentage of respondents (49%) suggested the improvement of the teaching methods and curriculum review of the Valuation program at the university as the most prominent way of improving the valuation training and matching it with the current industry needs. This was followed by continuous student training and practice with 24%, research and innovation with 16%, and institutionalisation with 11%.

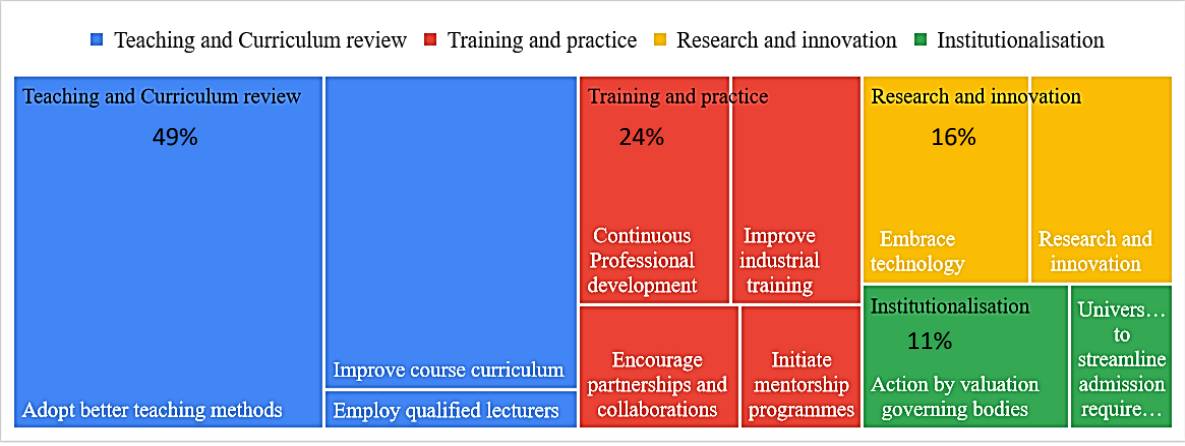

Figure 4: Suggestions on how to Improve the Valuation Surveying Training

On further analysis of the responses based on the membership status of the members shown in Figure 5, the ISU graduate members, the students and members of RICS emphasise the need to employ better teaching methods and review curriculum. The Fellow and Professional ISU members thought that a balance between improvement of teaching and curriculum review and improvement of training and practice needs to be sought, with responses split into 50/50 for both categories of people. However, the Pearson Chi-square statistics revealed that there was no association between the respondents' status and the suggestions made for the improvement of the course $(X^2 = 15.654, df = 24, p = .900)$ based on a 95% confidence level.

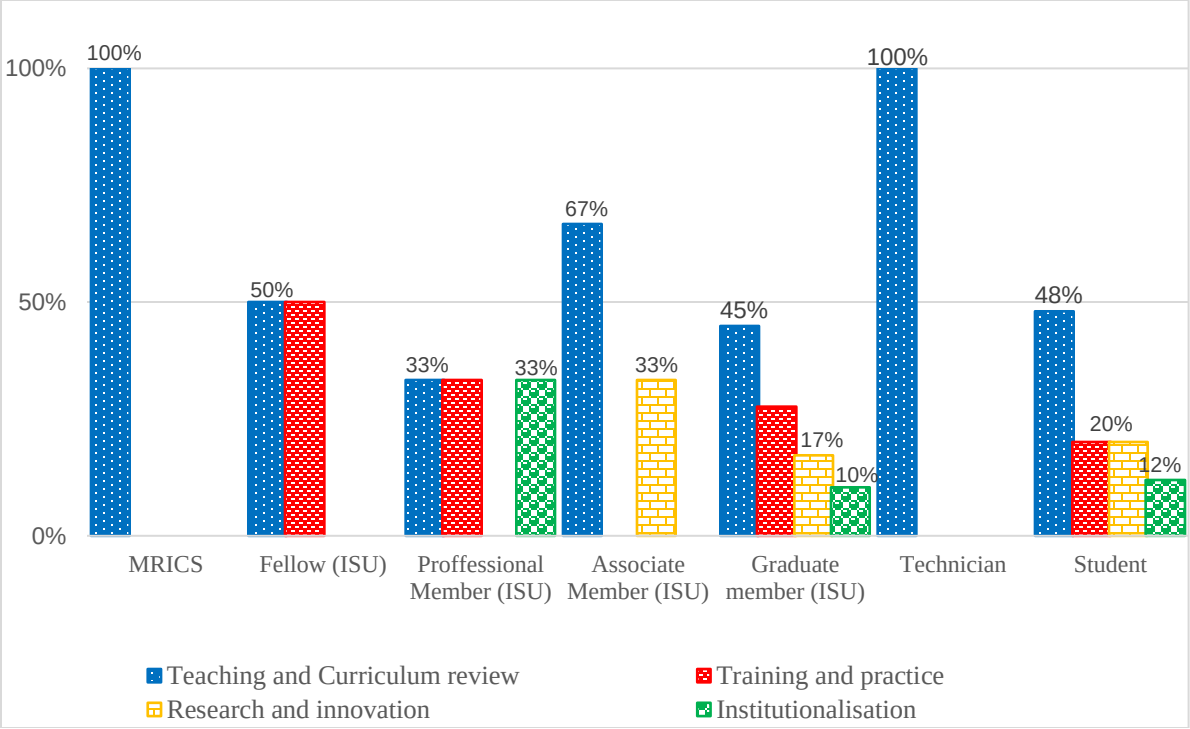

Figure 5: Members' Comments on Improving Valuation Surveying Training

Based on the main themes and sub-themes created, the type of responses/suggestions made included the following:

3.3.1 Teaching and Curriculum Review

This theme comprises three sub-themes relating to the course and material outlines, modes of knowledge transfer, and staffing at the department. All three sub-themes aim to improve the valuation program's teaching and curriculum. Overall, 27% of the respondents, mainly dominated by the graduate members and current students, suggested that the best way of matching the training to the industry need is by adopting a more practical approach to teaching involving discussions and tutorials, case studies with exposure to the real-world dynamics, study tours/trips, public lectures in the form of conferences or events where students meet with different professionals, as well as inviting guest lecturers from diverse fields to give students a hint about the industry.

However, 19% of the respondents, including one RICS member and two ISU Fellows, suggested that continuous development and review of the valuation curriculum would best match university training with social needs. Most of them suggested the inclusion of more practical units into the curriculum, with one graduate member suggesting the inclusion of market research, field inspections, report writing, property measurements, law related to the field of valuation, computer skills, presentations and communication skills. In addition, whereas another graduate member suggested the need to extend the students' exposure to other fields of land economics and not only valuation, the RICS member and a fellow suggested the need for specialisation, especially in the final year. A RICS member claimed that most appraisers in Uganda are 'jacks of all trades and masters of none, suggesting tailoring final year courses to fit either real estate valuation or real estate financing. Interesting to note was a suggestion from a current student who called for introducing a course unit related to agricultural engineering and production, which is currently the biggest industry in Uganda.

Another 2% comprising one Associate and one Professional member of ISU, emphasised the fact that a good curriculum would not be adequate without good tutors; thus, both members urged the university needed to employ qualified and knowledgeable tutors, especially practising valuers, to enrich the students with practical skills.

3.3.2 Training and Practice

This comprises four sub-themes relating to continuous professional development, improvement of industrial training, creation of partnerships and collaborations, and initiation of mentorship programmes, as further discussed below.

Continuous professional development was deemed necessary by 10% of the respondents, who mainly consisted of graduate members, students and one professional member. The professional member called for continuous engagement of students, for example, in ISU programs to boost interaction with other professionals and also know the advantages of registering with the Surveyors' Registration Board (SRB) early. Other respondents called for the introduction of seminars and short-term refresher courses that could cover such aspects as business administration and management, dispute resolution, and arbitration**.**

Some respondents (7%) thought that improving industrial training was vital in matching the training needs with industry needs. Whereas one graduate member urged the valuation companies to provide students with dedicated heart training, the other two called for diversity during training to cover several aspects and fields of valuation. In addition, 5% of the respondents, consisting of only two professional members and two graduate members of ISU, called for creating partnerships and collaborations with valuation firms and other private field practitioners. One graduate member argued that with collaborations in place, valuation firms would be able to take on and train students outside lecture hours or organise periodic public lectures and workshops to equip the students with field practice better. In addition, one professional member urged the university to support student associations, especially relations with sister associations in other universities in the neighbouring countries, including Kenya, Tanzania and Rwanda. On the other hand, two graduate members and one Fellow constituting only 4% of the respondents, encouraged the initiation of mentorship programmes involving senior peers, lecturers and other field practitioners for professional and career guidance of the students.

3.3.3 Research and Innovation

This was broken down into two sub-themes, use of technology and research and innovation. The graduate members and current students constituting 7% of the respondents, called for embracing technology applied to valuation by incorporating it in the study and the workplaces. Another 7% comprising one associate member, one student, and four graduate members, emphasised the need for continuous research and innovation within the valuation field by the students and lecturers. The associate member called upon all Valuers to break the rigidity and straight-line thinking given the ever-changing industry trends and the environment. In the respondent's view, this would boost innovation and the profession's relevancy. However, the respondent emphasised that this could be done within ethical standards of practice not to taint the profession.

3.3.4 Institutionalisation

Lastly, institutionalisation was encouraged, with the responsibility falling on either the valuation governing bodies or the education institutions. A few respondents(7%) thought that the bodies governing valuation, including ISU and RICS, played a role in breaking boundaries between the education system and field practice. Whereas the graduate members campaigned for a change in the national policy or the work environment to show more appreciation for valuers primarily through remuneration, one professional member suggested the need for accreditation of the course from international organisations like RICS and the International Valuation Standards Council. However, one student called for the creation of an independent institution separate from ISU, claiming the presence of criticism due to the duplication and merging of Valuation and Quantity Surveying disciplines. Regarding the university, the other three members representing only 4% of the respondents, thought that the duty lies on the universities to streamline and tailor the education offered to the industry needs. However, these had contradictory suggestions, with the student suggesting the need to train more valuers, the professional member leaning towards the universities having a controlled intake of students, and the graduate member suggesting the increase of admission points to admit only highly knowledgeable students.

4. Discussion and Conclusion

The research aimed to determine the gaps in the training of Valuation Surveyors in Uganda and suggest ways to fill the gaps and better the valuation surveying training curriculum. A questionnaire survey was used to collect practitioners' and students' opinions. The survey of professionals provides more realism and positivism as opposed to subjectivity and idealism; thus, the responses gathered can be used to improve the education system. Over 90% of the respondents thought that even amidst the current technological shift in the industry, the Valuation Surveyor was still relevant to a great extent. However, 49% of the respondents suggested the need for constant review of the valuation curriculum and adoption of better teaching methods, 24% indicated the adoption of better training and hands-on practice, 16%, research and innovation, and 11%, institutionalisation, as the major ways of bridging the gap between education and training, and the contemporary practice in Uganda.

These findings clearly show that the educational paradigm shifts require a more robust curriculum regarding the syllabus and content, student assessment and learning materials, as mentioned by Van deMortel and Bird (2010). Therefore, the educational institutions have the core role of orienting the education and training of valuation surveyors through regulating and structuring enrolment and curriculums. This is in line with Oloyede and Adegoke (2014) and Xiao (2015), who recommended the need for innovation and frequent review of the valuation program model and curriculum, as well as Kelly (2009) and Dromantienė, Indrašienė, Pange, and Bielskytė - Simanavičienė (2015) who argue that curriculum is not only drawn for transfer of knowledge but most importantly for the students to freely express themselves, improve their personality, consolidate competencies, qualifications and skills required out in the field.

In addition, more modern, practical, and innovative teaching and learning methods that promote interactive learning forms, active learner participation and integral thinking need to be adopted. This

is in agreement with the findings of Nzioki, Kariuki, and Murigu (2006), who advocated for change in the mode of delivery to adapt to problem-based learning methods like case study or the outcome-based method, among others; Oloyede and Adegoke (2014) who recommended the use of computer-based teaching techniques, to strengthen and improve the practicability of both teaching staff and students. According to Dromantienė et al. (2015), teachers, amidst their roles of production, transmission and dissemination of knowledge (Havelock and Hamilton, 2004; Patankar and Jadha, 2013), endeavour to motivate and constantly encourage the students to communicate, cooperate, and actively engaging in activities, thus enhancing personal development of all the students. Therefore, improvement of the curriculum and method of delivery could go a long way toward bridging the gap between education and field practice of the Valuation Surveying students.

Similarly, training and practice largely influence the students and the institution by improving efficiency, productivity, and quality and boosting the institution's reputation (Pržulj, Akademija, Vještica, and Srbija, 2017). Therefore, a hybrid option incorporating relevant professional development and practice alongside formal education will play a vital role in improving the quality of Valuation Surveyors, thus bridging the gap between education and the industry. This agrees with the findings of Mat et al. (2011), who found that over 90% of the engineering students in Malaysia believed that industrial training increased their knowledge, skills and attitudes. Although the methods of finding training placement still pose a challenge similar to that highlighted by Mat et al. (2011), with a majority of the students taking individually applying for placement based on their initiative, increased industry engagement, and fostering close collaboration between the education sector and the property industry as recommended by Ayedun, Oloyede, and Durodola (2012) and Xiao (2015) could help solve the problem. In addition, regular and continuous professional development courses and seminars could boost collaboration and sharing of ideas between the lecturers and estate surveyors in public and private practices (Nzioki, Kariuki, and Murigu, 2006; Ayedun, Oloyede, and Durodola, 2012), consequently increasing the students' chances for career opportunities.

According to Serdyukov (2017), innovation is directed towards progressing in one or more aspects of the education systems, including theory and practice, curriculum, teaching and learning, technology, policy and administration, and culture, among others; to make a positive impact on learning and the learners. This concerns all stakeholders, including the learners, tutors, parents, administrators, and policymakers. According to Dromantienė et al. (2015), the focus in the teachers' activity is given to the search for and application of new information, knowledge, methods and new measures. Given the limited research in valuation surveying in Uganda. There is room for encouraging research and innovations skewed towards the local market. Avenue for further research of student projects and implementation of innovation projects is synergy not yet exploited by academia. Therefore, more room for research in the profession is needed and available through initiating a postgraduate research-based program skewed towards developing the valuation surveyor's education and training.

The study's findings agree with the literature, suggesting that frequent curriculum review, training and practice, research and innovation, and institutionalisation are vital requirements in the education and training of Valuation Surveyors to meet the contemporary challenges in the profession. The study, therefore, recommends that the undergraduate programme curriculum be reviewed and structured to improve students' critical thinking abilities in not only valuation but all aspects of land management. This could be tailored towards training students focusing on valuation at undergraduate and specialising in valuation at postgraduate. Continuous professional development also calls for structuring a master's programme for specialised valuations with elementary modules such as

Business valuations, Plant and Machinery, Real Estate Development, and Real Estate Financing. This will further the knowledge and skilling of graduates to take on roles and be masters in a given valuation speciality. A holistic approach to research and innovation translating into the imitation of collaborations with the necessary stakeholders and institutions for joint research in the sector should be adopted. DCEM also deserves more anonymity and mandate to make decisions regarding admissions and research as the university transforms into a research-based university.

This research work is beneficial in several ways as it offers stakeholders (which includes Makerere University, DCEM, industry players, real estate and valuation practitioners in Uganda, and students) an in-depth assessment of the teaching and training at the DCEM. Furthermore, it provides information to stakeholders about gaps at Universities, which may assist them with identifying and prioritising needs for quality improvement purposes. Finally, it can act as a pilot for a further comprehensive assessment of the performance of Universities in teaching and training Valuation Surveyors.

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References

Adebola, D. K., and Oluyinka, I. O. (2021) Academic Curriculum and Employability of Accounting Graduates in Nigeria. *IOSR Journal of Business and Management (IOSR-JBM)*, 23(01), 30-36

Amidu, A.-R., Aluko, B. T., and Hansz, J. A. (2008). Client feedback pressure and the role of estate surveyors and valuers. *Journal of Property Research*, 25(2), 89–106. https://doi.org/10.1080/09599910802590982.

Ayedun, A. C., Oloyede, A. S., and Durodola, O. D. (2012). Empirical Study of the Causes of Valuation Variance and Inaccuracy in Nigeria. *International Business Research, 5*(3), 71-80. doi:10.5539/ibr.v5n3p71.

Bartke, S., and Schwarze, R. (2015). The economic role of valuers in real property markets (Vol. 13). Helmholtz-Zentrum für Umweltforschung - UFZ. https://nbn-resolving.org/urn:nbn:de:0168-ssoar-455532.

Bartke, S., and Schwarze, R. (2021). The economic role and emergence of professional valuers in real estate markets. *Land*, 10(7), 683. https://doi.org/10.3390/land10070683.

Blackledge, Michael. 2016. *Introducing Property Valuation*. 2nd ed. London: Routledge. https://doi.org/10.4324/9781315680804.andCallanan, J., and Mccarthy, I. (2003). Property education in New Zealand: Industry requirements and student perceptions. *Journal of Real Estate Practice and Education*, 6. https://doi.org/10.1080/10835547.2003.12091590.

Dromantienė, L., Indrašienė, V., Pange, J., and Bielskytė - Simanavičienė, E. (2015). The main aspects of the application of educational technologies in the study process. *Journal of Research in Education and Training*, 8, 39 - 55. https://doi.org/10.12681/jret.9081.

Epley, D. R. (2004). New journal of real estate research ranking of decision-making subject areas for corporate real estate executives, 26(1), 43–68.

Ezema, I. C., Oluwatayo, A., Adewale, B., and Aderonmu, P. (2014). Professional training of real estate students: A study of academic curricula of four Universities in Nigeria. *Conference: 7th International Real Estate Research Symposium (IRERS 2014).* Kuala Lumpur, Malaysia. doi:10.13140/2.1.3372.4486.

Field, A. P. (2013). *Discovering statistics using IBM SPSS statistics: And sex and drugs and rock "n" roll* (4th Ed). Londen: SAGE Publications Limited.

Galuppo, L., and Worzala, E. (2004). A Study into the important elements of a master's degree in real estate. *Journal of Real Estate Practice and Education*, 7. https://doi.org/10.1080/10835547.2004.12091600

Gibler, K., Black, R., and Moon, K. (2002). Time, place, space, technology and corporate real estate strategy. *Journal of Real Estate Research*, 24(3), 235–262, 10.1080/10835547.2002.12091095.

Havelock, R. G., and Hamilton, J. L. (2004). *Guiding change in special education: how to help schools with new ideas and practices* (1st Ed.). California: Corwin Press.

Ibisola, A. s., Oni, A. S., and Nkolika, P. J. (2015). The Relevance and Application of ICT in Estate Surveying and Valuation in Ogun State. *International Conference on African Development Issues (CU-ICADI) 2015: Information and Communication Technology Track.* Ota Ogun State, Nigeria.: Covenant University Canaanland.

Institute of Surveyors Uganda (ISU). (2020). *Annual Report and Financial Statements 2020/21*. ISU.

IVSC. (2020). International Valuation Standards (IVS). IVSC.

Jamieson, S. (2004). Likert scales: How to (ab)use them. Medical Education, 38(12), 1217–1218. https://doi.org/10.1111/j.1365-2929.2004.02012.x.

KCB Bank Uganda Limited Vs Sendagire Joseph, Eddie Nsamba Gayiiya and UAP Insurance Uganda, Kintu Paul T/A Terrian Consult- Third Party, Civil Suit Number 640 of 2013 (Commercial Division of the High Court of Uganda 30th June 2021).

Kelly, A. V. (2009). *The curriculum: theory and practice* (Sixth ed.). London: SAGE Publications Limited.

Kibwami, N., Wesonga, R., Manga, M., and Mukasa, T. (2021) Strategies for Improving Quantity Surveyors' Education Training in Uganda. *International Education Studies*, 14(2). Doi: 10.5539/ies.v14n2p33.

Knight Frank. (2019). Kampala market update H2 2019. December 2019, 1–8.

Krejcie, R. V., and Morgan, D. W. (1970). Determining sample size for research activities. *Educational and Psychological Measurement, 30*(3), 607-610.

Lally, P. (1998). The role of valuers in an environmentally sensitive future. *Valuer and Land Economist*, 35(1), 12.

Mat, K., Omar, M. Z., Osman, S. A., Kofli, N. T., Abd. Rahman, M. N., Jamil, M., and Jamaluddin, N. (2011). *The effectiveness of industrial training on UKUK engineering students. procedia social and behavioural sciences*, 18, 656-665. https://doi.org/10.1016/j.sbspro.2011.05.097.

Ministry of Lands, Housing and Urban Development (MoLHUD). (2019). *Uganda National Physical Development Plan 2018-2040.*

Moon, K., and Blackman, D. (2014). *A Guide to understanding social science research for natural scientists.* Conservation Biology, 28(5), 1167–1177. https://doi.org/10.1111/cobi.12326.

Mun, J. (2002). *Real options analysis: tools and techniques for valuing strategic investments and decisions*. John Wiley & Sons.

Nasir, A. M., Eves, C., and Yusof, Y. (2012). Education on plant and machinery valuation for the real market: Malaysian practicality. *Proceedings of the 18th Annual Pacific Rim Real Estate.* Adelaide, Australia. Retrieved from https://eprints.qut.edu.au/54309/

NPA. (2020). Third National Development Plan (NDPIII) 2020/21-2024/25. In National Planning Authority (Issue January). http://envalert.org/wp-content/uploads/2020/06/NDP-3-Finale.pdf

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), 301-314. doi:https://doi.org/10.1080/02602930701293231.

Nzioki, N., Kariuki, C., and Murigu , J. (2006). Education and training in valuation, land management and housing in Kenya. *Shaping the Change: XXIII FIG Congress.* Munich, Germany.

Obaikol, E., and Ogwapit, J. F. (2017). The land governance assessment framework technical report (Issue January).

Obeng-Odoom, F., and Ameyaw, S. (2010). The Future of Surveying in Ghana: Reflections of Young Surveyors on Life after School. *Nordic Journal of Surveying and Real Estate Research, 7*(2), Nordic Journal of Surveying and Real Estate Research. Retrieved from https://journal.fi/njs/article/view/3998.

Olaleye, A., and Adama, J. (2018). Competency requirements for real estate practice: the Nigerian experience. Integrating the African real estate market – An Agenda: The 18th AfRES Conference. 18th African Real Estate Society Conference, Abeokuta, Ogun State, Nigeria. https://doi.org/10.15396/afres2018_103.

Oloyed, O., Ayedun, C., and Ajibola, M. (2016). Leadership Succession Planning: An Examination of Sole Proprietor Estate Surveying and Valuation Firms in Lagos Metropolis. *Covenant Journal of Research in the Built Environment, 4*(1).

Oloyede, S., and Adegoke, O. J. (2014). Relevance of real estate education to practice in Nigeria. *Journal of Land Use and Development Studies, 3*(1), 50-60. Retrieved from https://www.researchgate.net/publication/242475125.

Pace, R. K., Sirmans, C. F., and Slawson, V. C. (2002). *Are appraisers statisticians? In K. Wang & M. L. Wolverton* (Eds.), Real Estate Valuation Theory (pp. 31–43). Springer US. https://doi.org/10.1007/978-1-4615-0909-7_2.

Patankar, P., and Jadha, S. M. (2013). Role of teachers in curriculum development for teacher education. National conference on challenges in teacher education, physical education and sports. Mahavir Mahavidyalaya.

Pereiro, L. E. (2002). *Valuation of companies in emerging markets: a practical approach*. John Wiley & Sons.

Perera, S., and Pearson, J. (2011). Alignment of professional, academic and industrial development needs for quantity surveyors: the post-recession dynamics. https://doi.org/10.13140/RG.2.2.26083.14886.

Pržulj, Ž., Akademija, B. B., Vještica, O. S., and Srbija, T. (2017). The impact of training/education on business results and employee satisfaction. *European Journal of Economics and Business Studies, 9*(1), 126-135. doi:10.26417/ejes.v9i1.p126-135.

Ramsey, R. (2004). The Urban Land Economics Tradition: How Heterodox Economic. In W. Samuels, *In Wisconsin "Government and Business" and the History of Heterodox Economic Theory (Research in the History of Economic Thought and Methodology)* (Vol. 22, pp. 347-

378). Emerald Group Publishing Limited.

Schnaidt, T., and Sebastian, S. (2012). German valuation: review of methods and legal framework. *Journal of Property Investment & Finance, 30*(2), 145-158.

Serdyukov, P. (2017). Innovation in education: what works, what doesn't, and what to do about it. *Journal of Research in Innovative Teaching & Learning, 10*(1), 4-33. doi: DOI 10.1108/JRIT-10-2016-0007.

Van de Mortel, T. F., and Bird, J. L. (2010, October). Endeavour to motivate students; they constantly encourage them to communicate and cooperate and actively get engaged in an activity, thus empowering an individual's personal development. *Journal of Nursing Education, 49*(10), 592- 595. doi:10.3928/01484834-20100730-05.

Vasović, O., and Gućević, J. (2013). Education of surveyors in the field of real estate market valuation: Present situation in the Republic of Serbia. *Geonauka, 1*(1), 26-32.

West, R. (2014). *National Real Estate Investor*. Retrieved from The Truth Shall Set Us Free: Appraisers Serve a Vital Role in USUS Economy: http://nreionline.com/retail/truth-shall-set-us-free-appraisers-serve-vital-role-useconomy.

Woga, J., and Akujuru, V. (2016). The place of environmental valuation in the training of estate surveyors and valuers. *International Journal of Sciences: Basic and Applied Research (IJSBAR), 30*(3), 58-73.

Xiao, Y. (2015). Property valuation education under internationalisation. *International Conference on Informatization in Education, Management and Business (IEMB 2015)* (pp. 709-713). Chongqing, China: Atlantis Press.