

# VERSATILITY OF THE QUANTITY SURVEYING PROFESSION

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# THE TEAM



Ghetta Elvire K.  
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Chief Editor;  
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2020



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# EDITORIAL WORD

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Welcome to the INKINGI Journal 6<sup>th</sup> Edition!

We, Atete K. Ghetta Elvire and Ingabire Ange de Sévigné are pleased to have been the editors of this journal.

Considering the profession was introduced in Rwanda not long ago (in the 2009/2010 academic year), this year's theme was inspired by a need to continuously help the public, Quantity Surveying students as well as other professionals who work closely with the construction industry learn more about Quantity Surveying and how it relates to other fields. As you will learn while you proceed with reading, other sectors like banking, law, and more can benefit from the skills of a Quantity Surveyor.

It was an honor to bring this journal to life despite the many challenges we faced such the outbreak of COVID-19. Nonetheless, this journal was a success.

We would like to thank everyone who contributed to the journal. Thanks to our patron Dr. Nathan Kibwami, our reviewer Prof. Philip O. Lawal, and to the many experts and professors who provided articles despite their busy schedules. We are certain that your zealous contribution to the awareness of Quantity Surveying in Rwanda will yield good fruits. Thanks to you, the best of Quantity Surveying in Rwanda lies ahead!

**Ghetta Elvire K. ATETE &  
Ange de Sévigné INGABIRE**

# RQSSA CHAIRMAN'S WORD

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It is a great honor serving as a Chairman of RQSSA (Rwanda Quantity Surveying Students' Association). The association has been serving the community through its numerous activities mainly by taking part in training the Quantity Surveying students to make positive changes to the sustainability of economics of Rwanda and the rest of the world.

We currently appreciate the status of people's understanding of the Quantity Surveying profession in Rwanda. For over ten years since the commencement of the profession in Rwanda and establishment of the association during the academic year 2009/2010, RQSSA has published five editions of INKINGI journal aiming to help the students in a diverse range of subjects and the entire community in various industries to follow different aspects of the Quantity Surveying profession.

This is the 6<sup>th</sup> edition of RQSSA INKINGI journal, which is out in November 2020. Over and above the previous publications, it is packed with insightful information regarding the Quantity Surveying profession. It is themed "THE VERSATILITY OF THE QUANTITY SURVEYING PROFESSION". It also concerns the most interesting aspects, which you will specifically get from Quantity Surveyors and touches almost every corner of the daily life. I encourage you reading thoroughly this edition because not only will you know more about Quantity Surveying, but also what you can do with Quantity Surveyors for your development.

I would like to express my deep gratitude to everyone who has taken any part in realisation of this edition. It would not have been possible without having such extremely important people; Individuals and Companies or Organizations who can sympathize with others in a situation and participate in their evolution. Your generosity will genuinely remain a significant example to us and our successors.

Last but not least, I would like to thank RQSSA board members (University of Rwanda; College of Science and Technology Chapter and Rwanda Polytechnic; Kigali college Chapter) in their respective mandates and all other stakeholders, RIA (Rwanda Institute of Architects/QS Chapter) and the former Chairman Franchise SHAKAMAHORO, in particular. Your efforts will undoubtedly bear fruit and will continue for a while.



Achilles DUSABUMUREMYI  
Chairman, RQSSA



# RQSSA PATRON'S WORD

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Dr. Nathan Kibwami

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I am delighted to be Patron of the RQSSA and to have the honor of presenting to you the 6<sup>th</sup> edition of the INKINGI journal. Every day I see remarkable young Quantity Surveyors (Qs) leading the way and I am buoyed with confidence for the future of the profession, when I see the contributions RQSSA is continually making to fraternities in Rwanda and beyond. The INKINGI journal is one of such contributions.

As Patron, I am committed to harnessing the ideas and enthusiasm of RQSSA and guiding them in design and planning of programs or activities that affect them and the profession. Needless to mention, student associations, such as RQSSA, have an enormous and invaluable contribution to make in shaping the future of the profession. I would like to thank the editorial team and all those who contributed to have this edition of the journal a success.

The INKINGI journal, which is a product of RQSSA, sets an opportunity for students and various professionals share knowledge that not only facilitates increasing the awareness of the Quantity Surveying (QS) profession, but also demonstrates the limitless possibilities and opportunities of furthering the QS profession. As you read ahead, you will realise that there are many interesting articles that shed light on the present and future of the profession.

It is extremely heartening to note that RQSSA, in its relentless quest for raising awareness of the profession, has sustained publishing the journal for over seven years now. However, the struggle has not been without challenges, especially inadequate financial support. I therefore call on all stakeholders to support RQSSA sustain the INKINGI journal, and also contribute to the association in implementing its strategic plans.

I wish RQSSA the very best in all its future endeavors and am certain it will continue to achieve new milestones in keeping the link between QS students and QS practice alive.

# REVIEWER'S WORD

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Philip O. Lawal

(BSc, MSc, FNIQS, RQS)

This edition of the magazine attempts at educating the public at large, on Quantity Surveying profession. What is Quantity Surveying? Who is a Quantity Surveyor? How can one become a Quantity Surveyor? What benefits for the corporate organizations (public and private) are there in utilizing the Quantity Surveying services? These and many other probing questions are answered variously by the carefully selected articles in this edition.

Specifically, organizations that are stakeholders in the construction industry of any country will find this edition as an asset to the successful execution of their construction projects. Timely completion of projects and within budget are these days, a great concern for public and private project owners. Likewise avoidance of misunderstandings and or litigations is highly desired by project owners and service givers (Contractors).

Though this is a magazine produced by Quantity Surveying students, East and West African Government Ministries, Departments and Agencies (MDAs) at National, Provincial/State and Local levels will find it very useful.

**N.B. Opinions expressed in this magazine are those of individuals and not RQSSA.**

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# VERSATILITY OF THE QUANTITY SURVEYING PROFESSION

This article explains who a Quantity Surveyor is, and how much he/she can do. It also comprises of a list of employment opportunities for a Quantity Surveyor both in the public and private sectors.



**BY: QS Joel Kolapo ADEYEMO,  
Secretary General AAQS, FNIQS,  
M.I.C.I.Arb, MBA, IoD**

**M**erriam webster.com defines versatility as the quality or state of being versatile. Versatility is the ability to adapt or be adapted to many different functions or activities. Quality of being versatile (able to change easily or to be used for different functions). It is also ability capable of or adapted for turning easily from one to another of various tasks fields of endeavor etc.

The noun versatility derives from the Latin word “versatilis” meaning turning, revolving, moving, and capable of turning to varied subjects or tasks. Companies seek employees who have versatility so they can adapt to different work situations.

The RICS (Royal Institution of Chartered Surveyors) says that Quantity Surveying is concerned with managing the costs of construction projects. In other words, the Quantity surveyor is the project accountant on any construction project and works with the Project manager in controlling the cost of a project. One should be forgiving for almost thinking or imagining that the quantity surveying profession is only limited to putting a price on building and monitoring expenditure for any construction project when in fact, the Quantity surveying profession encompass more than we can imagine at first glance.

## Quantity Surveying as a profession

Quantity surveying profession has long been practiced as of old, even the Bible recorded it in Luke 14:28-30 “For which of you, intending to build a tower, does not sit down first and count the cost, whether he has enough to finish it, lest, after he has laid foundation and is not able to finish, all who see it begin to mock him, saying, ‘This man began to build and was not able to finish?’”.



Over the years, the world has evolved. This phenomenon has ushered in several changes in the way the world is perceived and the way things are done. Undeniably, significant changes have been witnessed in the world of medicine, agriculture, technology and interestingly the construction industry. Indeed, professions have been evolving – some are being redefined, some roles are expanding and new ones are emerging. In line with these world dynamics, the Quantity Surveying (QS) profession has also witnessed a shift from tradition and a clear growth in scope. Fundamentally, the Quantity Surveying profession is concerned with the total cost and procurement management of all types of infrastructure projects in all the sectors of an economy.

To successfully complete any construction project a variety of activities will need to be carried out by number of diverse professional team. The Quantity surveyor is a key and important member of that team. To truly understand the versatility of the QS profession, one must first understand the various duties the QS plays on a project as well as the different fields he/she works in.

Although, the Quantity Surveying profession has a core fundamental duty of total cost and procurement management in the construction industry, the profession has a natural ability to adapt or be adapted to many different

functions or activities. Since 1785 when Henry Cooper and Sons commenced an organised Quantity Surveying operation in Reading, United Kingdom (Seeley and Winfield, 1999), the profession has evolved from measurement oriented background to financial management focus in the construction industry (Nkado and Meyer, 2001). Even now, the roles the profession is saddled with are much more comprehensive. Long before now, authors such as Smith (2004) had submitted that unavoidably, documentation and data will become highly automated and tasks such as measurement and other quantity surveying duties will require minimal manual intervention. Interestingly, in line with this submission, developments in the world of technology and emerging complexities of the construction industry are hugely influencing the magnitude of display of the versatility of Quantity Surveying as a profession.

Owing to its natural construct, the Quantity Surveying profession has the ability to change while retaining its core attributes as a profession. As earlier mentioned, Quantity Surveying was initially mainly recognised for the quantification of construction projects but today Quantity Surveying profession can boast of services ranging from project/development management, investment appraisal, carbon management, coordination of sustainability programmes, Project/Organisation Building Information Modelling (BIM) Coordination

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**Although, the Quantity Surveying profession has a core fundamental duty of total cost and procurement management in the construction industry, the profession has a natural ability to adapt or be adapted to many different functions or activities.**

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i.e. serving as BIM Manager on a project or for an organisation, Health and Safety Management, Quality Control, supply chain management, comprehensive project monitoring, technical audit and due diligence reporting. The overarching role of technology in all the aforementioned responsibilities cannot be overemphasized. Dynamic Quantity Surveyors are exploiting these technological advancements to reposition and repackage their service delivery to all categories of client.

Among the technological advancements that has accentuated the versatility of the profession is the advent of specialized Quantity Surveying software applications for measurement, cost estimating, cost modelling, interaction with Computer Aided Designs (CAD), 3D visualization, electronic reporting and communication mechanisms, cloud storage options, use of electronic gadgets for dimension extraction during physical measurement, inventory control among others. Another fantastic dimension on the versatility of the Quantity Surveying profession is the emerging enhanced successful entry into international markets by a number of Quantity Surveying organisations. The profession is no longer bounded by geographical limitations, however, a good knowledge of market entry and internationalisation is needed to break

geographical limitations. Across several regions, Quantity Surveying profession has hugely contributed to building construction, civil and structural engineering, mechanical and electrical engineering, petrochemicals, environmental economics, planning and urban development, landscaping, and interior design. In the midst of it all, Quantity surveying profession has witnessed skills upgrade and enlargement.

A Quantity surveyor can be involved with any stage of a project from feasibility, design, construction, through to extension, refurbishment, maintenance and even demolition says the RICS. At any of the stages, the QS will be called upon to perform a variety of duties in order for the project to proceed. He/she duties will generally include and are not limited to:

- » Preliminary cost advice – cost estimates, cost planning, procurement advice etc.
- » Preparation of bills of quantities – measurement & quantification and pricing.
- » Assessment of all cost related expertise required during the design and construction of the project – cash flow, cost control, interim valuations & payments, financial statements, final accounts and the like.
- » Arbitration – settlement of contractual claims



### **Duties of the Quantity Surveyors**

1. Carrying out feasibility studies of capital projects.
2. Preliminary cost advises which entails preparation of cost estimates, budgets, cost planning, cost checks and cost control.
3. Tender/contract documentation which includes preparation of bills of quantities and other tender documents.
4. Giving advice on tendering/bidding procedures, contractual arrangement and tender evaluation and Analysis.
5. Contract administration which involves the management of construction works and cost during the execution of the project.
6. Project management which means the co-ordination of the efforts of all the consultants, contractors and other participants from inception of the project to completion in order to achieve desired result within pre-determined Time and Cost frame work.

### **The Quantity Surveyor is also very useful in the following areas:**

1. Direct Labour projects using in-house team/people to undertake the construction works.
2. Mediation and Arbitration in case of disputes between the Client and the Contractors.
3. Giving Expert witness in cases of Arbitration or Litigation.
4. Management of the Procurement of construction works.
5. Project Monitoring.
6. Mortgage Monitoring.
7. Funder's representatives in cases where projects funds are sourced from financial institutions.
8. Construction contract Auditing.
9. Quality Assurance/Inspection of ongoing construction works.
10. Value Engineering and Management.
11. Property Condition surveys as well as compilation of Schedule of Dilapidations.
12. Reinstatement Cost Valuation for insurance purposes.

## Employment opportunities for quantity surveyors

Opportunities abound in both the private and public sectors for an aspiring Quantity Surveyor.

### PRIVATE SECTOR

1. Quantity Surveying Consulting Firms
2. Construction Companies (Quantity Surveyors can also establish and run successful construction companies)
3. Real Estate Developers
4. Banks
5. Assets Management companies
6. Mortgage companies
7. Insurance Companies
8. Manufacturers of Building components and Materials such as Paints, Bricks, Aluminum etc.
9. Oil Companies
10. Procurement and General Services Department of companies in Manufacturing, Telecommunications, Aviation, etc.



Note: Only a Professional Qualified Quantity Surveyors can set up Consultancy Firms)

### PUBLIC SECTOR

1. Procurement Divisions/Departments of all Government Ministries and Parastatal
2. Office of the Auditor-general of the Federation or the State
3. Works and Physical Planning Departments of Tertiary Institutions in the Country.
4. Lecturers in Universities, Polytechnics and Colleges of Technology
5. Works and General Services Departments of Armed Forces and the Police

### Versatility of quantity surveyors' profession

Quantity Surveyor is equipped to be your Cost Expert, closely watching your agreed budget and guiding your project through the financial complexity of modern Construction in areas including: Building Construction, Civil and Structural Engineering, Mechanical Building and Engineering Services, Petrochemicals, Minerals, Extraction Cost and Production Engineering, Environmental Economics, Planning and Urban Development, Landscaping, Interior Design.

### Principal Services of the Quantity Surveyor

1. Preliminary Cost Advice
2. Advising on Contractual Methods
3. Advising on Contractors Selection
4. Preparing Tender Documents
5. Obtaining or negotiating tenders/ bids
6. Cost Planning
7. Valuing construction work
8. Preparing and agreeing accounts with contractors
9. Preparing expenditure statements for taxation and accounting

purposes

10. Technical Auditing
11. Assessing replacement costs for insurance project control
12. Giving expert evidence in arbitration and disputes
13. Feasibility studies
14. Investment Appraisals
15. Cost control and post-Contract Management
16. Project Management and Coordination
17. Value Management, Analysis and Engineering
18. Risk Management
19. Security Management
20. Financial Analysis

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**Quantity Surveying was initially mainly recognised for the quantification of construction projects but today Quantity Surveying profession can boast of services ranging from project/development management, investment appraisal, carbon management, coordination of sustainability programmes, Project/Organisation Building Information Modelling (BIM) Coordination i.e. serving as BIM Manager on a project or for an organisation, Health and Safety Management, Quality Control, supply chain management, comprehensive project monitoring, technical audit and due diligence reporting.**

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## About the author

BY: QS Joel Kolapo ADEYEMO, Secretary General AAQS, FNIQS, M.I.C.I.Arb, MBA, IoD

Mr. Kolapo Adeyemo started his professional journey in the year 1990 at Sparklight Engineering Construction company- Lagos state and is founder to COLLINS CROWN LIMITED, mother company to COLLINS ASSOCIATES and PUKKA PROPERTIES LIMITED. He was involved in many structural projects as a Quantity Surveyor, Cost Analyst and Adviser. He also worked with Adebiyi Solanke & Co. as the Quantity Surveyor and Maintenance Manager for 3 years and thereafter moved to Oxford Savings & loans as the Head of Mortgage & Marketing Department. He is a corporate member of Institute of Construction Industry Arbitrators (M.I.C.I.Arb.), and also a Fellow, Nigerian Institute of Quantity Surveyors (FNIQS), a Member, Institute of Directors (IoD) and a member of Lagos State Chamber of Commerce and Industries. He has a vast knowledge of construction works in Nigeria especially in Lagos environs and Abuja and has worked on a lot of Projects too numerous to mention.

## **DID YOU KNOW?**

### **DO YOU WANT TO KNOW HOW MUCH YOUR BUILDING IS GOING TO COST IN 15 YEARS?**

Quantity Surveyors possess the skills to calculate building costs for depreciation purposes. With their knowledge in estimation and their ability to pay attention to details, you can be assured that they will consider each one of your assets; plants and equipments included. This also applies to tax depreciation of your assets.

### **CONTRACTING OR CONSULTING COMPANY?**

Quantity Surveyors can work for a construction company contracting on the project and this can be challenging because you can change projects any time but also satisfying because you get to put your mark on many projects. Quantity Surveyors can also work for consultancy companies, working for the client; where they are involved with the project from beginning to end and can act as a bridge between the contractors and the client.

# HOW MANAGEMENT IS INCORPORATED INTO THE QUANTITY SURVEYING PROFESSION

*This article not only provides insight on management in the construction industry; it also clearly explains how Quantity Surveyors' roles perfectly fit into it.*



**BY: Dr. Oluwaseun Sunday DOSUMU; a lecturer, researcher and a Chartered Builder with professional experience in construction related issues.**

**T**he construction industry is generally known to be a huge contributor to the growth of every national economy in terms of gross domestic product, infrastructural development, and provision of employment and shelter for the populace (Dosumu and Iyagba, 2013).

In view of this, every nation strives to develop not only their infrastructural capacity but also their human capacity. This is majorly achieved through formal professional and academic training of the citizenry in the built environment professions.

Currently, the various professions that are globally recognized and readily available in the built environment are architecture, civil/structural engineering, building/construction management, urban and regional planners, estate management and valuation, and quantity surveying. The professionals in these professions perform different roles but aim at achieving a common goal of project success for construction projects.

A project is traditionally termed to be successful if it meets the goals of budgeted cost, scheduled time and prescribed quality. However, in recent times, the criteria for determining project success has changed from these iron triangle measures of cost, time and quality to sustainability (Dosumu and Aigbavboa, 2018). Sustainability encompasses all



the traditional criteria for measuring project success in addition to economic, environmental and social sustainability. The point that is being made here is that, a project is no longer successful if it fails to align with the three pillars of sustainability (social, economic and environmental sustainability) as recommended in the sustainability development goals, even if it meets the cost, time and quality targets.

In the traditional method of procurement that is still currently being practiced in Rwanda, the architect is the leader of the design and construction team. That is, the architect acts as the designer and construction manager on a project. However, research (Dosumu, 2018) has shown that many of the projects executed in this manner have failed in one form or the other. This is because the architects have always been the judge in their own case. There is no other professional to checkmate and crosscheck their works in this procurement method. Many of such projects contain cost overrun, time overrun, quality deviation and sustainability lapses. In view of this, it was advocated that the construction management and/or management contracting procurement methods should be adopted for construction projects to curb the excesses of the traditional procurement method (Sivakuraman et al. 2015). The management methods have been substantiated to be more effective in terms of speed, cost saving and quality assurance among other benefits.

On the management methods of procurement, research (Odusami, et al. 2003) shows that any of the afore-mentioned professionals can act as the project or construction manager. If any of the professionals act as a project or construction manager, he cannot double as the architect, builder, quantity surveyor or engineer of the same project. As a project or construction manager, the duties are basically to coordinate the activities of other professionals in order to achieve the overall goals of a project. In the capacity of a project or construction manager, the professional manages the resources of a project which include manpower, plant/equipment, finance and materials.

However, it is important to emphasize that it is not only the construction or project manager that carries out management functions on a construction project. The architect, engineer and quantity surveyor also manage some aspect of the jobs that relates to their profession.

### **The Quantity Surveyor's management roles on construction projects.**

A quantity surveyor can simply be described as a professional in the built environment that is responsible for the determination of the quantity and cost of materials that are required to execute a construction project. As a quantity surveyor, there are management skills that must be possessed to have competitive edge in business

and survive in the construction industry. The level of importance of these management skills are determined by the type of project, type of client and the goal of the project among others.

Shayan et al. (2019) noted that the quantity surveying profession has contributed to the planning and controlling of construction projects over the years. However, the current skills of the quantity surveyors need to be updated to absorb roles such as risk management and Building Information Management for cost estimation and planning. According to Shayan et al (2019), some schools of thought view quantity surveying as a mix of contractual law, construction economics and information management. To function in these capacities, a quantity surveyor must be grounded in the aspects of management that relate to each of them.

Verster (2005) agreed with Shayan et al. (2019) by affirming that the management roles of the quantity surveyors are four fold-management of cost, contract management, communication management, and claim/dispute management. Under each of these functions, a quantity surveyor is expected to perform different roles. For cost management, the skills required are for cost design (design to cost), value management, cost planning, cost control, cost checking, cost analysis, cost benefit analysis, whole life appraisal (life cycle costing) and cost reporting.

For contract management, the management skills required are for the determination of the most appropriate procurement options (traditional, design and build, package deal, turnkey and management contracting). To manage information, the required skills are for communication about the contract, general communication, communication with the management, communication for leadership and results. Finally, a quantity surveyor is expected to be able to manage claims and disputes. In this capacity, the required management skills are

for dispute resolution (conciliation, mediation, arbitration, adjudication) and determination of claims. Also, Cruywagen (2006) noted that quantity surveyors are saddled with the responsibility of ensuring quality management in their firms in accordance with ISO 9001:2000 quality principles. This indicates that quality management should be part of the skills to be garnered by quantity surveyors. In summary, a quantity surveyor is trained in both the art of construction management and cost economic.

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**The management roles of Quantity Surveyors are four fold: management of cost, contract management, communication management, and claim or dispute management.**

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## About the author

**Dr. Oluwaseun Sunday DOSUMU BSc., MSc., PhD**

Oluwaseun Sunday DOSUMU currently lectures in the Department of Building, University of Lagos since 2011. He was a Volunteer Senior Lecturer for the Federal Government of Nigeria in the Department of Construction Management Technology, School of Architecture and Built Environment, University of Rwanda from May 2018 to May 2020. He was a Research Fellow in the Department of Construction Management and Quantity Surveying, University of Johannesburg from April 2017 to March 2020.

He was a Lecturer at Moshood Abiola Polytechnic, Abeokuta, Ogun State from 2006 to 2011. He was an adjunct Lecturer at Lagos State Polytechnic from 2005 to 2006. Dr. Oluwaseun Sunday DOSUMU holds National Diploma, Higher National Diploma, BSc (Hons), MSc (Construction Management) and PhD (Building) respectively. He has taught several courses relating to sustainable building design and construction, and project/construction management among others. He is a Chartered Builder with professional experience in construction related issues.

He has been involved in the construction of projects such as bitumen depot, filling stations, and residential buildings among others. His research focus includes sustainable building, construction management and project performance. He has authored up to 40 local and international journal, conferences, and book chapters publication in the last 5 years. He is the author of *Sustainable Design and Construction in Africa* (226 pages), published by Routledge, UK in 2018. He won awards and grants which include the Global Excellence Stature Award (2017-2020), best lecturer in the department of Building University of Lagos (2016) and the best paper at the International conference for construction and Real Estate in Guangzhou, China (2017).

# QUANTITY SURVEYING BEYOND THE 21<sup>ST</sup> CENTURY

This article explains the roles of Quantity Surveyors on projects while demonstrating which skills are needed to deal with their ever changing and evolving practice.



**BY: QS Douglas NYAMONDO; Project manager with over 17 years vast project experience in East African Countries; Projects Director MD Sunya Development Group (Rwanda Office)**

**P**rojects are stated to be unique, transient, unrepentive undertakings set out as enablers in achieving particular objectives which could be defined by outputs or outcomes that are either with a business or social orientation intended for a long/short-term success.

The development of Quantity Surveying practice has been with the intention to deliver on the objectives and achieve success with specific focus on cost & contract management. The intent being to achieve the project objectives by exercising trade-offs between the three main project

constraints traditionally outlined as time, cost and quality.

Clients (or promoters) engage practitioners with the understanding that their involvement in the project will forestall project failure or enable achievement of specific objectives. Research by the Standish Group (2015) continues to depict a disappointing level of performance with only twenty-nine percent of projects rated as successful.

Though there is no turning back or a possibility of professional practices not being required with both research and practice indicating that projects that engage these professionals do stand a higher chance of success than those that do not. The paradox faced by professions such as Quantity Surveying and others in the industry is the relevance of standardization of procedures and processes. The assumptions of most one-size-fits-all approaches – pursuing a simple, predictable and standardized model – is their applicability to all types of projects. To the contrary current practice and recent research has emphasized the need for professional practices to be ‘adaptive’ and flexible to address the uniqueness, complexities, uncertainties and challenges surrounding each project.



While in the previous years the professional practice out-look and theories were enshrined on standardization, simplicity and predictability, Ortalo-Magné (2019) while quoting current leadership perspective of the world context describes the future as “confusing, overwhelming, fragmented, unstructured deluge”, Research and practice indicate that the future continued relevance of practitioners lie not only on an output focus but being outcome-oriented noting “just because we’ve finished making a thing doesn’t mean that thing is going to create economic value for us.” (Gothelf & Seiden 2017). This brings to the fore-front the need for acquiring “fundamentally different set of skills from those needed in execution-oriented models—chiefly: innovation, adaptability, and a willingness to challenge “sacred cows.” (Gallagher 2015).

What then can be done? In this ever-changing and evolving practice with increasingly enlightened stakeholders, the following may be considered:

**a. Develop Contextual Awareness**

Knowledge and standards are to some extent subjective and their development are affected by the context of their development. A conscious awareness of knowledge origins and shifts within project landscape during the project implementation is paramount in the 21st century successes.

**b. Adopt a “Work-with” other than “Know-it-all” approach**

The era of exclusivity of knowledge by the “professionals” is gone and with a continuous awareness, knowledge and varying experience of the project team members quantity surveyors can only develop a “work-with” and not “know-it-all” work attitude.

**c. Continuous Learning and Experimentation**

It is key to note that knowledge and best practice are in actual sense transient and even where a specific standard does work it can only be stated as the best-practice and not the “Ideal-practice”. Continuous learning calls for critical reviews of previous projects learning not only from the successes but more importantly drawing lessons from the failures.

Experimentation calls for pre-role out testing of the new technologies and practices by undertaking trials, dry runs and in other smaller environments. Experimentation does also mean the need to come up with innovative solutions not only pre-commencement of the project but during its implementation.

#### d. **Out-come Orientation other than Outputs**

Gothelf, J. and Seiden, J. (2017) do correctly outline that projects entail “creating a single system — or a set of interconnected systems that behave as one system — and we are often in the position of not knowing whether the thing we’re making will work as planned until we’re done” and its therefore paramount while undertaking projects to be aware of the shortcoming of our standardized practices and tools which are to a great extent structured in terms of outputs and not outcomes.

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About the author \_\_\_\_\_

#### **QS Douglas NYAMONDO, Over 17 years vast project experience.**

Mr. Dauglas is a registered and practising professional Quantity Surveyor and Project manager with over 17 years vast project experience in East African Countries(including South-Sudan). He served differents projects and position inter alia Kigali Arena-Project Manager; Kigali Convention Centre as a head of Costs and Claims and Emergency rehabilitation Works for Government of South Sudan-Quantity Surveyor. This has provided him the requisite knowledge and substansive understanding on matters relating to developments including but not limited to critical elements of risks, cost control/ planning, scheduling and contracts management. His Current specific interest is on subject matters of project failures and success from perspective of the entire development lifecycle.

# DID YOU KNOW?

## QUANTITY SURVEYING AS A CAREER

Quantity Surveyors can work both on site and in the office. Quantity surveying particularly for those who work on the client side, bears much resemblance to the office based career like finance and business, but with the added perk of working on physical projects with a lasting and profound effect on the landscape of the country. A career in Quantity surveying can give you that balance of office based work and/or construction site based work. This will avail you to advantages and perks of both worlds in your career and give you a fun touch in your work ensuring you're never bored or tired of staying in one place.

## SPECIALIZATION IN QUANTITY SURVEYING

A professional Quantity Surveyor may specialize in another profession in the construction industry, namely electrical engineer, mechanical engineer etc., and work as an Electrical Quantity Surveyor or a Mechanical Quantity Surveyor.

# FROM SINGLE AND DETACHED HOUSES TO TOWN HOMES AND CONDOMINIUMS: THE ROLE OF LAW, HOUSING COOPERATIVES AND HOA

This article provides an example of how law and Quantity Surveying relate to each other. Townhomes and condominiums (a great alternative to single houses) enable property owners to reduce property costs. Quantity Surveyors being the ones concerned with costs need to have an understanding of laws that regulate town homes and condominiums.



**BY: Me Bernard NSANZIMANA; an active legal practitioner registered with the Rwanda Bar Association and the East African Law Society.**

**A**lso known as singles houses, the recent history shows that when people started building houses to shelter their families, they were erecting detached houses. Even today, especially in developing countries, Rwanda included, there is still attitude to build detached houses mainly for

privacy reasons and avoidance of disputes with neighbours. However, in the aftermath of the genocide committed against the Tutsi in 1994, and after repatriation of Rwandans who had fled their home land to neighbouring countries since the end of 1950s; the Government started encouraging and supporting families to live in organized settlements from homes which were scattered in different places of rural areas, for different reasons including organization itself, access to infrastructure and services including clean water, electricity, education, health and for security purposes. Hence, the new approach became to bring together different families in settlements that look like town homes, known as twinned houses, 8 in 1, 4 in 1 and similar structures. These facilities also include building in storeys which accommodate many families but whose ownership has not yet been transferred to occupiers. These new settlements are commonly referred to as “model villages”.

The trend of Government’s efforts to bring together poor, elders and families from swamps

and other high risk zones, showcases the eagerness to change the human settlement style from single homes to town houses, sort of residential buildings. The same efforts are not limited to buildings erected by the Government and its stakeholders; they are rather extended to private investors in the area of property development. For this reason, in 2010, the Law N° 15/2010 of 07/05/2010 creating and organizing condominiums and setting up procedures for their registration (Official Gazette n° special of 14/05/2010) got enacted. Article 2 (2o) of the same law defines condominium, shortened as “condo”, as a type of joint ownership of real estate in which portions of the property are commonly owned and other portions are individually owned. Before the enactment of the 2010 condominium law, the Government had started regulating condominiums with Instructions No 003 of 23/7/2009 of the Minister of Natural Resources creating and organizing condominiums and setting up procedures for registration (O.G. n° 36 of 07/09/2009). In the same angle, since 2010s, the Government of Rwanda has been encouraging people to join efforts and erect co-shared buildings in terms of condominiums for different purposes including the effective management of land, where small pieces of land can host more units of buildings than detached houses, scattered on different pieces of land in different areas.

### Quantity Surveying application in law



Therefore, this article discusses the role of law, housing cooperatives and Home Owners Associations (HOA-s), in the process towards the development and management of town houses and condominiums, from long-existing single and detached houses. The paper aims to raise the awareness of readers on existing legal and regulatory tools, as well as lawful best practices, within the efforts to promote town homes and condominiums in Rwanda, and roles played by housing cooperatives and HOA in the same endeavours. The writer used a doctrinal qualitative approach to gather, present and interpret information herein discussed. It is worth noting that, whereas a town home, also known as town house, is a single family home, regardless of the size or tallness, which shares one or more walls with other independently-owned units or houses; a condominium is a big building whose units are owned by different individual residents in different areas and floors, if any, of the building, to the extent that those units have many co-shared utilities that may include water pipes, electrical installations, elevators and stairs, sewerage system, corridors, the parking, the land on which the condominium is erected, swimming pools, gardens and others. For condominiums, the separation of one unit to another may be a wall or a floor slab. In short, town homes are grouped buildings, regardless of their sizes and tallness, connected to one another, and therefore separated by walls, on one side. On the other side, a condominium might be one big building with different units, belonging to different specific owners. In this context, residents of condominiums are likely to meet in corridors, stairs, lifts, entrance doors, etc. whereas for townhouses, residents may only meet in open space parking, because, though houses are connected to one another, they are practically separate houses, only linked to one another by walls.

Condominiums and town homes should not be confused with apartments. An apartment is generally a set of rooms for living in, especially on one floor of a building. Therefore, when there is a building with more floors for apartment purposes, the building is referred to as “apartments”, and so are the floors, considered together. Under normal circumstances, apartments belong to one owner, an individual or a company, and are subjected to tenancy agreements; whereas condominiums and townhouses can host their owners in big percentages, though tenants can also live in the same. Structurally, apartments may have similar look with condominiums, and not townhouses which are still endowed with a given level of privacy.



### *Condominiums*

Whereas the owner of a single or detached house does not necessitate to be in association or cooperative with neighbours, life in townhouses and condominiums depends on lawful best practices that include internal rules and regulations (also known as by-laws, or policies, or simply rules) set by housing cooperatives, mainly for townhouses and HOA for condominiums, in addition to provisions of the law on their development and management.

For instance, the management of shared walls of townhouses, their uniformity, maintenance, landscaping, internal rules, insurances, exterior designs, lawn and roofs, etc. cannot be possible in absence of housing cooperatives or corporations. The latter may also exist before even the process to build the houses, where members or shareholders would agree upon the design, source of income including loans and collaterals, paints for the set of buildings, as well as internal rules to manage the town homes.

Though town homes do not have many assets and facilities that are co-shared and co-owned, which can be sources of disputes, the housing cooperatives help to solve matters that include health, safety and security issues, in general, car parking, sewage system, construction leakages, reparation of co-shared walls, waste management, insurances, the management of guests, noise pollution, air pollution, water pollution, trespasses to properties and privacy violations, minor thefts, non-contribution to maintenance and cooperatives management and others. Cooperatives also help in the process to transfer ownership over houses during sales and other transactions, besides decisions on house homes maintenance and repair.

However, in Rwanda, there are no special governmental rules governing housing cooperatives. In a similar angle, independent buildings sharing walls have been erected in recent years by property developers who in turn sell them to clients, especially in the capital city, Kigali. Bodies that look like housing cooperatives have rather been investing in buildings that are co-owned, but which do not look like town houses as buildings of quite similar look, separated by walls. The common example is “Amashyirahamwe Modern Market” whose members joined efforts to erect commercial buildings at Nyabugogo, and similar examples



across the city. In this situation, the organization normally owns the building as a cooperative or a company, with the possibility for members or shareholders to own some units in the buildings for them to run their own businesses, whereby other units are co-owned and yielded profit is co-shared. They can therefore have internal rules and regulations that do not completely match with by-laws of housing cooperatives, whose buildings are normally individually-owned, though their management compels residents to recognise some powers to their representatives in the cooperatives.

Contrarily, HOAs are regulated by the Rwandan law on condominiums, under the appellation of “Association of Owners in a Condominium”. Article 2 of the same law defines the association as a non-commercial organization of at least two (2) owners in a condominium associated for the purpose of proper administration, maintenance and operation of the real estate under the condominium. The association must be registered and therefore get legal personality. The same law recognizes that each unit belongs to a given owner, common owned parts that include land on which the building is erected, the walls, roof, terraces, chimneys, stairs, halls, basements and technical floors, garbage conduit, lifts, engineering equipment and facilities from inside and outside units

or building which serve at least two units, adjacent land as well as the green perennials thereto and other objects designed to serve the condominium.

The existence of a HOA can be initiated by property developers for the management of condominiums. In Rwanda, the typical example is the Ultimate Developers Ltd (UDL) which has the “Gacuriro Vision City” project with apartments, luxury villas, town houses and semi-detached houses. The company revealed to the writer that HOA was thought about and that articles of association and by-laws were drafted for residents to have common rules and best practices governing the management of their houses and the place where they are located. Therefore, apart from buildings themselves, common facilities that shall be availed in the estate shall be managed by the HOA. Even in case UDL shall have no more say on the buildings, after selling them to clients, the latter will keep self-regulating their relations and buildings. With the UDL example, HOAs are not only limited to condominiums (apartments, to become condominiums, included), but also to townhouses and even semi-detached ones. Note that according to different structures across the world, a HOA can have different organs, including the board and other committees, depending upon the wish of residents.

Apart from the normal management of the built environment, the existence of housing cooperatives and HOA helps in the ownership over properties and associated rights, including the right to use the property (usus), right to enjoy fruits generated by the same property (fructus) and the right to dispose of the property (abusus). They help to understand how someone can own a unit of house without lonely owning the land where the building is hosted. The same organs help within the transfer of ownership and associated rights over the properties. Good enough, the Law into force made it possible for co-owners to have title deeds on their properties and feel protected by the Law.

All in all, there is no doubt that the transformation of the construction sector while promoting town homes and condominiums, from single and detached houses, does not only enable property owners to minimize costs in erecting or purchasing buildings and or their units; but also helps the country to minimize the surface of land used to host the same infrastructure. In Rwanda, Government officials went far and encouraged landowners to negotiate with investors so that the latter can have land, free of charge, erect buildings and share some of their units with land owners; but so far, there are not many success stories from the approach. Again, though HOAs and housing cooperatives are meant to be non-commercial associations, the laws of Rwanda relating to the registration of both cooperatives and associations set long procedures compared to the registration of commercial organizations – companies. Therefore, the Government would ease the process to register HOA and housing cooperatives within the context to promote town homes and condominiums. Moreover, while referring to the implementation of Kigali master plan and secondary cities', for the sake to save more land and have affordable houses; the Government would also compel people to join efforts for both commercial and non-commercial

ends, to stop building single and detached houses, in favour of town homes and condominiums, where applicable. This would be one of the land use solutions against the country's overpopulation, where the density is currently estimated at 252 per km<sup>2</sup>. Experts, researchers, investors and students should also contribute to the same endeavours, in both property development area, and research and advisory services.

#### About the author

Me Bernard NSANZIMANA

NSANZIMANA Bernard teaches Law Modules in the University of Rwanda (UR), College of Science and Technology (CST), pertaining Construction, Property Management, Land, Mining, Torts and Contracts. He is also a researcher in the field of law and since 2007, he has been a lecturer of Law in other Universities in Rwanda, including the University of Tourism, Technology and Business Studies (UTB), former Rwanda Tourism University College (RTUC) and the University of Technology and Arts of Byumba (UTAB), former Institut Polytechnique de Byumba (IPB). His area of research interests focuses on the built environment, natural resources and the extractive industries, business investments, and environmental and tourism Law. He is an active legal practitioner registered with the Rwanda Bar Association and the East African Law Society. He is also a mineral resources governance expert and a human rights activist, co-founder and founder of the Rwanda Women In/And Mining Organization (WIAMO) and the Great Lakes Initiative for Transparent, Accountable and Responsible Mining (GLITARM), respectively.

# QUANTITY SURVEYING AND BANKING

Quantity Surveyors can work in banks, but what exactly are their tasks in banking? This article explains why the banking industry needs Quantity Surveyors.



**BY: QS Arielle GAHIGI MUGWANEZA;**  
**UN youth delegate of 2013-2014.**

**T**here are common questions that people who did sciences in school often ask themselves; what is the use or purpose of what we learnt in school in a normal life routine? Why is the curriculum so complicated if we end up leaving all those formulas and equations to school? Where do I apply a derivative or integral in my daily life? A very simple and basic answer to that

is: those complex equations shaped your thinking and reasoning and together with other factors you were shaped into the person we see today.

This is exactly how I would define Quantity Surveying, it is a broad science that equips people with enough tools to understand various concepts of a construction project from a conception stage to its completion; from an idea stage to the stage we all see and appreciate.

Quantity Surveying is not just about taking off quantities and estimating costs, it's about offering value for customer's money through construction projects.

## Quantity Surveyor's roles in banks

However, we see that their role is not just limited to being part of direct teams on a construction project; quantity surveyors can as well be part of financial institutions like banks, or act in positions that require an understanding of cost and quality on a project.



Customizing a bit to the banking sector, it is not yet common in our community to see a QS working in the banking sector. Many even do not see the relationship easily. Banks are financial institutions. For any building we see, there is a cost associated to it and in many cases funds to raise those buildings come from bank loans. If we also analyze challenges that the construction industry faces or investigate the cause of failure in some projects, poor cost projection or estimate of the building is the most recurring reason. Therefore, Quantity Surveyors are very important persons in a board that approves construction loans. Who else is competent enough to understand and evaluate those Bills of Quantities submitted for a loan application? Who else is competent enough to tell if all the money granted to a customer has been used on that very project? Who else is good enough to predict that the funds being applied for a building will not complete it or are more than what is needed? To cut the story short, unless a bank does not have a loan department or does not fund construction projects, it will always need Quantity Surveyors on any board that approves, controls, estimates a budget for construction projects because they are key people in those teams.

The construction industry itself contributes 7% of the total GDP for our country; therefore, it attracts both the private and public sector. There is no doubt that as days go on, people are becoming more aware of the role of quantity surveyors in building a sustainable industry. Everyone wants to know the real cost of a project before he starts it, everyone wants to ensure an adequate cash flow during a project implementation, everyone wants to be sure that what he paid for is what he got as final product, and that is our role as quantity surveyors. Same as financial institutions, governments, corporates, even individuals, they all want more and more to know the real value of their investment.

My question is, what are we doing today on an individual scale to build or prepare the Quantity Surveyor who will be able to distinguish himself or herself in such a developing country?

It is time we all see and work together to develop our Quantity Surveying profession, equipping ourselves with adequate skills, not leaving behind ethics that will help us build a good reputation in the region.

**“Unless a bank does not have a loan department or does not fund construction projects, it will always need Quantity Surveyors on any board that approves, controls, estimates a budget for construction projects because they are key people in those teams.”**

#### About the author

**QS Arielle GAHIGI MUGWANEZA,**  
7 years of experience

Mrs. Arielle is a registered Quantity Surveyor under Rwanda Institute of Architects- QS chapter. She is among the pioneers of the Rwanda Quantity Surveying Students Association, and since then working together with her colleagues to promote their profession in Rwanda. Arielle has been in different youth activities and has served as the UN youth delegate in 2013-2014. She is now doing her MBA at the African Leadership University School of Business, which is also known as the Africa's MBA connecting and working together with people from all over the continent to develop Africa.

# DID YOU KNOW?

## RQSSA

RQSSA was established in the 2009/10 academic year, thus, 2019/2020 Marks her 10th anniversary! It is an association of Rwandan University and College students studying Quantity Surveying that aims at bridging these students with their carrier practices and preaching the necessity of the QS profession in the construction industry. Currently, only two tertiary institutions offer QS Courses in Rwanda (University of Rwanda and Rwanda Polytechnics since 2009 and 2013 respectively), thus the only 2 independent but complementary chapters at RQSSA. The association achievements since then include an annual Journal, secondary school career guidance visits, workshops, preparing public lectures, facilitating student internships among others. The association is led and run by students with the patronage of the department of Construction Management at the University of Rwanda.

## INKINGI Journal

RQSSA Inkingi Journal is an annually issued journal that offers an opportunity to take a closer look at the Quantity Surveying profession and its influence in the construction industry as well as other industries closely related to construction. It allows construction field experts and students to say a word about the Quantity Surveying profession, its development and its necessity in the construction sector as well as other sectors.

# DUTIES OF QUANTITY SURVEYORS WITHIN THE CONSTRUCTION INDUSTRY

A Quantity Surveyor's duties in the construction industry are not limited to cost estimation. This article shades light on the other duties of a Quantity Surveyor within the construction industry.



**BY: QS Bonaventure DUSHIMIYIMANA; a QS at GMK ARCHITECURE Ltd and co-founder of Bond Development Ltd.**

**T**he title Quantity Surveyor (QS) is a title of one of the key professionals in the construction industry whereby he/she serves his/her services through various institutions both Public and Private sectors. The real performance of a professional QS comes from awareness on accountability and transparency during the practice. However, for the Quantity Surveyor to

remain competitive within the industry, there is a need to embrace new skills, use of developed tools and expertise on how to improve experience that fits the development within the region and worldwide. Quantity surveyors are mainly involved in the supply chain and construction market by providing effective value of the project.

## What does a Quantity Surveyor do in construction?

A QS is one of the key people in a construction team on a project for all stages up to handing-over of the property to the client.

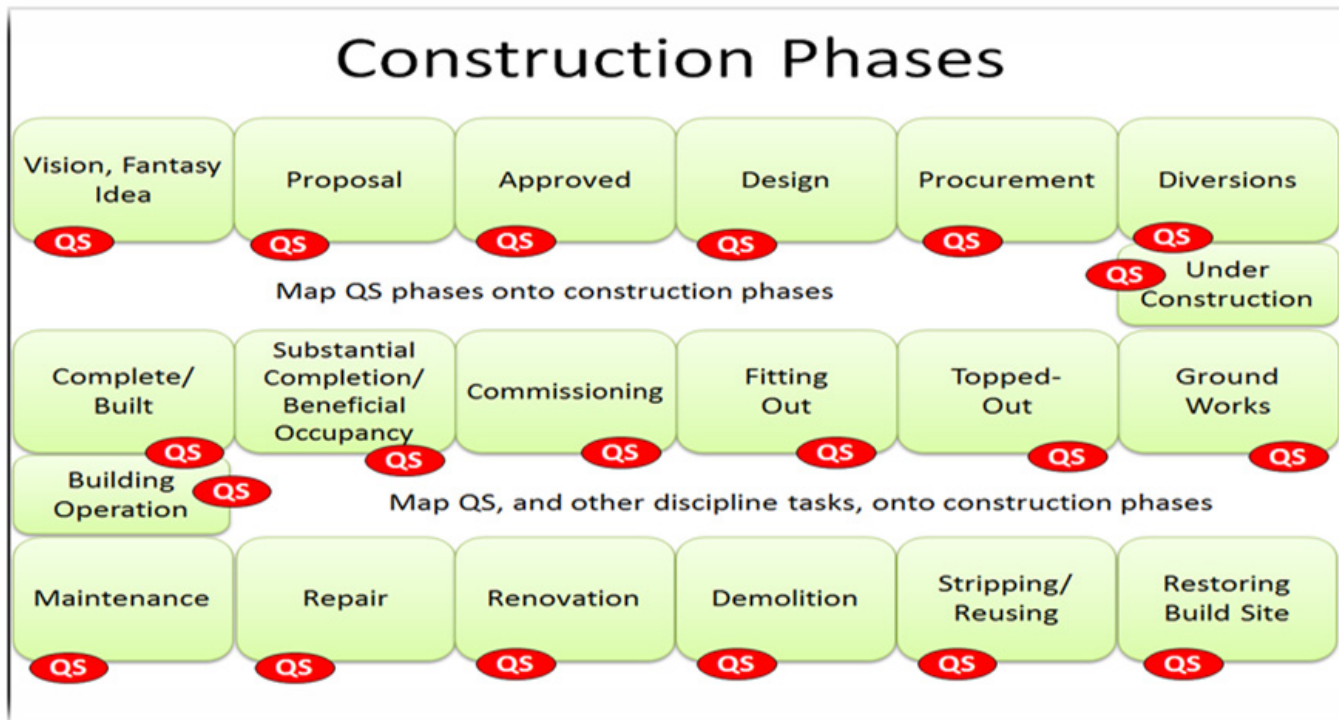
The current business model today, is pushing the clients' demand for construction to be completed on schedule, within budget, with maximum performance, reliability, safety, and meeting other criteria within their planned value system. With that, the Quantity Surveying profession practice is the only one which intervenes to elaborate and meet the client's wishes and mitigate any losses that might be faced during the development of a project.

In summary, there are a lot of duties that a Quantity Surveyor is able to deliver in construction:

1. Materials and measurement/taking off
2. Cost estimation and cost plan
3. Preparation of Bills of Quantities
4. Tender preparation and tender pricing
5. Preparation of Contracts and negotiation
6. Procurement plan
7. Assessment of construction supply chain and investigations of marketplaces
8. Preparation of project appraisals
9. Project cost control/valuations of works done
10. Dispute resolutions and claims management

11. Project risk management
12. Project closing account report
13. Project reporting and value management
- Etc. ...

As below presented, a quantity surveyor is able and well trained to stand in numerous stages during construction of a project. The Quantity Surveyor plays a big role in the industry whereby he/she covers many duties over the course of the construction from the planning phase till final completion stage of the project. Once a QS appears within the construction team, the implementation becomes very appropriate and flexible to every team-player towards the client's satisfaction and expectations.



Various Construction phases whereby the QS is required during the course of the project.

**“Be a QS with passion and ethics; the opportunities are there and waiting for you.”**

#### About the author

QS Bonaventure DUSHIMIYIMANA, 7 years of experience

Mr. Bonaventure is a registered Quantity Surveyor that has participated on small, and medium to large projects. His work involved all aspects of quantity surveying, engineering and architectural all nationally and internationally. His work experience started from 2012 when he was a clerk of works at Archinova creation Ltd, in 2013 he was working with LAKES Consoltium Ltd as site QS, 2014-2015 QS at SUNYA DEVELOPMENT Group and LANDMARK Studio. Since 2015, he is a QS at GMK ARCHITECTURE Ltd, and a consultant QS to PRSIMA Ltd, ARCH-HUB Ltd, TIEC Ltd, IBS Ltd and INNOVATION Co. Ltd, etc. Mr. Bonaventure is a registered QS under Rwanda Institute of Architects – Quantity Surveyors Chapter and he is a council member of Quantity Surveyors chapter since 2013. Mr. Bonaventure is also a cofounder of BOND DEVELOPMENT Ltd since 2014.

# TEACHING QUANTITY SURVEYING IN THE DIGITAL AGE

Seeing that the speed of technological change is fast, how should Quantity Surveying be taught in this digital age to meet these constant technological changes?



**BY: QS Emmanuel M. WAMALWA;**  
**principal owner of MEW**  
**Consultants Ltd.**

I'm honored to be given this opportunity to write a word or two in the periodic journal for the Rwanda Quantity Surveying Students Association.

I would like to write something about the dilemma that comes with teaching quantity surveying in this age of information. So, what's the digital or information age? It's likely that you have heard of buzz words like

'artificial intelligence' (AI), 'automation', 'big data', 'InsureTech', 'Internet of Things' (IoT), and 'cloud'. These are just some of the streams that come under the 'digital age' umbrella (Thomas, 2019).

There have been numerous discussions on the internet that the global education system is outdated and was built for a world that no longer exists. These statements are now beginning to make a lot of sense, especially, in this digital age.

When we went to University to study quantity surveying in the 90s, we were taught using techniques that had been used for centuries. But that was just about the time when electronic calculators were readily available and computers were basically the word processors. In order to do work with using the available technology, QS firms put in place techniques to minimize errors and increase efficiency. This was done mainly by specialization with personnel assigned to each of the stages of bill preparation i.e. Taking-off, Squaring, Abstracting and Billing.

The advent of calculators and eventually computers disrupted the age-old process and new methods such as 'cut and shuffle' and 'billing direct' were established which meant the death of the abstracting stage of bill preparation. While



computers were easing the preparation of Bills of Quantities, another issue was happening that was challenging that role of a QS. The need for a BoQ was entirely being challenged especially as procurement methods were moving away from the traditional design-bid-build to design-build and other collaborative methods.

Today, AI, IOT, cloud computing, etc. are impacting on the profession even more. The 2020s will see the adoption of 5G technology. The impact will be mindboggling. For Instance, Doctors will remotely perform critical surgery using robots. And in Construction the age of drone construction will really have arrived.



*Drone Construction*

The speed of technological change will be difficult to fathom. This coupled with the lengthy procedures for curriculum review means that teaching can only be playing catch up and will always be out of sync with the times. Now, there are those who argue that Universities merely provide 15%, and students are supposed to find for themselves the other 85%. As much as this may be true, it doesn't mean that students should be exposed to matters that are not useful at all.

And this sometimes it feels like the case when majority of QS universities are still focusing on 'measurement' as the core. The Royal Institution of Chartered Surveyors (RICS) has moved away from terms such as PQS and CQS for Professional and Contractor QS respectively to Cost Managers and Commercial Managers. This is to emphasize their 'management' aspect rather than the 'technical' competence of quantification.

Commentators on the future of professions argue that AI will begin to take over some tasks that were reserved for professions such as Quantity Surveying. Professionals will then be more efficient in doing other tasks with the help of technology; however, the machines will become better at doing those other tasks as well, better than machines. Is taking-off one of the tasks of a QS that is close to being automated away?

There are those who say this is already happening with programmes such as Revit.

As a teacher, who has seen the changes in technology from merely deceptive growth in the 80s and 90s to disruptive growth; the disruptive growth which is characterized by a plummeting of computational and bandwidth costs and a skyrocketing of memory capacity and global connectivity, how do you communicate this to the generation Z (that are currently University Students) how what was just a threat then is now more than a reality? How do you prepare them for the future that you yourself don't know about?

#### About the author

#### QS Emmanuel M. WAMALWA

Mr. Wamalwa started his work as Quantity Surveyor at SMEC International Pty (2000-2009) and DEC Consultants (2009-2011). He has also worked at the University Of Rwanda/ College of science and technology where he served as Lecturer and Head of the Construction Management department for 5 years (2011-2016).

He is a registered Quantity Surveyor in Rwanda (since 2015), Kenya (since 2000). He is also a fellow of the Institution of Surveyors in Uganda (QS Chapter), a member of the Rwanda Institute of Architects (RIA), a corporate member of the Institute of Quantity Surveyors in Kenya and the Architectural Association of Kenya (AAK).

Currently, he is the principal owner of MEW Consultants Ltd; a cost consultancy company based in Kigali. Aside from cost consultancy expertise, He also has experience in contract administration, Technical Audition Construction Technology and Facilities Management. QS Wamalwa has sponsored QS students since the first generation of Quantity Surveyors in Rwanda and is still a proud sponsor to young professionals in general (mentee, financer, trainer).

# Did you know these Quantity Surveying Bodies?

## ICEC

International Cost Engineering Council (ICEC) is a worldwide confederation established in 1976 by the American, Dutch, British, and Mexican Cost Engineering Societies to promote cooperation between national and multinational Cost Engineering (CE), Quantity Surveying (QS) and Project Management (PM) Organizations. As of July 2008, ICEC had grown to 46 national societies (14 CE, 16 PM and 16 QS societies); 4 regions (Africa being region of: Ghana, Kenya, Mauritius, Namibia, Nigeria and South Africa) and ICEC have access to more than 120,000 cost engineers, project managers and quantity surveyors in over 120 different nations through its members. IPMA, FIG, UN and EU are amongst ICEC partners. **YOU CAN BE PART OF THIS NETWORK!** Rwanda (QS) is under registration process as well.

Moreover, Under the Bylaws of the International Cost Engineering Council Article VIII – Committees, the ICEC Rising Professionals was initiated for “A dream to drive the future of cost management profession” - TT Cheung whereby all relevant members of ICEC Members and Associate Members aged 40 and below are eligible to join this group each nominates up to 2 young members to join Rising Professionals Committee.

## FIG YSN

FIG YSN (International Federation of Surveyors-Young Surveyor Network) limit age is up to 35 years old, but not more than 10 years of experience-including students. In addition, As a result of the COVID-19 Pandemic, the FIG Working Week 2020 and 5th Young Surveyors Conference (5YSC) was cancelled. However, the FIG Young Surveyors saw this as an opportunity! Now, more than ever, we have to help each other, we have to adapt and control what we can control. In addition, the true spirit of global partnerships, Young Surveyors from around the world gathered digitally and took up the challenge to organize the “5YSC - Social Distancing Edition” the first Young Surveyors Conference held online, across four different time zones and for everyone! The two common themes discussed through all four zones are Integrated and Smart Land and Water Management, and the Professional Development of Young Surveyors.

## GhIS

Specializing mainly in Land Surveying, Quantity Surveying and Valuation and Estate Surveying divisions, Ghana Institution of Surveyors (GhIS) was established on 28th February 1969 at the Annual General Meeting (AGM) of RICS-Ghana branch with formal inauguration on 28th August 1970.

## AAQS

Found by Ghana Institution of Surveyors(GhIS), AAQS (African Association of Quantity Surveyors)'s establishment began in 1995, Zimbabwe-Harare, hence first General Assembly; Constitution with bylaw ratification as well as first elected council led by Mr. Len Harris at Sun City-South Africa in 1999. AAQS Member Countries include Rwanda, Uganda, Kenya, Angola, Botswana, Ghana, Lesotho, Malawi, Mauritius, Mozambique, Namibia, Nigeria, South Africa, Swaziland, Tanzania, Uganda, Zambia and Zimbabwe.

## NIQS

NIQS (Nigeria Institute of Quantity Surveyors) was established in 1969 by a group of Nigerians who trained, qualified and practiced in the UK. Currently, more than 60 tertiary institutions offer Quantity Surveying courses.

Recently, due to COVID19- global pandemic, AAQS & ICEC postponed a global conference 'ICEC-AAQS Conference 2020' that was to be hosted in Ghana-Accra, GhIS. In addition to that, AAQS has got 'Africa Young Achiever Award" in order to promote the Industry to young professionals entailing nominations to be made by National Institutional Members by the 30th of September of the year in which the awards are made under AAQS's regulations. Both AAQS and PAQS (Pacifcan Association of Quantity Surveyors) hosted Virtual Webinars on Thursday, 27th of August 2020 and seem to be committed to growing young professionals.