

# **FUTURE-PROOFING QUANTITY SURVEYING: ESSENTIAL SKILLS, KNOWLEDGE AND COMPETENCIES FOR SUCCESS IN A TURBULENT ECONOMY**

## **PAPER PRESENTATION**

**BY**

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**“If your ship doesn’t come in, swim out to meet it” – Jonathan Winters**





**ABSTRACT:** The Construction Industry is a vital sector of the global economy, providing infrastructure, employment and driving economic growth, and in this landscape, Quantity surveyors play a significant role in ensuring projects are delivered on time, within budget, and to the required standards.

However, the profession of Quantity surveying faces unprecedented challenges as construction industry is undergoing rapid transformations. The industry's traditional business models and practices are being disrupted:

- By technological advancements.
- Changing clients' expectations.
- Shifting regulatory requirements.
- The adoption of digital tools and technologies such as BIM(Building Information Modelling), AI(Artificial Intelligence),
- Innovative construction methods and procurements.
- Sustainability and Environmental management concerns.

So, this paper explores the panoramic view of the future of Quantity surveying profession, essential skills, knowledge, and competences required for Quantity Surveying professionals to succeed, thrive and remain relevant in rapidly

changing turbulent economic landscape. Hence, this presentation will outline the essential skills, knowledge and competencies required to address:

- **Such Challenges as :**

1. Emerging technologies and digital tools
2. Integrated project delivery and collaboration.
3. Risk management and resilience
4. Globalization and competition:
5. Sustainability and environmental concerns

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- **Opportunities such as :**

1. Growing demand for sustainable and resilient infrastructure.
2. Digital transformation and innovation
3. International opportunities :opportunities in emerging markets and regions where construction activity is booming.
4. Diversification opportunities: Qs professionals can expand their services to include areas like project management, risk management and dispute resolution.

Through this presentation, we aim to

1. Inspire new thinking and perspectives.
2. Foster a culture of innovation and Continuous learning.
3. Equip participants with practical strategies For success.



## INTRODUCTION:

The Quantity surveying traditional competence, knowledge and skills that were once the cornerstone of success , are no longer sufficient .

Therefore, to thrive in this dynamic landscape, Quantity Surveyors must adapt by leveraging on our

- **STRENGTHS**, ( by virtue of our training and core expertise )
- **WEAKNESSES** (by up-scaling our skills, knowledge, and competences)
- Aligning with new **OPPORTUNITIES** ( by Diversification , adaptation ,innovations and resilience, Created by the **THREATS** of turbulent economic landscape, industry rapid transformations and changing stakeholders expectations.

All the above listed drivers of change (**SWOT**) in the context of construction industry revolution necessitate the need for Quantity Surveying Professionals to future-proof their skills, knowledge and competences to remain relevant and successful,



## Definition of Terms:

### What is Quantity Surveying?:

An amalgam of several disciplines – such as economics, law, accountancy, management, mensuration, information technology, construction technology etc. within the unique context of the construction (Brandon, 1990).

**Future-proofing** Quantity Surveying profession means taking proactive steps to ensure that the profession remains relevant, competitive and sustainable in the face of future challenges, changes and uncertainties. It involves:

- Anticipating and preparing for future trends, technologies and disruptions.
- Developing skills, knowledge and competencies that will be needed to adapt to future changes.
- Developing strategies to address potentials threats and capitalize on opportunities.

**Future-proofing a profession involves a long-term perspective, forward thinking and willingness to evolve and transform.**

**SKILLS:** This is abilities or talents that are **developed** through training, practice or experience.

**KNOWLEDGE:** This could mean information, facts, principles that are **acquired** through learning , experience or instruction.

**COMPETENCES:** This is **demonstrated ability to apply knowledge ,skills and attitudes to achieve a specific standard or outcome .It is integration**

**of skills, Knowledge and Personal qualities to perform a job or task effectively.**

Here is a simple co -relation and framework to illustrate the relationship between SKILLS, KNOWLEDGE AND COMPETENCES

- **SKILLS+KNOWLEDGE=ABILITY**
- **ABILITY+ATTITUDE+EXPERIENCE=COMPETENCE**

In order words, skills and knowledge are the building blocks of ABILITY, which is then combined with ATTITUDE and EXPERIENCE to demonstrate COMPETENCE.



- The Royal Institutions of Chartered Surveyors (RICS) sets out five ethical standards that Quantity surveying professionals worldwide must adhere to:
  - Act with Integrity
  - Always provide a high standard of service.
  - Act in a way that promotes trust in the profession
  - Treat others with respect. And Take responsibility



# COMPETENCY FRAMEWORKS AND STANDARDS FOR QUANTITY SURVEYING PROFESSIONALS

A competency framework outlines the essential skills, knowledge, and behaviors required for Quantity surveyors to perform effectively.

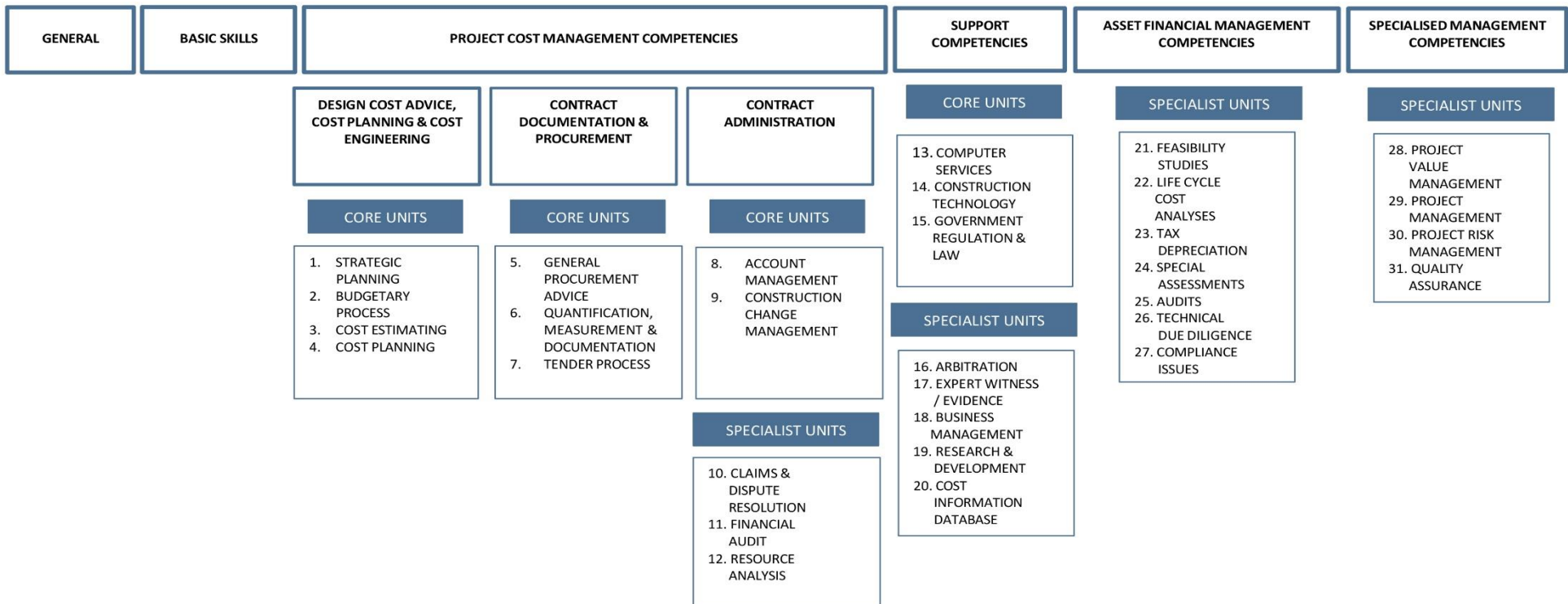
## COMPETENCY STANDARDS FOR QUANTITY SURVEYORS

1.

GENERAL  
BASIC SKILLS  
PROJECT COST MANAGEMENT COMPETENCIES

- DESIGN COST MANAGEMENT, COST PLANNING & COST ENGINEERING
- CONTRACT DOCUMENTATION
- POST CONTRACT SERVICES

SUPPORT SYSTEM COMPETENCIES  
ASSET FINANCIAL MANAGEMENT COMPETENCIES  
SPECIALISED MANAGEMENT COMPETENCIES



The many competencies outlined in the diagram above may be acquired by individual Quantity surveyor over a lifetime of professional practice, education and training.

## **SKILLS, KNOWLEDGE & COMPETENCE ACQUISITION METHODS:**

1. Formal Education
2. Continuing Professional Development
3. Informal Learning
4. Self-Directed learning:
5. Collaborative Projects and Team work
6. Internships and job rotations

The above listed are platforms Quantity Surveying Professionals could embrace to sharpen and expand their scope of professional skills, knowledge and competence to be able to perform effectively as a professional.

# CHARACTERISTICS OF SKILLS, KNOWLEDGE AND COMPETENCE REQUIREMENTS FOR QUANTITY SURVEYING SERVICES.

- (i) *Essentiality***
- (ii) *Measurability.***
- (iii) *Specificity***
- (iv) *Relevance***
- (v) *Up-to-Dates***

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## CONSEQUENCIES OF NON –RESPONSE TO CORE AND MANDATORY SKILLS, KNOWLEDGE & COMPETENCES REQUIREMENTS

***Professional consequences***

***Project Consequences***

***Business consequences***

***Industry consequences***

***Personal consequence***

## ***Regulatory consequence***

However, there are upsides of meeting these core and mandatory requirements of skills, knowledge and competences requirements of Quantity Surveying Professionals such as:

- Enhanced professional credibility
- Improved job performance
- Increased client trust
- Better decision making
- Advancement of opportunities and patronage
- Increased adaptability to changing market conditions
- Increased innovation and Entrepreneurship
- Better risk management and mitigation
- Enhanced sustainability and environmental management.

By meeting all these core and mandatory requirements, Quantity Surveyors will be demonstrating their commitment to excellence and their services will be valuable.



**OPTIONAL SKILLS, KNOWLEDGE AND COMPETENCE THAT WILL ENHANCE RELEVANCE OF QUANTITY SURVEYING PROFESSION IN CONSTRUCTION INDUSTRY.**

Optional skills are additional skills, knowledge or certifications that enhanced Quantity Surveying Professionals expertise, competitiveness and versatility

By gaining optional skills, knowledge and competence, Quantity Surveying Professionals can stand out, stay up-to date with developments and enhance their overall career prospects. Other benefits of gaining optional skills, knowledge and competencies include but not limited to the following:

- Increased earning potentials
- Improved job satisfaction
- Expanded professional network
- Adaptability to changing industry and stakeholders' demands.
- Competitive advantage in the industry and job market.
- Demonstrated commitment to lifelong learning.

**Optional competencies** that Quantity surveying professionals could leverage on in turbulent economy includes but not limited to the following:

- Sustainability and Environmental management
- Procurement Management
- Construction law

- Dispute resolution , Arbitration, Mediation and Adjudication

## **METHODS OF ACQUIRING OPTIONAL SKC FOR QS PROFESSIONALS:**

**-Digital skills**

**-Sustainability and Green Building**

**-Procurement and Project Management training and certification.**

**-Leadership and Management**

**--International standards and Best Practices**

**-Innovation and Technology**

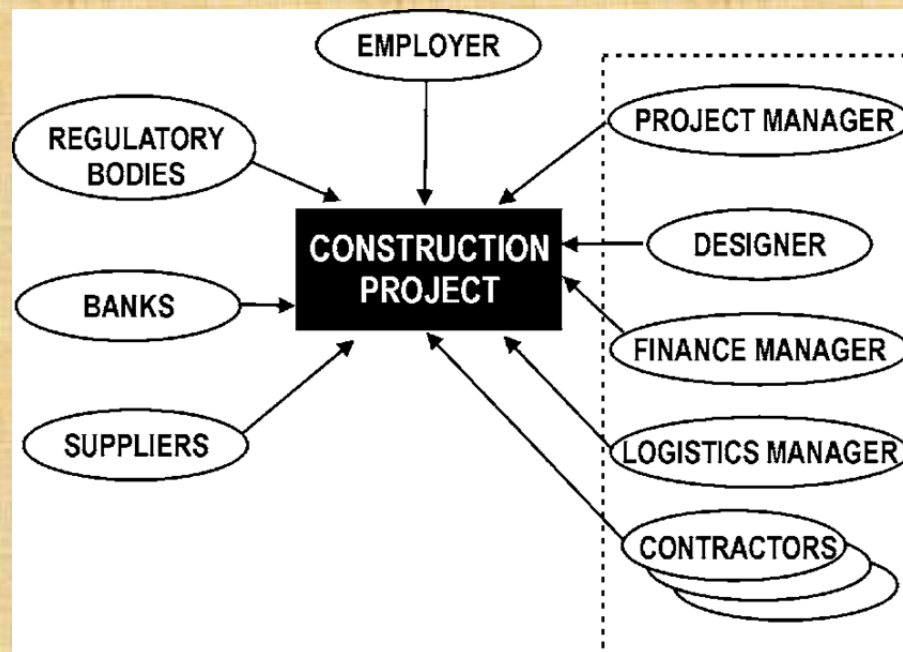
**Specialized knowledge**

However, all these optional skills, knowledge and competencies needs some level of training and certifications, though it may be expensive, leveraging on these skill sets can add significant value, create innovative solutions to clients and enhance



Quantity Surveying Professionals career prospects, versatility, expertise, relevance and success.

## WHAT ARE THE STAKEHOLDERS EXPECTATIONS FROM QUANTITY SURVEYING PROFESSIONALS.



**The stakeholders in construction industry have some measure of expectations from Quantity surveying Professionals in this turbulent economy.**

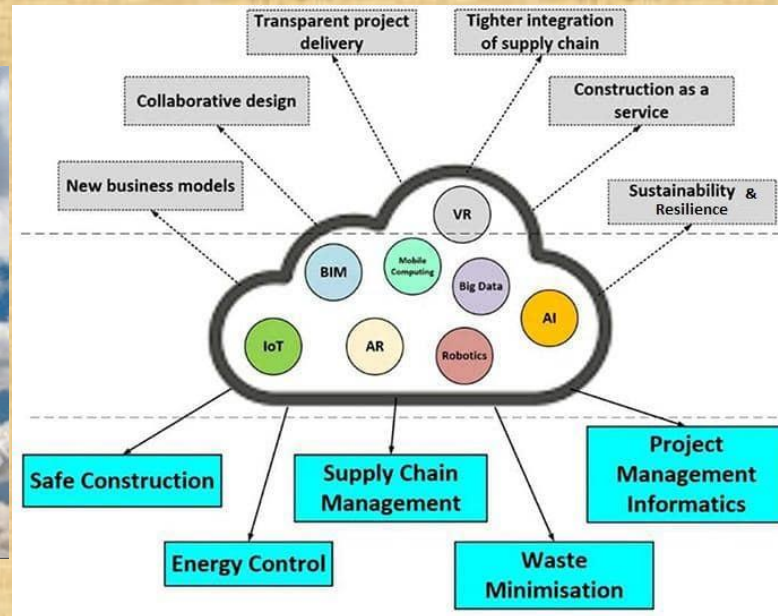
These expectations however could be scaled down to CURRENT and FUTURE Expectations which meant different value additions and benefits to different stakeholders.

**- CURRENT EXPECTATIONS:**

**From Clients/Project owners**

**From Contractors /Builders**

**From Project Managers**



## FUTURE EXPECTATIONS

1. **Digital Transformation**
2. **Construction Technologies**
3. Project Management and collaboration
4. Supply chain management
5. **Safety and Risk Management**

6. **Sustainability and Environmental management**
7. **Innovative Procurement and Contracting**
8. **Whole- life costing and asset management-** Developing new approaches to whole-life costing and asset management.
8. **Professional Development**

## **STRATEGIES FOR FUTURE-PROOFING OF QS PROFESSION**

Future-proofing the QS profession requires strategic planning, adaptability and innovation. There must be an intentional and deliberate approach to create skill development plan and set SMART objectives;

- **SPECIFIC**
- **MEASURABLE**
- **ACHIEVABLE**
- **RELEVANT**
- **TIME-BOUND** objectives so as to re position the profession for continuing relevance.

**Listed below are some strategies to ensure relevance and resilience:-**

- 1. TECHNOLOGICAL ADVANCEMENT :- Embracing digital transformation and develop digital skills.**
- 2. SUSTAINABILITY AND ENVIRONMENTAL CONSIDERATIONS :-** Integrating sustainability principles into QS practices, developing green building expertise, staying up dated on sustainable materials and promoting circular economy practices.
- 3. INNOVATIVE BUSINESS MODEL:-** Diversifying services into new areas such as project management, Risk management, and Dispute resolution.
- 4. COLLABORATIVE PARTNERSHIP :-** Fostering strategic alliance with Architects, Engineers, Developers and contractors.

5. **TALENT ATTRACTION AND DEVELOPMENT:-** Attracting diverse talent by encouraging entry from non-traditional backgrounds and demographics. Strategic designing of mentorship programs by pairing experienced QS professionals with new comers and encouraging life-long learning.
  
6. **GLOBALIZATION AND INTERNATIONALIZATION:-**Establishing relationship with international organization (Global networking )  
Participating in global projects and partnership. (cross-border collaboration ) and developing cultural competence by understanding local market nuances and regulations.
  
7. **PROFESSIONAL DEVELOPMENT & CERTIFICATIONS:-** Enhancing relevant certification programs and specialized certification in emerging areas such as Green building certifications and Digital construction .Also encouraging lifelong learning and continuing professional development.

8. **INDUSTRY ENGAGEMENT AND ADVOCACY**:-Engaging and collaborating with industry stakeholders to promote QS profession's value and contributions.
9. **ADAPTABILITY AND RESILIENCE** :- Staying agile by responding promptly to changing market conditions, and encouraging experimentation and innovation
10. **EDUCATE AND RESEARCH** :- Updating curricula to reflect industry's changes and emerging trends. Fostering academic-industry partnership and knowledge sharing by publishing articles, journals, presentations and research findings on best practices, value –added services /contributions of QS as communique to relevant stake holders

**By implementing these strategies, the QS profession can Future-proof itself and remain a vital part of the construction industry.**



## **CONSEQUENCES OF FAILURE TO FUTURE-PROOF QUANTITY SURVEYING SKILLS, KNOWLEDGE AND COMPETENCIES.**

Failure to future-proof Quantity surveying profession can have severe threatening impact on the survival and relevance of the profession QS Firms and by extension the construction Industry.

These Consequences could be classified into:

**ECONOMIC CONSEQUENCES-** loss of business as clients will seek services from more innovative and tech savvy providers.

**PROFESSIONAL CONSEQUENCES-** Skill gap (QS will struggle to keep pace with industry developments, exacerbating skills shortages).

**INDUSTRY CONSEQUENCES-** Lack of investment in research and development will stifle innovation, and talented professionals will flee the industry in search of more dynamic and forward-thinking sectors.

**SOCIETAL CONSEQUENCES-** A struggling construction industry will have a far reaching economic implications as outdated practices will result

in subpar infrastructure development, and increased environmental degradation.



## **ROLE OF NIQS and QSRBN IN FUTURE-PROOFING THE PROFESSION OF QUANTITY SURVEYING.**

The role of these two prominent bodies in future-proofing the skills, knowledge and competencies of the professionals involved could not be over emphasized.

### **- NIQS Roles:**

1. Developing industry standards and guidelines.
2. Defining and promoting Qs competencies.
3. Conducting Professional examinations, assessment and certification
4. Encouraging membership engagement and participation (like volunteering in cost Data bank project).
5. Setting professional standards and guidelines.

6. Developing and implementing Continuing Professional Development (CPD).
7. Conducting research and publishing industry reports.
8. Organizing conferences, workshops and seminars to keep up with the trends in the sector.
9. Providing mentorship and coaching programs.
10. Collaborating with international organizations for reciprocity and exchange program of knowledge transfers on evolving international best practices.
11. Promoting sustainability and innovation in Quantity surveying practices.
12. Enhancing professional ethics and conduct.

### **QSRBN Roles:**

1. Enforcing compliance with professional standards and regulations.
2. Registering and regulating Quantity Surveyors in Nigeria.

3. Investigating and disciplining of unethical practices.
4. Maintaining a data base and recommendation of registered Quantity surveyors for stakeholders engagement.
5. Guidance on Professional development and training.
6. Collaborating with NIQS ,and other stakeholders.
7. Political engagements and lobbying to legislate on the compulsory use of QS stamp on all Bill of Quantities for Government development projects.

However, there are area of ***joint initiatives, responsibilities and collaborations*** involving these two esteemed bodies in:

1. Developing a National Quantity Surveying Strategy.
2. Establishing a Quantity Surveying Research and Development fund.
3. Creating and sustaining Quantity Surveying Mentorship program
4. Developing industry-specific guidelines and standards.

5. Collaborating with Universities and Polytechnics for curriculum upgrade and development to reflect modern trends and innovations in Quantity surveying services.
6. Promoting and incentivized Quantity Surveying as Career choice in Tertiary Institutions.
7. Promoting the competencies and Encouraging Quantity surveyors in other areas of specializations level ranging on the mandate of QS Academy.
8. Engaging with Government and policymakers on the profession's issues.



## RECOMMENDATIONS

Here are some recommendations for Quantity surveying professionals, Firms ,and construction industry stakeholders to succeed in a turbulent economy.

### FOR QUANTITY SURVEYING PROFESSIONALS:

1. Develop Digital skills; stay up-to-date with latest digital technologies.
2. Stay Adaptable; Be prepared to pivot and adjust to changing market conditions.
3. Diversify your skills; Develop skills in multiple areas.
4. Network and collaborate; Build relationships with other professionals and stakeholders to stay informed and find new opportunities.
5. Pursue Continuous Professional Development (CPD); stay current with industry trends and best practices.
6. Embrace and display impeccable professionalism via high professional standards and conducts., (integrity is key to Business success)

7. Encourage Mentorship scheme; Bring up young professionals

### **FOR QUANTITY SURVEYING FIRMS:**

1. Innovate and adapt
2. Diversify your services
- 3 .Develop Strategic partnership
- 4.Invest in digital transformation
- 5 .Focus on sustainability

### **FOR CONSTRUCTION INDUSTRY STAKE HOLDERS ;**

1. Embrace digital transformation
2. Invest in sustainability
3. Foster collaboration
4. Develop resilient supply chains
5. Support innovation: Encourage innovation and R&D (Research& Development)

## **FOR GOVERNMENT AND REGULATORY BODIES;**

1. Encourage innovation; support innovation and R&D in the construction industry.
2. Provide clear guidance; offer clear guidance and regulations to support industry growth and development.
3. Invest in Infrastructure; Invest in infrastructure development to support economic growth and industry development.
4. Promote sustainability; Encourage sustainable practices and green building through incentives and regulations.
5. Support workforce development; provide training and education programs to support workforce development and industry growth.

## **FOR CLIENTS AND INVESTORS;**

1. Prioritize sustainability: Emphasize sustainable practices and green building in your projects.
2. Encourage innovations: support innovation and R&D In the construction industry.

3. Foster collaboration among stakeholders
4. Invest in digital transformation; support digital transformation in the construction industry to improve project outcomes.
5. Develop resilient supply chains; Build robust supply chains to mitigate risks and ensure project continuity.

According to Carl Rogers “ The only person who is educated is the one who has learned how to learn and change”

As Quantity Surveying professionals, we should disabuse our minds from defeatist approach to continuous learning, education and career development so as to remain relevant and successful in our chosen and interesting profession.



## HERE ARE SOME POTENTIAL FUTURE RESEARCH DIRECTIONS FOR THE QUANTITY SURVEYING PROFESSION:

1. **GLOBALIZATION AND INTERNATIONALIZATION:** Examining the challenges and opportunities of QS in a globalized construction industry, including international procurement, contract management, and dispute resolution.
2. **RISK MANAGEMENT AND RESILIENCE:** Developing new approaches to risk management and resilience in construction projects, including the use of data analytics and machine learning.
3. **COLLABORATIVE AND INTEGRATED PROJECT DELIVERY:** Investigating the benefits and challenges of collaborative and integrated project delivery methods such as IPD and PPP.

4. **WHOLE-LIFE COSTING AND ASSET MANAGEMENT:** Developing new approaches to whole-life costing and asset management, including the use of data analytics and machine learning.
5. **CONSTRUCTION INDUSTRY DYNAMICS AND DISRUPTION :** Researching the impact of disruption and innovation on the construction industry, including role of QS in navigating change.
6. **CONSTRUCTION TECHNOLOGY AND INNOVATION:** Researching the impact of emerging construction technologies such as 3D printing, Robotics, and drones on QS practices.
7. **QS EDUCATION AND PROFESSIONAL DEVELOPMENT:** Investigating the future of QS education and professional development, including the role of technology- enhanced learning and lifelong learning.

## CONCLUSION

The secret of getting ahead is getting started, the secret of getting started is accepting the realities and breaking the complex challenges facing the future of Quantity Surveying Professionals into smaller manageable tasks and then starting on the first one.

Therefore, the future of Quantity surveying depends on its ability to adapt to changes, adopt emerging technologies, and embrace innovations. As the built environment continues to evolve one thing is certain –the Quantity Surveying profession must transform to remain at the forefront of driving value added services to the economy.



>>>>>>>>> **THANK YOU.** >> >>>>>>>>