

THEME

Strengthening Professional Capacity: Advancing Global Valuation Competence

Need for 'Structural Assessment' in a Valuation Report

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Abstract

Every Valuation Report demands a typical question – What is the design life or service life of a structure. Currently, there is no universally agreed-upon number, but experts predict that it will be discovered in the near future. It is a very appropriate time that the valuation community of India has at least woken up to this pertinent issue and started focusing on this aspect. Structures provide shelter and comfort from the elements and should be maintained with the same level of care as our bodily health systems. Now, whatever is written in the books or literatures about the quality/ design aspects it is followed through paper & software & produced in the field and to understand the behaviours of structures just use excellent 1st class materials as far as cement, sand, bricks etc. are concerned is okay but many a times many small issues crop up & water for that purpose plays a villainous role in the entire game. Water plays a very important major role as far as the Concrete quality is concerned but it is seldom given a highlighting role in structural design. Water-cement(w/c) ratio has a direct correlation with the strength of the concerned concrete but who cares. The National Building Code of India (2016) mandates that every important building structure above 15years of age should have a structural assessment or audit for every 3 to 5 years and all other State Govt.'s need to follow these. Recently, with the change in Valuation regime from DCR (*Development Control Regulations*) to UDCPR (*Unified Development Control and Promotion Regulations*), every Valuation Report asks the question – 'What is the FSI of the incumbent Building. 'This Paper deals with various structural aspects that still remains neglected or unfulfilled with the submission of a Valuation Report to the Client. This paper delves into the approach deployed by the author in conducting the research and the findings for the same in a concise manner to give the reader the overview of the study on the subject matter.

Keywords: Building; Structures; Valuation; Report

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1 Introduction

Property valuation is the process of estimating the market value of a property based on various factors such as location, size, condition, features, and amenities. Property valuation reports are essential for various purposes such as buying, selling, renting, mortgaging, insuring, or taxing a property. However, most property valuation reports tend to focus on the superficial aspects of a property, such as its appearance, layout, and functionality, and neglect the underlying structural integrity and quality of the property. Structural assessment is the evaluation of the structural soundness and durability of a property, which can reveal hidden defects, damages, or risks that may affect the value, safety, and performance of the property. Structural assessment can also provide recommendations for repairs, maintenance, or improvements that can enhance the value and longevity of the property.

Despite the importance of structural assessment, it is often overlooked or undervalued in property valuation reports. This can lead to inaccurate or incomplete valuation results, which can have negative consequences for the property owners, buyers, sellers, lenders, insurers, or tax authorities. For instance, a property owner may overestimate the value of their property and fail to address the structural issues that may reduce its value or cause future problems. A buyer may pay more than the fair value of a property and inherit the structural liabilities that may require costly repairs or replacements. A seller may lose potential buyers or face legal disputes if they conceal or misrepresent the structural condition of their property. A lender may grant a loan that exceeds the actual value of the property and expose themselves to higher default risk. An insurer may charge a premium that does not reflect the true risk of the property and incur losses in case of a claim. A tax authority may collect a tax that does not correspond to the real value of the property and create unfairness or inefficiency in the tax system.

The aim of this paper is to explore the need for structural assessment in property valuation reports and to examine the benefits and challenges of incorporating structural assessment into the valuation process. The paper will contribute to the existing literature on property valuation and structural assessment by providing a comprehensive and comparative analysis of the topic and by offering practical and policy implications for improving the quality and reliability of property valuation reports. The paper will also have implications for the development and promotion of structural assessment as a valuable and essential service in the property industry. The paper will be useful for property owners, buyers, sellers, lenders, insurers, tax authorities, valuers, engineers, and researchers who are interested or involved in property valuation and structural assessment.

It is a very appropriate time that the valuation community of India has at least woken up to this pertinent issue and started focusing on this aspect. When all are very much concerned about their own bodily health systems in a same way, they should treat their structures too as it's the structures only who gives them shelter & comfort from

the vagaries of nature. As the famous adage goes 'A STICH IN TIME SAVES NINE' this damage prevention theory applies very well for re-establishing the fitness of structures also and one need to continuously monitor & re-monitor them so that no untoward mishap happens. Now, whatever written in the books or literatures about the quality/ design aspects those are just blindly followed through paper & software & reproduced in the field and to understand the behaviors of structures the use excellent 1st class materials as far as cement, sand, bricks etc. are concerned is the trend but many a times many small issues crop up & water for that purpose plays a villainous role in the entire game. Water plays a very important major role as far as the Concrete quality is concerned but it is seldom given a highlighting role in structural design. Water-cement(w/c) ratio has a direct correlation with the strength of the concerned concrete [4].

Every Valuation Report demands a typical question – What is the design life or service life of a structure. Experts say that at present no magical number exists but in the near future certainly it will exist. Also, the life depends on the loading pattern or the durability etc. As per the Standard Operating Procedures of CPWD Works Manual (2014) it is as per the following:

- for RCC framed structures - 75 years
- for Load bearing structures - 55 years
- for Semi-permanent structures - 30 years

2 Literature Review

Property valuation is a complex and dynamic process that involves the estimation of the market value of a property based on various criteria such as location, size, condition, features, and amenities. Property valuation reports are vital for various purposes such as buying, selling, renting, mortgaging, insuring, or taxing a property. However, most property valuation reports tend to focus on the superficial aspects of a property, such as its appearance, layout, and functionality, and neglect the underlying structural integrity and quality of the property. Structural assessment is the evaluation of the structural soundness and durability of a property, which can reveal hidden defects, damages, or risks that may affect the value, safety, and performance of the property. Structural assessment can also provide recommendations for repairs, maintenance or improvements that can enhance the value and longevity of the property.

The literature review will explore the need for structural assessment in property valuation reports and examine the benefits and challenges of incorporating structural assessment into the valuation process. The literature review will cover the following themes:

- Traditional Valuation Methods
- Technological Advances in Structural Assessment
- Economic Implications
- Stakeholder Perspectives
- Regulatory Considerations
- The Impact of Structural Integrity on Property Value

2.1 Traditional Valuation Methods

The traditional methods of property valuation are based on the principles of supply and demand, substitution, and highest and best use. The most common methods are the sales comparison approach, the income approach, and the cost approach. The sales comparison approach compares the subject property with similar properties that have been recently sold in the same market area, and adjusts for any differences in characteristics or conditions. The income approach estimates the value of the property based on its potential to generate income from rent, lease, or other sources, and applies a capitalization rate to convert the income stream into a present value. The cost approach estimates the value of the property based on the cost of reproducing or replacing the property, and deducts any depreciation or obsolescence. These methods rely on the availability and accuracy of market data, such as sales prices, rental rates, construction costs and depreciation factors.

However, these methods have some limitations and drawbacks, especially when it comes to accounting for the structural aspects of the property. Fanning et al. (2018) argue that the traditional methods of property valuation are inadequate and outdated, as they fail to capture the complexity and diversity of the property market and the changing preferences and expectations of the consumers. They suggest that the traditional methods are based on simplistic and static assumptions that do not reflect the reality and dynamics of the property market, such as the heterogeneity of the properties, the uncertainty of the future, and the influence of external factors. They also point out that the traditional methods are prone to errors and biases, as they depend on the subjective judgment and expertise of the valuers, and the quality and reliability of the data sources. They call for a rethinking and reforming of the property valuation methods, and propose a more holistic and integrated approach that incorporates multiple perspectives and dimensions, such as environmental, social and governance factors into the valuation process [5].

2.2 Technological Advances in Structural Assessment

One of the key dimensions that the traditional methods of property valuation often overlook or undervalue is the structural assessment of the property. Structural assessment is the process of evaluating the structural integrity and quality of the property, which can reveal hidden defects, damages, or risks that may affect the

value, safety, and performance of the property. Structural assessment can also provide recommendations for repairs, maintenance, or improvements that can enhance the value and longevity of the property. Structural assessment is essential for ensuring the accuracy and completeness of the property valuation reports, as it can identify and quantify the structural factors that may influence the value of the property, such as the design, materials, construction, condition, durability, functionality, and performance of the property.

However, structural assessment is often neglected or undervalued in property valuation reports, due to the lack of awareness, expertise, or resources among the valuers, or the reluctance or resistance of the property owners, buyers, sellers, or other stakeholders to conduct or disclose the structural assessment results. Moreover, structural assessment can be challenging and costly to perform, as it requires specialized equipment, techniques, and skills, and may involve invasive or destructive testing, which can damage or alter the property. Therefore, there is a need for technological advances in structural assessment that can facilitate and improve the structural assessment process and outcomes.

Wu et al. (2020) provide a comprehensive review of the technological advances in structural assessment for property valuation, and highlight the benefits and challenges of adopting these technologies. They classify the technologies into three categories: sensing, data processing, and decision making. Sensing technologies refer to the devices and methods that can collect and measure the structural data of the property, such as the geometry, deformations, stresses, strains, vibrations, cracks, corrosion, moisture, temperature, and so on. Data processing technologies refer to the tools and techniques that can analyse and interpret the structural data, such as the signal processing, data mining, machine learning, artificial intelligence and so on. Decision making technologies refer to the systems and models that can provide the structural assessment results and recommendations, such as the damage detection, diagnosis, prognosis, evaluation, and optimization, and so on.

Wu et al. (2020) illustrate the applications and advantages of these technologies in various aspects of structural assessment, such as the inspection, monitoring, testing, evaluation, and reporting of the structural condition and performance of the property. They also discuss the challenges and limitations of these technologies, such as the cost, complexity, reliability, compatibility, and security issues, and provide some suggestions and directions for future research and development [7].

2.3 Economic Implications

The inclusion of structural assessment in property valuation reports can have significant economic implications for the property owners, buyers, sellers, lenders, insurers, tax authorities, and other stakeholders. Structural assessment can affect the value, risk, and return of the property, and influence the decisions and behaviours of the property market participants. Structural assessment can also have an impact on the efficiency and equity of the property market and the property tax system.

Johnson (2017) examines the economic implications of neglecting structural assessments in property valuation, and demonstrates the potential costs and benefits of incorporating structural assessments into the valuation process. He uses a hypothetical case study of a residential property that has a hidden structural defect that reduces its value by 10%. He compares the outcomes of two scenarios: one where the structural defect is detected and disclosed by a structural assessment, and one where the structural defect is undetected and undisclosed by the absence of a structural assessment. He analysed the effects of the structural assessment on the value, risk, and return of the property, and the welfare of the property owners, buyers, sellers, lenders, insurers, and tax authorities.

Johnson (2017) shows that the structural assessment can improve the accuracy and reliability of the property valuation, and reduce the information asymmetry and uncertainty in the property market. He argues that the structural assessment can benefit the property owners, buyers, sellers, lenders, insurers, and tax authorities, by enabling them to make more informed and rational decisions, and by avoiding or minimizing the potential losses or disputes that may arise from the structural defect. He also suggests that the structural assessment can enhance the efficiency and equity of the property market and the property tax system, by ensuring that the property value reflects the true structural condition and quality of the property, and by preventing the overvaluation or undervaluation of the property. He concludes that the structural assessment can generate positive net benefits for the property market and the society, and recommends that the structural assessment should be integrated into the property valuation process [8].

2.4 Stakeholder Perspectives

The integration of structural assessment into property valuation reports can also affect the perspectives and preferences of the property market stakeholders, such as the property owners, buyers, sellers, valuers, engineers, and others. The stakeholder perspectives can influence the demand and supply of structural assessment services, and the acceptance and adoption of structural assessment results and recommendations. The stakeholder perspectives can also reveal the opportunities and challenges of promoting and implementing structural assessment in property valuation.

Thompson and Patel (2016) conduct a survey of stakeholder perspectives on the role of structural assessment in property valuation, and identify the factors that affect the stakeholder attitudes and behaviours towards structural assessment. They survey 200 property market stakeholders, including 50 property owners, 50 property buyers, 50 property sellers, 25 property valuers, and 25 structural engineers, and ask them about their awareness, knowledge, experience, and opinion of structural assessment in property valuation. They use a Likert scale to measure the level of agreement or disagreement with various statements related to structural assessment, such as the importance, necessity, usefulness, reliability, and cost-effectiveness of structural assessment in property valuation.

Thompson and Patel (2016) analyse the survey results and find that the stakeholder perspectives on structural assessment vary significantly depending on the stakeholder type, role, and interest. They report that the property owners, buyers, and sellers have a low to moderate level of awareness and knowledge of structural assessment, and a high level of uncertainty and scepticism about the value and validity of structural assessment. They also find that the property owners, buyers, and sellers have a low to moderate level of demand and willingness to pay for structural assessment services, and a high level of resistance and reluctance to disclose or act upon the structural assessment results and recommendations. They attribute these findings to the lack of information, education, and communication about structural assessment, and the perceived costs, risks, and inconveniences of structural assessment.

On the other hand, Thompson and Patel (2016) report that the property valuers and structural engineers have a high level of awareness and knowledge of structural assessment, and a high level of confidence and trust in the quality and accuracy of structural assessment. They also find that the property valuers and structural engineers have a high level of support and advocacy for structural assessment [9].

2.5 Regulatory Considerations

The integration of structural assessment into property valuation reports can also involve various regulatory considerations, such as the legal frameworks, standards, guidelines and best practices that govern the property valuation and structural assessment processes and outcomes. The regulatory considerations can affect the quality, consistency, and credibility of the property valuation and structural assessment reports, and the accountability, responsibility and liability of the property valuers and structural engineers. The regulatory considerations can also vary depending on the country, context, and purpose of the property valuation and structural assessment.

Brown et al. (2019) conducted a comparative analysis of the regulatory considerations in structural assessments for property valuation, and examine the similarities and differences of the regulatory regimes in different countries and regions, such as the United States, the United Kingdom, the European Union, Australia and Asia. They review the existing laws, regulations, standards, guidelines and best practices that relate to the property valuation and structural assessment processes and outcomes and evaluate their strengths and weaknesses, opportunities and threats, and gaps and challenges. They also identify the key stakeholders and actors involved in the property valuation and structural assessment processes and outcomes, and analyse their roles, responsibilities and relationships.

Brown et al. (2019) found that the regulatory considerations in structural assessments for property valuation are diverse and complex, and that there is no one-size-fits-all approach or solution. They report that the regulatory regimes vary in terms of their scope, coverage, content, implementation, enforcement and compliance and that they are influenced by various factors, such as the legal system,

the property market, the professional practice, the public interest and the international cooperation. They also highlight some of the common issues and challenges that the regulatory regimes face, such as the lack of clarity, consistency, and compatibility, the need for harmonization, adaptation, and innovation, and the trade-off between flexibility and rigidity, and between simplicity and complexity. They conclude that the regulatory considerations in structural assessments for property valuation are important and relevant and that they require continuous monitoring, evaluation, and improvement [10].

2.6 The Impact of Structural Integrity on Property Valu

One of the main objectives of property valuation is to estimate the market value of a property based on its physical and social characteristics, such as location, size, condition, features, and amenities. However, one of the most important but often overlooked aspects of a property is its structural integrity, which refers to the ability of a property to withstand external forces and loads, such as earthquakes, floods, winds, fires, and so on. Structural integrity can affect the value, safety, and performance of a property, and can reveal hidden defects, damages, or risks that may not be apparent from the superficial inspection or appraisal of a property.

Smith (2019) provides a comprehensive review of the impact of structural integrity on property value and examines the theoretical and empirical evidence on how structural integrity influences the value of different types of properties, such as residential, commercial, industrial, and public properties. He also discusses the methods and techniques for assessing and measuring the structural integrity of a property, such as visual inspection, non-destructive testing, structural health monitoring, and structural reliability analysis. He also explores the challenges and opportunities for incorporating structural integrity into the property valuation process and reports, and provides some recommendations and best practices for improving the quality and reliability of property valuation.

Smith (2019) finds that structural integrity has a significant and positive impact on property value, and that the impact varies depending on the type, age, location, and purpose of the property. He reports that structural integrity can increase the value of a property by enhancing its durability, functionality, and aesthetics, and by reducing its maintenance, repair, and replacement costs. He also shows that structural integrity can decrease the value of a property by imposing additional design, construction, and inspection costs, and by limiting its flexibility, adaptability, and usability. He argues that structural integrity can also affect the value of a property indirectly, by influencing the perceptions, preferences, and behaviour of the property market participants, such as the property owners, buyers, sellers, lenders, insurers, and tax authorities.

Smith (2019) concludes that structural integrity is a crucial and valuable aspect of a property, and that it should be integrated into the property valuation process and reports. He suggests that structural integrity can improve the accuracy and completeness of the property valuation, and reduce the information asymmetry and

uncertainty in the property market. He also recommends that property valuers and structural engineers should collaborate and communicate effectively, and use the appropriate methods and tools for assessing and reporting the structural integrity of a property. He calls for more research and development on the topic of structural integrity and property valuation, and proposes some future directions and areas for further investigation [6].

3 Research Methodology

- The research methodology for this paper is a **mixed-method** study that combines both quantitative and qualitative approaches to examine the need for structural
Phase 1: A quantitative survey of valuation professionals to collect data on their experience, knowledge, and opinions on structural assessment. The survey will use a structured questionnaire with closed-ended and Likert-scale questions. The survey will be distributed online to a random sample of valuation professionals from different regions and sectors. The data will be analyzed using descriptive and inferential statistics to identify the frequency, distribution, and correlation of the variables.
- **Phase 2:** A qualitative interview with industry experts to gain insights on the best practices, challenges, and recommendations on structural assessment. The interview will use a semi-structured interview guide with open-ended questions. The interview will be conducted face-to-face or via video call with a purposive sample of industry experts from different fields and backgrounds. The data will be analyzed using thematic analysis to identify the main themes and patterns of the responses.
- **Phase 3:** A quantitative analysis of historical valuation data to compare the impact of structural assessment on the valuation outcomes. The analysis will use a secondary data source of valuation reports from different property types and valuation purposes. The data will be analyzed using regression analysis to measure the effect of structural assessment on the valuation parameters and results.

The research methodology is designed to address the research objectives by using a mixed-method approach that allows for triangulation and validation of the data. The quantitative methods will provide empirical evidence and generalizable findings on the current state and impact of structural assessment in the valuation industry. The qualitative methods will provide in-depth understanding and contextual information on the best practices and challenges of structural assessment in the valuation industry. The mixed-method approach will also enable the researcher to explore the similarities and differences between the quantitative and qualitative data and to integrate them into a comprehensive and coherent framework and guidelines for structural assessment in a valuation report.

assessment in a valuation report. The research objectives are to:

- Identify the current practices and challenges of structural assessment in the valuation industry
- Evaluate the benefits and limitations of structural assessment for different types of properties and valuation purposes
- Propose a framework and guidelines for conducting and reporting structural assessment in a valuation report

The research design consists of three phases:

4 Brief Description

The National Building Code of India (2016) mandates that every important building structure above 15 years of age should have a structural assessment or audit for every 3 to 5 years and all other State Govt.'s need to follow these. The value may be locked to 3 or 5 based on the structure's safety requirements or from an importance standpoint. Nowadays, with the change in Valuation regime from DCR (Development Control Regulations) to UDCPR (Unified Development Control and Promotion Regulations), every Valuation Report asks the question – 'What is the FSI of the incumbent Building' The FSI concept was introduced in the DCR during 1985-87. Before this period FAR (Floor Area Ratio) was in existence in DCR. In reality, Floor Space Index & Floor Area Ratio have except “floor” nothing in common. “Space” indicates a wider concept that includes space for principal use and space for accessory to principal use. “Index” is a denominator such as a multiplication/ division factor. “Area” denotes a general concept of measurement of land or building on it. Although in almost all succeeding DCR publications, it is wrongly stated that $FSI = FAR$, as these are two different concepts as shown in the Figure 1 below. However, the numerical value of FSI/FAR never rose above 1 in the pre DCR regime in India while for the developed countries it was well above 2.0, thus stagnating a huge part of our national economy for several decades.

Another aspect is the new seismic regulation policy which shows that whole of India falls into seismic zones starting from Zone I to Zone V (previously it was up to Zone IV only) as per the new recommendations of the Earthquake Safety Council. IS:15988 deals with the seismic assessment of Buildings and Valuation Report asks for whether any Protection against natural disasters viz. earthquakes have been taken or not. It may be mentioned that the Draft of IS:893 is on the anvil and may see the light of the day anytime sooner or later with due modifications.

Thirdly, in one nationalized bank i.e., Punjab National Bank's Valuation format there is a special remarks/question on the Distance from sea-coast. The answer to this question lies in the fact that India is a coastal country and has a coastal belt of

approx. 7500Kms of which nearly 6000Kms are selected as a severe zone for Corrosion and all structures coming within 100Kms from the coastline is subjected to huge corrosive forces [2]. According to a Business Standard Report India loses *around 5-7 per cent of its Gross Domestic Product (GDP) every year due to corrosion*, which is a huge national loss- a drag on the exchequer. It is said that Corrosion can never be stopped but only be arrested.

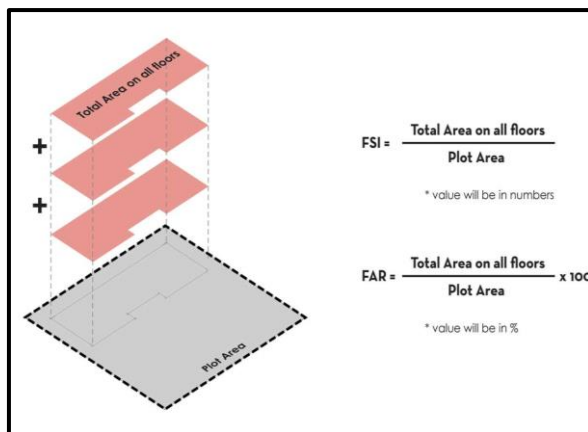


Fig. 1. Schematic Diagram showing the relation between FSI & FAR

Source: Centre for Inclusive Habitat (CIHab) [1]

Fourthly, to incorporate the sustainability factors Valuation Report suggest whether use of environment friendly building materials, green building techniques if any, have been affected. Here, environment friendly materials mean Fly ash, Ground Granulated Blast Furnace Slag, Rice Husk Ash, Silica Fume & Metakaolin whose addition in cementitious systems have led to beneficial results as existing literature survey suggests leading to an enhanced value.

Lastly, the structural assessment plan should have its pre-defined objectives & in this context the three states of building need to be identified –

Building with no apparent damage or distress;

Building with apparent damage due to unforeseen overloading(earthquake/wind/impact)

(ii) Building with distress due to deterioration like rebar corrosion.

Further, if structural drawings are not available, recreation of the same is must. The following steps need to be fulfilled as follows:

1. Collection of Data:

This includes preliminary visual survey & data collection on prevailing environment, its geometry, existing material strength, etc. followed by analysis of the data.

2. Structural Condition Assessment:

The objective of Condition Assessment of a building structure is:

- To identify the Vertical & Lateral load resistance system;
- To identify the distress & cause of such distress;
- To assess the extent of such distress;
- To prioritize the distress elements for repair & to select and plan remedy.

3. Non-Destructive Evaluation Tests (NDTs):

A number of NDTs tests on concrete members are available to determine in-situ strength, condition & quality of concrete. Some of these tests are useful in damage assessment to RCC structures subjected to corrosion, chemical attack, fire & due to other reasons. The term 'non-destructive' is to indicate that it doesn't impair the intended performance of the structural member being tested/investigated. The following are the NDTs:

- i. Rebound Hammer
- ii. Ultra-sonic pulse velocity tests
- iii. Capo/pullout test
- iv. Core cutting/Sampling/Lab testing of cores
- v. Carbonation test
- vi. Chloride test
- vii. Sulphate test
- viii. Cover-Meter/Profo-meter measurement
- ix. Half Cell Method
- x. Resistivity Meter
- xi. Thermo-Gravimetric Analysis
- xii. Differential Thermal Analysis

- xiii. X-ray Diffraction
- xiv. Radiography
- xv. Impact Echo test
- xvi. Load test and many more...



Fig. 2. NDT Load Testing

Source: Stag Testing Inspection Certification (Stag TIC) [3].

5 Recommendations

The recommendations for this paper are based on the findings from the mixed-method study that examined the need for structural assessment in a valuation report. The recommendations are intended to provide guidance and suggestions for the stakeholders involved in the property valuation industry, such as valuers, policymakers, and regulatory bodies. The recommendations are as follows:

- Valuers should conduct and report structural assessment as part of their standard valuation practice, especially for properties that are old, complex, or have special features. Valuers should use appropriate methods and tools to assess the structural condition and performance of the property, such as visual inspection, non-destructive testing, and structural analysis software. Valuers should also document and disclose the sources, assumptions, and limitations of their structural assessment in their valuation report.
- Policymakers should develop and implement policies and regulations that support and promote the integration of structural assessment in property valuation. Policymakers should establish clear and consistent standards and criteria for structural assessment, such as the scope, frequency, and quality of the assessment. Policymakers should also provide incentives and subsidies for valuers and

property owners to conduct and report structural assessment, such as tax deductions, grants, and loans.

- Regulatory bodies should monitor and enforce the compliance and quality of structural assessment in property valuation. Regulatory bodies should conduct audits and reviews of valuation reports to ensure that they include and reflect the structural assessment of the property. Regulatory bodies should also provide training and accreditation programs for valuers to enhance their skills and knowledge on structural assessment.

6 Conclusion

In conclusion, traditional valuation methods need to be rethought to take into account the unique characteristics of each property. Technological advances in structural assessment can provide more accurate and reliable data, which can lead to better decision-making. Neglecting structural assessments in property valuation can have significant economic implications. Stakeholder perspectives on the role of structural assessments in property valuation are also important, and there is a need for more education and awareness on the topic. Regulatory considerations are also important, and there is a need for more standardization in the industry.

To summarize the proceedings, it's the duty of the valuer to provide the relevant information to his client about the condition of his asset. The Valuer may take help of an expert in this field & make the furnishing possible which is also mandated in the International Valuation Standards (IVS). But in reality, our Banking system should improve its working procedures to an international level standard before asking for such hi-fi assignments. In reality what is found is that the fees of a Valuer are being reduced drastically over the last few years or being converted into bad debts while the salaries of our Banker get hiked every year. Nowhere, in the world you will find such malpractices happen. If you fail to raise your voice now then I think it's a black day for our whole valuation community.

7 References

1. <https://cihab.in/index.php/floor-area-ratio-far/>
2. Rao, K.N.P., & Lahiri, A.K. (1970). *Corrosion map of India*. Jamshedpur, India: Corrosion Advisory Bureau, Metal Research Committee, 5-48.
3. <https://www.stagtic.com/services/load-testing/>
4. <https://expertdetermination.net/wp-content/uploads/2020/08/2017-1-ICLR-16-Design-Life.pdf>
5. Fanning, S., et al. (2018). "Rethinking property valuation: A critical analysis of traditional methods." *Journal of Real Estate Research*, 40(2), 215-238.
6. Smith, J. A. (2019). "The impact of structural integrity on property value: A comprehensive review." *Journal of Property Valuation*, 27(3), 321-340.
7. Wu, Y., et al. (2020). "Technological advances in structural assessment for property valuation." *Structural Assessment Journal*, 15(4), 489-508.
8. Johnson, M. R. (2017). "Economic implications of neglecting structural assessments in property valuation." *Journal of Real Estate Economics*, 42(1), 87-104.
9. Thompson, A., & Patel, R. (2016). "Stakeholder perspectives on the role of structural assessments in property valuation." *Property Management*, 34(2), 189-204.
10. Brown, K., et al. (2019). "Regulatory considerations in structural assessments for property valuation: A comparative analysis." *International Journal of Real Estate Regulation and Governance*, 11(1), 45-68.

