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Review of Valuation Methods for Specialized Properties in the Real Estate Sector

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Abstract
Valuation is the process of finding out how much a property is worth. While common properties like houses and offices are easier to value using standard methods, specialized properties such as industrial facilities, hospitals, heritage buildings, and casinos are more challenging. This is because these properties do not sell or lease frequently, so there is less market data available to compare.
Specialized properties need unique approaches for valuation. Common methods include the depreciated replacement cost method, income-based valuation, and techniques like multiple criteria decision analysis (MCDA). These methods consider factors like construction costs, potential earnings, and other important criteria to provide a fair value estimate.
This report looks at different ways of valuing specialized properties and the challenges involved, such as limited sales data, strict regulations, and the need for expert opinions. Understanding these methods helps ensure that valuations are accurate and reliable. Accurate valuations are important for property owners, investors, banks, and other stakeholders to make informed decisions about buying, selling, or lending against these properties.

Keywords: Valuation, Specialized Properties, Industrial Property, Depreciation Replacement Cost (DRC)

1. INTRODUCTION

Valuation is a fundamental component of the real estate ecosystem, influencing decisions in finance, taxation, insurance, investment, and public policy. While carrying out the process of valuation we have to mainly focus on the type and use of the property, the property can be mainly divided into non-specialized and specialized property (French 2004). In case of non-specialized property there exist sufficient information for comparable sales of the property and thus the valution process is completed without any complication. Where as for specialized property are often integral to the operations of the entity that owns them. Their value is not purely in the land or building but in how the structure supports a specific function, which complicates the separation of real estate value from business enterprise value. Additionally, such properties are infrequently transacted in open markets, meaning there is little to no comparable sales data available to support the traditional Market Comparison Approach.

Valuers typically turn to methods like the Depreciated Replacement Cost (DRC), Income Approach, or Multiple Criteria Decision Analysis (MCDA) when assessing these types of assets. The DRC method involves estimating the cost to replace the asset with a modern equivalent, then deducting for physical deterioration and obsolescence—both of which require professional judgment and can introduce

subjectivity. The Income Approach, while useful in certain situations, often struggles to isolate the real estate income from the broader business operations. Meanwhile, newer analytical tools such as MCDA(Belton & Stewart, 2002) attempt to combine qualitative and quantitative factors to derive value but remain less commonly adopted and require robust data to be effective.

While carrying out the valuation of specialized property the traditional method of valuation cannot always meet the needs of the party. Eventhough valuation standards are available (IVSC 2007), experts often find it difficult to extimate the value of a property. Given these complexities, this research seeks to explore the global practices in valuing specialized properties and assess how different regulatory environments and market conditions influence the choice and effectiveness of various valuation methods. In particular, it examines how valuation approaches are adapted across developed and developing markets, where challenges such as data availability, professional training, and legal frameworks can differ significantly.

The study also delves into the core challenges associated with valuing specialized properties including the scarcity of reliable data, the absence of comparable transactions, and the inherent uniqueness of each property. By examining these issues (William Pripp & Adrian Renmark 2024), the research aims to identify recurring obstacles that valuers face and evaluate how these challenges are currently being addressed in both practice and theory. Meanwhile, newer analytical tools such as MCDA attempt to combine qualitative and quantitative factors to derive value but remain less commonly adopted and require robust data to be effective (Maliene, V.2011).

Ultimately, this study aims to propose a refined framework or set of guidelines that can enhance the consistency, transparency, and credibility of specialized property valuations. By integrating the best elements of existing methodologies and addressing the limitations identified through research, the framework aspires to support valuers, regulators, and investors in making better-informed decisions. This is especially crucial in asset-heavy industries and public infrastructure where accurate valuation underpins funding, compliance, and long-term strategic planning.

In doing so, the research contributes to the broader discourse on real estate valuation by advocating for methodological rigor, professional judgment, and context-sensitive practices that respond to the complexities of specialized property assets. The findings are intended to serve not just as an academic resource but also as a practical guide for valuation professionals, institutional stakeholders, and policymakers engaged in the assessment of these unique and valuable assets.

2. REVIEW OF VALUATION APPROACHES FOR SPECIALIZED ASSETS

Valuation of specialized properties presents a unique set of challenges that significantly diverge from the standard procedures used for conventional real estate. These properties—such as hospitals, airports, heavy industrial facilities, religious buildings, data centers, and green-certified commercial structures—often lack an active market, have few or no comparable sales, and are typically built for a specific purpose, rendering them difficult to appraise using traditional valuation techniques. This compilation of literature from researchers like Nick French, Owen Connellan, Ruslan Volchek, William Pripp, Adrian Renmark, and others provides an in-depth understanding of the methods, challenges, and evolving best practices in valuing such complex assets.

A recurring theme in the literature is the inadequacy of the Market Approach for specialized properties. Since these assets rarely change hands in the open market and are often custom-designed for singular

users, there is usually a lack of comparable data. Ruslan Volchek (2021) and Nick French (2011) both emphasize that for these properties, the Cost Approach or Depreciated Replacement Cost (DRC) method is often more suitable. The DRC method estimates the cost of replacing the asset with a modern equivalent, adjusted for physical, functional, and economic obsolescence. Owen Connellan's (2020) insights support this position, especially for public service assets that are not income-generating, such as schools, libraries, and community halls.

In addition to the DRC method, some specialized properties with measurable income streams—such as data centers or hospitals—may benefit from the Income Approach, particularly using the Profits Method. This method evaluates the property based on its capacity to generate economic benefit. It is especially relevant for assets where the property's value is intrinsically linked to the business operating within it. However, applying this method requires access to reliable financial data and a clear understanding of the market context, as emphasized by Pripp and Renmark (2022). These researchers also highlight the role of tenant profile, lease structures, and market dynamics, all of which influence the net income and thus the property's valuation.

One of the critical barriers in accurately valuing specialized properties is valuer competency. French and Volchek underline the need for valuers to possess both technical expertise and contextual awareness of the asset in question. In developing countries such as Nigeria and Malaysia, as discussed by Ayedun and Oloyede (2021) and Lau and Lim (2018), the valuation industry faces additional constraints due to insufficient training, poor data availability, and lack of localized valuation standards. This results in inconsistencies in valuation reports, especially for assets like hospitals or custom-built manufacturing units, where specialized knowledge is paramount.

To overcome some of these limitations, researchers have proposed alternative valuation models and decision-making tools. Lau and Lim (2018) recommend the use of Multiple Criteria Decision Analysis (MCDA), which allows for the inclusion of qualitative and quantitative factors in the valuation process. This method is especially beneficial in assessing hospitals, where factors like service capacity, equipment quality, regulatory compliance, and location influence value beyond mere income potential. Similarly, Ayedun and Oloyede (2021) explored the potential of the Contingent Valuation Method (CVM), a technique commonly used in environmental economics, for estimating the social value of public health facilities in Nigeria. While these methods are not mainstream, they underscore the evolving landscape of property valuation and the need for flexible, context-sensitive approaches.

An emerging area in the valuation of specialized properties is the assessment of green and sustainable buildings. These assets often have additional features—such as energy-efficient HVAC systems, solar installations, and water recycling—that impact both capital costs and long-term savings. However, as discussed by French and others, many valuers are unprepared to integrate these factors into their assessments due to lack of data, market benchmarks, and valuation models that capture environmental performance. This challenge points to the urgent need for professional training and collaboration with sustainability experts to standardize the treatment of green attributes in valuation.

The issue of data availability and standardization cuts across almost all the studies. For instance, the Nigerian and Malaysian contexts reveal that inadequate record-keeping, absence of digital property registries, and opaque market transactions limit the effectiveness of traditional methods. Even in developed countries, certain asset types like religious buildings or military installations are seldom traded, leading to limited empirical evidence for benchmarking. Pripp and Renmark suggest that establishing specialized databases and cooperating with industry-specific consultants can help fill

some of these gaps, especially in the valuation of high-tech or mission-critical facilities.

From a policy and governance perspective, these studies collectively call for enhanced regulatory oversight and development of specialized valuation standards. The International Valuation Standards (IVS) provide general guidance, but specific frameworks for specialized properties remain underdeveloped. Countries like the UK and Australia have made strides in issuing guidance notes for valuing infrastructure and public sector assets, but similar efforts are lacking in other jurisdictions. Connellan (2020) argues for a more uniform adoption of the DRC method within the public sector to align financial reporting with the operational realities of these assets.

Furthermore, the role of stakeholder collaboration is increasingly important in the valuation of specialized assets. For example, when valuing hospitals or green-certified buildings, valuers may need to work closely with architects, engineers, facility managers, and sustainability consultants to accurately capture technical specifications and long-term operating benefits. As the boundaries between valuation and asset management blur, interdisciplinary cooperation becomes essential.

In conclusion, the valuation of specialized properties demands a multidisciplinary, context-aware, and methodologically diverse approach. Standard techniques like market comparison and income capitalization often fall short in capturing the complexities inherent in assets that are unique, customized, or rarely traded. Scholars across the reviewed literature advocate for a flexible application of cost-based and income-based methods, augmented by alternative models such as MCDA and CVM in data-scarce environments. The challenges of insufficient training, lack of market data, and absence of standardized guidelines persist, especially in emerging economies. However, the growing recognition of these issues is paving the way for professional upskilling, methodological innovation, and better alignment between valuation practices and the functional realities of these properties. Ultimately, accurate and consistent valuation of specialized properties supports robust financial reporting, effective asset management, and sound investment decisions across both public and private sectors.

Author(s)	**Title of Research Paper**	**Key Focus**	**Importance**	**Type of Specialize Property**
Nick French	The Valuation of Specialized Property: A Review of Valuation Methods	Overview of v techniques for Specialized properties	Identifies the be valuation model based on proper characteristics	Industrial, hotels, casinos, hospitals
Ruslan Volchek	Methodological Aspects of Estimation of Value of Specialized Property of Enterprises	New valuation framew for industrial assets	Helps businesse stay competitiv with more accu valuation tools	Industrial eq enterprise assets
William Pripp & Adrian Renmark	Dealing with Uncertainty in Valuation of Specialized Properties in Sweden	Addressing valuation uncertainties	Provides solutions for valuing uniq properties with limited market	Schools, prisons, Government properties

Owen Connellan	Valuation of Specialized Public Sector Assets	Application of Depreciated Replacement Cost (DRC) method	Ensures proper valuation of pu properties for financial planni	Schools, hospitals, infrastructure
Harald Wirtz	Valuation of Intellectual Property: A Review of Approaches and Methods	Challenges in valuing intangible assets	Highlights key methodologies for valuing intel property	Intellectual (patents, trademark
Ngozi Ifeanyi Uwaezuoke et al.	Challenges Associated with Valuation of Private Hospital Properties in Jos, Nigeria	Evaluating private hospital properties	Identifies valuat difficulties due to lack of comparable dat	Private hospitals
Tuti Haryati Jasimin et al.	Valuation of Green Commercial Office Buildings: A Malaysian Perspective	Sustainability in property valuation	Encourages standardizing green building valuation metho	Green commercia buildings
Ana Maria Grămescu & Daniela Barbu	Training of Valuers for Specialized Properties	Professional training for valuers	Emphasizes the need for specialized knowledge in v	Power plants, oil re historic sites
Vida Maliene	Specialized Property Valuation: Multiple Criteria Decision Analysis (M	Application of MCDA in valuation	Provides a st decision-making approach for assets	Factories, power plants, heritage buildings

3. Conclusion

The valuation of specialized properties presents a diverse and evolving challenge that spans across sectors and geographies. From industrial assets and private hospitals to green-certified buildings and intangible intellectual properties, each category demands tailored methodologies due to its unique characteristics and limited market data. The reviewed literature emphasizes that no single valuation method suffices for all specialized assets; rather, a context-driven approach is necessary.

Researchers like Nick French and Owen Connellan underscore the relevance of the Depreciated Replacement Cost (DRC) method for public sector and specialized service assets, while Ruslan Volchek and William Pripp highlight the need for updated frameworks and uncertainty management tools in the face of market limitations. Meanwhile, studies by Ngozi Ifeanyi Uwaezuoke and Tuti Haryati Jasimin expose region-specific challenges, such as lack of comparables and the need to integrate sustainability into valuation practices.

Innovative techniques like Multiple Criteria Decision Analysis (MCDA), explored by Vida Maliene, and calls for enhanced valuer training, as argued by Ana Maria Grămescu, point to the growing need for interdisciplinary knowledge and standardized practices. Furthermore, valuation of intellectual property, as reviewed by Harald Wirtz, reminds us that specialization extends beyond physical assets into the intangible realm.

Overall, these studies collectively advocate for greater methodological flexibility, professional upskilling, and regulatory support to ensure accurate, reliable, and transparent valuations of specialized properties. As these assets play a crucial role in public infrastructure, economic development, and environmental sustainability, advancing their valuation practices is not only a professional necessity but also a strategic priority for stakeholders across sectors.

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