

Experience is the new commercial capital: Why ROX is the missing metric in real estate value

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ABSTRACT

While return on investment (ROI) has been the predominant formula for quantifying the value of

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commercial real estate, this measure fails to capture the full picture in today's complex landscape. Much of a building's worth lies in the experience it offers end users; one shaped not only by location and square footage, but also by the degree to which it builds community and affects occupants and visitors emotionally. This paper proposes return on experience (ROX), a concept borrowed from the consumer-products world, as a complementary evaluation framework that provides a more holistic appraisal when integrated with traditional ROI. By assessing the existence of — and investing in — experiential factors like psychological comfort and layering them onto metrics, such as floor-plate efficiency, stakeholders can achieve a multiplier effect that can significantly amplify property value. We outline a framework of seven experience attributes, prioritised according to existing research, and explain how to evaluate them, thus offering a clear road map for strategic investment decisions. This article is also included in **The Business & Management Collection** which can be accessed at <https://hstalks.com/business/>.

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A NEW EVALUATION APPROACH THAT INTEGRATES ROI AND ROX

In commercial real estate, return on investment (ROI) has long been the default lens for measuring an asset's performance. The metric captures the empirical, data-driven factors that determine a building's value; attributes such as location, size, floor-plate efficiency, operating costs, and system performance. These measures remain essential: they provide the baseline against which investments are compared and justified.

However, in today's market — and in an era when we have become more aware of, and keen to quantify, how various aspects of the built environment affect the end user's

experience — ROI alone no longer captures a property's full value potential. The real estate industry can benefit from a more comprehensive, holistic evaluation approach that factors in qualities such as how well a building meets tenant expectations, fulfills environmental, social and governance (ESG) imperatives, and achieves competitive differentiation.

Emerging capital-markets research increasingly shows that commercial real estate value is shaped by how effectively buildings convert risk into performance and performance into stable cash flow. In this context, ROX provides the experiential lens that enables this conversion, allowing the translation of human, operational and environmental conditions into sustained asset performance rather than treating experience as a secondary outcome.

An approach that does exactly that is return on experience (ROX), a concept more commonly used in the consumer-products world, but that can be applied to the built environment as a measure of its affect on humans. If ROI quantifies key financial factors, ROX presents the cognitive, emotional and physical affect of that building on its occupants: what it *does* for end users and how it makes them feel. Experiential attributes such as wellness, community connectivity, emotional resonance and inclusivity work in concert with traditional ROI elements to elevate asset performance far beyond baseline financial returns.

'An environment with high-quality finishes and amenities is now the baseline. Tenants want more: boutique hotel-like services and alternative common areas that offer a change of scenery through natural elements or art. What truly differentiates a property is when landlords activate spaces with exceptional experiences and curated services, something tenants recognise and are willing to pay a premium for.' (Heather Halderman, SVP, Asset Management of Callahan Capital Partners).

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The relationship between ROX and ROI is not additive but multiplicative: strong ROI fundamentals create a solid foundation for success, while high ROX performance amplifies those returns by attracting and retaining tenants, supporting brand equity and sustaining long-term relevance in the market, for example. A building with solid ROI, but poor ROX may meet short-term financial targets but will struggle to hold value as user expectations evolve. In contrast, when experience-driven strategies are layered onto strong ROI assets, the result is a market standout that delivers enduring financial and human value.

To unlock this combined potential, we need a way to view ROI and ROX attributes together in one place, so that the factors most crucial to a building's unique market position and long-term strategy can be emphasised and invested in.

THE KEY DIMENSIONS OF ROX, AND HOW TO PRIORITISE THEM

This section outlines the key dimensions, from physiological support to cognitive clarity, that are used to evaluate ROX within the built environment, each reflecting a crucial aspect of bioneurodesign. All are informed by interdisciplinary research in environmental psychology, neuroscience and urban studies. The potential positive affect on ROX provides the rationale behind bucketing the dimensions into priority groups to help guide investment decisions, allowing project teams to strategically allocate resources, beginning with the most foundational elements and progressing toward more elevated experiences. In an ideal scenario, all dimensions would be prioritised equally, as they each address fundamental human needs, such as competence, autonomy and relatedness. However, real-world constraints typically necessitate that we focus our energy.

By aligning design efforts with this prioritisation approach, teams can maximise

impact, achieving the greatest ROI and enhancing user experience across diverse space types.

Importantly, each ROX dimension functions not only as a qualitative experience indicator, but also as a measurable performance signal. Together, these dimensions reflect how effectively an asset supports human continuity, adaptability and resilience; attributes increasingly associated with tenant retention, operational stability and long-term value preservation. Viewed this way, ROX dimensions align directly with the performance criteria now used to evaluate asset quality beyond traditional classifications.

Foundational priorities

Physiological support, *community connections* and *user feedback* are the ROX dimensions shown to have measurable and immediate impacts on human well-being and user performance. They have a foundational role in establishing baseline conditions required for health, trust and operational stability. As such, it is recommended to evaluate these dimensions early in the process.

- *Physiological support* assesses whether a space promotes health and wellness through lighting, air quality and biophilic design elements. A growing body of empirical evidence confirms that physical environments significantly influence cognitive performance, stress levels and immune function. For example, daylight exposure and views of nature have been shown to regulate circadian rhythms, elevate mood and reduce absenteeism. Good indoor air quality¹ and environmental comfort — including thermal comfort measures such as temperature and humidity — are similarly crucial for maintaining concentration and long-term health outcomes.² While many wellness features are now considered baseline expectations rather than

differentiators, their absence introduces operational, health and financial risk, making physiological support a foundational requirement for ROX rather than a value add. Buildings that are pursuing or have achieved Leadership in Energy and Environmental Design (LEED), Building Research Establishment Environmental Assessment Method (BREEAM) and/or WELL certification are already aligned with several foundational ROX dimensions, particularly physiological support and environmental quality, providing a strong starting point for broader experience-driven value creation.

- Beyond individual well-being, physiological support increasingly influences operational resilience and continuity. Environmental conditions such as heat stress, air quality and thermal stability now intersect with insurance exposure, system uptime and tenant confidence. Assets that fail to buffer occupants from environmental volatility face heightened operational and financial risk, reinforcing physiological support as a foundational motivation of both ROX and long-term asset stability.
- *Community connections* evaluates the spatial and social integration of a site within its broader urban or cultural context. This includes metrics such as walkability, transit accessibility and proximity to local amenities, such as retail locations. As outlined by Baobeid, Koc, and Al-Ghamdi,³ walkable environments encourage social interaction and civic engagement, particularly when spaces are designed to be convenient, conspicuous, convivial and comfortable. These principles directly support broader sustainability, safety and equity goals, embedding ROX within a systems-thinking approach.
- From a value perspective, community connectivity increasingly supports rent durability and tenant retention by reducing dependence on single-use locations and

enhancing daily convenience. As distributed work patterns persist, assets embedded within resilient amenity ecosystems demonstrate greater long-term relevance than those reliant on prestige alone.

- *User feedback* captures the availability and sophistication of mechanisms that allow occupants to express their preferences and perceptions in real time and adjust certain features accordingly. Neuroscience research highlights the psychological benefits of environments that make users feel seen and heard. According to Scannell and Gifford,⁴ individuals exhibit stronger emotional ties to places where they believe they have agency and influence, fostering deeper engagement and satisfaction. As data capabilities evolve, user feedback increasingly combines direct input with real-time environmental and utilisation data, enabling spaces to respond dynamically to changing needs and preferences. At an asset level, these feedback mechanisms function as a form of experiential governance, supporting continuous adaptation that reduces friction, builds trust and aligns environments with evolving user expectations.

Adaptive priorities

Spatial flexibility, *cognitive clarity*, and *emotional impact* are the ROX dimensions that enable spaces and occupants to respond to change over time. These priorities support long-term usability, psychological performance and experiential differentiation, allowing environments to evolve with shifting work patterns, user expectations and market conditions while preserving relevance and value.

- *Spatial flexibility* assesses the extent to which users can modify or adapt the environment to meet their changing functional or social needs. Wang, Yang and Delgado⁵ demonstrated that when occupants have control over their spatial

configurations, it supports their cognitive autonomy and improves their decision making, particularly in work and learning environments that demand continuous adaptation.

- Spatial flexibility also contributes directly to long-life asset performance. Buildings capable of reconfiguration and reuse are better positioned to absorb shifts in work patterns, demographics and tenant mix, which help to preserve relevance and reduce the risk of functional obsolescence over time.
- *Cognitive clarity* measures how environments reduce mental fatigue and cognitive overload through intuitive design features, sensory cues and spatial legibility. Csikszentmihalyi's work⁶ on 'flow states' shows that environments that minimise distraction and confusion support heightened engagement, creativity and problem solving. In productivity-constrained environments, cognitive clarity acts as a performance multiplier. By reducing mental fatigue and friction, environments that support intuitive navigation and sensory balance enable occupants to sustain focus and output, extending human productivity rather than merely accommodating activity.
- Cognitive clarity can be successfully supported through elements of soft fascination, including subtle sensory features such as filtered daylight, natural materials, views of gentle movement or textured surfaces that hold attention effortlessly and help reduce mental fatigue without requiring large-scale interventions.
- *Emotional impact* captures how spaces resonate on a symbolic and affective level, including their ability to evoke positive emotions such as awe, joy or inspiration. Neuroscientific and psychological studies suggest that environments that elicit positive emotions are associated with activation in neural networks, elevating cognitive flexibility and well-being.^{7,8} Furthermore, design elements

that positively affect mood can significantly improve user satisfaction and even performance in educational and professional settings.⁹

- Beyond individual experience, emotional resonance also plays a strategic role in differentiation. In markets where physical quality is commoditised, environments that generate positive emotional responses contribute to brand identity, perceived value and pricing power, all factors that increasingly influence tenant choice and loyalty.

Long-horizon priorities

The long-horizon positioning of *social inclusion* reflects its role in sustaining relevance over time rather than its relative importance. While many aspects of inclusion are addressed through current standards and codes, this dimension becomes increasingly crucial as demographics, cultural expectations and patterns of use continue to evolve.

- *Social inclusion* evaluates how well a space accommodates diverse identities, backgrounds and abilities. This includes physical accessibility, cultural representation and psychological safety. Douglas *et al.*¹⁰ emphasise that inclusive design promotes equity and collective well-being in shared environments. Inclusive design not only meets compliance standards but also enhances ROX by ensuring spaces resonate with all users. While building standards such as the Americans with Disabilities Act establish a baseline for accessibility, advancing social inclusion beyond compliance can meaningfully improve usability, expand who the space supports and the sense of belonging over time.

EVALUATING ROX DIMENSIONS ALONGSIDE ROI MEASURES

From an ROI perspective, these amenities can generate direct revenue, improve

lease-up velocity, support rent premiums and enhance asset competitiveness. From a ROX perspective, they strengthen community connections, social interaction and day-to-day experiential quality, which directly influence how a building is perceived and used by occupants.

ROX functions as a leading indicator and influencer of ROI, rather

than a parallel or downstream outcome. Experiential quality shapes tenant attraction, retention, utilisation and brand alignment. Over time, these bioneurodesign-informed approaches translate into stronger financial performance. In this sense, ROX investments often precede and enable sustained ROI, particularly in markets where baseline physical quality is already assumed.

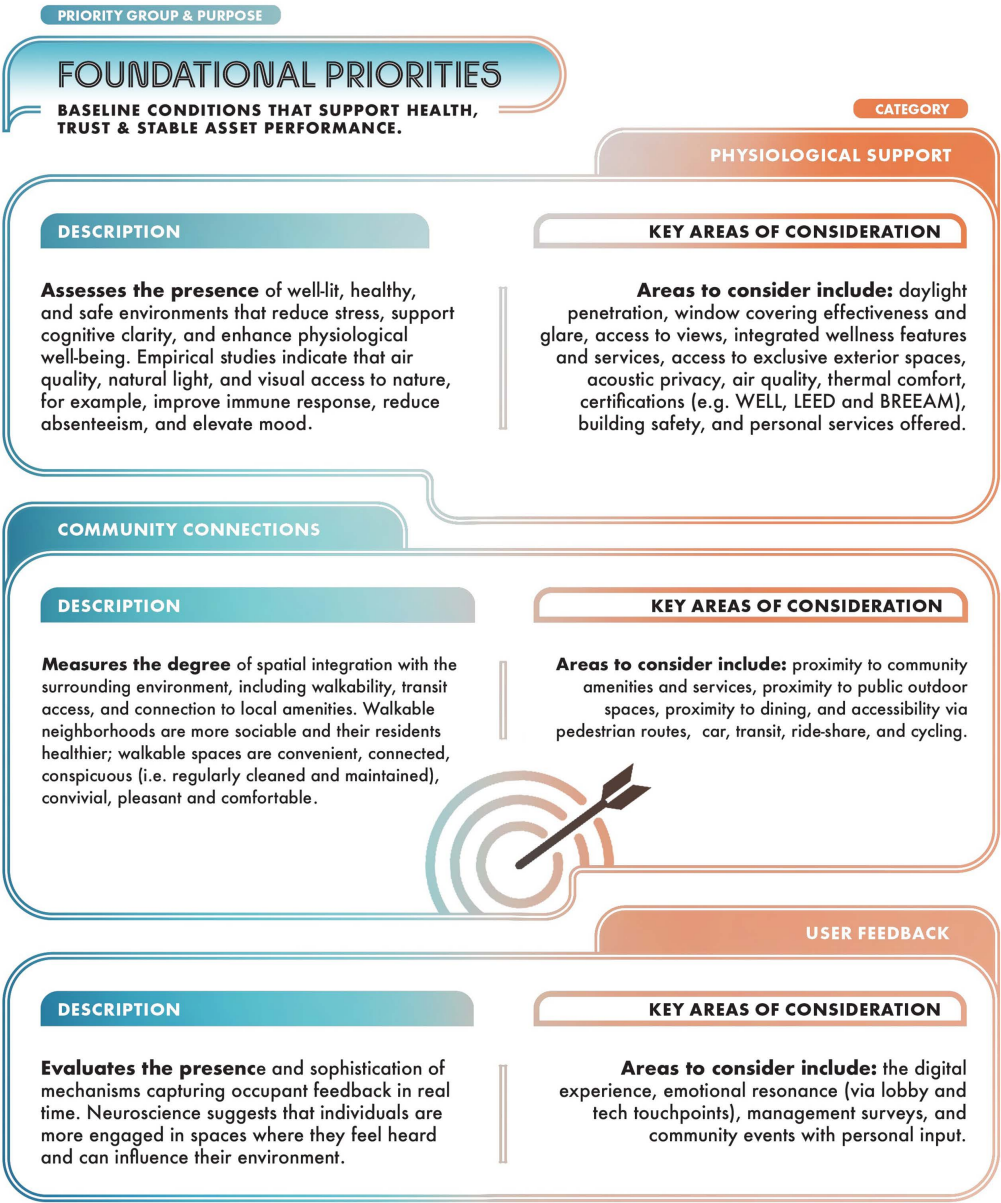


Figure 1 Cheat sheet graphic. (Source: Graphic developed by IA Interior Architects)

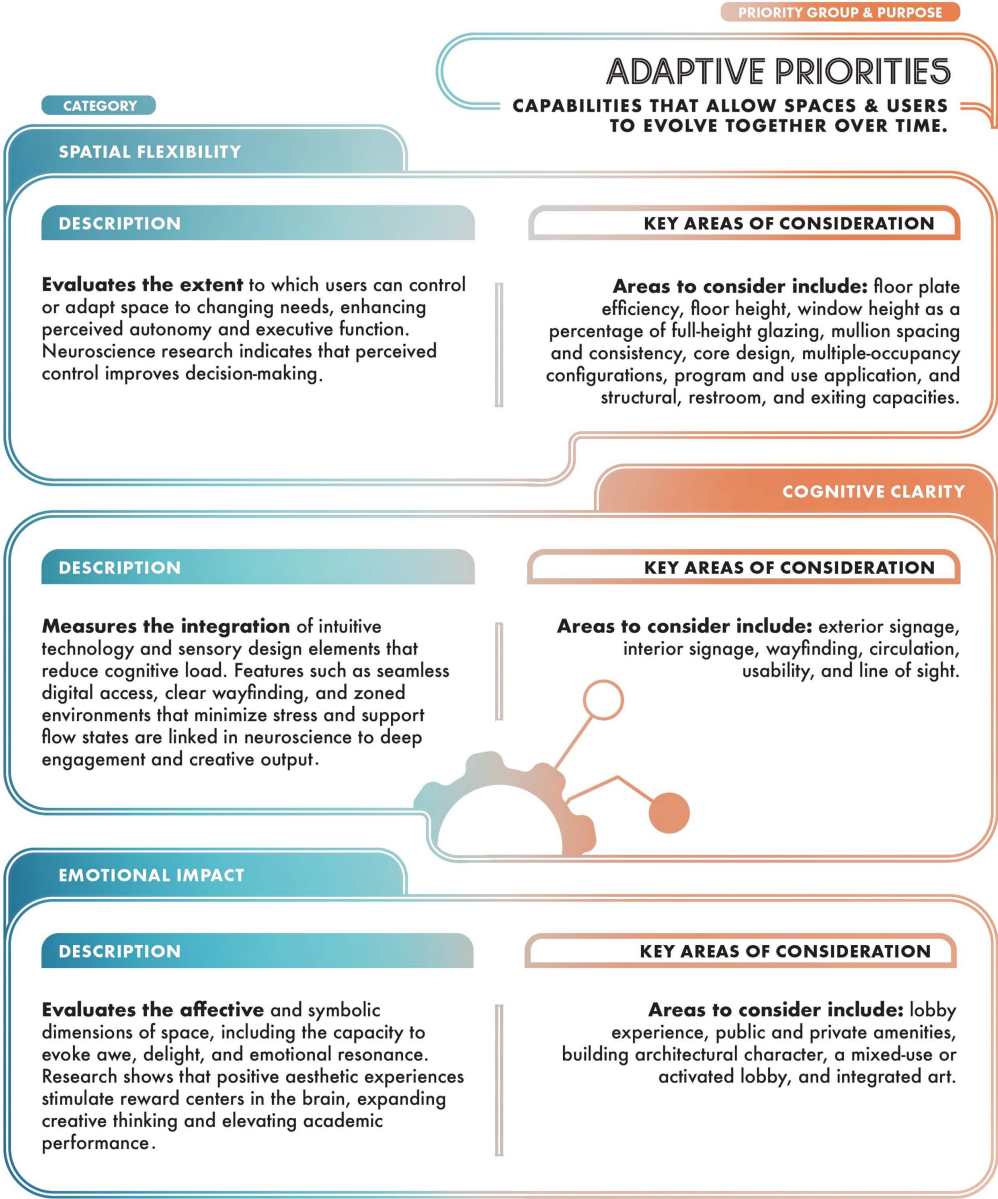


Figure 1 Continued

ROX also plays a crucial role in risk mitigation. In markets where baseline physical quality is assumed, experiential underperformance can accelerate value erosion, affecting refinancing viability, insurance costs and exit liquidity. Poor ROX does not merely limit upside; it introduces compounding risk. As a result, ROX functions as both a value amplifier

and an early-warning system for asset vulnerability.

To assess ROX in the built environment, each dimension should be evaluated using a series of metrics and quantification approaches:

Physiological support is measured through a combination of environmental quality indicators and certification-based benchmarks.

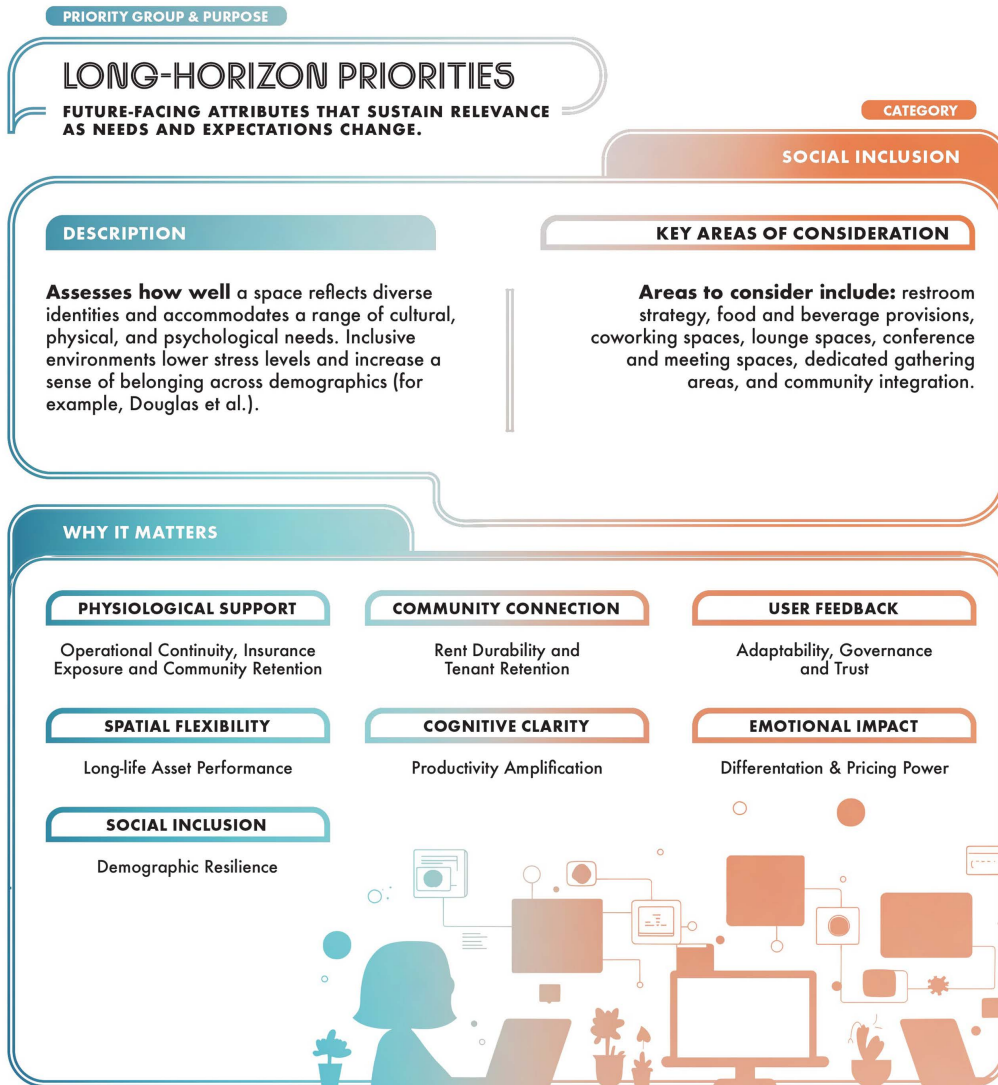


Figure 1 Continued

Daylight ratio is commonly calculated through lighting simulations or measured *in situ* using portable light meters. Indoor air quality is assessed by monitoring variables such as carbon dioxide levels, particulate matter (PM_{2.5}) and volatile organic compounds, often through real-time environmental sensors like metal oxide sensors, photoionisation detectors (PIDs) and infrared sensors. In addition, certifications like WELL, LEED and BREEAM provide third-party validation of health-promoting features, offering a standardised mechanism to evaluate this

dimension. Evaluation of physiological support should extend beyond interior conditions to consider a building's impact on local ecosystems and global environmental systems, recognising that these broader effects influence regulatory exposure, community trust and long-term performance.

Community connections is quantified through spatial analysis and urban access measures. Evaluators can assess the proximity of essential services, such as retail, food service and fitness centres, to determine walking distances or drive-time radii. The availability of

meeting centres or event spaces within the surrounding area is likewise mapped to understand programmatic adjacency. Furthermore, transportation access is evaluated by examining the presence and quality of pedestrian infrastructure, car drop-off zones and bicycle facilities, all of which contribute to the perceived and actual connectivity of a given site.

User feedback is measured through both the existence and efficacy of mechanisms that capture occupant input, and the degree to which that input informs responsive action. In recent years, digital platforms have been increasingly leveraged to gather real-time user data through mobile applications, sentiment-tracking tools and sensor-based feedback systems. As AI-enabled platforms are increasingly incorporated into feedback systems, their ethical deployment, transparency and governance become crucial to preserving occupant trust and reinforcing user agency. The presence of these technologies enables ongoing adjustments to spatial and operational conditions based on occupant input.

Spatial flexibility is evaluated through architectural and operational metrics that determine the adaptability of space over time. One key measure is floor-plate efficiency. The configuration and modularity of floor plates are assessed for the number of distinct spatial arrangements supported by a given layout, which may include reconfigurable partitions or flexible furniture systems. Variety in floor-plate design is also examined, particularly in terms of how many different workspace typologies — such as open plan, enclosed rooms and informal zones — are accessible to users.

For *cognitive clarity*, assessment methods focus on the reduction of cognitive load through clear spatial organisation and intuitive navigation. Wayfinding is analysed through signage audits, assessing how easily occupants can navigate the environment. Usability is ascertained through user-reported experience surveys that gauge the clarity and functionality of key features.

Emotional impact is evaluated through studies that appraise the affective (ie mood-related) dimensions of design. The design of the building envelope can be analysed, through architectural review or user-perception studies, for its capacity to evoke emotional responses. Aesthetic variety within the interior environment is similarly evaluated, based on the diversity of textures, forms and spatial experiences available to users and their cognitive, physical and emotional implications. These assessments can be informed by structured interviews, visual preference surveys or post-occupancy evaluation protocols that focus on emotional engagement.

Finally, *social inclusion* is evaluated through spatial strategies that accommodate a wide range of cultural, physical and psychological needs, among others. Assessments are frequently grounded in inclusivity audits or stakeholder consultations that identify gaps and opportunities in environmental representation and access. Evaluation may also extend to community vitality, recognising how inclusive spaces support social interaction, cultural presence and shared use within their broader context.

ROX is not intended to function as a single, universal score. Instead, it operates as a comparative, weighted evaluation framework that allows ROX dimensions to be assessed alongside traditional ROI metrics based on the priorities of a specific asset, market or user group.

Each dimension can be evaluated using a combination of quantitative indicators, spatial analysis, certifications and qualitative user feedback. Project teams may assign relative weights or scores to each dimension depending on strategic objectives. For example, physiological support and community connections may carry greater weight in one context, while spatial flexibility or emotional impact may be prioritised in another.

The relative weighting of ROX dimensions may also shift in response to market stressors such as climate exposure, energy volatility, demographic change or labour

constraints. This flexibility allows ROX to function as an anticipatory framework by adjusting emphasis before shifts in user behaviour or financial performance become visible in traditional metrics.

A ‘good’ ROX outcome is therefore contextual rather than absolute. Strong ROX performance is indicated when the highest-priority experiential dimensions for a given project are intentionally supported, measurable, and aligned with user needs and market positioning. The framework is designed to remain flexible, allowing scoring emphasis to shift as user expectations, asset strategy and ROX market conditions evolve. Please refer to our Cheat Sheet (Figure 1) to explore the framework.

HOW DIFFERENT STAKEHOLDERS CAN APPLY THE FRAMEWORK

The ROI + ROX framework is designed for use by the full spectrum of commercial real estate stakeholders, each bringing a different lens to the assessment process. A single evaluation method combining empirical ROI and ROX insights makes it easier for all parties to identify the factors that matter most for a specific asset and agree on where to focus investment.

Developers can use the framework to compare potential projects or prioritise what enhancements to make within an existing portfolio. By selecting the ROI fundamentals and ROX measures most relevant to a building’s positioning, they can channel capital toward features that strengthen both near-term returns and long-term value.

Brokers and corporate real estate professionals gain a more compelling sales and leasing narrative. By translating experience qualities — such as wellness, adaptability or emotional resonance — into tangible metrics, they can differentiate properties in a competitive market and align them with ESG or brand goals.

Prioritising occupants is essential to completing the equation and maximising the

framework’s usability. By providing greater transparency in the decision-making process, the framework enables occupants to evaluate the functional and experiential priorities that best support talent attraction, employee well-being and cultural alignment, ensuring the selected space delivers value beyond rent and operating costs. Additionally, during leasing tours, occupants can apply these same criteria to assess ROX potential.

By making both ROI and ROX visible, and by allowing their various dimensions to be evaluated in concert so properties can be more easily compared, the framework shifts the conversation from cost alone to a shared understanding of value hierarchy — one that recognises that every building’s success lies in the right combination of financial fundamentals and human experience.

ROX is not a parallel metric to ROI, but the mechanism through which buildings translate human experience into durable financial performance.

CONCLUSION

At a time when commercial real estate decisions are becoming increasingly complex, integrating ROX alongside ROI offers a more strategic, future-proof basis for valuation. This approach does not replace traditional financial metrics; rather, it strengthens them by embedding experiential factors into the same evidence-based, quantitative framework.

The ROI + ROX approach enables stakeholders to measure traditionally qualitative metrics, translating human experience into measurable, actionable value. By uniting financial efficiency with human effectiveness, it shifts the conversation from short-term cost to long-term competitive advantage. The result is a roadmap that links capital allocation to outcomes felt by both the balance sheet and the people who inhabit the space. In short, it bridges the gap between occupant satisfaction and enduring owner value.

While the framework's dimensions, priority groupings, and areas of consideration were developed through the lens of our research and design team, its intent is practical: to help every building stakeholder team identify and invest in the unique mix of ROI and ROX factors that will yield exponential returns. Some dimensions currently have a more substantial body of evidence supporting their positive impact, and this research will continually evolve, thus shifting the priority groupings. Future work should explore its longitudinal application across asset types, geographies and market conditions, ensuring that as the industry evolves, the measure of value evolves with it.

USE OF ARTIFICIAL INTELLIGENCE

A human copywriter/editor supported the refinement of this paper. In the early stages of preparation, limited automated language tools were used to test wording clarity and readability of author-developed content. Additional automated checks were used during the final proofreading stage. All ideas, analyses and conclusions were developed by the authors, who reviewed and approved the final paper and retain full responsibility for its accuracy and integrity.

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