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SIGNIFICANT CHANGES IN REAL ESTATE VALUATIONS WITH RETRO FITTINGS OF OUR CITIES INTO SMART CITIES

Nowadays we observe a lot of Urban renewal and Retro fittings being undertaken by our cities. A number of initiatives are being taken to make the cities more liveable, upgrading the physical infrastructure, focusing on urban mobility, sustainability, use of more technology and innovation, Internet of things and many more. We can say that technology applied to cities are making our cities more efficient or we can say **'Smart'**.

How does this impact the Valuations of Real Estate?

The synergy between smart cities and real estate is undeniable. Integration of AI and machine learning in building management with optimization of energy use directly impacts Valuation. The implementation of smart technologies often enhances the quality of life and attractiveness of a city, leading to an increase in demand for properties. Smart cities tend to offer better infrastructure, transportation systems, healthcare facilities, and overall convenience, making them more desirable places to live and work.

We need to include many more key factors into our valuations and include the value of both tangible and intangible features. Along with the physical attributes, we need to consider the value addition by including the citizen benefits provided in a smart city. We also need to consider the value increase due to a sustainable environment, efficient governance or e- governance and social equity. We also need to measure the economic benefits generated by Smart Cities initiatives. For example creation of more jobs, attract more investments, increased productivity and GDP growth, cost saving through efficiency gains and tax revenues. All the above-mentioned adds to increased liveability and the well-being of citizens.

Valuation of a smart city has become a complex task involving various factors such as infrastructure, technology integration, sustainability, economic development, quality of life. There isn't a single formula to calculate the exact value of a smart city. For the purpose of valuation we may consider the whole city or a component of the smart city.

Urban Mobility : Improve transportation efficiency and reduce congestion, bike-sharing programs with dedicated bike lanes, electric vehicle charging stations, smart parking systems, real-time public transportation tracking apps. Pedestrian-friendly streets, efficient public transportation networks, including the Metro and bus services.

Sustainable Development: Initiatives like green building standards, renewable energy projects, and urban green spaces integrated into the city's development plans. Assigning a value to these environmental benefits can be challenging but is essential for a comprehensive valuation. Reduced carbon emissions, improved waste management, conservation of natural resources and mitigating climate change, all enhance the value of a city.

Technology: Sensors, & data analytics platforms, Internet of Things (IoT), and other such devices are crucial to collect and analyze data on various aspects of urban life. Through robust IT connectivity and digitalization, we evaluate the level of technological innovation and digital transformation within the city, adopting emerging technologies and potential future advancements.

Infrastructure: Adequate water supply, assured electricity supply, sanitation, including solid waste management, affordable housing, especially for the poor, Waste to energy, Renewable energy etc.

Governance: E- governance, Safety and security of citizens

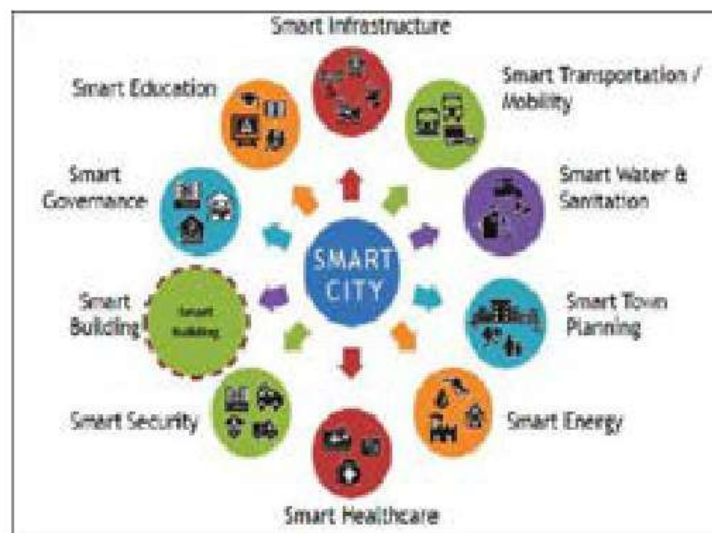
Social Equity: We also need to assess the extent to which smart city initiatives promote social equity and inclusion. Improving access to services for disadvantaged communities or reducing disparities in healthcare and education.

Skilled Manpower: Valuation should include the potential for future growth and innovation within the smart city ecosystem. Presence of Research institutions, start ups, skilled workforce, all contribute to the city's long term competitiveness and value.

We need to evaluate the total investment made in developing smart infrastructure, including transportation, energy systems, water management, telecommunications, and other utilities. This can involve adding up the costs of various projects and initiatives.

Valuation methodology is tailor made to the specific context and objectives of the analysis, considering the unique characteristics. There is no standard formula for valuing a smart city. We need to individually integrate the factors and approaches to provide a comprehensive understanding of its Value

Smart City Evaluation Index models divide a smart city into several dimensions according to the key factors, and evaluate the development of each dimension.



We need to also conduct a comprehensive analysis. Compare the smart city under evaluation with similar projects or cities. This helps in understanding its relative strengths and weaknesses, which is essential for a correct valuation.

Properties in smart cities may command higher prices compared to similar properties in non-smart cities due to the added amenities and technological advancements. Properties with eco-friendly features, such as energy-efficient buildings or proximity to green spaces, may see an increase in value as environmental consciousness grows in importance among homebuyers and investors.

Properties located in areas with advanced smart infrastructure may command a premium due to the added convenience, efficiency, and quality of life associated with smart city living. A premium is added to properties in Smart cities, due to their alignment with sustainability goals. Valuers may need to consider the potential for future growth and appreciation in property values as the city continues to invest in smart infrastructure and attract businesses and residents.



A street view in pilot project of Smart city, Barcelona: Vehicular roads converted into one way and shaded with trees for pedestrian activity.

“The experience adds a huge intangible Value to our Smart Cities.”

While concluding, we understand that valuing a smart city is complex and multi-dimensional. It requires a holistic approach that goes beyond financial metrics to capture its true value to society, the environment, and the economy.