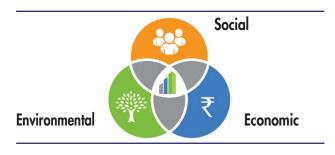# Smart Buildings
are the future

Smart Building Technology: An Overview

According to a recent Memoori report, the Global BACS market is expected to grow at a CAGR of over 11% between 2017 – 2022. The growth potential is huge. In India specially, a booming economy, new building deployments, and customers who are aware of and open to new technology makes it a very promising market and since some smart building solutions are retrofit friendly, existing buildings are also part of this growth pattern. And with the government's interest in smart city projects, this number will most probably increase even further.

This rise in the demand for smart building technology is because we are heading towards a transformation in the commercial building segment. This is long overdue because we are now living in a world where everything is smart and connected through IoT. Buildings have always been thought of as rigid and unintelligent but since the mid 1980's, companies have been focused on making the places we live and work in smarter, more comfortable and sustainable. The result of this is technology that enables a building to aggregate data, make decisions and even prioritize operations based on live feedback and predictive analytics. And this means easier manageability and enhanced occupant comfort.

Against the backdrop of the climate emergency that is gripping nations all over the world, smart building technology is relevant now more then ever. Because apart from the benefits it offers in terms of manageability and a connected ecosystem, it also impacts the environment and the people. Smart building technology does not just make building easier to operate and manage but also impacts a company's triple bottom line, namely – People, Planet and Profits!

Smart Buildings Impact the Triple Bottom Line

As stated by the World Business Council on Sustainable Development, "Companies aiming for sustainability need to perform not against and single, financial bottom line but against the triple bottom line." And smart buildings achieve this by impacting people, profits and the planet.

The Planet

Buildings with smart technology are vastly more energy efficient. Energy efficiency is an area of major concern today as the world struggles to cope with the effects of climate change. Most companies have introduced sustainability goals and mandates to decrease their carbon footprint and smart solutions can help them achieve this, not only in new buildings but in old constructs as well! Smart solutions can help solve issues faced by new buildings as well as old buildings. The result is energy efficient buildings with a vastly reduced carbon footprint compared to buildings without smart technology.

We can deduce from the World Resources Institute's Accelerating Building Efficiency Reportthat improving the efficiency of buildings, particularly reducing their energy

consumption is one of the fastest and most cost-effective ways of reducing carbon emissions and improving local economic development, air quality and public health. And this is especially true for Asia where building sector emissions are expected to significantly rise by 2030.

The People

Studies have established the fact that comfort can impact productivity. According to a study by the World Green Building Council, improved thermal comfort, air quality and lighting can increase productivity by upto 23%! Thermal comfort led to a 10% increase in productivity, efficient lighting led to a 23% increase and better ventilation resulted in a 11% improvement. Optimal comfort translates into productivity and well-being, which means earnings not only from energy efficiency.

Smart buildings are essentially buildings that enrich the occupants' experience by offering convenience, better health, security and comfort all while consuming lesser energy. Occupant comfort could mean managing temperatures, lighting and humidity levels optimally according to individual occupants. Intelligent solutions like 75F's can balance and optimize the environment for the comfort of every occupant in each zone.

Another factor to take into consideration is the fact that the workforce today is dominated by millennials, a generation that is aware and concerned about issues like climate change and the need for sustainability at workplaces. A 2019 report released by Deloitte says that climate change and protecting environment is the top concern for both millennials and Gen Z-ers. The report also notes that they actively seek employers who care for sustainability. Businesses need to make workplaces sustainable to attract the right talent and retain them. And being associated with sustainability ventures such as this adds a lot to the brand image leading to better recall and popularity.

Profits

The energy savings a smart building technology can offer itself leads to a large decrease in utility bills. This is of course directly adding to the company's bottom line. And all types of buildings can become energy efficiency with smart building technology, whether retail chains or hotels. These solutions can be used to make both old and new buildings more energy efficient.

Smart technology also makes buildings 14% less costly to operate than standard buildings and lead to a 7% increase in asset value. These buildings also tend to attract and retain tenants when compared to buildings that are not smart. Adding smart controls to buildings often provides for paybacks of less than five years, and even fewer in many cases. For example, some of 75F's customers enjoyed a RoI of less than 2 years!

Smart solutions bring down operating expenses by reducing the necessity for manual management and control of building systems such as HVAC, Lighting and Security which can be a very time-consuming process for large commercial buildings.

75F's Smart Solutions

75F's self-learning, intuitive building intelligence system is a unique solution that improves a commercialbuilding's Operational Efficiency and Occupant Experience, by proactively controlling the HVAC, Indoor Air Quality (IAQ), and lighting settings based on inputs from sensors, weather data, configuration settings and predictive algorithms.

Broadly, the innovative solution provides commercial building owners with improved energy efficiency, occupant comfort and productivity, indoor air quality management, controls automation, extended equipment lifecycles, and remote management capabilities. Additionally, the predictive solution is equipped with IoT, Machine Learning and cloud-computing data storage and processing power, which is more efficient than standard building controls systems, and doesn't require the CapEx investment for IT infrastructure of data centre equipment, nor the corresponding ongoing OpEx maintenance.

75F provide the entire stack, from the hardware, to the software to the building intelligence systems, to the data analytics to the user interface. Very few players in the market offer predictive, proactive controls that are truly based on cloud-computing & IoT. Others mostly offer legacy on-premise server architecture-based deployments which are straddled with inherent costs, complexity, maintenance and limited life.

Since we launched our operations in India, we have expanded our product portfolio, entered new markets, and have started serving new verticals. Indian facility managers are increasingly becoming energy conscious while at the same time prioritizing occupant comfort and safety. Customers see value in investing in a truly predictive, pro-active and self-learning solution that drives away inefficiencies while increasing their bottom line.

75F today caters to an exciting breed of customers representing large and small enterprises that are looking for more efficiency, comfort and power at their fingertips. With over 1.3 million square feet under management and a happy clientele that includes brands like Firstsource Solutions, Flipkart, Bennett-Coleman Group, L&T Infotech, Shell, HP, ADAMAS Builders, and Mercedes Benz to name a few, we are very optimistic about our continued growth in India. EPC World

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75F