Honeywell

A SMARTER TOMORROW: BUILDINGS. CITIES. LIFE.

About:

- The Honeywell Smart Building Score is a framework used to evaluate the smart capabilities of buildings. The Middle East survey was done in collaboration with market research firm Nielsen and global advisors Ernst & Young
- The study involved an examination of a sample of 620 buildings across seven sectors in seven GCC cities which measure how smart each building and city is
- The seven major cities are Abu Dhabi, Dammam/Dhahran, Doha, Dubai, Jeddah, Riyadh and Kuwait City
- The seven sectors included airports, hospitals, commercial office and residential buildings, hotels, schools and retail
- The study evaluates buildings based on established criteria of what constitutes a smart building: **Green**, **Safe** and **Productive** – These three categories are made up of 15 individual assets that cut across the various functions of the building to present one complete picture.
    - **The green category** looks at a building's use of natural resources, flexible cooling systems, and energy consumption monitoring — all of which impact a facility's environmental footprint and utility costs
    - **The safe category** includes access control, surveillance monitoring, fire systems, emergency communications, and health and life safety systems
    - **The productive category** measures those technologies that help boost productivity, and includes lighting systems, data and communications infrastructure such as wired and wireless networks, and backup electricity systems

Fast Facts:

- 620 buildings
- 4 countries (Kuwait, Qatar, KSA and UAE)
- 7 cities (AD, Dubai, Doha, Dammam, Jeddah, Riyadh, Kuwait City)
- 7 verticals (airports, hotels, hospitals, private offices, education, major retail, high rise residential)
- 3 core smart building evaluation criteria (Green, Safe, Productive)
    - Based on evaluation of 15 assets, each scored against 3 components (asset capability, asset coverage and asset uptime)

City Results:

- **Regional average score of 48/100**

Doha scored **70/100**	**Dubai** scored **65/100**
Abu Dhabi scored **48/100**	**Damman** scored **42/100**

Riyadh scored **41/100**	**Kuwait** scored **38/100**
Jeddah scored **37/100**	

Vertical Findings:

- Airports (80/100) – the highest score
- Hotels (57/100)
- Hospitals (56/100)
- Mall or retail (52/100)
- High-rise residential (45/100)
- Private offices (46/100)
- Education (41/100)
    - Airports led in all three categories – **Green** (69), **Safe** (88) and **Productive** (79). Performance driven by assets (e.g. sophisticated technology and automated fire systems) and effective connectivity solutions
    - The perceived score across all 7 verticals was 30% higher than the actual score
    - High-rise residential buildings showed the biggest discrepancy, while hospitals showed the smallest

Key Findings:

While there are local smart building champions in every city…

- Doha, Dubai and Abu Dhabi currently lead the way for Smart Buildings in the region
- Airports and hotels have the 'smartest' facilities across the verticals **(80 out of 100)**
- **70%** of the surveyed building operators said Safety is their number one priority
- Asset uptime needs to be improved across the region **(68 out of 100)**
- A newer building is not necessarily a 'smarter' building
- Public buildings outperform private buildings in the Middle East
- Clear and properly enforced industry codes (such as Estidama, LEED, GSAS) and regulations help make buildings smarter
- **57%** of buildings surveyed had low connectivity and system integration across subsystems (Airports were an exception, with almost 100% integration)

Proof Points:

- **Green –** Buildings use about 40% of global energy. Green buildings perform better, cost less over their lifetime and make for happier occupants
- **Safe** - People spend 80% to 90% of their time in buildings, hence safety and security are key. Safe buildings protect occupants' safety and health and help prevent hazards
- **Productive** – Up to 11% gain has been reported in employee productivity from improved building ventilation alone, and 23% from improved lighting design