

FM &
PROPERTY

FUTURE TRENDS:

OPERATIONAL RISK, COMPLIANCE & SAFETY

IoT & Interoperability

A Paradigm Shift in Managing & Executing

Digitising the operational function across the physical world has received enormous interest as attention has now turned to facilities and property management organisations looking for new ways of working in pursuit of competitive advantage. Ark Workplace Risk looks beyond the hype to understand the technology development that creates efficiencies and interoperability resulting in real economic value across the value chain.

We are approaching a new era, where facilities organisations will play catch up albeit slowly, with other industries such as retail, where consumer technology has traditionally led. In 2011, Ark Workplace Risk resolved the technology development problem that software platforms had to do more than just the job of data in, data out, and processing. Organisations had to make a paradigm shift in managing and executing to embrace global scale, new business models, and agility while creating real economic value.

Forward thinking senior executives and professionals managing facilities, operational infrastructure and associated supply chain recognise that interoperability between systems and ecosystems, predictive analytics, 360° contextual visibility, real time situational awareness and agility, are the five most ubiquitous aspirations. Stakeholders such as users, tenants, customers and the entirety of the supply chain, now looking to future proof want a new engagement that is as much to do with co-creation and connectivity, as optimisation of governance, risk and compliance. The historic expectation of value enhancement is now being replaced with value creation.

The Internet of Things (IoT) and New Ways of Working (NWoW) have the potential to fundamentally shift the way **“Facility Management and Property Infrastructure (FMPI)”** interacts both mutually and externally with surrounding factors. The ability to monitor, verify, manage and execute across the customer and supply chain digitally, makes it possible to make better and more timely decisions based on data thus simplifying, optimising and connecting the performance of **assets, processes and people**. Research suggests that the potential impact of IoT globally by 2025, inclusive of consumer surplus, is \$3.9 trillion to \$11.1 trillion, essentially covering interactions across retail environments, human, home, offices, factories, worksites, vehicles, cities & outside [source: McKinsey Global Institute (MGI), The Internet of Things: Mapping the value beyond the hype].

Being at the forefront, engaging, advising and partnering with our clients, we can see a trend that the increasingly volatile, uncertain, complex, changing and ambiguous business environment in the next 5-10 years requires FMPI to articulate defined, adaptable and transformative strategies, whilst credibly choosing partner organisations that will enhance their competitiveness and agility. Our team research, live user cases, the positive customer feedback on moving away from legacy technology to accommodate interoperability and efficient ways of collecting, analysing and reporting on data illustrates the value that is being created in business-to-business (B2B) markets across the value chain. One powerful and yet tangible example is turning the data into hindsight, insight & foresight for decision support.

One of the crucial learnings we have gathered from our experience in transformation of operational risk, compliance, safety, quality, sustainability, data analytics and document/data system management solutions in the FMPI market is often focused around rationalising silo-critical systems evolving the idea of **"One Platform Concept"**.

This concept essentially involves engaging both the hardware and software technology elements, to create a highly scalable interoperable, configurable and customisable **"One Platform Solution"** with the embedded ability and robustness to carry out multiple functionalities including **"Plug and Play"** in a seamless way, creating its own ecosystem.

One central outcome of NWoW, is the blurring of boundaries between strategic business decision-making and the procurement of services in areas like FM, IT, business process outsourcing, and corporate real estate.

As a result, the FMPI industry, is in many ways evolving from a single services approach, towards an industry that provides complete **multi-services and integrated Workplace Management solutions and essentially evolving an ecosystem.**

"Optimised Automation" of routine operational work at an advanced rate, whilst rationalising silo-critical systems into a single platform capable of delivering multiple services in a simplified and connected way across the supply chain, will enable a growing number of human jobs to become more creative and focused on research, design, innovation, storytelling, product development, improved customer service, better data and quality management. Thus, employees will be rewarded for their ability to work across many disciplines and professional boundaries, whilst maintaining required competitiveness, and therefore providing opportunities for co-creation.

It is important to note that co-creative processes need new measures and success will be defined more in terms of outcomes achieved and less in terms of input (hours) or output (amount produced or number of sales). Outcomes are defined as meaningful changes, usually betterments, which do not always directly result from specific inputs or outputs, but are aligned with an overarching organisational vision. The idea is to get the best out of employees (talent), rather than the most out of employees (effectiveness). Therefore, any automation system that can connect "People, Processes and Assets" in a way which enables organisations to set the direction and allow employees to pursue respective outcomes, by any measure of inputs or outputs deemed necessary internally or externally for their customers will be more competitive.

Estimates from MGI suggest that operational improvements based on IoT technology could be worth \$50 billion to \$470 billion per year across worksite industries in 2025. This research supports our experience in implementing multi-services IoT enabled automation, highlighting that the bulk of the operational improvements would come from streamlining processes across worksites, whether office or field based. MGI case studies indicate that operational optimisation can increase overall worksite productivity by 5 to 10 percent, in addition to cost savings (**an efficient way to connect people, processes and assets**).

The highlighted benefit of IoT technology, is the development of mobile enterprise platforms, allowing worksite operators to move away from paper based solutions, to using a mobile platform (offline and online) to carry out day to day operations, whilst keeping in complete sync with their central team on real time basis. This provides greater control over operations, better quality of data, fewer errors, improved defensibility, a reduction in risk and increased productivity. Additional benefits from IoT also include allowing organisations to increase predictability, thus improving effectiveness and productivity across all stages of the supply chain and value chain processes.

In other environments such as retail, physical spaces where consumers traditionally engage in commerce, range from stores, to bank branches, theatres, sporting arenas or large shopping centers (where the footfall can be in multi-millions over a week) digitisation has brought in drastic changes over the last 5-10 years. IoT can further be disruptive if implemented at the grass root where day-to-day operations can be made competitive with simplified execution tools both for vendors and customers.

Traditionally, due to lower margins and volatile sales, retail enterprises have been highly fragmented in implementing latest technologies. However, we see a rise even amongst smaller retailers with the adoption of IoT very specifically, for example in the world of payments, safety & loss-prevention, and inventory control systems. This adoption of IoT has significantly increased performance while depicting substantial reduction in loss from theft, **increased productivity** in staff members and **customer satisfaction** resulting in **profitable margins**.

Using real time data to manage IoT systems across different worksites, suggests the need of interoperability. Ark Workplace Risk's QUOODA® Enterprise Software Platform, is one of the most advanced interoperable systems enabling dashboards optimised for smartphones, advanced algorithms for real-time optimisation and multiple services connectivity on a single platform.

The cross-vertical application of QUOODA® having a business/algorithmic intervention as a platform that is robust, scalable, and integratable to other systems is one of the most adaptable and cost-effective solutions to be implemented.

We believe that FMPI organisations that are moving towards adopting IoT-Interoperable and multi-services systems, would not only save cost by rationalising multiple-silo systems, but now can also have first mover advantage and remain competitive given the changing market requirements. This enables such organisations to continually improve operations, reduce risk, gather greater foresight and drive data driven decision support, while creating real economic value.

Nelson Sam

President & Chief Operating Officer
Ark Workplace Risk