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The integration of the processes of the facility management service provider with those of the demand organization to manage the demand organization's sustainability profile in order to achieve the strategic goals and objectives of the sustainable facility

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Outline

- Learn about the FM market trends
- FM integration in the building design
- Describe the challenges facing FM outsourcing industry
- Build a model to integrate the processes for sustainability development and FM outsourcing within built environment



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Market Size

Global Market Insight

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Facility Management Market size valued at USD 1 trillion in 2022 and is predicted to grow at more than 13% CAGR between 2023 and 2032, on account of rapid modernization and increasing infrastructure development projects.



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Market Size

- Growth Drivers:**
- Rapidly growing tourism and hospitality sectors
 - Supportive government initiatives for the development of smart cities and business hubs
 - Rising demand for value-added services
 - Growing investments in the construction sector
 - Necessity to comply with environmental and regulatory norms
 - Inclination toward virtual workplace and personalized services



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Market Size

The global facility management was sized at over 1.1 trillion U.S. dollars in 2017, with Asia Pacific being the biggest market.

Project management and waste management operations are the most outsourced processes to third-party service providers.

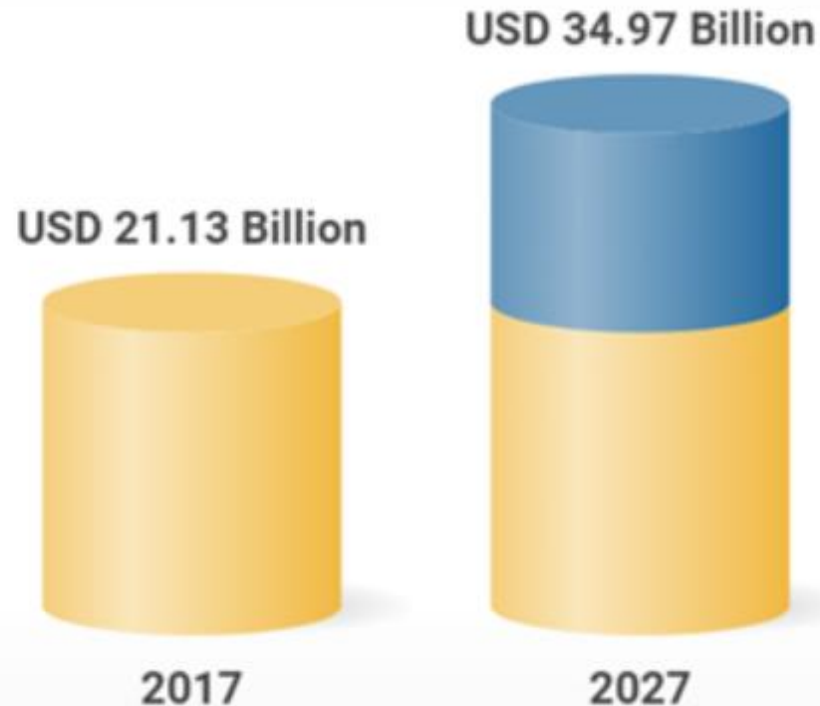
In 2017, outsourcing facility management was worth almost 548 billion U.S. dollars (50% of FM market size).



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Saudi Arabia FM Market

Market forecast to grow at a CAGR of 5.2%





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Facility Management

The International Organization for Standardization (ISO)



Defines Facility Management as the "organizational function which integrates people, place and process within the built environment with the purpose of improving the quality of life of people and the productivity of the core business."



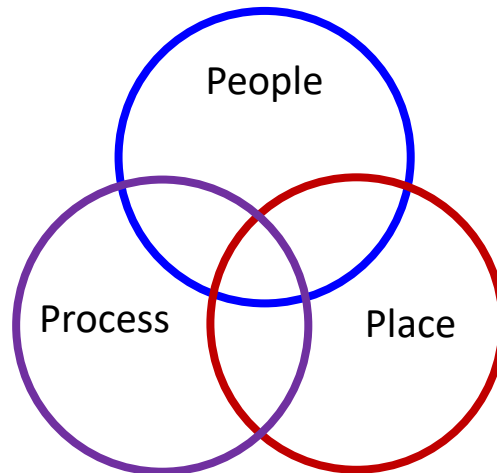
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Facility Management

The International Organization for Standardization (ISO)



Facility
Management





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Saudi Arabia FM Market

Facility Management in Building Design Integration

Building design in Saudi Arabia is increasingly taking facility management into account:

1- Architects are asked to create straightforward structures that will be easy to maintain over time.



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Saudi Arabia FM Market

Facility Management in Building Design Integration

Building design in Saudi Arabia is increasingly taking facility management into account:

2- Facility managers are approached for input on lifespan cost estimates, landscaping, alarm and fire systems, and best practices for project area utilization



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Facility Management in Building Design Integration

Building design in Saudi Arabia is increasingly taking facility management into account:

3- Owners can manage and control the facility with the least amount of disruption due to the seamless organization as a result of facility management integration.



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Saudi Arabia FM Market

Facility Management in Building Design Integration

Consequently, the building's overall life will be prolonged, and the Saudi Arabia Facility Management Market will grow.



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Saudi Arabia FM Market

Increasing Attention to Sustainability



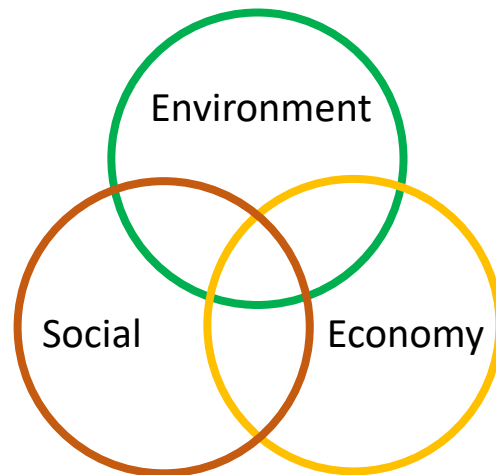


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Saudi Arabia FM Market

Increasing Attention to Sustainability

Sustainability
Development





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Saudi Arabia FM Market

Increasing Attention to Sustainability

To ensure the nation's long-term development, Saudi Arabia has started to promote environmentally friendly solutions to reduce energy use and limit greenhouse gas emissions.

Saudi Arabia wants to promote the building of green structures as a result.



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Saudi Arabia FM Market

Increasing Attention to Sustainability

The Saudi Arabia's government has contributed significantly to the nation's green-building culture.

With the aid of facility management experts, it should be simple to implement the smart building solutions that are expressly required by the LEED certification in the project design.



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Saudi Arabia FM Market

Increasing Attention to Sustainability

Adapting sustainability in projects requires skilled and experienced executives for developing compliance

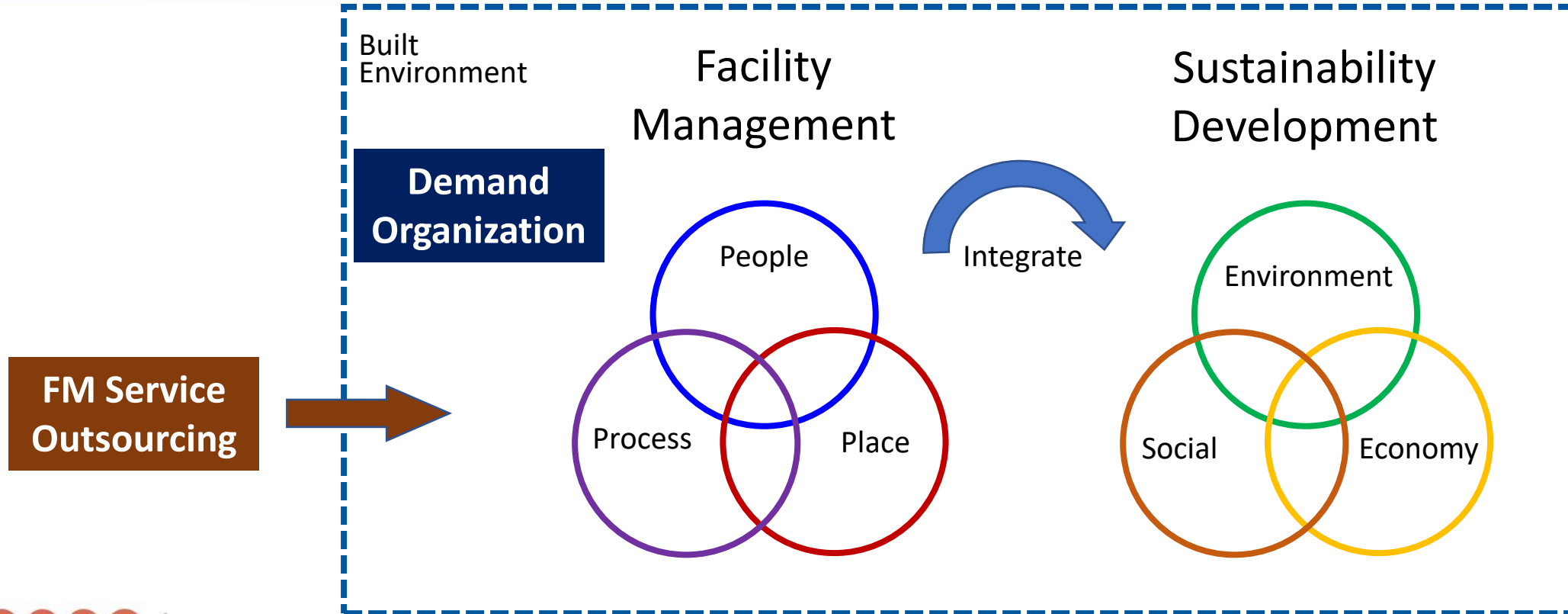


Big businesses prefer to have their properties managed and maintained by facility management companies.



The facility management market is predicted to grow as a result of these anticipated transformations.

FM Service Outsourcing



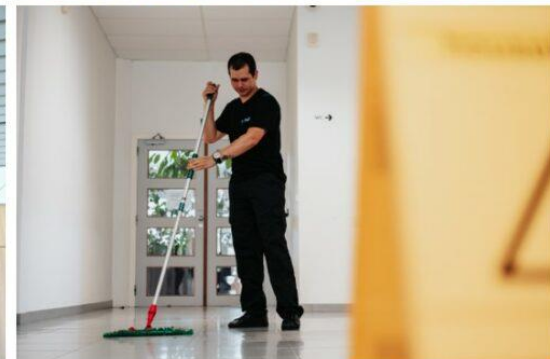


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Saudi Arabia FM Market

Growing Attention to FM Outsourcing

What are the market drivers for the growing attention to FM outsourcing?





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Saudi Arabia FM Market

Growing Attention to FM Outsourcing

1- The growing corporate sector competition and a desire to concentrate on core competencies.



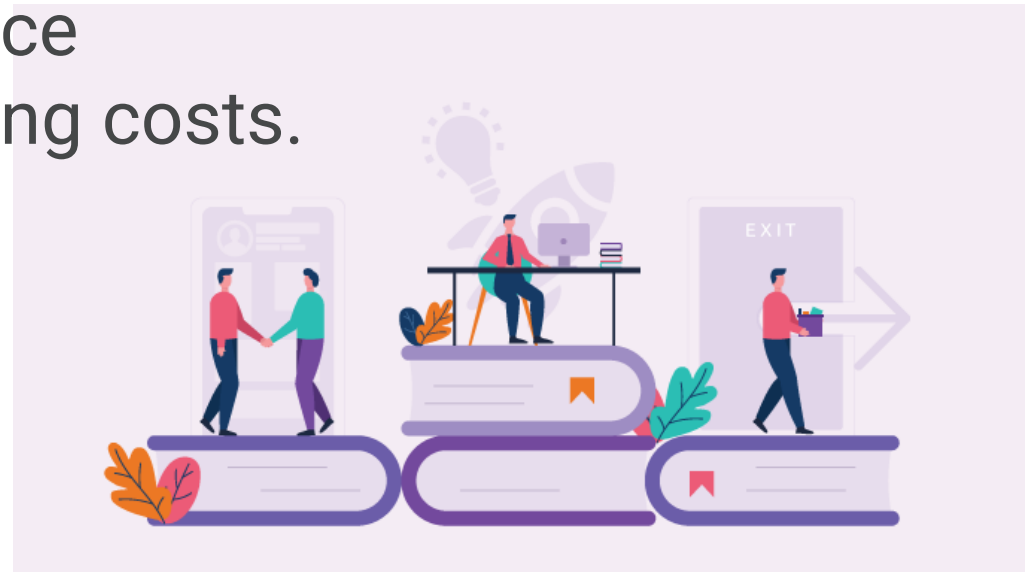


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Saudi Arabia FM Market

Growing Attention to FM Outsourcing

2- The need for elevated workplace experiences and reduced operating costs.





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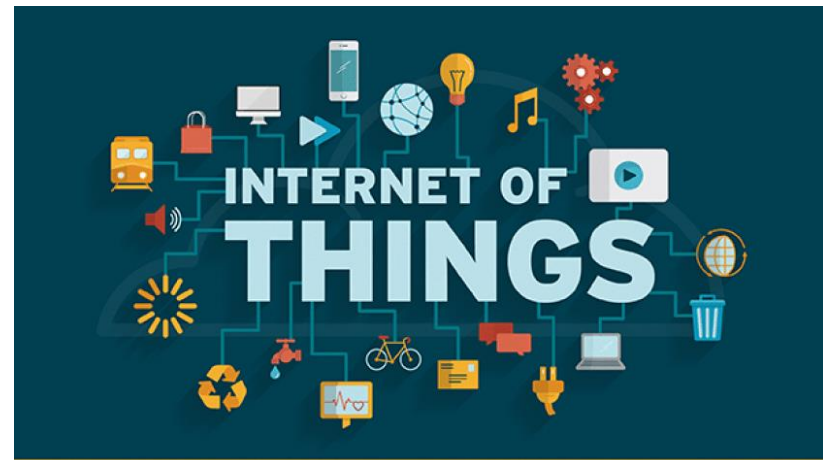
Saudi Arabia FM Market

Growing Attention to FM Outsourcing

3- The Booming Market for the Internet of things (IoT)

IoT-powered intelligent infrastructure:

- Enhance service delivery.
- Save high cost.
- Increase efficiency





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Saudi Arabia FM Market

Growing Attention to FM Outsourcing

3- The Booming Market for the Internet of things (IoT)

These data-driven strategies, supported by network connections and linked devices, are anticipated to grow in popularity in the facilities management industry.



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Growing Attention to FM Outsourcing

4- Growing demand for Soft FM Services

Soft services under facilities management include cleaning and sanitization services, security management, catering, and landscaping services.





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Saudi Arabia FM Market

Growing Attention to FM Outsourcing

4- Growing demand for Soft FM Services

- Soft services provide a mix of different elements, such as people, materials, tools and equipment, and technology.
- Proper handling of soft services increase workplace productivity.



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FM Service Outsourcing

What are the direct and indirect
benefits of outsourcing FM service?



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Saudi Arabia FM Market

Growing Attention to FM Outsourcing

Advantages of outsourcing:

- Decrease the expense of commercial space,
- Enhance the lifespan of plants and equipment,
- Reduce the energy consumption,
- Improve the technical maintenance efficiency
- Reduce the head count



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FM Service Outsourcing

What are the challenges facing FM service providers when managing the demand organization's sustainability objectives?



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FM Service Outsourcing

- Lack of understanding the demand organization's mission, vision and strategic objectives.
- Lack of clear and effective communication among team members for both the demand organization and service provider.
- Lack of utilizing the innovative technologies like BIM, or IoT ecosystem in their services.
- Lack of capability to interpret data and translate them into useful decisions.



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FM Service Outsourcing

What is the best model to integrate the processes for sustainability and FM service outsourcing within built environment?



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FM Service Outsourcing

Haugen and Klungseth [4] reported that since its conception, FM has focused on productivity, and, from the late 1980s, one major subject for discussion has been the efficiency of FM services related to their quality

FM Service Outsourcing

FM focuses on the balance...

Efficiency

- Cost optimization
- Workforce

Effectiveness

- Customer satisfaction
- Service quality





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FM Service Outsourcing

It is indicated in the literature that the effectiveness and efficiency of FM outsourcing services affect productivity in offices.

Poor accountability and responsibilities of FM outsource providers are taken, and poor productivity of the client can be observed [5]



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FM Service Outsourcing

Fleming [6] suggests the need to measure:

- User satisfaction,
- User comfort and,
- User productivity



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FM Service Outsourcing

Measurement of efficiency of FM outsourcing is necessary for continuous improvement.



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FM Service Outsourcing

Developing performance metrics like workplace productivity is an important step in the process of performance evaluation, as it includes relevant indicators that express the performance of the facility in a holistic manner.



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FM Service Outsourcing

Cable and Davis [15] indicates the cause and effect between key performance indicators and high-quality service performance.

The quality of FM outsourcing services can directly connect with established KPIs



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FM Service Outsourcing

FM outsourcing services can be assessed by the measurement of productivity KPI

$$\text{Productivity} = \frac{\text{output (produced goods and services)}}{\text{input (consumed resources)}}$$



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$$\text{Productivity} = \frac{\text{output (produced goods and services)}}{\text{input (consumed resources)}}$$


How to increase the productivity?



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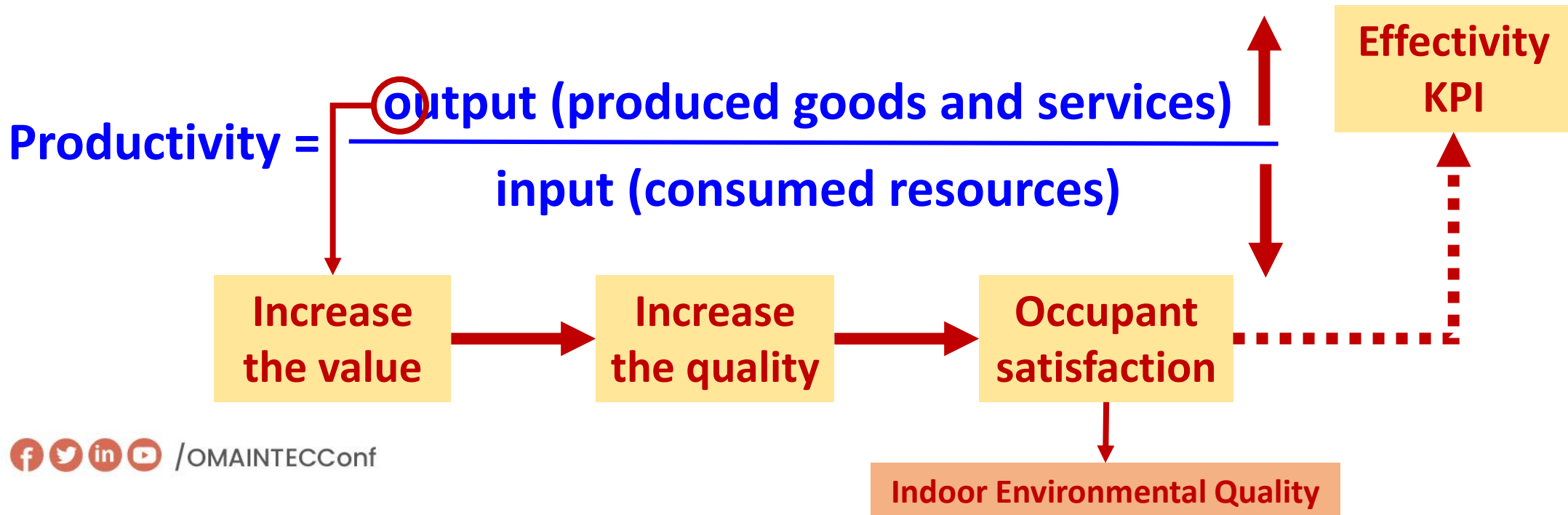
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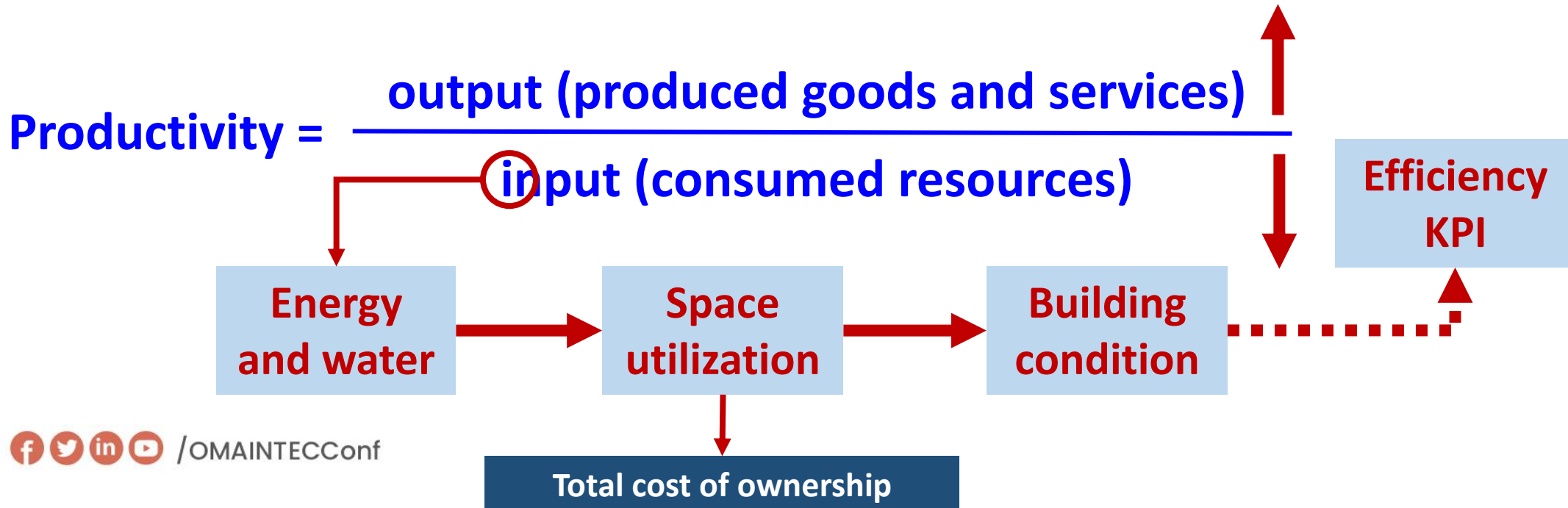
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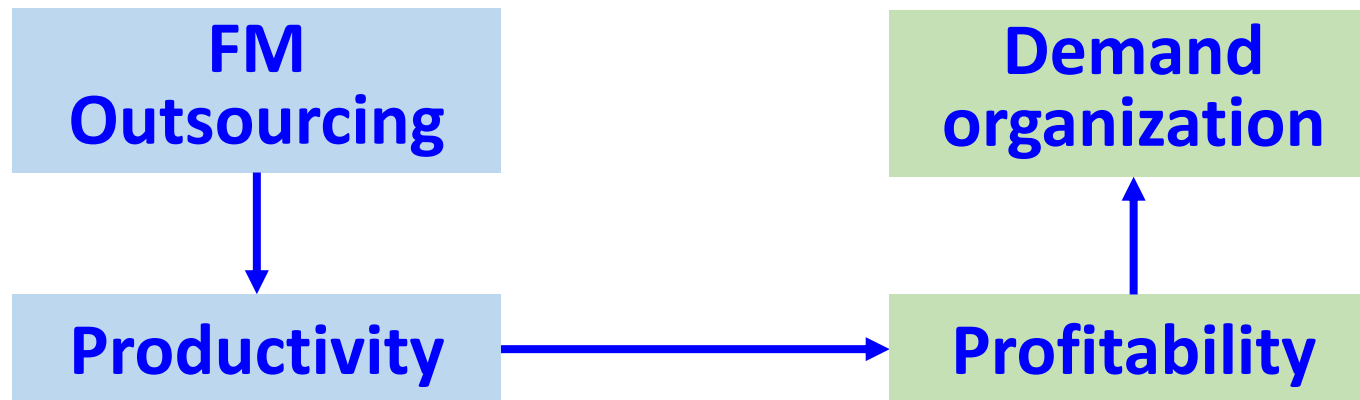




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FM Service Outsourcing

FM outsourcing services can be assessed by the measurement of productivity KPI

FM outsourcing services (building maintenance, cleaning, and careering) are the main contract types that are outsourced by various building assets around the world.

Therefore, they impact sustainable development objectives through the three strands of sustainable development (environmental, social and economic).



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FM Service Outsourcing

FM outsourcing services can be assessed by the measurement of productivity KPI

Environmental aspects

confine human activity within the carrying capacity of the ecosystem (such as materials, energy, land and water) prevailing in the locality and places emphasis on the quality of human life (air quality, human health).



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FM Service Outsourcing

FM outsourcing services can be assessed by the measurement of productivity KPI

Economic aspects

consider efficient use of resources to enhance operational profit and maximize market value.

Furthermore, they deal with substituting natural for manmade resources, reusing and recycling.



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FM Service Outsourcing

FM outsourcing services can be assessed by the measurement of productivity KPI

Social aspects

focus on social wellbeing of the occupants, balancing the needs of individuals with the needs of the group (equity), public awareness and cohesion, and participation and utilization of local labour and firms.



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FM Service Outsourcing

Lok et al. [47] observed and discovered the critical success factors for outsourcing strategies from the second round of the Delphi study at the sector of service providers, including:

- co-ordination between the facilities manager and functional units on the operational level,
- core skills of facilities managers (e.g., innovative thinking, listening and negotiating capacities, etc.),
- procurement strategies (i.e., details in contract administration),
- measurement on performance (i.e., assessment on service providers),
- allocation of human resources (i.e., senior management to junior),
- FM practice and whole life cycle processes,
- cost-effectiveness (i.e., productivity),
- value of customers satisfaction,
- resource sharing among people,
- budget,
- information and organization structure.



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FM Service Outsourcing

FM outsourcing services can be assessed by the measurement of productivity KPI

FM
Outsourcing



Productivity

Create KPI's

Each KPI has a real number and percentage of the:

- Minimum requirements, benchmarking, or base values
- Identify weight for each item/value within the same KPI
- Add score for innovative solutions
- Set the minimum acceptable KPI values



FM Service Outsourcing

FM outsourcing services can be assessed by the measurement of productivity KPI



FM Outsourcing KPI (quantifiable)	Sustainability Development		
	Social	Envirmnt	Economy
Availability of their own equipment, tools, and machinery		X	X
Availability of professional knowledge of built environment	X		
Capability to meet due-dates set by demand organization			X
Capability to solve pending issues and occupant complaints	X		X
Capability to support demand organization's strategic objectives	X	X	X
Consumption of utility resources; energy and water		X	X



FM Service Outsourcing

FM outsourcing services can be assessed by the measurement of productivity KPI



FM Outsourcing KPI (quantifiable)	Evaluation		
	Min Score	FM score	Pass/Fail
Availability of their own equipment, tools, and machinery			
Availability of professional knowledge of built environment			
Capability to meet due-dates set by demand organization			
Capability to solve pending issues and occupant complaints			
Capability to support demand organization's strategic objectives			
Consumption of utility resources; energy and water			



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