

# ROI - The Driving Force for IIOT Investments

## Introduction

The Internet of Things (IoT) is increasingly described as the next multi-trillion-dollar opportunity and the solution to many business problems. McKinsey Global Institute predicts that the potential economic impact of IoT will be \$4 trillion to \$11 trillion a year by 2025.

With implementation of IoT solutions industries are getting smarter however for any of the project is considered to be successful if it should provide adequate returns on the investment that is done. Also, after completing the project the desired objective should get satisfy such as value addition, transparency, performance improvement, scaling, security and many more.

There can be multi fold objectives behind a IoT project and should only be judge after completion of the project however most of time while implementing IoT project it become dilemma situation when it comes to evaluating the ROI this is due to fact that once the primary objective are fulfilled by the project there can be demand raise to fulfil the secondary objectives which often lags behind the desired goals due to which most of time project is considered to be unsuccessful. Often such situation is because of unclear and non-prioritised objectives. Also, due to fact that there's are no thumb rules or guidelines available to evaluating potential return on investment (ROI) for IoT project since for different business scenario the IoT solution differ in multiple aspects such as use of technology, availability of resources, connectivity desired and deployment strategies which affect the overall budget of the projects and hence expected returns also varies.

## IoT Solution Value Measurement Metrics

- |   |  |
|---|--|
| <input type="checkbox"/> Increased revenue              | <input type="checkbox"/> Quicker time to market                |
| <input type="checkbox"/> Reduced downtime               | <input type="checkbox"/> Least customer service response times |
| <input type="checkbox"/> Lower operation costs          | <input type="checkbox"/> Improved visibility                   |
| <input type="checkbox"/> Increase productivity          | <input type="checkbox"/> Efficient understanding of equipment  |
| <input type="checkbox"/> Streamlined business processes | <input type="checkbox"/> usages                                |

## Investment: Traditional IT Vs IoT

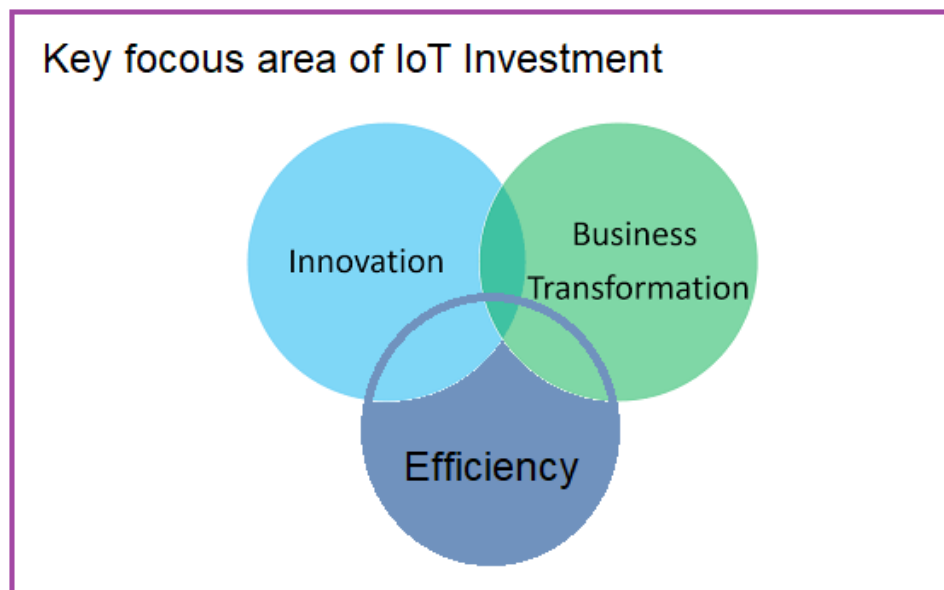
Mostly traditional IT investment fall into the category of CAPEX model however for IoT CAPEX and well as OPEX model works it depending upon business case and investment decisions of the stakeholders.

IoT can bring business transformation and involve multiple technology expertise such as Information technology, process technology and operational technologies for its implementation, however most organizations don't have the staff with deep understating of these technologies and hence they look towards third parties support. Often third-party IoT players and their solutions add to the confusion. Each one seems to have a strength in one or two of the areas mentioned above and approaches IoT from this perspective. Their solutions showcase their strengths but fails to scaling or integrating with other platforms or products.

## Identifying Focus area of IoT investment

There can be multiple objectives but primary goal must be unique to fulfil the desired business objective. For example, what problem you are trying to solve or what opportunity you are trying to tapped. Are you trying to cut costs? Increase revenue? Expand service offerings? New business line?

Every objective should be unique by means it should have unique starting points and end goals. Each objective bounded with desired cost and risks which helps to project the overall cost and associated risks of the project. This helps the stakeholder to prioritise the objectives as per the desired goals ensuring the benefits obtained from proposed solution.



## Practical approach of implementation IoT solution

IoT solutions can fundamentally improve core business processes with capabilities to bring business transformation, obtaining high-level benefits and long-term projections brings transparency and help to plan future policy development which can justify the IoT solutions.

### Invest in phases to improve ROI

Best approach of IoT investments are phased investments that can minimize risk. Phases enable you to adjust and refine a small-scale deployment before expanding out across your business. They also reduce the risk of realizing an error, anomaly, or unforeseen issue in full production and having to rework every connection and integration point.

#### a. POC Stage

At this stage you can pick a small target from your business case and work to deploy a proof of concept (POC). It may include only few devices which can detect and address issues which helps you while going for scaling.

#### b. Scaling & Production Stage

Once proof of concept or pilot is successful and we achieve the target business outcome. The next step in progress is scaling here we often more noticeable to as cost savings from the solution, such as reduced equipment failure or lower fuel consumption, start offsetting the earlier investments. once the solution is rolled out into production, tuning can be to achieve higher ROI.

## Evaluating Unbiased ROI

Calculating ROI for an IoT solution includes not only initial cost and savings calculations but also the new opportunities available from the connected solution. With proper justification we can track the ROIs and judge with them against investments.

## Hidden Factors for IoT investment

Most of time stakeholder compare the potential savings to the cost of planning, purchasing, and configuring, but there are other factors which can impact the investment directly or indirectly need to be considered, including:

### □ **Implementation downtime expenses**

Many times, while installing new devices or retooling a plant floor require to hold on with production, increases in down time, involve outages and revenue losses

### □ **Retrofitting expenses**

Not all machines can be directly connected to an IoT solution, and retrofitting existing machines can generate extensive costs. In most of old SPM or silos system do not have connection capabilities and hence for such machine replacing existing with new one is best option rather than trying to retrofitting the old ones.

### □ **Consulting expenses.**

Mostly IoT solutioning require integration with multiple technologies such as PT, OT and IT every industry who want to go for IoT solution may not have the adequate skills to execute the IoT solution successfully in house hence they will look for partner who can be part of their entire IoT journey. Which will add charge for implementation and ongoing consulting services.

### □ **Platform expenses.**

Any IoT solution has the ongoing cost of paying for the data storage, processing, and analytics involved. e each vendor may use a different pricing model—some offer a fixed-price subscription while others charge a metered price for each service or no of machines connected to the system. The company pays a monthly fixed price, which includes both the use of the platform and the partner's consulting services.

### □ **Ongoing operational expenses.**

IoT solutions often reduce overall operating expenses, but they also add operating expenses of their own. IoT enabled devices and sensors all require a power supply and Wi-Fi, cellular, or other forms of connection; each of these increases the operating costs. There are also ongoing costs for operating, maintaining, and updating the solution itself.

### □ **Security expenses.**

Connected devices need security to ensure the integrity of the data and prevent unauthorized access to devices.

## Conclusion

IoT implementation involves multiple expertise and complexity. However, there can be simple steps to begin and address the desired goal as per the predefined priorities. Thus, prior understanding of ROI and business benefits outcomes from it simplifies ROI evaluation considerably whereas phased approach of implementation ensure the transparency to the stakeholders.



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