Ubisense

A Lost Year for IoT in Manufacturing:

THE HARD WORK BEGINS NOW

March 2021

Whitepaper

Contents:

Methodology

On behalf of Ubisense, Arlington Research conducted an online survey in the UK, the USA, France and Germany, among a total respondent base of 300 respondents, all working as middle managers, directors or a higher level in their organisation. All respondents work in business transformation, operations, logistics, quality or IT connected to the manufacturing or assembly process in organisations.

Arlington Research

Introduction

Following a year in which companies were expected to achieve more with less, you would have expected digitisation to be high on the agenda of manufacturers. And yet, the solution that – for so long – was touted to deliver a step-change in productivity, largely went unnoticed at its time of greatest need.

IoT – more specifically IIoT (Industrial Internet of Things) in manufacturing – has been a foremost buzzword for some time now. Yet, in the industrial realm, its adoption hasn't gained traction in the same way as it has among consumer items and devices. Even so, it has always been a case of 'when' and not 'if' for the majority of operators. We explored this perceived inevitability in last year's report: 'Is it worth it? Finding the value of IoT in manufacturing'.

Before COVID-19, even if many were yet to reach adoption stage, there was still a sense of IoT becoming a 'must have' element of most enterprises' digital transformation journeys.

In theory, an event such as COVID could and should have been the catalyst for accelerated adoption. Rather, what we have seen, at the very least, is a year-on-year stall for the industrial internet of things. Perhaps a deceleration, or even worse, a regression.

It would be understandable if this regression was in relation to adoption alone, with 2020 being such a disruptive and uncertain year. Yet, for most assessed regions, both adoption and *intention* have waned amid growing mistrust and misunderstanding about IoT: the value or ROI it can provide; the aspects of manufacturing assembly that could be improved by its usage; and the future role it could play in their business.

Whether this has derived from a year of general uncertainty around investment, or whether it's a more concerning symptom of IoT fatigue, the onus is on service providers to recalibrate and reengage.

This whitepaper will discuss how the past year was a missed opportunity for IoT adoption, the – still valid and significant - benefits that have been missed, and why there is still time to reignite IoT in manufacturing.

Ubisense addresses these **five common challenges** found in every manual process where traditional IoT fails to capture relevant real-time data

Location

Items or people existing in the wrong place

Interaction

Assets or people connecting in certain areas incorrectly

Count

Too few or too many people or assets in a specific area

Time

Tasks taking too long or not long enough for their purpose

Sequence

Tasks being conducted out of optimum order

Key findings:

- IoT's benefits were overlooked despite **63%** of businesses having to run at lower capacity over the past year, and a similar figure experiencing a reduction in productivity

- Only **63%** of manufacturers now believe that IoT can reduce manufacturing cycle time, compared to **70%** in 2020

- However, reduced cycle time is still the most prominent way to extract value from IoT according to respondents that have adopted it, and almost three-quarters (**74%**) say that improved cycle times would be a competitive advantage. Successful use cases can be found among those that have made the connection

- Almost half (**46%**) of manufacturers believe they are being left behind when peers roll out IoT

- But the number of companies that don't understand the value of IoT has risen from **29-43%** year on year

- More than one-third (**40%**) also don't know how to get started with IoT, compared to **31%** last year

- Almost three-quarters (**69%**) of companies have at least one concern about the prospective value of IoT to their organisation

- All listed concerns relating to IoT rose year on year, including it being a waste of money (up from **10-14%**, IoT not being relevant (**18-21%**) and experiencing poor ROI from IoT (**16-19%**)

A lost year for IoT

Having battled through what many will have experienced to be their most challenging year as a business, much has been made of the balance between investment and safeguarding. Amid an instinct to hunker down, protect assets, wait out the storm and rebuild in its aftermath, the reality has been different for most.

Instead, companies have had to become more innovative and creative to generate efficiencies, and to achieve more with fewer resources. In this context, what 2020 should really have been was an opportunity – a chance for manufacturers to introspect on their assembly processes in the same way they will have undoubtedly done regarding human resource or administration. IoT would have afforded the requisite levels of innovation, efficiency and automation to offset challenges that were quite clearly evident.

From our research, we found that only **18%** of companies across the UK, France, Germany and the US didn't have to cease production at all last year. Meanwhile, almost two-thirds (**63%**) had to run at lower capacity over the course of the year, and **62%** witnessed a reduction in productivity. Amid this chaos, a general lack of understanding about what can either cause or fix such substantial downtimes was brought to light. As many as **42%** admitted this year that they don't know why manufacturing processes take longer than expected – a figure which rises to exactly half in the UK, and that is substantially higher than a year previously.

It would be easy to lay this blame at the doors of the manufacturers themselves. It was a lost year for them in terms of missing out on a potential problem solver. However, in grander industry terms, it was a year of failure for IoT as a trend, a tool and a market.

Traditionally, the IoT industry's biggest selling point has been how it can reduce cycle times and downtime, but **7%** fewer companies believed this to be an advantage this year, compared to 2020 (down from **70%** to **63%**). With this in mind, service providers have seemingly failed to translate a concept they understand, into practical and appealing opportunities for manufacturers.

Further evidence of this failure can be found in the ratio between 'considering IoT' (**42%**), to 'implementing it for less than a year' (**22/23%**), to 'implementing it for more than a year' (**21%**), which is almost exactly the same as last year. This suggests that it remains a question of 'if' rather than 'when' for IoT, even in spite of manufacturers' tumultuous year.

A final indictment of this 'year that could have been' is the balance of concerns and benefits when considering IoT. Only **30%** have no concerns at all about the correlation of IoT and value, **11%** fewer than last year. While awareness of IoT's benefits has also gone down by between **5** and **15%** across notions of improved automation (**55%** down to **41%**), better planning (**54%** down to **40%**) and for predictive equipment maintenance (**48%** down to **36%**).

What should have been 12 months of booming IoT deployments to swoop in and save the day, transpired as a regression in understanding, uptake and belief in the solution's powers. Was the messaging wrong, and has the value of IoT been communicated strongly enough?

Re-explaining IoT

At first glance, all seems well with the IoT world; almost three-quarters (**74%**) continue to agree improved cycle times would provide competitive advantage. However fewer companies now believe IoT can deliver that outcome.

The answer to this question of whether IoT's messaging problem is terminal or COVID-induced can be explored by where these misunderstandings are currently taking place. Largely, it seems to revolve around the actual benefits that IoT brings. In theory this explains why so many were reluctant to invest at a time when they seemed to need such a solution most critically. On a positive note, it also means that IoT has another chance to reinvent its messaging and to re-engage with the debate. After all, enterprises seem to be disillusioned with the discussion; rather than understanding it and then rejecting.

In order to reverse this trend and to rebuild the bridge, it's firstly important to understand the pressure points which have begun knocking it down in the first place. At first glance, all seems well with the world, as almost three-quarters (**74%**) continue to agree that improved cycle times would be a competitive advantage. An early win for IoT in theory, but that soon gets overhauled by companies failing to make the connection between IoT and this advantage.

Indeed, **10%** fewer companies (**76%**, down from **86%** last year) now believe IoT would give them the competitive advantage of improved cycle times, compared to 2020. A further **59%** also don't realise that IoT can be used to monitor process flows, while more than two-thirds (**67%**) had similar doubts about IoT's role in reducing energy consumption. Ultimately, this concludes with **42%** now believing that IoT wouldn't provide a good return on investment (compared to just under one-third last year).

Inevitably, any product's success hinges on its perceived value. And when **38%** globally (and staggeringly, **54%** in the UK) no longer believe they would get value from IoT investment, the chain from misunderstanding to non-investment is clear.

What these parameters do show is where the industry can reclaim customer trust, however. A huge positive to come out of 2020 is that any messaging gaps have been accelerated into consciousness, and issues that may have crept more gradually over time, can now be rectified sooner. The onus, to this end, isn't on enterprises to blindly renege on their current doubts, but for service providers to re-establish the connection between aspects of improved cycle times, less downtime, improved productivity and a stronger energy record... with IoT.

A second chance to begin your IoT journey

Because of this aforementioned fork in the road where both enterprises and providers have realised the disconnect that exists, we now enter a situation where industry can reinvent the internet of things narrative.

It is especially important to kickstart this trajectory sooner rather than later so that disillusion doesn't become complete disinterest. We don't seem to be at that stage yet, though. Almost half of companies (**46%**) still believe they are being left behind when peers roll out IoT solutions. This suggests two things: one, that they are still interested in the concept of IoT even if the understanding isn't where it should be; and two, that they may be avoiding IoT investment because they fear they've missed the boat already, or they may be using the excuse of 'it's already advanced beyond me' as a reason not to invest now.

This latter notion is supported by figures around the initiation of an IoT-based strategy. In **40%** of cases, companies still don't know how to get started with IoT. This is a rise of **9%** from last year, to reiterate that the issue might not just be around understanding the benefits. With a trend that has been 'burgeoning' for so long, enterprises that are yet to adopt it may be looking around them thinking it is too late, and still with no real idea about how to catch up. So instead, they put it in the 'later' pile and move on to other focuses.

Issues around the awareness of IoT's value (**69%** having at least one concern about the prospective value of the solution for their organisation), is being compounded by a feeling that they've already been left behind; to the point where it all seems to have passed them by.

Again, oddly, this presents a golden opportunity for IoT over the coming year. Message one has to be that you haven't fallen behind at all. IoT has not passed you by. Based on this past year's statistics, the conversion from intention to adoption is similar, while most have set aside the thought of IoT amid COVID challenges. If anything, those that are yet to properly explore the potential role of IoT in their organisation are in the majority group, and therefore still face the same opportunity as they did when the solution first came into the industrial lexicon.

What needs to be conveyed moving forward is that, while you may not have fallen behind yet, to continue in this vein of ignoring, fearing or offsetting IoT would cause you to fall behind soon. This lost year has presented a second chance for manufacturers, but they can't rely on being afforded a third.

2020 may have lost the vision but delivered the hindsight: it's time to act now

Just as was predicted upon the advent of IoT, there will be a tipping point that occurs sooner rather than later. The benefits of its usage in manufacturing assembly processes are such that those who explore and embrace them will soon start outperforming those that don't. Reduced cycle times and heightened productivity alone pinpoint key market differentiators, without digging deeper into levels of efficiency, sustainability, reputation and automation that can be achieved.

The past year has given both the IoT industry and its prospective customers a free pass, regardless of how much of a missed opportunity it was. But now is the time to ponder the longevity of this trend. Is it specifically IoT that they're wary of or, after such an anomaly year, are enterprises fearful of investments, full stop? Discovering whether IoT fatigue has set in, or whether the trend is simply suffering from 'long COVID' will help to guide providers' approaches moving forward.

The current form of promotion is inadvertently hurting IT. **The concept that IoT remains on the digital horizon is wrong. It can absolutely impact companies' operations today**.

2021 represents a potential rebound year where organisations can realise how pivotal IoT could be to guide them out of this tough period. This requires a back-to-basics approach – not more hype, potential or future promises. It is clear from this year's results that fanciful and futuristic visions of a tech-driven future aren't necessarily resonating directly with manufacturers, who have to ask themselves significant questions about digital readiness and internal capability every time they see a futuristic looking AR headset depicted in fictional workplace scenarios. This form of promotion is inadvertently transforming the idea of IoT from a concept that can absolutely impact companies' operations today, to something that still remains on the digital horizon. Simply, the messaging is wrong.

The areas of assembly that can be improved by IoT are real, recurring and applicable – the solution addresses notions of location, timing, volumes, sequences and interactions that already present familiar challenges. By presenting IoT as a proven and bespoke asset, rather than a hypothetical buzzword, not only can the market revive its appeal after a lost year, but manufacturers can soon begin reaping the value from it that they so desperately need after an equally difficult 12 months.