The costly effects of machine downtime for UK industries

Across the UK, no matter what industry you company specialises in, machine downtime can have a major impact on your business. If you're not prepared, technical errors in your appliances can bring significant costs to your productivity and impact your business's profit margin.

However, if these possibilities were managed effectively, then it could help boost the UK economy which couldn't come at such a crucial time, as we're still experiencing the uncertainties of Brexit. But what is the true impact of machine downtime in UK industry and what solutions are available?

Machine Downtime in Britain

Machine downtime can come at such an unpredictable time and causes all the manufacturing processes in your company to stop. With growing consumerism creating higher demand for products, fast and efficient machine procedures are critical to a firm's success. But does the impact of machine downtime differ by industry?

While the global automotive industry, experienced costs of £17,000 per minute of downtime, in 2017, British Airways technical failure cost the airline giant £80 million, according to the CEO. Due to the rising reliance on technology across the board, machine downtime affects every industry. Did you know that IT downtime — the period when a computer or IT system is inaccessible or broken — costs UK businesses £3.6 million a year, on average?

Along with the costs, machine downtime can bring a negative impact to various aspects of your business. Think about your company's reputation if it fails to meet supplier demand, the stress it puts on your employees who must rectify the downtime, and a workforce with lower morale due to lack of productivity. The key to reducing the impact of machine downtime — inevitably, it will occur at some point — is to know its effect on your business and plan a reaction to soften its impact.

Working out the cost of downtime

The main question for a company is: how to we work out how much downtime will cost the company? There are a number of ways to come to the downtime total, as you must take into account direct and indirect costs. These include:

- Labour costs — when your employees can't work.
- Product costs — during downtime, your business is not creating new products to sell.
- Recovery costs — including retrieving lost data and repairing machines.
- Extra costs — such as the damage to your brand's reputation.

Working out your labour costs

You'll need to multiply the duration of the machine downtime period by the hourly rate of your operators to calculate your labour costs. Obviously, this depends on how reliant your workers are on machines and technology. For example, if your business' server goes down, your reception staff may still be able to answer queries but won't be able to log details or access your database to book appointments. On the other hand, if a production lines loses power, the employees on it won't be able to use tools and machines to do anything.

In that case, workout the percentage of an employer's working hour that is reduced by downtime. If they can still work at 50% capacity during the downtime period, then half their hourly rate and multiply this by the duration of the machine downtime period instead of the full hourly wage.

Identify your lost produce costs

For manufacturing businesses, you can work the lost produce costs of machine downtime by just putting a price on a single-unit product and multiple it by how many items you produce in a certin period, and then multiply that number by the machine downtime period. For example, say you produce £100 products and you generate 12 of these an hour. If you have machine downtime of two hours, your lost product costs are £2,400.

However, depending on the type of business you are, costs of downtime will be different. If you're an ecommerce website and your site go down, you're losing 100% of product costs, as nobody can buy from you. For example, if you typically make £2,000 an hour via online conversions and your website is down for three hours, you have a lost product total of £6,000. But, if you have a physical store and your site goes down, then consumers can still purchase from you.

So, with that if your company usually make £1,000 an hour via in-store purchases on top of online profits, you will need to feature this in your calculations by subtracting it from the lost product total of your website channel.

To find your recovery costs:

When determining an overall cost of machine downtime, you must take into account recovery charges. Consider how much it cost you for: machine reboots, energy surges (when machines were powered back up), replacing/repairing parts, and retrieving lost data. Then, add this onto your other calculations to get a more accurate machine downtime value.

To find the extra-cost total:

Discovering all the intangible, extra costs that machine downtime has created is perhaps the toughest part of calculating machine downtime. Rather than using figures to work this out, it's worth simply bearing in mind that the value of machine downtime goes beyond profits lost during the downtime period itself.

To find your final machine downtime cost:

Your final calculation should include the total amount of each of the above sections. Simply add these together and you have your cost of machine downtime total. Remember to ensure that you use the same units of time to work each section out for an accurate outcome (e.g. employee pay per hour, product output per hour, etc.).

What solutions to consider

It's clear that costs can rack up when it comes to machine downtime, so it's essential companies implement a plan to help reduce the negative impact.

It's most cases, more than half of machinery downtime is due to hidden internal faults. So, it's essential that you regularly check and maintain your machines. Chris Proctor, Oneserve CEO, states that: "One of the most common technical faults is the overheating of particular parts, especially where there is metal on metal, as these can short electrical circuits and cause the machines to stop running.

"Vibrations, usually the first sign a machine is breaking, are another major cause of internal technical fault — they cause a cascading effect which can have a devastating impact on the machine. General wear and tear, as well as operator misuse, can also be the cause of technical fault."

Simple services, like industrial pump repairs, can enlighten you to internal issues that could have otherwise sparked lengthy machine downtime if not noticed. Adopt a preventative maintenance

mindset and check your machines and computers for viruses, glitches, and inefficient parts that could cause a companywide cessation of work.

Boost manager-to-operator communications so that those working with the machines in question can relay concerns if they have any before it's too late. Commit your company to regularly updating your software and equipment and ensure that every member of staff is trained to use their machine or working station properly to reduce the chance of user-error. IoT (Internet of Things) is also an avenue of downtime prevention. Utilise the abilities of fault-notification sensors to help detect dropping performance levels and computing clouds to store vital data. Using innovations like these will help you arrange repair services prior to scheduled manual checks, as well as give a way of backing-up details and services in the case of a malfunction.

All industries must deal with machine downtime. However, it doesn't have to spell disaster. Bear preventative methods in mind and make sure to keep on top of downtime calculations so that you have an accurate oversight of the effect of downtime on your staff, processes, and profit margin.

Sources:

https://www.oneserve.co.uk/whitepapers/infographic-staggering-cost-machine-downtime/

https://www.forbes.com/sites/forbestechcouncil/2018/04/26/why-ctos-and-cios-should-care-more-about-the-cost-of-downtime/#5867d53131c1

https://www.themanufacturer.com/articles/machine-downtime-costs-uk-manufacturers-180bn-year/

https://www.accountsandlegal.co.uk/small-business-advice/it-downtime-costing-businesses-an-average-of-3.6-million-per-year

https://www.themanufacturer.com/articles/machine-downtime-costs-uk-manufacturers-180bn-year/

https://www.in2grate.com/blog/the-impact-of-downtime-on-the-automotive-industry

https://www.continuum.net/blog/how-to-calculate-the-cost-of-downtime-for-your-clients