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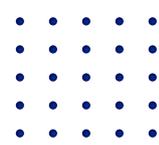
Intelligent Workflow Automation in Manufacturing

Mobility freedom enhances efficiency in manufacturing by reducing errors due to manual processes.

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Introduction

Technological breakthroughs have transformed how tasks are performed within an organization, task creation to completion. The unexpected variables involved in the service operations aren't easy to account for. This is why organizing and managing workflows are important. It will help organizations to improve their on-field processes and boost productivity.

Automation & Manufacturing: A Long History

The Manufacturing industry pioneered process automation with the assembly line in the 20th century that led to the Industrial Revolution. It charted the course of manufacturing for decades to come and was only shadowed by the Digital Revolution. Now, with advanced digital technology and innovation, workflow and workforce management are witnessing a colossal growth.

Of late, automation has been achieved with a combination of many different tools including mechanical, hydraulic, pneumatic, electrical, electronic, and computer.

With the globalization of most industries, manufacturing companies are facing solid competition from global counterparts while they battle with the indigenous rivals.

With the rising need for digital transformation, computer-based automation has outdone other means of automation and for good reason - the impact is undeniably profound.

Moreover, acquisitions are rampant in the industry. They have a diverse effect within a manufacturing company, influencing the performance with redundancies, confusion, or complexity. With effective workflow and workforce management, these risks can be significantly reduced.

Why Automate Workflows?

Workflows are well-defined pathways that are designed to achieve business objectives. They could be organized in a sequential or a parallel manner depending on the task at hand and the resources available. However, most of the workflows are linear and sequential with predefined actions or rules.

Since most of the processes in a workflow are manually operated, there's a high risk of inaccuracy and non-precision in the collection and analysis of data. This might lead to huge problems in the long run. That's why, identifying the areas or the processes that do not need cognitive abilities are automated to save time and resources.
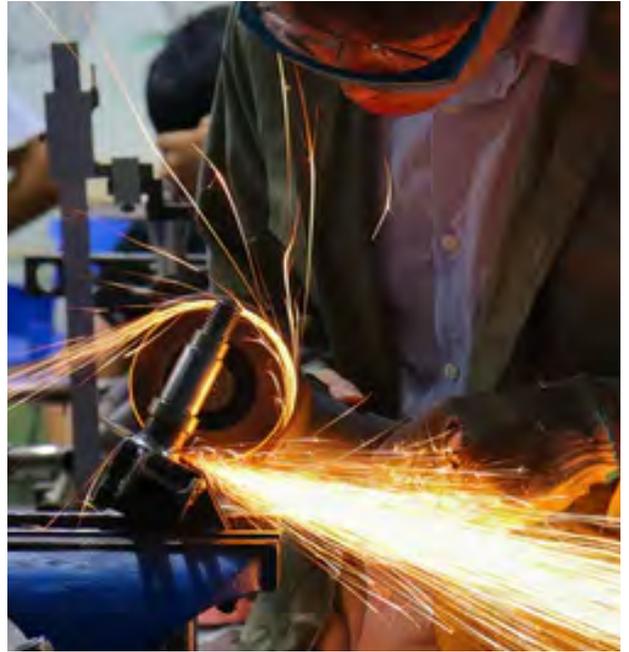
There's also the need for more employee-friendly fieldwork by allowing a streamlined field workflow or process to ensure work satisfaction. In a recent survey, which reported that 77% of field technicians enjoyed solving problems for the customers, 56% of the field workforce responded that paperwork and documentation was the most despicable part of their job. The mundane, monotonous, and repetitive tasks are bound to result in unproductive and inefficient employees at any manufacturing & services company.

Here are a few ways Intelligent Workflow and Workforce Automation can help manufacturing companies:

- Improve Turnaround Time For Purchasing & Budgeting

- Quicken The Product Development Lifecycle

- Standardize Quality Control & Governance

- Faster Approvals And Goods Reception

- Streamlined Document Approval Process

- Enhance Safety Reporting

Workflow Challenges In Manufacturing

To strengthen the foothold in the industry, manufacturing companies are leaving no stones unturned. At present, the top two pressing problems in the industry is the shortage of skilled workers and the rising customer expectations. A skilled workforce paired with an effective workforce and workflow system can have a huge impact on the overall productivity of the company.

Some sources predict that the number of manufacturing jobs that need to be filled by 2025 is close to 3.5 million and yet the shortage will be a whopping 2 million. This huge demand for the workforce arises from customer expectations. More and more customers are looking for high-quality goods that are delivered fast and cost less.

These numbers showcase the need to run manufacturing more efficiently. Companies need to optimize each resource - whether technology or people - in a manner that yields the best results at the shortest time possible while decreasing the operational costs.

overcome gaps related to:

- Defining Complex Processes
- Workforce Resistance
- Nonexistent Administrative Engagement
- Overmanagement & New Work Creation
- Loss of Flexibility

- Capital & Operational Expenditure Requests
- Product Lifecycle Development
- New Product Evaluation
- Report Requests
- Onboarding

Industry Trends & Analysis

A MarketWatch study reported that the global manufacturing market will witness an estimated CAGR of 19.8% over the next four years. This huge rise will be prompted by the cloud-based solutions that make it easier to implement and monitor effective workflows. Moreover, it will help in keeping the suppliers and customers in the know-how as well.

With the help of automated data, manufacturers can develop predictive models to eliminate unforeseen downtimes and optimize production schedules in the future. This helps in improving productivity, and ultimately profitability of the company.

Furthermore, manufacturing companies can leverage other trends in the industry for developing a competitive edge. One such trend is Vertical Integration - a unification of all the logical layers in a business to ensure that information is free-flowing to provide a holistic view of the entire manufacturing and business process. It enables organizations to react to changing market conditions and spot opportunities effortlessly.

Software platforms that are highly scalable, easy-to-use, flexible, and simple to implement can help in achieving this by linking data from all touchpoints to the ERP system.

Workflow & Workforce Management Solutions: How Do They Help?

The New-Age Manufacturing Workflows

With the outburst of the ongoing pandemic, many manufacturing plants were forced to shut down, which severely affected the supply chain cycle across the globe. This proved even more challenging when the plants reopened after the lockdowns were lifted. There was now a pressing need to get back to normal production levels.

Companies that leveraged innovative automation solutions were able to return to their full production capacity. This eventually improved their operational efficiency, resulting in higher returns on the same production value.

Industry leaders with foresight had begun implementing automation and other progressive technologies into their workflows to ensure better workforce management and boost productivity. Innovations like Machine-to-Machine Communications (M2M), Smart Automation, and Business Intelligence helped them anticipate, understand, and respond to the changing needs of their production.

With Intelligent Workflow and Workforce Management applications, the product quality is expected to improve along with higher accuracy and precision in reporting, resulting in clearer visibility on operational issues. These applications will also free up time for employees, allowing them to engage in tasks that require cognitive skills and cannot be performed by a machine.

The Impact Of Intelligent Workflows

An Intelligent Workflow & Workforce Management application helps in building a structured process to avoid bottlenecks across the many departments of a manufacturing company - R&D, Quality, Production, Packaging, and Marketing. It also helps in reducing the risks involved and ensures that high-quality products reach the market faster.

Moreover, these applications replace manual, paper-based quality management which is not only inefficient but also prone to errors. An effective workflow management system provides the following benefits to a manufacturing company:

Improved Customer Satisfaction

Increase Efficiency

Reduced Cost

Quicker Invoicing

Dynamic Scheduling

Anatomy Of A Great Workflow & Workforce Management Solution

Workflow & Workforce Management Solutions empower field teams and encourage a culture of accountability. Everything that they need to achieve their sales KPIs is made available at the click of a button. With such quick and easy access to daily schedules, check-ins at custom locations, and recorded work time, it allows them to stay organized on the road and identify opportunities to improve. Meanwhile, managers can easily track and analyze performance effortlessly.

Features Of A Good Workflow & Workforce Management

| Configurability | Change management | Scalability | Offline Availability | Flexible Integrations |

Connecting and collaborating with remote teams in real-time is made possible by:

Geotagging
Enables executives to optimize travel by providing driving directions and nearest jobs.

Knowledge Base
Provides the service executives with helpful collateral on mobile phones.

Smart Allocation
Helps in the allocation of the right job to the right executive at the right time.

Offline Mobile App
Gives a seamless experience in even the remotest locations.

Visit Validation
Allows executives to validate visits & job quality with multimedia (Images, Videos, Voice).

Smart Workflows
Allows instant approvals for expenses, spare parts, etc.

Enabling Improved Query Response and Rapid Product Maintenance [Case Study]

Effort's Workflow and Workforce Applications helped a leading manufacturer and distributor improve customer satisfaction through swift servicing.

The Client Challenges

Lack of Proper Communication

Delayed response to complaint & service requests due to communication gaps.

Ticket Validation

Hassles in validating visits to a customer's location in response to a ticket.

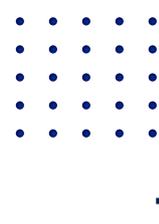### Decentralized Customer Fulfillment

No centralized data bank of customer feedback and remarks post ticket resolving.

Delayed Approvals

Lack of collaboration between back office employees, field staff, and the management.

Customer Activities

Lack of effective communication between the customer and the back office staff.

The Spoors Solution

Effective Communication Channels

Enabled quick response to customer queries via effective communication channels that helped the back office to provide details about the field staff in due time.

Geo-tagged Field Staff Monitoring

Enabled financial teams to verify reimbursements claims of field staff by helping them monitor field staff location to confirm the visitations.

Feedback Loop

Enables the field staff to record customer remarks and feedback to be incorporated for improving maintenance services, resulting in improved customer experience.

Collaboration Capabilities

Provided effective communication between field staff, back office staff, and the management which led to faster approval of reimbursement claims.

Customer Activities

Enabled field staff and back office staff to schedule regular maintenance visits and boost the company-customer relationship.

The Benefits

- Reduced number of errors.
- Faster approvals.
- Improved employee satisfaction.
- Mobility freedom.
- Improved customer relationships.

Summary

With the right Workflow and Workforce Management system, manufacturing companies can significantly boost their productivity to improve the overall efficiency of the output. This transformation leads to solid collaboration between back office employees and the field staff responsible for servicing. The enhanced employee experience leads to satisfaction of the staff, which directly impacts the customer satisfaction and ultimately, revenues.

About Effort

Effort is a DIY Workflow and Workforce Management Platform which has ensured productivity improvements for global organizations like Mahindra Finance, L&T Finance, Xerox, Makemytrip, PhonePe, Philips, Siemens, and many more. Effort is being used by 150+ customers across 10 countries with over 50000 users. Each day over 2 million activities are being performed on the platform. It has ensured more than 30% improvement in workforce Productivity and operational efficiencies for most of its global clients.

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