![ProjectPro® logo]

Using Microsoft Dynamics 365 Technology in the Construction Industry

A Complete Guide to Cloud, Power BI, and Office 365

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Executive Summary

Things have changed over the years and so the construction industry. From construction firms to homebuilders, the need for technology has outgrown by several folds.

However, technology has not just worked for the improvement of employee productivity but also the operations, sales, and business engagement.

For this reason, most construction firms invest in the development of business technology from time to time. These technologies may include a standalone solution that works on specific tasks or it can be a unified solution that has all the functions integrated within.

Even so, the extensive cost of such solutions made some construction firms feel left behind until the Microsoft Dynamics technology came to life. The tools like Microsoft Dynamics 365 Business Central that have the potential of Microsoft Azure, office 365, and Microsoft Power BI combined have made it easy to deploy solutions.

This means any construction firm, irrespective of its size and budget can now create a unified solution that delivers robustness and great functionalities to lead operations.

In this paper, we will be highlighting the idea of Microsoft platform adoption and its benefits that makes it a superior option for streamlining the functions and processes in the construction sector.

The appendix section will present the general context of cloud technology by Microsoft along with the review of Microsoft Dynamics as a SaaS solution,

Introduction

Traditionally, the idea of business automation was restricted only to enterprise resource planning. But the concept of ERP system only runs on developing an integrated information platform that can do storekeeping of all the data related to business and operations.

However, the benefits of ERP are more centralized towards the needs of the manufacturing industry which means they could serve only a few of the purposes for construction.

Why Dynamics 365 Business Central?

The significant demand for technology such as customer retention, project sourcing, etc. which exceeds just the back office services led the construction industry towards tools like ProjectPro that have the capability of ERP and CRM both.

In other words, the Construction industry needs smarter technology that can help put the product at the center like ERP and drive customer engagement at the same time with CRM capabilities.

For this reason, many construction firms these days invest more in technology that can upgrade productivity and deliverables quality rather than system technology that serves only a particular area. These improvements can be sourced through various tools but working on a productivity suite designed by Microsoft is quite different from the rest. It is not because of the brand value but because of the intense capabilities like communication, collaboration tools, document management, mobility solutions, office, and remote conferencing, etc.

Business Intelligence

The next aspect for which most organizations struggle is to get insights into operations and activities that can help improve efficiency. Business Intelligence or popularly known as BI technology is all that helps here.

It helps a construction business analyze data and prepare action plans based on the information. The data which is collected from various internal and external sources are run through several queries to form reports that contain visualizations and analytical results to make informed decisions.

In short, technology like Microsoft Power BI is something that helps both in planning corporate decisions and upscaling the operational efficiency in case of workers. Some of the essential functions which can be exercised through Microsoft Dynamics 365 Business Central technology include:

- **Integrated Business Operations and processes**

- **Inventory optimization**

- **Cost Management**

- **Customer & Supply Management**

- **Rapid Response Planning to Customer Needs**

- **Flexibility and Adaptability in Business Information Architecture.**

Understanding Cloud

Moving back in time, the traditional platforms which were used by most construction giants were driven through extensive infrastructure requirements which made them expensive. From licensing to security and the need for specialized on-site IT team, the software solutions demanded a lot of investment to maintain the continuity.

However, the concept of cloud introduced the idea of unified teams and decentralized data. With its various definitions and an array of models like SaaS, PaaS, & IaaS, it turned to be a potential platform that eliminated the need for infrastructure, maintenance, and support.

However, SaaS technology came out to be the most preferred of all cloud models due to its minimum requirements and greater impact. One of the biggest benefits of the SaaS model was eliminated costs of purchasing software as well as the infrastructure.

Quick Fact Check:

- ITSMA survey has found that 74 percent of the respondents are using SaaS services for office applications or productivity tools.

- 66 percent of them have used SaaS for emails and communications.

- 45 percent of the respondents are using SaaS for CRM.

The Cloud Advantage in Construction

- No need for servers or maintenance staff to keep up with hardware.

- The hosting company or the SaaS service provider has complete responsibility for hardware, backup data, performance monitoring, and disaster recovery.

- The user can access information from anywhere and on any device.

- Performance improvement with reduced expenses.

- Multiple entities can collaborate to work on projects such as contractors, subcontractors, lenders, equipment providers, etc.

- The field team can access real-time information related to purchase orders, change orders, supply chains, etc. in a very safe environment.

- All the data related to purchases, sales, as well as construction progress could be tracked.

- There are no chances of redundant data entry leading to loss of information.

- Warranty-related issues or contract claims could be managed easily with all the documentation in place.

- The chances of sales and gaining more projects are improved due to streamlined services and timely deliverables.

Business Needs That Makes Dynamics 365 BC Adoption Essential

Need for Business Growth: The primary reason for which most construction firms are adopting Microsoft technology like Dynamics 365 Business Central is the need for qualified support. Having a unified tool makes it easy to achieve productivity goals and perform well even if resource scarcity. This simply signals that using such technology could help in business retention with more accurate planning of project schedules and worker payrolls.

Need for Business Expansion: The next good reason for which construction firms need to adopt Dynamics 365 BC is the need for business expansion. The construction companies which are trying to reach a bigger market i.e. across states or countries can generate more productivity through improved coordination on legal constraints.

Need for Remote Workforces: Most construction firms have to face an intense struggle when it comes to managing employees at the remote sites that are not accessible from their offices. This often leads to increased costs but adoption of a smart solution that can help keep watch over work schedules, the status of the project, and actual work hours for each worker could be a great benefit in establishing remote workforces.

Need for Project Upgrades: When most construction project owners demand efficiency with cost benefits, a product like ProjectPro that runs on Dynamics 365 BC capabilities can help independent teams work on multiple work aspects. Moreover, the need for integrating critical business activities could also be configured by the construction giants gaining a competitive benefit over those who do not invest in technology.

Need for Technology: Last but not the least, the construction industry needs a technology that can transform the entire process of construction. The introduction of Microsoft solutions into the business could help these firms to get better access to technology without much effort and investment. This is because of the extensive support and updates which are made to the Dynamics 365 BC which were and will be rolled out in the future.
Microsoft Cloud for Business

Microsoft Cloud for Business

Office 365

Office 365 by Microsoft is all about the power of the cloud to businesses which not only help to fasten the business process but also save money. It has the same Microsoft office desktop suite but has the next generation cloud support that improves communication and services. Some of the common services include Microsoft exchange online, SharePoint online, office online, and Skype for business to connect users for diverse services.
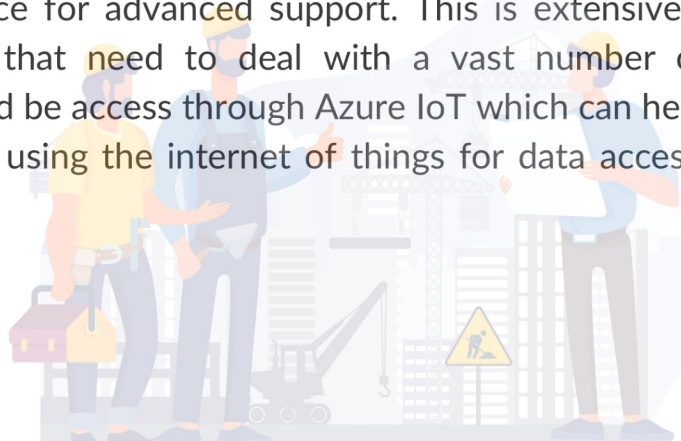
Dynamics 365 BC

Microsoft Dynamics 365 Business Central is a flexible and comprehensive business management solution. With extreme capabilities to manage project management functions like enterprise resource planning and customer relationship management, it can work to satisfy all the business needs from resource planning to finance management. It combines the potential of AI tools and several productivity applications that can make the entire task of project management easy. All these features make it a great option to manage and monitor important project functions for the business.

Business Intelligence

The concept of Business intelligence is run through Power BI which is cloud-based analytics services that can help in business data analysis for stakeholders. This improves the efficiency and speed of decision making through easy to access reports, visualizations, and dashboards.

For instance, Cortana intelligence offered by Microsoft helps to get access to big data and business intelligence for advanced support. This is extensively leveraged at big organizations that need to deal with a vast number of resources. One such service could be access through Azure IoT which can help in secure connection of devices using the internet of things for data access, analysis, or just collection.

AppSource

Microsoft AppSource is a library of third-party solutions that can be configured and implemented for specific business functions and needs. AppSource brings a variety of tools to the users for a unified experience that can satisfy all the needs related to functionalities. Moreover, each resource that is available to users on AppSource has to go through multiple performances and compatibility checks to be approved for integration with the software solutions.

Why Microsoft Dynamics 365 BC for Construction Business?

General Benefits

Speed: The on-demand support and configuration models available on Microsoft Dynamics 365 bring rapid computing support. This means a user could access multiple resources within a few clicks which reduces the chances of downtime in project progress and delivers unlimited flexibility to the user.

Cost: The cloud benefit of Dynamics 365 Business Central lifts the hassle of software and hardware setup. It does not even require spending on on-site datacenters, power units, data units, and other IT infrastructure. Moreover, a user can pick any of the subscription model based on the access requirement to manage the costs without causing any damage to business functions.

Productivity: Dynamics 365 BC runs on cloud technology which means no need to spend time on IT tasks. This leaves behind a large amount of time and finances which can be invested to leverage the product solutions and expand business reach.

Reliability: The construction accounting software that runs on Microsoft cloud technology can help in disaster recovery and avoid loss of data. Also, the cloud setup helps to sustain the business continuity and avoid any expenses that users have to make on data backup and safety.

Mobility & Agility: Last but not least, Dynamics 365 Business Central is designed to deliver mobility benefits. This means a user can access the software from any location for employees who need mobile access. Also, the cloud technology used to design Dynamics 365 Business Central helps to ensure agility in the services amidst the volatile IT environment that faces continuous changes in the infrastructure expenses.

Specific Benefits

Security at its best: When we talk about the specific business benefits, adopting a solution from Microsoft brings you the advantage of security. It helps you to work efficiently on managing the access to data and information with compliance to the licenses.

Privacy: With years of services in the software industry, Microsoft technologies are providing software and related services ensuring that the user remains the sole owner of the information. Microsoft never uses any customer data for advertising or other company benefits except for the reason to drive optimal experience and productivity.

Integrations: One of the best parts of working on Microsoft cloud technology like Dynamics 365 BC, Microsoft Office 365, and power BI is the advantage of seamless integration. It helps to avoid any expensive integration required to pull the information from the source since all the applications and tools are connected through the same database.

User Experience: To have consistency in user experience, the SaaS-based Dynamics 365 BC solutions have a similar interface across devices and platforms. This helps to improve the operability of the app for a user. For instance, considering the familiarity of the appearance on the outlook, Dynamics 365 BC, Office 365, and Power BI all could be accessed on a similar interface as of Outlook.
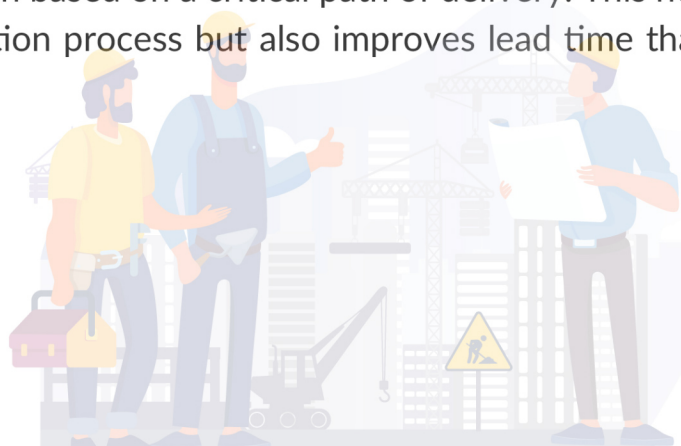
Easy Updates & Upgrades: Microsoft as a SaaS solution always keeps its user updated. These updates are run to maintain service quality and software functionality. Moreover, all these updates are regulated by Microsoft itself while the integrations made through AppSource need their solution providers to serve the certification requirements on updates and functionalities.

Industry Benefits

Most construction firms need a complete full enterprise suite to manage their end-to-end process to ensure timely deliveries of the projects. However, there are certain industry-specific benefits, which make construction giants turn towards Microsoft Dynamics 365 BC. Some of them include:

Optimization of Resources: The construction industry is resource-centric and driving business efficiency demands the right use of resources concerning time and investment. For this reason, construction firms always look for tools and software that can match the requisites of each task and project. Moreover, working on the optimization of resources also offer profit advantage and generate capital.

Execution and Project Delivery: The success of construction firms is driven over the execution and delivery process. Therefore, it becomes necessary to estimate the project requirements working on the proposal, budget, schedule, and internal goals associated with the project. The tools like ProjectPro that runs on Dynamics 365 Business Central capabilities can help align the activities for timely deliveries. For instance, the materials could be scheduled based on the readiness to start construction based on a critical path of delivery. This not only helps to manage the execution process but also improves lead time that can help yield profitability.
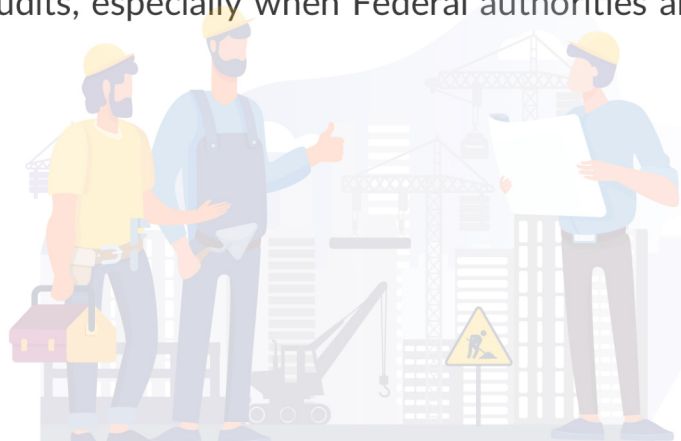
Optimizing Portfolio: The construction accounting and enterprise solutions that can help the contractors and other stakeholders, to watch project growth are essential for business success. It needs a pipeline of resources, activities, materials, and all details related to existing and future projects to benchmark KPIs. This not only helps to strategize business decisions but also improves feasibility and transparency.

Profit Goals: Driving profitability in construction projects depends on multiple factors. This could include resource availability and time advantage that may hinder or promote the profit goals. Construction enterprise resource planning software based on Microsoft technology could help increase profits with intellectual management. Moreover, the same technology can also help in locating business opportunities and increase overall profitability for projects.

Resolving Issues: Tracking project status and taking that information forward to the clients is an important business practice. This not only helps to better relationship but also generates more business increasing revenue and project acquisition. Microsoft solutions such as Dynamics 365 Business Central help to resolve any issues that can hinder the communication, and help ease sharing of data between entities.

Contract Compliance: The construction world involves a large number of regulations and compliances which construction firms and project owners have to follow when working on contracts. Moreover, accounting practices followed by the construction firms need to align with the rules of FAR and CAS to comply with the audits performed under DCAA. Using Construction accounting software like ProjectPro helps to avoid any loss of information or documents that may lead to failure during audits, especially when Federal authorities are associated with the projects.

Document & Data Management: Construction projects involve a large number of documents and data. This data needs to be used for various internal and external functions such as billings, estimates, taxes, material, and legal formalities. Microsoft Dynamics 365 BC can help construction firms to access the data related to bid, contracts, schedules, etc. whenever it is necessary to produce.

Contract Management: The main agenda behind contracts is tracking the project progress and check it for the performance, budget, and comparing actual vs. estimated expenses. Dynamics 365 helps you to check for efficiency and profit value easily by retaining all the data related to project progress.

Costs & Billing: Costs and billings are about the financial health of the project. The project-related aspects such as Gantt Charts and Work breakdown structure which could help in resource allocation and sustain the financial health could be easily worked under construction ERP software that runs on Microsoft Dynamics 365 Business Central capabilities. Moreover, using the same system to generate bills each time by simply adding new data for specific tasks reduces the chances of errors in costs and billings.

Analytics & Reporting: Last but not least, Construction accounting or enterprise resource planning software could help to get a brief analysis of project data at any point in time. Moreover, the data from multiple projects could be used and compared to track the business performance and locate pitfalls in case of failure. Also, the easy to access dashboards on Dynamics 365 BC could help fetch actionable information that is vital for business success.

Project Pro®

Based on the concept of cloud, ProjectPro is a SaaS-based construction accounting and enterprise resource planning software based on Microsoft Dynamics 365 Business Central.

ProjectPro helps businesses streamline their processes with better insights into the overall project costs, resource requirement & allocation, which offers precise and timely information. Integrate all of your project accounting, management, labor & resources management, material planning, and customer relationship management through a dedicated solution. ProjectPro offers a smarter and better way to thrive in productivity for your construction business.Streamline accounting processes & strengthen control of your organization's projects with ProjectPro. With integrated data, intelligent transaction processing, and robust analytical and reporting capabilities, you can reduce the time and effort it takes to access meaningful information necessary to make good business decisions.
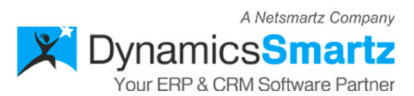
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