



WHEN REPORTS BREAK THE SYSTEM

*How a Workflow Diagnosis Prevented a \$1M Mistake
A Workflow Analysis & ERP Performance Case Study*

A Process Automation & Operational Case Study
Published by The Digital Efficiency Consulting Group

www.thedecg.com

Table of Contents

- 1. Executive Summary**
- 2. Background and Operational Context**
- 3. Initial Problem Definition**
- 4. Investigation Approach**
- 5. First Root Cause: Unnecessary Workflow Processing**
- 6. Second Root Cause: Reporting System Load**
- 7. Solution Strategy**
- 8. Results and Operational Improvements**
- 9. Financial Impact**
- 10. Organizational Impact**
- 11. The Lesson: Process First, Always**
- 12. Our Take: The DECG Perspective**

1. Executive Summary

A large public company began experiencing inconsistent order entry performance inside Microsoft Dynamics 365 Finance & Operations. A 12-person team responsible for entering approximately 560 orders per month showed uneven productivity levels, and system responsiveness fluctuated at different times throughout the day. Leadership initially believed the issue stemmed from employee productivity or a system limitation that required replacement.

However, closer examination revealed that neither assumption was correct.

Using the DECG FLOW framework, the order entry workflow was broken down step-by-step to understand exactly how work moved through the system. WF5 was then applied to identify sources of operational friction within the workflow, and CPS guided a structured investigative approach to isolate root causes.

Two issues ultimately emerged:

- A universally applied lookup process triggered during order entry that was only necessary in extremely rare cases
- A reporting structure that repeatedly recalculated large volumes of live data, tying up system resources

Together these factors created significant system drag that appeared to leadership as employee inefficiency and system limitations.

After removing the unnecessary lookup process and restructuring reporting architecture through the creation of a centralized data farm and dashboard system, order entry performance improved dramatically. The improvements extended well beyond the order entry department and produced measurable gains across multiple teams.

Key outcomes included:

- Average order entry throughput increased by approximately 15% per month
- Month-end order processing increased by more than 50%
- Reporting performance improved from 1–90 minutes to under 3 seconds
- The organization avoided an estimated \$500,000–\$1.5M system replacement project
- Four employees were reassigned to departments with staffing shortages
- Financial closing accelerated by one full day, improving cash flow timing

What began as a localized operational concern ultimately became an enterprise-wide efficiency improvement.

2. Background and Operational Context

The organization operates globally and processes orders through Microsoft Dynamics 365 Finance & Operations. Within the order entry department, a team of twelve employees enters customer orders that

originate from multiple channels, including internal sales representatives, email requests, and direct phone calls from customers.

The team processes roughly 560 orders per month on average. Depending on order complexity, each order typically requires between three and six minutes to enter into the system.

While this process had historically functioned adequately, leadership began noticing inconsistencies in employee productivity metrics. Some employees were completing significantly fewer orders than others, even though their experience levels and workloads appeared similar.

At the same time, employees frequently reported that the system occasionally slowed down during order entry. The delay typically occurred between workflow stages when the system moved from one screen to another.

Under normal conditions this step took three to four seconds. During slow periods it could take ten to fourteen seconds.

Although the delay itself seemed small, it occurred repeatedly during order entry. When multiplied across hundreds of orders per month and multiple employees, these delays accumulated into meaningful productivity losses.

3. Initial Problem Definition

Leadership initially approached the issue from two possible angles.

First, they considered the possibility that employee productivity was inconsistent. If certain employees were working more slowly than others, additional training or staffing adjustments might be necessary.

Second, they suspected the enterprise system itself might be the limitation. Conversations began around potentially building a separate order entry application that would later feed data back into Dynamics 365 Finance & Operations.

Both ideas carried significant financial implications. Hiring additional staff would permanently increase payroll costs, while building a new order entry platform could easily exceed several hundred thousand dollars in consulting and development fees.

Despite these discussions, no one could clearly explain why system performance fluctuated throughout the day or why the productivity differences appeared inconsistent.

This uncertainty made it difficult to justify any major investment.

4. Investigation Approach

Rather than beginning with system architecture or performance metrics, the investigation started with the workflow itself.

Using the DECG FLOW framework, the order entry process was followed step-by-step while employees entered real orders. Each stage of the process was timed and observed directly.

Employees were encouraged to describe their experiences with the system, including what they believed caused the delays. While individual opinions varied, a common theme emerged: the system occasionally slowed down, but no one could identify a consistent reason.

Interestingly, during the very first observation session, the system performed normally. Orders moved through the process quickly, and no delays occurred.

However, one step within the workflow stood out. During a specific stage of order entry, the system paused while it searched a large database containing millions of product-related values.

In most cases, the product being entered did not actually require this lookup.

This observation suggested that the system might be performing unnecessary work during the process.

5. First Root Cause: Unnecessary Workflow Processing

Further investigation confirmed that the product lookup was executed for every order regardless of whether it was needed. In reality, only about one out of every thousand products required this lookup.

Because the system executed the process universally, every order incurred a delay while the system scanned the database.

Working with the organization's ERP consultants, the workflow logic was adjusted so the lookup would only run when the specific product type requiring validation was selected.

This single change immediately reduced order entry time by five to twenty seconds depending on system load.

While this improvement helped significantly, it did not fully explain the intermittent slowdowns that employees reported.

6. Second Root Cause: Reporting System Load

The breakthrough came after collecting real-time data from employees.

Team members were asked to email screenshots whenever the system slowed down. Each message included the time, the stage of order entry where the slowdown occurred, and a short description of what the employee was doing.

After collecting enough data points, these timestamps were compared with system usage logs.

A clear pattern appeared.

During the exact periods when slowdowns occurred, large reports were being executed by other departments.

The organization relied heavily on reporting for operational and financial analysis. Unfortunately, the reporting architecture had been designed in a way that repeatedly pulled large volumes of live transactional data.

Each time a report ran, the system rebuilt the data from scratch. For example, if a report calculated the average number of units sold per day, week, or month, the system would scan tens of thousands of historical order records and perform calculations each time the report was executed.

Some reports compared daily sales performance with five years of historical data. Others calculated rolling quarterly performance metrics.

More than forty variations of these reports existed, and many were run multiple times per day, particularly during month-end closing periods.

Because they relied on live data rather than pre-processed datasets, these reports consumed large amounts of system resources.

7. Solution Strategy

Solving the reporting issue required a phased approach.

Initially, employees were asked to run large reports outside of peak operational hours when possible. In some cases the system was configured to generate reports automatically at night and email them to users.

This reduced some of the immediate system load, but it was only a temporary solution. Because the company operated globally, there were only a few hours each day when no region was actively using the system.

The long-term solution involved building a centralized data farm.

Data from multiple enterprise systems was consolidated and structured into unified tables. Nightly processes collected key operational data and stored it in a reporting-optimized environment.

A new dashboard interface was then created to access this data instantly.

8. Results and Operational Improvements

Once the dashboard and data farm were fully implemented, the improvements were dramatic.

Reports that previously required anywhere from one minute to ninety minutes to run were now generated in under three seconds.

Employees across multiple departments immediately experienced productivity improvements because they no longer had to wait for reports to load.

Within the order entry department, the intermittent slowdowns virtually disappeared. Average order entry throughput increased by roughly fifteen percent, while month-end performance improved by more than fifty percent.

Leadership also gained significantly better visibility into operational activity through the new dashboard environment.

Metric	Before	After
Order Entry Throughput	Baseline	~15% increase
Month-End Throughput	Baseline	+50% improvement
Report Runtime	1–90 minutes	<3 seconds
Staffing Pressure	Additional hiring considered	4 employees reassigned
System Strategy	Replacement discussion	Optimized existing system
Financial Close	Standard timeline	1 day faster

Table 1: Key performance metrics — before and after workflow optimization.

9. Financial Impact

The total cost of the engagement was modest compared to the value delivered.

Diagnostic & Consulting: Diagnostic and consulting work cost approximately \$13,000.

Infrastructure: The data farm and reporting infrastructure required roughly \$21,000 to implement.

Total Investment: Combined, the total investment was approximately \$34,000 — compared to a potential system replacement costing \$500,000 to \$1.5 million.

The improvements also generated ongoing operational savings. For example, if finance personnel previously spent an average of five minutes waiting for each of twenty monthly reports to run, that equates to roughly 100 minutes per month, or 1,200 minutes per year.

At an estimated labor cost of \$30 per hour, the reporting improvements alone saved approximately \$36,000 annually — effectively paying for the entire engagement in its first year.

10. Organizational Impact

One of the most positive outcomes involved staffing flexibility.

Because order entry productivity improved, four employees were able to transfer to departments experiencing staffing shortages. These departments had previously struggled to keep up with workload demands.

The transfers not only balanced staffing levels across departments but also allowed the employees themselves to move into roles with higher responsibility and increased compensation.

Additionally, the finance department was able to close its monthly books one day earlier because reporting delays had been eliminated.

This meant invoices and financial statements were sent sooner, improving the timing of incoming payments and slightly strengthening the company's cash flow position.

11. The Lesson: Process First, Always

This case illustrates a principle we see over and over again in growing businesses: the bottleneck is almost never where you think it is, and the solution is almost never as complicated as you fear.

The organization did not have a technology problem. Dynamics 365 was working. It did not have a people problem. Their order entry team was competent, dedicated, and doing their best with a system that was quietly working against them.

What the organization had was a process problem — two specific workflow inefficiencies that could not be seen without looking closely at how work actually moved through the system. The fix was not a system replacement. It was not a digital transformation initiative. It was not a six-figure consulting engagement stretched over quarters.

It was a targeted, surgical correction of two specific process constraints — delivered at a fraction of the cost of the alternatives and producing measurable results from day one.

Every growing business has a version of this story somewhere in its operation. There is a manual step, a workaround, a report that runs too long, a process nobody has questioned because “that’s how we’ve always done it.” The question is not whether it exists. The question is whether you find it before it costs you a million dollars.

12. Our Take: The DECG Perspective

At The Digital Efficiency Consulting Group, we worked directly with this organization on this engagement, and it remains one of our clearest examples of what “process first, tools second” looks like in practice.

When we first walked through the operation, the instinct — theirs and ours — was to look at the entire system. Dynamics 365 was flagged as the potential culprit. A separate order entry application was being discussed. A larger modernization effort was on the table. All of those conversations had merit.

But the operation was bleeding now. Employees were sitting through ten-to-fourteen-second delays dozens of times a day. Reports were tying up system resources for up to ninety minutes. Leadership was about to spend between half a million and a million and a half dollars solving a problem they had not yet correctly diagnosed.

So we focused on what the data told us. We followed the workflow. We collected real-time evidence from the people doing the work. We identified the specific constraints — a universal lookup that was almost never needed, and a reporting architecture that was consuming the system alive — and we fixed them.

The result was not incremental improvement. It was operational transformation: throughput up 15%, month-end processing up 50%, reports from 90 minutes to three seconds, four employees freed to where they were needed, and a seven-figure system replacement avoided entirely.

That is the DECG approach. We do not sell technology for technology's sake. We do not recommend replacing systems that work. We find the specific process constraint that is costing you the most — in time, in money, in quality, in customer goodwill — and we fix it. Surgically. Measurably. With a guarantee.

If your operation has a performance problem that looks like a people problem or a technology problem, we would like to talk. Our Efficiency Diagnostic is designed to find exactly these kinds of constraints and quantify what they are costing you. Because the longer a bottleneck sits unaddressed, the more it costs — not just in dollars, but in staff morale, leadership confidence, and competitive position.

This organization learned that lesson and acted on it. The question is: will you?

The Digital Efficiency Consulting Group
www.thedecg.com

Process First. Tools Second. Results Always.