Research for Using AX in Wholesale Distribution

Scott Hamilton, St. Paul, MN, USA

The research focused on how an integrated ERP system – and the conceptual models embedded in the system – can support the unique business practices of wholesale distribution firms. In particular, it focused on how Microsoft Dynamics AX 2009[1] and supplemental MBS Dev[2] functionality provide an integrated ERP system for these firms. The research methodology represented action research.

Several parallel approaches were undertaken to identify the unique requirements for an integrated ERP system in wholesale distribution. As one approach, several dozen wholesale distributors in different industry niches were identified as the basis for the research group. The distribution niches included paper products, office products, and products for janitorial and sanitation services. The firms within the research group currently used AX and supplemental MBS Dev software as their ERP system. The research focused on the following questions.

- What are the unique requirements in the business processes among these different types of wholesale distribution firms?
- How are these business process requirements supported by the conceptual models embedded in their ERP system?
- How do you characterize the end-user experience by various roles performing the business processes?

A detailed understanding of the requirements was gained by reading the business requirements documents of the firms within the research group, and by interviewing the field consultants involved in the system implementations. These interviews also helped identify the frequency distribution of common and unique business processes, and the "use cases" within each process. One advantage of this approach was an understanding of the evolving nature of business requirements, since the versions of documentation covered multiple years of experience. This prior research was supplemented by the author's consulting experience with other types of distributors, and with numerous RFPs defining distributor's requirements for a new ERP system.

A detailed understanding of the integrated conceptual models embedded in the software functionality involved prior research about Dynamics AX and the supplemental MBS Dev software. The author's prior research about Dynamics AX has been documented in three previous books covering three different software versions, and will not be repeated here. The prior research about MBS Dev functionality started with reading the software design documents. The versions of documentation, and the increments of additional functionality defined in the documentation, illustrated the evolving nature of the conceptual models. Interviews with development personnel and field consultants helped clarify the understanding. In addition, the author performed thousands of hands-on simulations to gain a detailed understanding of the conceptual models currently embedded in the software. The author personally tested every business process and use case described in this book, which was the same approach undertaken for the previous books about Dynamics AX.

A detailed understanding of the end-user experience was facilitated by hands-on simulations (described above), writing the user documentation for MBS Dev, and the author's previous experience with Microsoft Dynamics AX and its use in distribution firms. In particular, the hands-on simulations helped identify the integration between standardized AX and supplemental MBS Dev functionality. This prior research is continually being supplemented by additional hands-on simulations as well as interviews and consulting engagements with the end users.

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[1] Dynamics AX is a registered trademark of Microsoft. It is affectionately termed "AX" for short. The term "standardized AX functionality" will be used when clarifying a comparison to the MBS Dev software functionality.

[2] MBS Dev, Inc. is a gold certified VAR (value added reseller) and ISV (independent software vendor) for the Microsoft Dynamics AX solution. Their software solution -- the MBS Dev Wholesale Distribution Suite -- is Certified for Microsoft Dynamics AX. Within this book, the terms MBS Dev software, MBS Dev functionality, enhanced functionality, and supplemental functionality refer to this software solution, and simplify the explanatory approach

The identification of unique requirements and conceptual models for wholesale distribution was based on a comparison with standardized AX functionality, described in a previous book *Managing Your Supply Chain using Microsoft Dynamics AX 2009* that covered system usage in distribution and manufacturing firms. The research results have been documented in the book *Managing Wholesale Distribution using Microsoft Dynamics AX 2009 and MBS Dev.*