

Build Versus Buy a Healthcare Enterprise Data Warehouse: How IT Leaders Choose the Best Option for Their Organizations

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As comprehensive data and analytics have become a healthcare imperative, health systems have progressed from debating whether to adopt an enterprise data warehouse (EDW) to whether to build a platform in-house or purchase one from an analytics vendor. Commercial solutions tend to offer more advanced capabilities and security as well as expert services but also require a significant ongoing financial investment.

Organizations that choose homegrown alternatives tend to do so for the lower cost. And as the public cloud has made IT infrastructure (e.g., Azure, Google, Amazon Web Services) increasingly accessible, some healthcare IT leaders have gained interest in homegrown solutions.

A spring 2020 Health Catalyst survey, however, suggests that health systems aren't favoring proprietary platforms over vendor solutions. Of almost 400 healthcare and pharmaceutical industry respondents, 71 percent of organizations that use an EDW purchased their system from an outside company. A closer look at survey results indicates the while commercial solutions dominate, homegrown EDW users are generally satisfied with their systems, suggesting the industry may continue to divide itself between commercial and proprietary solutions.

More than 70 Percent of Health Systems Choose a Vendor-Built EDW

Even with growing access to IT infrastructure, health systems still favor commercial

EDWs. Health Catalyst found that the vast majority (84 percent) of survey respondents worked at companies that currently have an EDW. Among those, 71 percent purchased their platform from an outside company. The trend towards commercial platforms will likely continue, as the 65 percent of organizations in the market for an EDW report leaning towards purchasing rather than building an EDW (Figure 1).

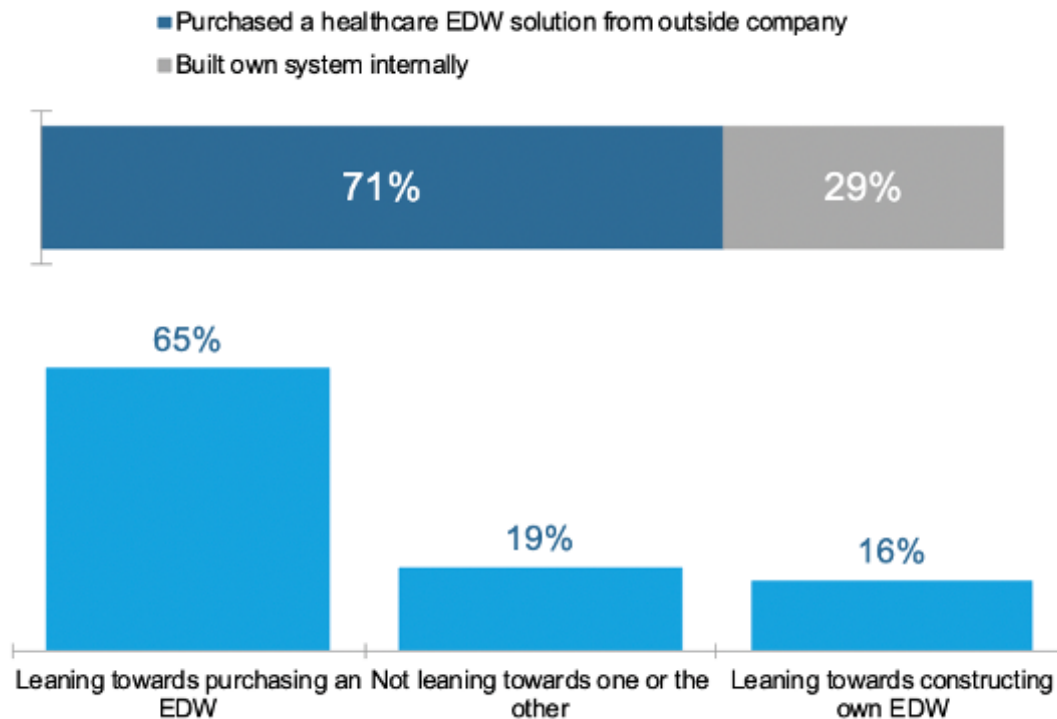


Figure 1: Most health systems purchase their EDW from an outside company.

Trust, Price, Features Drive Purchasing Decisions

When purchasing an EDW, organizations look for the following qualities:

- A trusted brand (65 percent).
- A reasonable price (54 percent).
- Necessary features (54 percent).

Health systems commonly report choosing a commercial EDW due to the reputability, trustworthiness, quality, data security, and integration functionalities of vendor solutions. Those with homegrown EDWs say they kept their solutions in house because they have the necessary internal experience, a preference for building internally, and preferred the lower entry price.

Build or Buy, Healthcare Users Tend to Like Their EDWs

Most healthcare EDW users tend to like their systems, whether they purchased or built them. Organizations that constructed their system reported a 76-percent satisfaction rate, and those who purchased an EDW reported 64-percent satisfaction.

While EDW service satisfaction is high across all revenue levels, organizations with revenue of less than \$200 million per year reported the highest level of satisfaction at 73 percent. The next revenue group (\$200 million to just under \$300 million) had a satisfaction rate of 64 percent. Satisfaction appears to diminish slightly higher up the leadership ladder, with three-quarters of managers and directors satisfied and just under half of C-suite or executives satisfied (Figure 2).

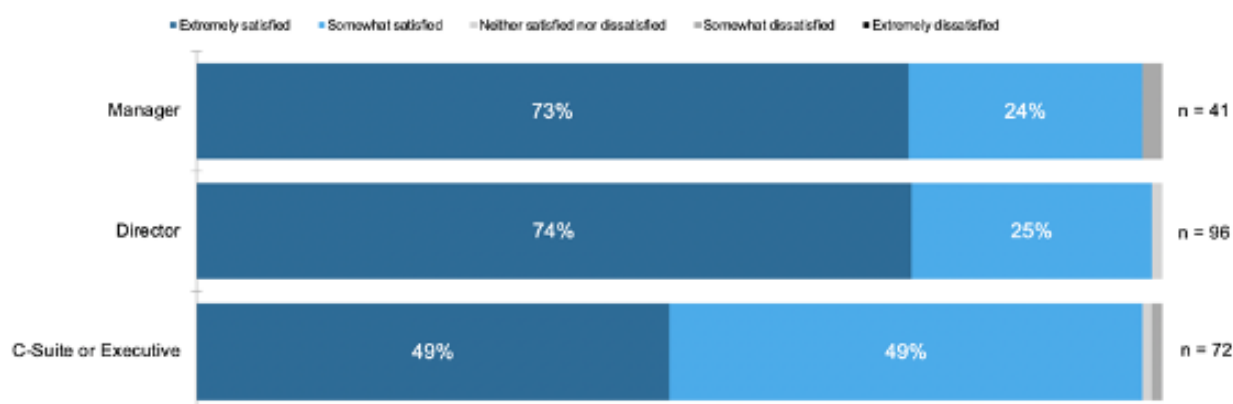


Figure 2: EDW satisfaction by leadership level.

Time Constraints and IT Support Are Common Challenges with Homegrown Systems

Despite a reported 76-percent satisfaction rate for healthcare users with homegrown EDWs, organizations encounter common roadblocks when they build their systems. These challenges include time constraints and lack of sufficient IT personnel, with respondents more often citing IT staff as a “large” challenge. And while barriers to homegrown solutions aren’t common, few organizations report no difficulties in the home-built process.

What the EDW Buy-Versus-Build Debate Means for Health Systems

While the majority of healthcare EDW users prefer commercial solutions, the high satisfaction rate among homegrown users suggests that the “build” camp has a dedicated following. Yet, health systems that opt for an in-house EDW report

roadblocks, particularly around IT personnel. Is there an opportunity for a middle-of-the-road solution in which an IT vendor offers professional services to support homegrown data solutions according to the health system's needs? A flexible data infrastructure (such as one provided by the Health Catalyst® Data Operating System [DOS™]) can enable both homegrown analytics as well as out-of-the-box solutions. Such a middle ground might bridge the gap between buy-versus-build approaches, helping organizations that opt for homegrown solutions realize more of the data access and management capabilities of a more digitized healthcare system. 🏡

About the Author



Tarah Neujahr Bryan, MAJMC, joined Health Catalyst in 2013 and has served as Editorial Director and Vice President of Marketing; she is currently the Senior Vice President of Marketing and a member of the Health Catalyst leadership team. She brings a breadth of marketing and communications experience to her current role. Prior to joining Health Catalyst, Tarah served as the Marketing Communications Director and Foundation Executive Director at a community hospital, managed at an advertising agency, was the Editor and Operations Manager at an archaeology firm, and provided triage assistance and patient admissions at a Level-II Trauma Center. She has a Master of Arts in Journalism and Mass Communications from the University of Nebraska and a Bachelor of Arts from Montana State University-Billings.

Tarah volunteers with Intermountain Therapy Animals and has done pro-bono communications work for American Cancer Society, Wings Cancer Foundation, and many other non-profit organizations.