



THE PROMISE OF INFORMATION SYSTEMS

We have previously written that scale seems to have very little effect on administrative expenses of health plans. On the other hand, information systems costs are an area in which we could expect to see some economies of scale. However, based on the results of the 2008 benchmarking study, there is overall *anti-scalability* in information systems.

Moreover, information systems supports other functional areas within health plans. The best hope for information systems is that expenses in this area would result in lower costs in those supported areas. Regrettably, this substitution does not seem to take place either.

Background

In *Navigator's* sister publication, *PULSE*, we have noted that health plan expenses tend to be insensitive to scale. Historically, approximately 20% of administrative expenses are subject to economies of scale, and even for those areas a 100% increase in the size of the enterprise results in an 85% increase in costs.

Focusing exclusively on the cluster of administrative expenses that we term Account and Membership Administration (Information Systems, Claim and Encounter Capture and Adjudication, Customer Services and Enrollment / Membership / Billing), costs appear to be, if anything, anti-scalable though not to a significant degree.

Information systems costs could play a key role in assisting firms in their achievement of economies of scale. After all, they comprise a major investment, require key people with specialized skills and complement the activities of the rest of the enterprise. This article explores the extent to which scalability exists in information systems costs.

If scalability does not exist in information systems, what are some of the reasons? Could it be that larger plans dissipate their scale through diversified product offerings? Could larger firms offer ASO arrangements that entail complex benefit designs that are more expensive to administer? This article addresses this issue as well.

Continued on Page 2

PARTICIPATION IN BENCHMARKS

As of this writing, nine new plans have committed to participate in the *SEER* benchmarking study for 2009. This reflects an aggressive health plan response to the current economic environment. Ongoing pressures on premium rates, enrollment, ASO fees and investment returns have a leveraged effect on earnings unless costs are optimized.

Thoughtful cost management benefits from benchmarks to help health plan managements determine which of their expenses can be reduced, while preserving their long-term competitive positions. Sherlock Company's benchmarks are a unique resource to optimize administrative costs, and the need is timely.

We will launch the surveys for Blue Cross Blue Shield Plan, Larger Plan and Independent / Provider Sponsored plans in mid-March and the Medicare and Medicaid surveys in late spring. *We would be happy to discuss the merits and logistics of participation in this timely service with you or any of your colleagues.* ♦

LATEST PRIVATE HEALTH PLAN DASHBOARD RESULTS

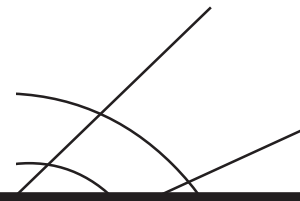
For the trailing three months ended November 30th, 2008, the ten health plans in our *Health Plan Dashboard* reported health revenue growth of 7.3%, with indemnity growth of 21.3%, ASO/ASC growth of 5.5%, and managed care growth of 5.5%. Medicare Advantage grew by 29.0% and Medicaid had revenue growth of 17.8%.

Overall, membership increased by 2.6% in health lines. Membership declined by 1.3% for managed care but increased by 15.2% in the indemnity business. ASO /ASC increased its membership by 3.0%. Membership in Medicare Advantage products grew by 16.9% and Medicaid grew by 9.6%.

Managed care and ASO/ASC had price increases of 5.1% and 3.6%, respectively, while indemnity posted a 4.0% increase. Medicare Advantage posted an increase of 5.7% as Medicaid premiums increased by 6.4%.

Health benefits ratios overall grew by 1.4 percentage points, but increased by 0.2 percentage points (as a percent of premium equivalents) for ASO/ASC line and grew by 6.7 percentage points for indemnity. The

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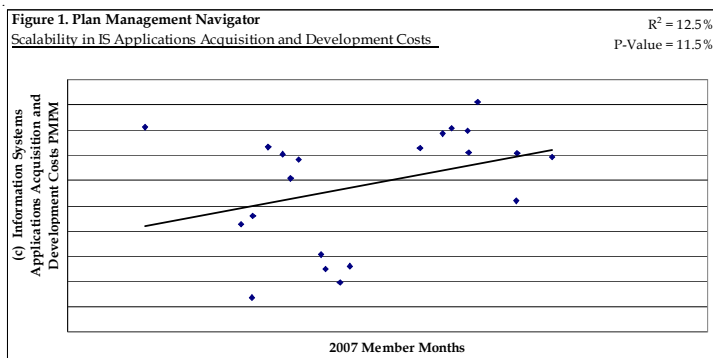


Information Systems: *Continued from Page 1*

An alternative explanation is that greater information systems expenditures may lead to lower costs in other functional areas. After all, information systems is intended to increase the efficiency of the areas that it supports. We explore any technical substitution that may be possible between the supported functional areas and information systems.

Relationships

We considered the effects of scale, products offered and the relationships between information systems and other functional area expenses. Application Acquisition and Development is anti-scalable, but the other information systems subcategories are not. Accordingly, it makes some sense to look at them separately. In the following, all costs and staffing are standardized by expressing values per member. Our universe consists of twenty three Blue Cross Blue Shield Plans. As has been our practice, we have used natural logarithms of values in the figures and text.



SCALE

Figure 1 shows the scalability of Application Acquisition and Development. Note that the larger the plan, the more it spent on this function. While the relationship explains only 12.5% of the differences, it raises the intriguing possibility that this expense may actually be a form of investment by the larger health plans. After all, unlike other sorts of investments, those in information systems amortize very quickly. As a notable contrast, scale had no significant effect on other information systems costs, either individually or collectively. Nevertheless, information systems

costs as a whole are anti-scalable, especially in the Application Acquisition and Development subcategory.

NATURE OF PRODUCTS

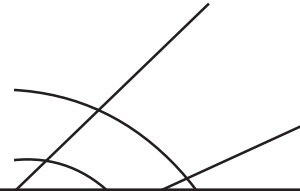
The nature of the products by these companies could place upward pressure on health plan administrative expenses. If health plans are compelled by market requirements to offer multiple products, their administrative infrastructure may be significantly more complex and expensive to accommodate them. There is a similar argument made about ASO products: They may entail higher administrative expenses since the groups that are large enough to statistically justify self-insurance, may have unique benefit designs that either entail additional information systems efforts or exceptions that entail greater manual interventions.

Before we could understand these effects, we thought it would be helpful to eliminate any confounding factors. Accordingly, we found that larger plans were no more likely to offer a wide variety of product offerings, and are no more committed to ASOs than their smaller peers. Thus scale and product offerings were separable. Moreover, there is no relationship between costs for the Account and Membership Administration cluster (which includes IS) and scale, breadth of product offerings or mix of ASO members. This meant that real differences in information systems costs were not inadvertently masked by variability in expense classification.

When we analyzed the relationships, we found that the nature of the products offered by the plans had little to do with information systems costs. There is no evidence that product breadth had any impact on Information Systems Application Acquisition and Development cost or other information systems costs. (We used the Herfindahl-Hirshman Index as a metric of product breadth within these companies.)

However, we think that this conclusion should be viewed with caution. In the first place, we suspect that product concentration as we have calculated it does not fully capture the differences in the complexity of the products. For instance, an Indemnity PPO business is likely to encompass a very wide array of products not fully captured by our segmentation. Also, we do know from other universes that Medicaid and Independent / Provider-Sponsored Plans, with much fewer product offerings, have lower information systems costs.





We also tested the effect of the mix of ASO members on information systems costs. Our test showed no relationship between the proportion of members served under ASO relationships and Application Acquisition and Development costs.

Figure 2, however, shows that the higher the proportion of ASO membership, the *lower* the PMPM information systems costs in areas other than Application and Acquisition and Development. Although this relationship was statistically weak, the results differed from our expectations. It is possible that scale does make a modest difference in reducing administrative expenses once the unique benefit structures of large self-insured accounts are programmed.

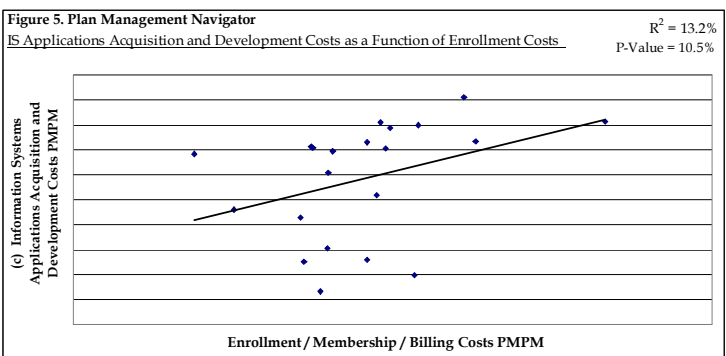
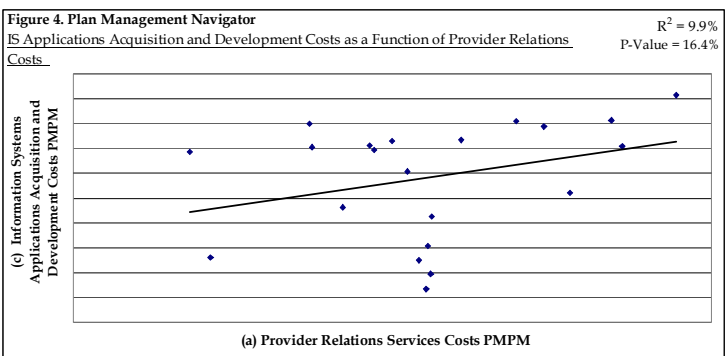
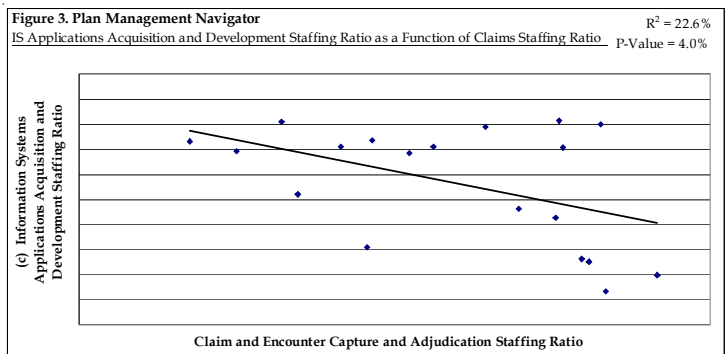
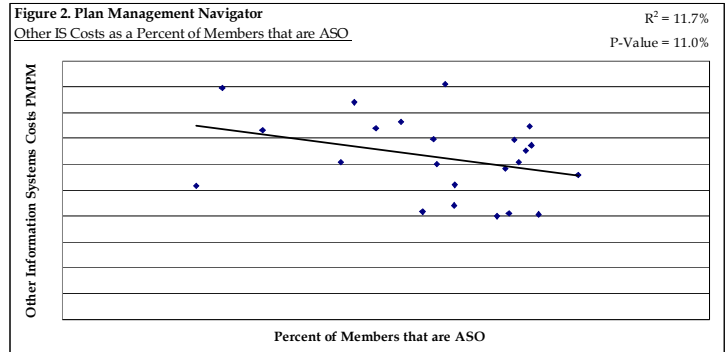
Thus we were unable to find product factors that would otherwise mitigate scalability.

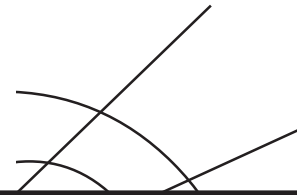
TECHNICAL COMPLEMENTS AND SUBSTITUTES

As noted above, health plans' information systems enable them to perform Claims, Customer Services, Enrollment and other functions more efficiently. Accordingly, we would have expected that the more firms had spent on information systems, the less they spend on these supported functional areas. Our calculations found, however, that most of the strongest relationships were the opposite of what we had expected.

There was not a significant relationship between costs of Applications Acquisition and Development and Claim and Encounter Capture and Adjudication costs. The staffing in Claim and Encounter Capture and Adjudication, however, had a sharply negative relationship with Applications Acquisition and Development costs. Please see Figure 3.

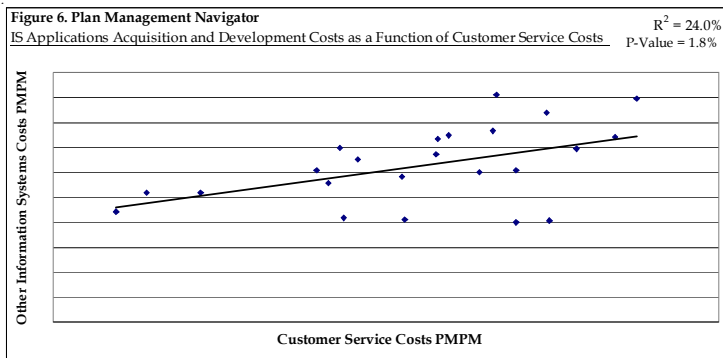
Application Acquisition and Development did have a positive relationship between two of the functional areas. The greater the Provider Services costs, the greater the Application Acquisition and Development costs. Likewise, the greater the Enrollment / Membership / Billing costs the higher the costs for Application Acquisition and Development. These relationships are shown in Figures 4 and 5, respectively. With a p-value in excess of 10% in both cases and relatively low R² values, these are not





especially strong relationships but they are notable for their direction.

In these two functional areas, there is not so much technical substitution but almost a complementary relationship: the higher the amount spent in the functional area, the more is spent on Application Acquisition and Development. One interpretation is that firms that are high cost in some areas are high cost in many others as well. Perhaps more optimistically, perhaps the decision to spend more (or “invest”) may have been spurred by the high costs in the functional area.



Information systems costs that are not Application Acquisition and Development are poorly predicted by costs or staffing in other functional areas. The sole exception to this is Customer Services, whose costs have a positive relationship to these other Information Systems costs. In other words, the more that was spent on Customer Services, the more was spent on the other information systems costs. Please see Figure 6.

Conclusion

It has long been our observation that economies of scale are few and far between in the health insurance industry. One might think that information systems could be an exception to this in that capacity to serve this function is more likely to come from a capital expenditure, and capital expenditures are, by their very nature, fixed assets.

Unfortunately for this intuition, scale does not appear to play a role in information systems costs. Indeed, Application Acquisition and Development appears anti-scalable. We endeavored to determine whether

there were other factors that could have muted the effect of scale, such as the breadth of products or the focus on ASO (which may have expensive, exception-ridden benefit designs), but the only relationship seemed to suggest that ASOs lowered costs.

We do know from past studies that larger firms operate differently. They have lower staffing ratios, greater information expenditures and higher per employee compensation expenses. But do those operational differences translate into lower overall costs? There are no discernable scalar advantages for the cluster of Account and Membership Administration for the plans in our universe. With respect to individual functions, staffing for Claims was indeed less in plans that had a heavy commitment to Application Acquisition and Development. But, possibly as a result of high costs, information systems costs were actually higher if Provider Relations Services, Enrollment / Membership / Billing and Customer Services costs were high. In short, overall or by individual functional area, the next dollar of IS investment does not seem to reduce costs.

Information systems is indispensable to health plans in the execution of their responsibilities to members, providers, other vendors and owners. On the other hand, it appears that management of information systems in the context of its support of other functional areas remains an inexact science at this stage in the evolution of the industry.

Dashboard Results: Continued from Page 1

number of scripts per person was unchanged at 10.0 on an annualized basis. E/R visits increased by 1.4 to an annual rate of 314.0 per thousand members and hospital days decreased by 6.6 to 268.4 days per thousand. All products experienced declines in hospital utilization.

The administrative expense to premium ratio fell 0.6 percentage points to 7.8%. Claims volumes increased by 0.91 to 14.0 per member per year while inquiries per member fell 0.02 to 1.6 per member per year. Staffing ratios increased by 0.95 FTEs to 18.3 per 10,000 members.

Health plans in our *Dashboard* universe are comprised of a mix of Blue Cross Blue Shield and Independent/ Provider-Sponsored Plans. *Please let us know if you would like to participate in the monthly reports or become a subscriber.*

