

Introducing: The Enterprise Velocity Index (EVI)

A critical facet of each enterprise is how it measures itself. Our tendency is to simply use financial goals such as profit or budget compliance to evaluate performance. After all, that is how the leader is measured, so why shouldn't everyone else? The problem is that financial goals are the result of many complex actions that may or may not have any relevance to the work done by the people of the enterprise. And the customers or clients only want their stuff done right and on time – neither of which is measured by profit or budget compliance.

The best metrics for driving enterprise results are clearly related to the objectives people can understand, such as defect reduction, meeting delivery commitments, and minimizing use of resources. One commonly used metric is On-Time Delivery, defined as the percentage of jobs or orders that were completed on the due date. However, this has often proven to be just as defective as the financial measures. The first problem is which date to use, the original promise date provided when the order was received? Or the reschedule date that the customer reluctantly agreed to? And what about the delivery date the customer actually wanted? Do you even know what that date is? Did anyone in the enterprise first ask the customer when they wanted their product or service or were they just given the “standard delivery time” that is often merely a guess?

Secondly, when compiling the on-time record into an aggregate measure, the people in the organization soon learn to avoid being held accountable for their delivery by stretching out any promise date they provide. When this “Delivery Date Padding” is multiplied by all the stops along the way, the overall promise for the job is extended well beyond the actual work time. This leads to lost work due to excessive lead times and, worst of all, the artificially long lead time actually creates more delays in meeting the date established!

The Enterprise Velocity Index

To provide an everyday measure of lead time reduction and avoid these problems, I have developed the Enterprise Velocity Index (EVI) simply stated as the amount of work completed compared to the amount of work available for a specified period. It can be used for the entire enterprise as an external measure or for a segment of work performed internally. The EVI can become the primary driver of an organization while providing diagnostics to point out the most important function to improve.

The Index is determined by dividing the work completed by the work available and then multiplying by 100 to create an index. The formula is stated:

$$V = (C/B) \times 100$$

Where: V = Velocity Index; C = Work Completed; B = Backlog of Work to Be Done

For example, if 25 jobs were completed in a month and 90 jobs were available to be done, the index would be **28** ($25/90 = .28 \times 100 = 28$).

External Measure

The first decision in using the EVI as an external measure of enterprise velocity is to decide what unit to measure. The number of orders completed and in the backlog is preferable because all customers are treated equally. But an enterprise with significant variety may need to use \$ value of work to create a meaningful metric. The key is to use an output of work and not an input such as labor hours.

The next step is to select the beginning point, such as orders received. The period of time is then selected, such as one year, a quarter, a month, or a week, depending on the typical completion time for the enterprise.

Once having developed its EVI, the enterprise is now capable of determining how well it turns orders into shipments and backlog into cash. An enterprise with a great deal of variety will typically have a lower index than one with standard work that is received in a steady flow. But the challenge to every enterprise in every industry is to improve its index. Even those that are leaned-out with every employee trained in six sigma faces a daunting question: what are you going to do to improve next year? They ultimately realize they can't cut costs forever; the best improvement efforts for future success is to increase throughput by reducing time at every link in the chain of activities they use to complete a customer's order.

Internal Measure

The process for measuring the EVI at each link in the customer chain of activities is the same as for the enterprise-wide metric: determine the unit to measure and divide the starting backlog into the work completed for a specified period of time. Once again, it is preferable to use number of orders or jobs so that all customers are considered equal but dollar value may have to be used if there is a high level of variation in the work performed. The internal EVI would use the backlog of orders released to the segment as the formula denominator while the work completed becomes the numerator.

Unique Diagnostics

The EVI at each link in the chain provides a unique diagnostic for the enterprise because it now has a standard measure to see which area is turning out the least work relative to its backlog. This would indicate the possible constraint for the entire enterprise and justify focusing resources on that link for improvement. Additionally, the enterprise can develop a history of EVI to watch for declines in performance while also identifying trends that might indicate problems in a certain area.

Ideal Index

The EVI also provides a way for the enterprise to address one of its most compelling issues: how good can our delivery be? How high an index should we have? An enterprise with a great deal of variety will struggle to attain an index approaching 75 while one with a standard product at an even flow might attain an index of 100 depending on the period it chooses to measure.

What is most important is that enterprises first create the metric and then work to improve their index regardless of where it is today. Backlog is as big a waste as inventory and represents cash that the company could use to invest in better processes. So driving for a higher EVI generates a better cash flow and higher profits but the customer gets their product or service faster, as well. What's not to like!?!?

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