



Understanding the Role of Leading & Lagging Indicators to Drive Productivity



Lagging and leading indicators are metrics that have been used by businesses for many years. Each plays a different role, either tracking what progress has already occurred, or pointing to what future direction the business is heading. Today, advanced technologies and predictive analytics have introduced a new level of innovation and productivity gains that are now possible with these metrics. Those businesses

that take advantage of this new intelligence and better understand lagging and leading indicators have an opportunity to out-perform their peers.



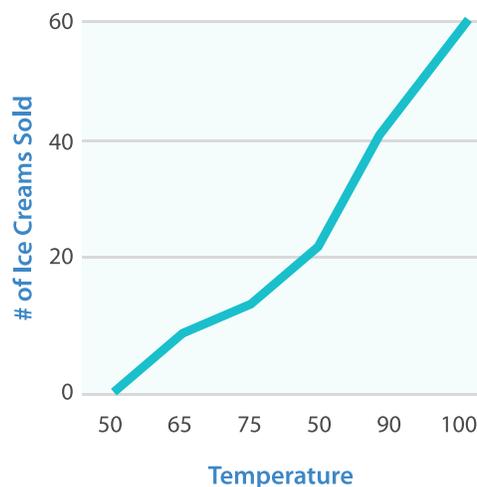
What is a Lagging or Leading Indicator?

The best description I have heard is that a leading indicator is an input that will impact and influence an output. Outputs can then be measured “after the fact,” so become the basis for a lagging indicator. For example, if you sell ice cream on the beach in the summertime, then an increasing temperature coupled with the fog burning off is a great leading indicator that you will sell more ice cream. The changing input, a higher temperature, and sunnier weather led to the output of more sales.

Continuing further with this example, if in the morning you were provided advance notification that the weather would be better later in the day, then you would be confident sales would increase. It is easy to see there is quite a bit of value in identifying an accurate leading

indicator, capturing that knowledge, and then taking advantage of it. In this case, you could call a friend or co-worker to help you manage the anticipated increase in demand.

If we expand across a larger geographical region, however, it becomes more difficult to see and act upon such an indicator. Here is where new technologies, such as artificial intelligence, machine learning, and predictive analytics technologies come into play.





Gaining Insights into Advanced Leading Indicators

Entrepreneurs have recognized the value of being able to identify and better understand leading indicators to predict future behavior. Much of the amazing investment in Artificial Intelligence has been to accomplish this task.

You may wonder what the connection is between artificial intelligence and leading indicators. Isn't AI all about machines being able to operate autonomously? Actually, these concepts are best seen as two sides of the same coin.

A machine that has been programmed with AI knows how

“The global artificial intelligence (AI) market size was USD 20.67 Billion in 2018 and is now projected to reach USD 202.57 Billion by 2026, a compound annual growth rate of 33.1 percent, [according to Fortune Business Insights.](#)”

to respond when faced with a specific input. For example, those using Alexa on an Amazon product can provide a specific command, such as “Tell me the weather.” From this input, advanced programming allows an Echo device to search the internet for local weather conditions, and then translate

that finding into a sentence that answers this input request. The device has taken an input, as a leading indicator, and provided an output, a description of the weather. The lagging indicator or output can then easily be validated by taking a walk outside.

Improving Performance with Leading Indicators

In a role-based example of sales, leaders are often challenged with how to measure sales performance on a daily basis. They've traditionally done so using lagging indicators, like percent to quota and revenue attainment. But, leading indicators, like daily activity, are action oriented and much easier to influence through coaching. By measuring leading indicators, the most accurate point of employee engagement, leaders can impact results.

At the same time, so many outside variables can have an unknown impact on the final result - consider the COVID-19 pandemic as an example - that can wreak havoc on business forecasts. So, having clearer indicators of what to expect, even in normal times, can be incredibly beneficial for leaders.

In a more normal "business as usual" type of market condition, new tools and predictive analytics metrics are now providing sophisticated insights into how sales management teams can better understand their inputs or leading indicators. This knowledge can then have a positive impact on outputs, or annual sales and quota attainment.

Better business intelligence – taken to a new level of detail and sophistication – is the heart of what is enabling this new level of performance. For example, did you know that a sales representative who is thinking about taking a new position with another employer is likely to exhibit certain behaviors that can be monitored as a leading indicator before they submit their resignation?



The way people spend their time, and how much time is spent doing particular tasks, are leading indicators of employment longevity as well as greater effectiveness in performance. It turns out people are pretty predictable when anticipating or thinking about a career change.

This type of activity has been going on for decades. Today, better measurement tools and business intelligence can be easily captured. This information can then be used to drive leading indicators, which can be acted upon (or not), based on management's intent and strategic direction. With robust data analytics like leading indicators around productivity, for example, businesses can improve performance, enhance coaching opportunities, increase employee retention, and streamline the employee experience overall.

What could you uncover with insight into leading indicators?

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What is Next for Leading Indicators?

With the knowledge that seemingly disparate information can be connected together and used to better predict future behavior, it is understandable why so much is now being invested in the artificial intelligence market. If new insights are really possible, how else can this knowledge be used to drive future value?

The answer is yet to be determined. For now, suffice it to say the sky may indeed be the

limit. Any unknown experiment or health risk is undoubtedly being analyzed to new levels of detail with incredible sophistication to try and find new leading indicators. Once identified, these inputs will then provide the basis for finding solutions to the challenges now facing our society. Who knows, there could be a leading indicator that predicts when you might be more successful in calling a new prospect, which could then become a success

story as measured by future positive outcomes, or lagging indicators that are measured tomorrow!

