Connecting People Investments and Business Outcomes at Lowe's:

Using Value Linkage Analytics to Link Employee Engagement to Business Performance

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The ability to formulate and implement strategy is one of the most important and elusive enablers of sustained organizational success. Successful strategy execution requires that the purpose and priorities of the organization be defined and the strategy and tactics for achieving them be clearly aligned.

Aligning strategy and execution is a difficult task for most businesses. Research indicates that 70 to 90 percent of organizations fail to realize success from their strategies.[1] Human resource leaders, in particular, often find it difficult to strategically align and integrate their HR functional strategies, outputs and measures to business priorities.

HR measures are typically cost-based, laggard metrics that either measure workforce-related expenditures (e.g., headcount costs) or efficiencies in the HR function itself (e.g., position-fill rates). Most HR executives lack forward-looking data that help drive business strategy. This puts the people agenda at a significant disadvantage when HR engages in strategy and execution discussions with other executives. While there is general recognition that people truly are an organization's greatest asset, there are limited ways to measure their activities effectively.

Over the past 20 years, employee engagement has become generally accepted as one indicator of business performance. Applied correctly, engagement data can act as an early warning system for revenue and profits. The statistical relationship between engagement and financial success has been shown in numerous studies. For example, in the report *Employee Engagement Underpins Business*, companies with highly engaged employees outperformed those with less-engaged employees in three key financial measures— operating income, net income growth and earnings per share.[2]

However, two critical issues are still keeping most organizations from measuring the actual financial impact of engagement on their bottom line. First, identifying the financial impact of engagement is, to date, mostly correlative—organizations know there is a connection but do not have sufficient cause-effect data necessary to make specific improvements for people or operational performance. Second, as a recent survey of HR leaders showed, companies who test these relationships statistically typically only examine relationships among different HR data points rather than making linkages to non-HR data as well. In fact, only a handful of organizations link HR to financial or other non-HR data.[3]

Ongoing research on the evolution or maturity of engagement practices in organizations shows the limited connection companies are able to draw between engagement and business outcomes.[4] Fewer than a fourth of respondents agree to the statement: *We establish and quantify direct cause-effect linkage between employee engagement and specific business results (e.g. reduced shrinkage, increased sales, etc.).* To show how HR helps drive business strategy, the relationships of HR data points to other non-HR data metrics throughout the organization must be measured, and the statistical techniques must be sophisticated enough to show cause and effect while managing the complexity of the organization's business processes.

The Importance of Integrating Data

For many organizations, integrating HR, customer, operations, financial and other types of data can be daunting. Barriers to conducting this type of analysis can range from simply not knowing all the types of data the organization is currently collecting, to dealing with incompatible or redundant systems housing the data, to data quality issues (information gaps) and issues in working across organizational silos.

Only four of more than 200 companies surveyed have reached the most mature level of engagement measurement practices—that is, the ability to integrate engagement with business outcomes.[5] U.S.-based home improvement retailer Lowe's Companies is one of these few companies that quantify the people impact on their business.

In 2007, Lowe's began the journey to establish a data-driven, HR business model to show causal linkages from HR to business outcomes. Lowe's understood employees are critical to competitive advantage, and could not accept that people were the largest single most unmeasured asset. Business leaders intuitively knew the relationships existed, but a proven decision model would help identify the people and HR priorities by showing which areas had the greatest business impact.

Designing Value Linkage

Lowe's collaborated with Spring International, an employee research and analytics firm outside Philadelphia, to develop a systematic methodology for determining the impact of people on financial results. Spring's People Value Linkage™ methodology was designed specifically to measure the relationships of HR data points to other metrics throughout the organization. It uses statistical data modeling techniques such as factor analyses, correlations and structural equation modeling, to show cause-and-effect linkages and provides a methodology for managing complex business processes.

This approach is more than an analysis technique—it is a structured methodology of steps that lead an organization through a process of discovering the data, building a model with the data that reflects how their business actually works, and then using that model to make strategic decisions. It has been tested in a num-

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[1] Kaplan and Norton, Strategy Maps—*Converting Intangible Assets into Tangible Outcomes*, 2004.

[2] Towers Perrin, *Employee Engagement Underpins Business*, September, 2009.

[3] Alexis A. Fink, *New Trends in Human Capital Research and Analytics*, People & Strategy, Volume 33 Issue 2, 2010.

[4] The Enterprise Engagement Alliance, *Engagement Maturity Practices*, 2011.

[5] *Engagement Maturity Practices*, 2011.

ber of organizations, but in many ways the large size, sophisticated systems and forward-thinking leadership at Lowe's served as the ideal proving ground to fully develop the methodology. The goal at Lowe's was to develop strategic and operational insights through measuring the workforce's impact on the company's bottom line.

The strength of the value linkage process is developing a model to drive a company's strategic and financial priorities. It should not be used to create a single normative model across companies. Each value linkage model should be built from company-specific business data so relationships can be tested based on a company's unique operating environment. This creates the best fitting and most predictive model for that company.

Lowe's set out to create a value linkage decision model to define the causal linkages between people measures and key metrics such as shrink, revenue and customer satisfaction. Lowe's used PVL to link HR data (engagement surveys, turnover data, sick time, etc.) to marketing data (customer satisfaction, loyalty, value, etc.), operations data (inventory shrink [a retail metric related to inventory loss due to shoplifting, employee theft, or supplier fraud], safety, etc.) and financial metrics (sales per square foot, net income before tax, etc.).
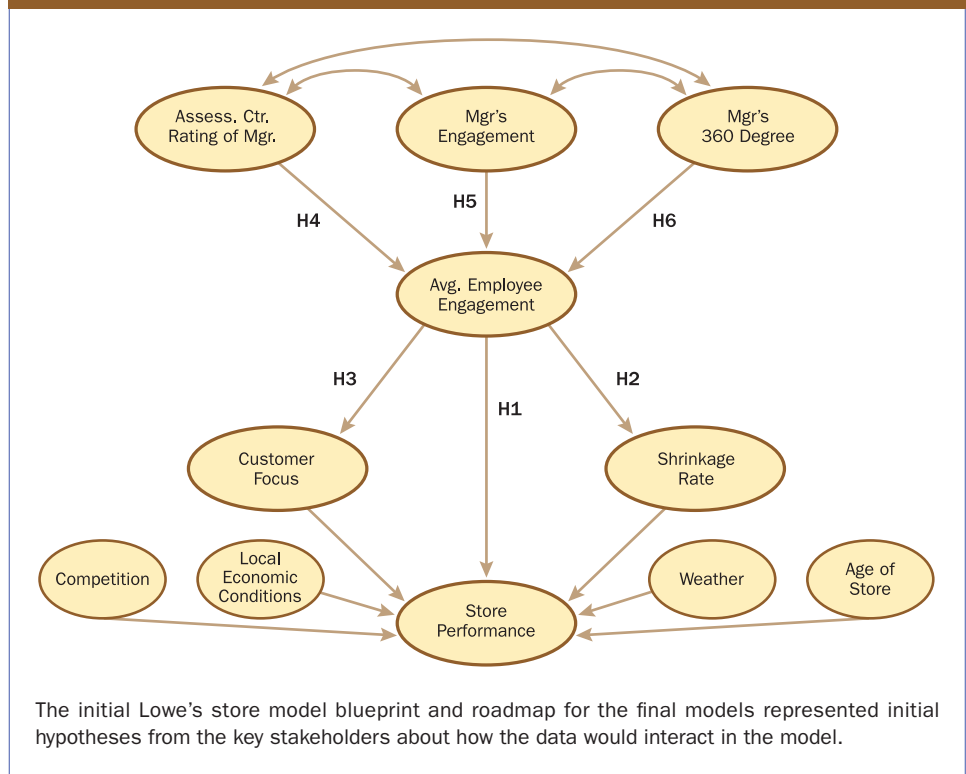
Step 1: Establishing Buy In

The first step for Lowe's was to establish executive buy-in. HR is the steward for many people decisions, but Lowe's objectives went beyond making HR more efficient or effective. Lowe's wanted to make better people decisions for the organization, not just better HR decisions. Lowe's had already seen the impact of its engagement work, and the HR leadership team championed linkage analysis as an extension of this work.

But Lowe's had skeptics at the beginning for creating a viable model to show the impact of engagement to the bottom line. The Lowe's HR team recognized early on in the process that a cross-functional team was required to build and achieve support for a linkage model. A cross-functional team was created with an emphasis on finance, market research and operations to help build the model.

Beyond building the cross-functional project team, HR's primary role in the model devel-

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opment was to facilitate the process. HR's larger role for organization alignment would come after the model was built.

Step 2: The Discovery Process

The second step was to conduct a data audit and evaluation process starting with the employee attitudinal data from Lowe's employee engagement results. Establishing quality metrics is essential before embarking on any linkage analysis approach. For example, organizations cannot assume that simply conducting an engagement survey provides sufficient data to conduct a linkage analysis. Many organizations collect only a sample survey each year, may use a limited response scale (less than a five-point scale), may not identify results by location or group or even distinguish results by manager and non-manager. These components have been found to be very important for linkage analysis.

After assessing the employee opinion data and other data traditionally collected by HR, the project team turned their attention to the non-HR data. They initiated a discovery process with the key holders of data–finance, marketing, customer service, business development

and operations—to find the metrics that are most relevant to the way Lowe's business operates. Multiple meetings, facilitated by HR, were conducted over the course of a six-week period. In addition to gathering data, these meetings were important to establish credibility and buy-in. In the meetings, data holders had the opportunity to ask questions about how their information interacts with data from other parts of the company. They designed each meeting to share purpose, establish "what's in it for me" for stakeholders, identify data availability, clarify outcomes and address the skeptics. Even with leadership buy-in and HR as the facilitators, gathering all of the data from multiple sources required both patience and persuasion.

At the conclusion of the discovery process, the cross-functional team developed a people value linkage blueprint to document the data that was available, evaluate the quality of the data and provide a roadmap for the model. This blueprint also captured all of the expectations, or hypotheses, from the key stakeholders. These expectations translated into various stakeholders' perceptions. Some examples included the expectation that there would be a causal linkage between engagement and customer satisfaction and the expectation that the level of employee engagement would drive a reduction in accident and

shrinkage rates. These expectations became the first set of hypotheses that the resulting models would measure.

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Step 3: Building Behind the Firewall

As most financial and operational data is too sensitive to take off site, the modeling itself took place within company firewalls with a two-part consultant analysis team consisting of a statistician and a strategist. The combination of these two minds ensured that relationships tested in the model reflect both statistical accuracy and the reality of business.

The modeling process began with collecting all the data from the various data holders in the various systems and cleaning it before merging it into one cohesive system. Lowe's include nearly 600 variables in the initial data set to be analyzed. The team used a combination of correlations, factor analysis and regression to reduce the number of variables to the most predictive in each core area on the blueprint. For example, analysis determined which observed variables had the most predictive impact to be used to measure

important metrics in retail, such as store performance and customer focus.

Structural equation modeling (a statistical technique that combines confirmatory factor analysis and path analysis) was then used to build and test the model created in the blueprint. Structural equation modeling is a deductive technique that tests a pre-determined model. Most organizations have already chosen a structure and ways to interact within that structure to maximize business results. Decisions are made within organizations with express purposes. Deductive models allow organizations to test how well their structure and processes are working. While the PVL process is rigorous, it is also adaptive.

The process allows for revisions to the blueprint as variables are added or removed and for the testing of more than one model as new information is presented. The final model is constructed through creating different versions and testing each with different theoretical assumptions to look at new relationships that make sense in the context of the company. The model continues to be adapted until it reflects the best fit.

When the structural equation modeling process was complete, Lowe's had several core models that clearly delineated data correlations and causal linkages and the strength of those relationships.

Once the base models were established, Lowe's was able to quantify the results into tangible financial impact measures within the organization and then further refine the models over time with additional metrics and insights. In this stage, the models are used to answer critical questions such as:

- Training increases cost, but it also should influence efficiency. How does that play out in reality based on a company's actual financial results?

- Leadership tenure and staffing levels should contribute to customer satisfaction, but do they?

- What is the most effective HR program or investment to increase customer satisfaction?

## Step 4: Identifying Performance Themes with Executive Buy-In

Upon development of the initial models, the researchers and Lowe's HR team conducted a working session with the data holders to fully explore the implications and refine the model. The team validated the model and results and then analyzed the data to make sure it was pulling out the right initial themes that existed across the enterprise.

Lowe's was careful to focus on key strategic themes to ensure management would focus on business priorities with the follow-up engagement action planning. Once the themes were understood from an HR perspective they were shared with the executive team. Through dialogue with the executive team, they agreed upon enterprise-wide themes and they shared the themes with each function (Finance, Operations, etc.)

While the executive team was supportive of value linkage's objectives, some questioned whether models could establish the cause-effect relationships. As the models were built in concert with finance, operations and research, the insights were acknowledged from functional stakeholders. With this acceptance, Lowe's was able to use the models to prove a direct connection between engagement and customer satisfaction and the linkages to revenue, shrink rates and a number of other areas.

Lowe's started the review and buy-in process with the HR leadership team, then the execu-

EXHIBIT 2: LOWE'S FIRST STORE MODEL BLUEPRINT
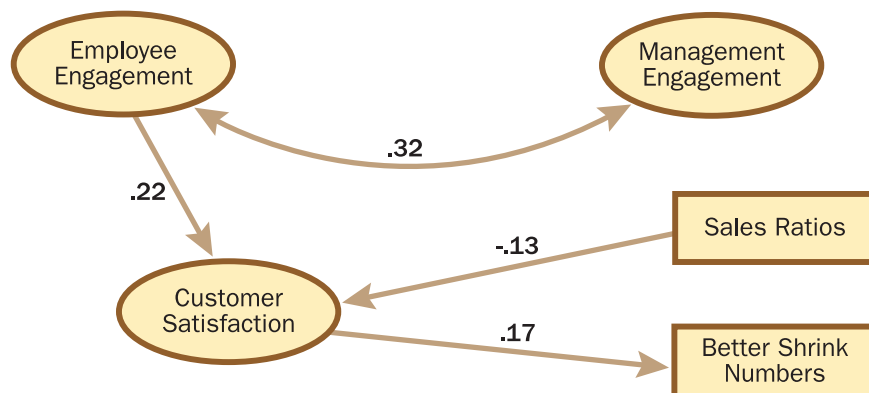
In this model, ovals indicate an item that is constructed of multiple variables and rectangles indicate individual variables. Lines with arrows on both ends are co-varying relationships. meaning that the two items impact each other. Lines with arrows pointing in one direction indicate that one item is impacting the other. The numeric values are regression error terms that show how much impact one item has on another (e.g., if A impacts B with a score of .14, then when A moves one unit, B will move .14). Positive values indicate that when one item goes up, the other item will also go up. Negative values indicate that when one item goes up, the other item will go down.

tive staff including the CEO, the functional leaders across the board and then down to the workforce. The concept of working at the enterprise level helped to get agreement and work across silos.

The models were used to identify areas with the strongest relationship and greatest impact on Lowe's business priorities. These models became a foundation for prioritization of effort—influential in decision making for the HR team and operators within the organization. The models were then finalized and the sharing and buy-in process across the organization began.

Step 5: Cascading Results and Taking Action

Many organizations find it difficult to disseminate value linkage data and results. The impact on performance is measured over time, and is often part of a larger change initiative. A key success factor at Lowe's was sharing a combination of the visual models, simple charts and graphs and themes that represented the findings of the complex statistical models, and then communicating the findings in concrete financial measures that held meaning for key operators.

There are two ways to approach data sharing and follow up. A functional approach allows individual business units to choose their own focus. An organizational approach looks at themes across the enterprise and provides direction to the functions. Lowe's chose an organizational approach to allow the time to educate the organization and business units on how to use the data and enhance control of the change process. In retail-focused operations—where operational excellence is a top priority—the tendency is to fix and deploy something as quickly as possible. Keeping the results at the thematic level within the enterprise ensured that the HR and operations components were created simultaneously to drive systemic and holistic change.

Over the past five years, Lowe's has placed significant focus on employee engagement, and now it has permeated across the entire organization. Every business leader and each business unit believes in the importance of engagement and wants to know how their workforce perceives them. Employees want to know how the decisions and investments the organization is making impact not only themselves, but customers and the corporate infrastructure.

Now at Lowe's, management teams are eager to receive their information and, in the spirit of healthy competition, are energized to raise engagement. HR continues to partner with management teams to help maintain focus on key areas with the greatest impact to both engagement and the business.

Step 6: Evolving the Model

Lowe's conducted employee research to ask the workforce for input, by theme, to determine what employees needed to drive engagement in these priority areas. Lowe's used their employee communication platform to collect employee input as well as to communicate their engagement investments. In some cases, employees wanted changes that Lowe's would not be able to provide, and it was important to be transparent and show the engagement priorities were aligned to the business priorities.

After Lowe's collected employee input for priorities and action planning, they continued to build out their linkage models with more data. Within Lowe's, the focus has also grown beyond employee engagement to begin testing the impact of other HR programs that they determined to be critical to enhancing engagement. HR programs that support leadership development, enhance work-life balance, and diversity and inclusion can all be built and tested into the existing models to see their impact on engagement and ultimately the bottom line. With each new data set, they can test new hypotheses and prove new relationships.

In addition, during the first year of modeling, Lowe's conducted quarterly stratified sample surveys measuring employee engagement that mapped to financial quarters. This

Engaged Employee Inspires Engaging Sales

At Lowe's, one of the most compelling findings was the relationship between employee engagement and customer satisfaction and the impact on revenue. Traditional retail sales impact analysis includes the measurable factors that ultimately drive sales—customer traffic, revenue generated by advertising, online traffic, inventory, etc. Employees are typically missing from this equation because their impact is too difficult to measure.

Lowe's intuitively knew there was a connection between engagement and customer satisfaction, and by developing a value linkage model Lowe's was able to confirm that link and translate their assumption into real dollars and cents. The engagement-customer satisfaction analysis made for a compelling first exploration of the enterprise-wide model. One example was the relationship between engagement and average ticket, which is the amount of money a customer spends per transaction.

Consider this scenario: If a customer walks into a Lowe's store to buy a gallon of paint, a disengaged employee would probably respond, "Here's your paint, have a nice day." Alternatively, an engaged employee may respond, "What project are you working on? If you need some paint, you may also need primer, as well as some paint brushes or rollers." The level of dialogue, of support, makes Lowe's customers feel better and at the same time helps drive average ticket sales.

Intuitively, Lowe's knew this was how the relationship worked, but now it had the numbers to show the actual dollar impact. High employee engagement was driving four percent higher average ticket per store. Lowe's went on to quantify other relationships found in the models, adding up all cost savings and additional revenue that could be generated by increasing engagement. In the end, Lowe's found that a conservative difference between the highest and lowest engaged stores was more than $1 million in sales per year.

Re-aligning HR to Business Priorities

Now that Lowe's had validated linkage models with prioritized themes and had quantified relationships among metrics by financial impact, the HR leadership team was able to redesign the HR strategy and priorities around the business strategy and priorities. The HR function was re-aligned to drive the people-business outcomes from the model.

Lowe's looked at all the processes, procedures, functions and deliverables across the HR function to optimize the delivery of the linked priorities. The HR leadership team re-crafted a business model for the organization, redefined the pillars of HR, and then wrote a multiyear business plan for the HR function to support the plan. Lowe's used the plan to re-prioritize investments, halting some programs and shifting resources to align to the plan. For example, Lowe's used the model to prove the return on investment for leadership training based on the measured impact on employee engagement and financial results.

From an executive standpoint, every function has a model to show its impact on the organization. Now that there is a model for people, for the area HR represents, the HR function has the ability to align its roles and objectives around it to show that HR and the workforce are continuing to deliver value. This allows the HR function to take a stronger ownership role in ensuring workforce alignment around the strategy of Lowe's.

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enabled the analytical team to create models that could account for lags and leads, and to determine which drivers and relationships stayed constant over time or weakened based on changes in the economy and market. For example, did increased engagement in Quarter 1 lead to improved customer satisfaction in Quarter 1 or did it lag until Quarter 2? How long did the effects of increased engagement last? This quarterly approach to modeling throughout the operational and financial year enabled the analytical team to test for seasonality and ebbs and flows of sales that are common to the retail setting.

This approach helps determine questions that need to be explored further or new questions that need to be asked. The models are designed to be adapted and improved to reflect the constantly changing economy, work environment, market demands and changing employee relationships.

Future Role for Value Linkage at Lowe's

Today, Lowe's has captured the impact of employee attitudes and how this affects the business—this is a milestone step for the HR business function. Lowe's is beginning to translate these models into forward-looking, predictive analytics.

Value linkage is a key step in the journey toward predictive analytics. Lowe's sees the next stage including forecasting retention and productivity issues and the corresponding financial impact to make predictive investments for ongoing improvements. To reach this stage, Lowe's will need to continue to build out models with more details—market demographics, employee behavioral data, forecasts, etc. Lowe's wants to know with a high degree of probability how the workforce will behave and the levers to pull for higher productivity—to predicatively analyze business from a human capital perspective.

As a process, value linkage allows companies to bridge the gap between HR and operations by aligning strategies, prioritizing objectives, setting targets and tracking progress. Creating the causal linkage between engagement and business outcomes provides tangible data to show how programs that drive engagement lead to measureable business results. **P&S**

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