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DOI: 10.1177/0010880404266247
Volume 45, Issue 4 376-387

Evaluating the Impact of Human Resources

Identifying What Matters

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Human resources (HR) management constitutes a blend of human-capital practices, some of which are required for corporate maintenance, but others of which create value for a company. The task that faces HR managers who seek to establish the financial impact of their departments is to be able to show which practices are the ones that create value. One wide-ranging study has shown a clear relationship between specific human-capital-management practices and increased shareholder value. However, apparently not all HR practices boost value—even though it seems they should. Although additional research will be needed to establish which practices boost the bottom line (and which are merely maintenance activities), the data indicate what HR managers have long suspected. That is, HR-management practices are not a necessary evil that creates a drag on corporate profits, as some executives seem to believe. Rather, solid human-capital management does improve corporate profits and creates shareholder value.

Keywords: HR-firm performance; HR impact; assessing HR value

In April 2003, a group of senior human resources (HR) executives and consultants convened at Cornell University's School of Hotel Administration for a roundtable discussion of issues associated with HR strategy and practice. One of the topics that stimulated spirited discussion focused on establishing the credibility and bottom-line effect of the HR function. This topic arose out of concerns regarding the perceived versus the real relevance of HR, particularly at the strategic or corporate level. While some of the roundtable participants argued that many HR professionals suffer from an "insecurity complex" and engage in evaluative efforts to "toot their own horn," everyone agreed that it simply makes good business sense to show how the HR function contributes to a firm's goals—something that all function-area executives should be concerned about. Therefore, the

need to demonstrate the impact of HR on firms' performance is a current and future priority.

However, demonstrating the value of HR can be a daunting task, given the many factors that must be taken into consideration. In this article, we discuss some of the issues that must be taken into account in demonstrating HR's impact. We begin by arguing that not all HR policies, practices, or systems are critical for creating value or driving a firm's performance. We then highlight some of the approaches that can be used for assessing impact and identifying which policies, practices, and systems, in fact, matter most. Next, we discuss an assessment process that has been developed by one of the largest HR consulting firms and list some of the policies and practices that this firm found contributed most—and least—to firms' performance. Finally, we present the results from an industry-specific study that supports the consulting firm's findings and demonstrates how to establish impact within an operation.

Establishing Strategic Relevance

The past ten years has highlighted a burgeoning recognition of the value of human and intellectual capital for firms' performance, particularly in the hospitality industry.[1] Given that best-practice processes and enhancements in technology and other procedures can quickly be duplicated, organizations are increasingly directing attention to their employees as a source of competitive advantage. The notion that employees are the focal point of creating competitive advantage is grounded within the resource-based view of the firm.[2] Advocates of this approach to strategic analysis and planning argue that a sustained competitive advantage can occur only in situations in which physical, human, and organizational capital varies across firms and where some firms may be unable to obtain necessary resources that are benefiting other firms. If these conditions exist—and they certainly do within the hospitality industry—then a firm's resources can provide a sustained competitive advantage, provided such resources (1) add positive value to the firm, (2) are unmatched or rare among current and potential competitors, (3) are imperfectly imitable, and (4) cannot be substituted with another resource from competing firms. Therefore, strategic success is contingent on developing (as opposed to buying) resources to meet these conditions.

The resource-based view offers important insights regarding the types of HR activities and systems that may contribute to a firm's success. Consider the staffing function, for instance. It can be argued that attracting and hiring the most qualified employees may result in a competitive advantage since no other firm will be able to use their talents. Thus, if such individuals perform at their best, they should add value to the firm and help differentiate the products or services that are rendered. In contrast, a firm's HR information system may not offer a competitive advantage, since this type of resource may be available to competitors. Thus, some HR activities and functions may be a source of competitive advantage, whereas others may not.

To establish the strategic relevance of HR, it is critical to distinguish those human-capital-management practices that assist in the creation of economic value from those that are simply neutral or, worse, a drag on economic value. Given that competitive forces require cost containment, HR is increasingly challenged by senior management to do more with less (as is the case with other operating

areas). To many, this request is akin to spinning gold from straw. While Rumpelstiltskin may have been able to rise to the challenge, this can be a tall order for the rest of us. Since the cost-containment mandate is unlikely to reverse anytime soon, HR will have to find ways to use its existing talent to promote the highest-value activities and practices—that is, those that help drive the strong financial performance. Thus, it is imperative that we find and use sound, reliable, and valid frameworks and measures to assess the true value of our portfolio of human-capital-management practices to the bottom line.

At present, there is good news and bad news concerning efforts to assess the impact of HR. The good news is that according to a recent study published by the Corporate Leadership Council, HR executives are making visible efforts to use HR metrics to better align HR strategy with corporate strategy, enable line managers to make better workforce-related decisions, and demonstrate the bottom-line impact of HR practices and programs.[3] These same executives indicate that HR measurement is a top priority that is likely to continue to grow in importance and that they expect their firms to increase investments in HR metrics. The bad news, however, is that the same study reveals that most HR executives do not believe that their HR metrics systems are effective at supporting the business objectives they deem most critical. While this article is not intended to serve as a primer on developing individual metrics and HR scorecards that can be aligned with corporate strategy and objectives, we discuss a few of the approaches that have been used successfully to quantify and understand a company's return on its HR investments and highlight one of the more comprehensive efforts for assessing the impact of HR. More important, we demonstrate that the value attached to all human-capital practices is not necessarily equal.

Approaches to Assessing Impact

Assessing impact requires some type of empirical or utility-based analysis.[4] Many firms, often with the assistance of professional consulting services, have attempted to design and develop frameworks and tools to measure the return on investments in intellectual or human capital. Such efforts have created a number of competing measurement philosophies, conceptualizations, and operationalizations. In sum, there is no single magic quantitative bullet that will allow organizations to arrive at an exact, foolproof figure on the value created by employees within a firm. However, a number of intuitive and sound approaches have emerged during the past decade or so that can be used to guide evaluation efforts.

One of the most appealing perspectives is based on the service-profit-chain model.[5] This strategic framework posits that investments in employees, such as well-designed reward and recognition programs that are directly linked to individual performance results, will lead to quality and productivity improvements that subsequently yield higher levels of service quality at lower costs. Such improvements will, in turn, influence customer satisfaction and loyalty, ultimately driving revenue growth and profitability.

To implement this model, a balanced-scorecard measurement system is used. This system provides a means for translating "an organization's mission and strategy into a comprehensive set of performance measures. . . . The balanced scorecard retains an emphasis on achieving financial objectives, but also includes the performance drivers of these financial

objectives."[6] The measurement categories of the balanced scorecard are directly linked to the foundations of the service-profit chain—employee learning and growth (e.g., employee capabilities, commitment, and productivity), internal business processes (e.g., quality, cycle times, and innovation), customer attitudes (e.g., satisfaction and loyalty), and financial results (e.g., revenue growth, asset utilization, and net income). Thus, this particular strategic framework creates a clear alignment between a firm's strategy and the measures that are used to assess strategic progress.

One company that successfully implemented the service-profit chain and the accompanying balanced scorecard is Sears Roebuck. Sears was losing billions of dollars annually during the early 1990s. As part of a larger change initiative, which included closing many stores and jettisoning its catalogue division, the company developed a new measurement system that was tied directly to Sears's new vision for the future. The vision was quite simple: "Sears, a compelling place to work, to shop, and to invest."[7] This vision served as the foundation for the new measurement system. The key element of this system was linking "soft" measures associated with employee and customer components with objective financial indices such as revenues and profits. To initiate the process, senior management engaged in a massive data-collection effort to define the objectives under each of the three components of the vision—called the employee-customer-profit chain—and then developed measures to determine whether progress was being made toward the objectives. After both rigorous research and trial and error, the company found that two particular employee attitudes—perceptions about their jobs and perceptions about the company—had a significant effect on employee loyalty (retention) and behavior toward customers. Favorable employee behavior was found to have a direct and causal effect on customer satisfaction and retention, which, in turn, influenced revenue growth, operating margins, and return on assets. By focusing on a handful of critical objectives, Sears created one of the most impressive business turnarounds in recent history. In 1992, the merchandising division alone lost almost $3 billion, a figure that represented about three-quarters of the total company losses. In 1993, by contrast, the merchandising division generated a net income of $752 million, and overall, the company produced a total shareholder return of more than 50 percent. That trend continued into the next decade. In 2002, the company recorded a 17 percent increase in earnings per share, generated $1.6 billion in net income, and showed a 25 percent return on equity.

It is clear that certain human resources practices drive profits and improve a company's financial position. The issue is, which ones make a contribution?

A related approach was developed by Brian Becker, Mark Huselid, and David Ulrich, who integrated the strategic components of the service-profit-chain framework and measurement principles associated with the balanced scorecard to create an HR-specific balanced scorecard.[8] This particular measurement framework emphasizes the alignment between a firm's overall business plan and the HR function. In addition, it helps to differentiate performance drivers, which create value for the firm and are directly related to performance outcomes, from performance enablers, which reinforce and sustain the

performance drivers. Thus, as indicated above, some measures may provide an indication of the outcomes of prior decisions (i.e., what has happened in the past), while others "assess the status of the key success factors that drive implementation of the firm's strategy."[9]

A different approach to assessing HR's impact has been led by Jac Fitz-enz, founder of the Saratoga Institute (SI), which is now part of the HR consulting arm at PricewaterhouseCoopers. Using a sophisticated Web-based measurement system, SI gathers a wide range of annual HR metrics from several hundred U.S. based companies. Using these data, companies can track and benchmark staffing costs, employee turnover, and a host of other activities and outcomes, including the ROI of human capital. The use of externally based references can then be used as a basis for identifying HR priorities, assessing the influence of changes to the HR system, and then linking HR to firm performance.

However, while these strategic measurement approaches have been instrumental in helping numerous organizations develop a clearer and more comprehensive understanding of the factors that may influence a firm's performance, none of them provides enough prescriptive information regarding *which* HR policies, practices, or systems may be most relevant to that performance. As Becker, Huselid, and Ulrich noted, HR drivers and enablers will likely be different for each firm. So where do we start? Is there evidence regarding specific policies, practices, and systems that may influence a firm's performance? The answer is *yes*, but only to a point. A recent effort by Watson Wyatt Worldwide has provided insights that help to distinguish the most relevant HR policies, practices, and systems and, thus, provides a solid starting point for establishing HR priorities. Watson Wyatt's groundbreaking work provides a much more precise basis for distinguishing superior human-capital-management practices that may be leading indicators of both improved financial performance and increased shareholder value from other HR activities that may add less value or, in fact, reduce value of the firm.

Watson Wyatt's Approach

In 1999, Watson Wyatt Worldwide, a global HR consulting firm, set out to determine whether the way a company manages its human capital significantly drives its financial performance. Called the Human Capital Index (HCI),[10] this study examined the direct impact of certain human-capital-management practices on total return to shareholders and market value.

In the first HCI study, conducted in 1999, Watson Wyatt surveyed more than four hundred U.S.- and Canada-based companies that were publicly traded, had at least three years of shareholder returns, and had a minimum of $100 million in revenue or market value. The firm asked senior HR executives a wide range of questions about their organizations' HR practices, including pay, benefits, people management and development, communications, and staffing. Responses were matched to objective financial measures, including market value, three- and five-year total returns to shareholders (TRS), and Tobin's Q, a ratio that measures an organization's ability to create value beyond its physical assets. To investigate the relationship between human-capital-management practices and value creation, a series of multiple regression analyses was conducted. This analysis identifies a clear relationship between the effectiveness of a company's human-capital practices and shareholder-value

creation. Thirty key HR practices were associated with a 30 percent increase in market value.

In 2000, a European HCI survey was conducted to gain a global perspective on these issues. More than 250 responses from sixteen countries were received. The survey included 200 questions in six languages and covered companies of all sizes and from all sectors of the economy. More than a third of the participants were in the Euro 500, and more than a quarter were in the Global 500. The findings from the European study were similar to the North American results, with improvements in nineteen key HR practices associated with a 26 percent increase in market value.

In 2001, the HCI research was conducted again in North America, this time including responses from more than five hundred companies. Participants in this research reflected a broader view of business than that of earlier studies and included some larger, more-prominent firms—average annual sales of $4.68 billion, $8.45 billion in market value, and 18,697 employees on average. Of note, however, fifty-one of these companies participated in both 1999 and 2001. Consequently, Watson Wyatt was able to compare that set of companies for two years to determine whether human-capital-management practices are a leading or lagging indicator of increased shareholder value. As previously hypothesized but supported only by anecdotal evidence, cross-lagged panel correlation analyses revealed that, indeed, superior human-capital practices are a leading indicator of financial returns.

Finally, the European and 2001 North American data were merged. The result is a complete respondent base of more than 750 companies in the U.S., Canada, and Europe that have at least three years of shareholder returns, 1,000 or more employees, and a minimum of $100 million in revenues or market value. These data became the basis of a book by Bruce Pfau and Ira Kay, *The Human Capital Edge*, which identifies and discusses a number of human-capital-management practices as value drivers (e.g., treating health care benefits as important for both recruiting and retention) and throws cautionary flags in front of some conventional practices found to actually be associated with a decrease in financial performance (e.g., 360-degree feedback).[11] The book presents research, analysis, examples, and case studies designed to show why and how certain human-capital-management practices can boost or diminish an organization's bottom line.

More critically, the HCI shows precisely which HR practices drive the bottom line. The 2001 research identifies forty-nine specific human-capital practices that play the greatest role in creating shareholder value. Pfau and Kay group these practices into six overarching factors, as follows: (1) total rewards and accountability; (2) collegial, flexible workplace; (3) recruiting and retention excellence; (4) communications integrity; (5) focused HR service technologies; and (6) prudent use of resources. The research quantifies exactly how much an improvement in each practice could be expected to increase a company's market value. For example, a company that makes a significant improvement (defined as a one-standard-deviation increase) in all sixteen practices categorized under total rewards and accountability should see its value improve by 16.5 percent. A significant improvement in all forty-three key HR practices is associated with an increase of 47 percent in market value. However, it is important to note that the dimension "prudent use of resources" contains six practices that diminish share-

holder value and are collectively associated with a 34 percent loss in market value.

Exhibit 1 presents a summary of the effects that some of the major HR practices have on market value.

The work by Watson Wyatt, along with that of others, has succeeded in developing a factual, data-driven analysis of human-capital management. Although this is a positive development, we do not see this as a quantitative magic bullet. While there remains some conceptual and analytical tweaking to be done by researchers and analysts, a real causal connection between people-management activities and shareholder value has been successfully demonstrated. HR functions everywhere should be seizing on this and communicating assertively to their senior leadership teams, imploring top managers to focus sufficient time, attention, and resources on this critical dimension of running a business. The ammunition is now available for HR to formulate and construct compelling business cases for the differential allocation of time, energy, and the corporation's resources and assets. In his forward to *The Human Capital Edge*, Stanford University professor Jeffrey Pfeffer succinctly and correctly points out, "Changing the management of human capital will not necessarily be easy. Too many businesses try to excel through benchmarking and looking at what everyone else does. One cannot earn extraordinary returns by copying everyone else. What *The Human Capital Edge* [framework] shows is how to achieve exceptional results [by focusing on the right things]."

Valuable for Organizations Large and Small

At this point, the reader may be thinking, "Well, these results may be useful if you work for a large, publicly held firm, but what about small organizations, particularly those that operate within the hospitality industry? Do I have to rely on the expertise of an expensive consulting firm to establish impact, or can I develop my own approach for assessing the impact of HR?" To address these questions, we will now present the results from a study that shows that with the appropriate data and some rigorous analysis, it is possible to determine the relevance of human-capital policies, practices, and systems to gauge the performance of firms of all sizes.

Job-skills training for firm performance. Job- or technical-skills training is an HR practice that is widespread in the hospitality industry. This type of training focuses on the acquisition of knowledge and skills that are fundamental for performing one's primary tasks, duties, and responsibilities. Many such programs are built into employee orientation and socialization programs and are part of ongoing efforts to enhance job knowledge, task efficiency, customer-service interactions, and other important outcomes.

A recent *Cornell Quarterly* article by Bruce Tracey and Arte Nathan provided empirical evidence regarding the importance of job-skills training for restaurant performance.[12] The authors reported that the total amount of time spent on job-skills training, as well as employee turnover levels, was significantly related to store sales. Based on this result, the authors concluded that "long-range plans for [firm] growth must consider the consequences of HR decisions regarding employee development and retention."[13]

Unfortunately, this reasonable-sounding conclusion was premature because the analytic strategy used in this study failed to consider whether job-skills training was a driver of unit sales or whether it

Exhibit 1:
Effects of Selected Human Resources (HR) Practices on Corporate Market Value

Category	*Practice*	*Effect on Market Value (%)*
Total rewards and accountability	Health benefits are treated as important for recruiting and retention.	2.8
	High percentage of company stock is owned by employees.	1.3
	Pay is linked to company's business strategy.	1.1
	Company promotes most competent employees.	0.9
Collegial, flexible workplace	Company shows flexibility in work arrangements.	3.5
	Trust in senior leadership is actively engendered.	1.2
	Managers demonstrate company values.	1.1
	Company culture encourages teamwork and cooperation.	0.5
Recruiting and retention excellence	Company has low voluntary turnover of managers and professionals.	1.7
	Company emphasizes job security.	1.4
	Formal recruiting strategy exists for critical-skill employees.	0.6
	Recruiting efforts are aligned with the business plan.	0.5
Communications integrity	Employees have easy access to technologies for communication.	4.2
	Employees at all levels give ideas and suggestions to senior management.	0.7
	Company shares business plans and goals with employees.	0.6
	High percentage of workforce participates in opinion surveys.	0.6
Focused HR service technologies	Improving service to employees and managers is a key goal in implementing HR service technology.	2.3
	Reducing cost is a key goal in implementing HR service technology.	2.3
	Increasing transaction accuracy and integrity is a key goal in implementing HR service technology.	1.9

(continued)

Exhibit 1 (continued)

Category	*Practice*	*Effect on Market Value (%)*
Prudent use of resources	Enhancing communication is a key goal in implementing HR service technology.	–7.7
	Culture change is a key goal in implementing HR service technology.	–6.6
	Employees have an opportunity to evaluate superiors.	–5.7
	Employees have access to training needed for career advancement.	–5.6
	Employees have an opportunity to evaluate peers.	–4.9

served as a maintenance or performance-enabling activity. The earlier conclusion is especially suspect because the results from the HCI studies showed that training diminished market value. Looking at this counterintuitive finding, Pfau and Kay noted, "All training is not equal. Companies must take a rigorous approach to the design of training programs to reap the benefits of increased productivity, employee commitment, and shareholder value."[14] Thus, if appropriate strategies are used to design and implement development programs that have a direct bearing on one's job, and if individuals have an immediate opportunity to apply their new knowledge and skills on the job, then training is likely to improve both individual and firm performance.

To examine whether job-skills training may be a leading or lagging indicator of a firm's performance, we reexamined Tracey and Nathan's data set and tested two competing models. The first model was consistent with the HR-investment perspective, which is based on the assumption that resources dedicated to job-skills training, as part of a broader HR system, will enhance employee capabilities that are instrumental for achieving operational goals—in this case, top-line performance. Consistent with Pfau and Kay's summary of effective training, we expected that a well-designed and well-executed job-skills training program, one that is directly related to an individual's current performance requirements, would have a direct and negative effect on employee turnover (i.e., higher levels of training would lead to lower employee turnover) and that turnover would in turn have a direct and inverse effect on sales performance (i.e., lower levels of turnover would lead to increased sales performance). The alternative, performance-enabling model was based on the assumption that operational performance dictates the extent to which investments in training can be made. Specifically, the hypothesis is that previous sales performance and em-

ployee turnover influence investments in training.

The data for this reevaluation effort were gathered during a thirty-seven-month time period from a midscale restaurant company that owns and franchises approximately two hundred units located throughout the United States. Complete data were obtained from ninety-six of the corporate-owned and -managed restaurants. For each of the ninety-six units, we obtained monthly reports that listed the total number of hours that employees spent on job-skills training, together with figures on employee turnover and unit sales. The training and turnover variables were captured through the sponsoring organization's payroll and Human Resources Information Systems, and the sales data came directly from the POS system. We also obtained the total number of seats per restaurant to create a ratio (i.e., sales per seat) that would normalize the data so that comparisons could be made across units with different capacity. In addition, since some explanatory variables are often qualitative in nature, we created dummy variables to account for the effects of store location and differences in sales across stores over time.[15]

Two databases were constructed to facilitate model assessment. For the HR-investment model, we needed to create a model in which the results lagged the inputs. So, training data for the first month (e.g., January) were aligned with the turnover data for the following month (e.g., February) and sales data for the third month (in this case, March). Lagging the data in this way allowed us to determine whether the amount of time spent on job-skills training in month one and employee turnover in month two could be used to predict sales performance in month three. A similar approach was used to create the performance-enabling data set. That is, sales data for month one were aligned with turnover data for month two and training data for month three.

To test the competing models, we used a two-step, hierarchical linear regression analysis. Step one for both analyses involved entering the dummy variables to account for the effects of location and time on store sales. For the HR-investment model, step two involved entering training (month one) and turnover (month two) as predictors of sales (month three). For the performance-enabling model, step two involved entering sales (month one) and turnover (month two) as predictors of training (month three).

Overall, the results supported the HR-investment model.[16] Although the turnover variable by itself did not explain any variance, training at month one did have a positive and significant effect on unit sales in subsequent months. In contrast, the results from our analysis of the performance-enabling model showed that neither sales at month one nor turnover at month two explained any variance in training at month three.[17] Although these results are far from conclusive, it appears that the approach to job-skills training taken by this particular restaurant company does contribute to top-line performance and, as such, may be a driver of long-term success.

Once again, though, since not all training is created equal, the more appropriate conclusion is that the impact of job-skills training is contingent on a host of factors associated with the design and implementation of that training. Therefore, while we still have not found the HR Holy Grail, it appears that we are well on our way toward developing procedures and analytic strategies for determining what matters and identifying some of the human-

capital practices, policies, and procedures that may help firms achieve their strategic goals.

HR: Far More than a Cost Center

Given the ever-increasing pressures and changes that organizations face, it is not surprising that traditional HR departments have found themselves under constant pressure to rethink, redefine, and reevaluate their roles. HR professionals have been and continue to be asked to prove their worth to the business proposition. The suspicion remains that HR is still being viewed merely as overhead, a cost center, nonessential, and hopelessly unable to contribute to the bottom line. We believe that it is possible to demonstrate the true added value that HR brings to the table. With the advances in human-capital-measurement models and analytic approaches, it is not only possible to quantitatively determine HR's value, but it is incumbent upon HR professionals to communicate assertively HR's collective impact on a company's bottom line (in terms of TRS). Quite frankly, the value of HR is the metaphoric shoe that we have all sought to dramatically pound in the fashion of Nikita Khrushchev while sitting in our proverbial seat at the (executive leadership) table. Many HR professionals have gained access to the table during the past decade. It appears, though, that many of those appointments are simply the result of senior leadership's feeling that it was the right thing to do, never fully understanding why or what the potential payoff could be. Now, HR professionals have the tools to make the business case and demonstrate the real value of the HR function.

That said, we must be careful in making the case. Taking an inflexible position that all human-capital-management practices are good ones and that all of them have similar influence on a firm's bottom line clearly overreaches the data and, we believe, dilutes HR's credibility as a function. Indeed, overstating the case might reverse the considerable strides HR has made as a discipline. To avoid such an outcome, maintain the momentum, and build on the progress made thus far, HR needs to continue to pursue measuring, understanding, and honestly communicating the impact of human-capital-management practices on companies' performance.

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14. Pfau and Kay, p. 246.
15. Dummy variables are commonly used in longitudinal or panel data analysis to account for the effects of qualitative phenomena that are not necessarily the focal point of a given study. Values of 1 or 0 are assigned to specified constructs—in this case, restaurant location and month of the year—to account for the effects that such constructs may have on the dependent variables of interest. For a more detailed discussion of dummy variables, we recommend: C. Hsiao, *Analysis of Panel Data* (Cambridge, UK: Cambridge University Press, 1986); or P. Kennedy, *A Guide to Econometrics*, 4th ed. (Cambridge, MA: MIT Press, 1998).
16. Results from the analysis of the HR-investment model are as follows: overall R^2 =.892; F = 185.7, df = 3351, $p < .001$; standardized beta for training = .03 ($p < .01$); standardized beta for turnover was nonsignificant.
17. Results from the analysis of the performance-enabling model are as follows: overall R^2 = .352; F = 12.98, df = 3665, $p < .001$; standardized betas for sales and turnover were nonsignificant.

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