



Measuring Return on Investment (ROI) of an Executive Development Activity

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Introduction

The challenge of measuring the return on investment (ROI) for an executive development activity has been discussed for over thirty years. Over these past three decades, many articles have been written on the topic, but little bona fide research has been conducted that has generated meaningful dialogue.

From my experiences of the past fifteen years in working with a broad range of companies, across industries and national boundaries, there was not much of an expressed expectation to be able to prove that an executive development experience generated a specific return rate. Most executives of the client companies accepted the intuitive argument that investing in the development of the company's senior leadership was beneficial to the firm's long-term profitability.

On the surface, this appears inconsistent with the oft-espoused business mantra "if it can't be measured it, it can't be managed." In the current business environment in which resources continue to tighten, margins decline and the need to control costs becomes paramount, there is some mounting pressure to be able to justify major expenditures in "people development". However, the driving force for this research project did not come from the client side, but rather from the supplier side. As my experiences in designing and delivering executive development programs continue to grow, I have a heightened desire to identify some mechanism(s) for determining if this work has any lasting impact.

Informally, there are typically multiple indicators on whether or not an executive development program has had an impact. At the surface level, there are the genuine "thank you's" expressed, and comments made by participants about the meaningfulness of a particular program experience. At a somewhat deeper level, there is the more important test of effectiveness when the client firm continues or expands the program over time. But these signs of success do not adequately address the question of whether or not the experience truly provided lasting value to the organization.

The impetus behind this research project is to attempt to substantively measure that concern – the lasting value or impact of an executive development initiative to the organization.

Current State-of-the-Art

The literature on ROI as applied to this field has focused primarily on “training” activities, as opposed to development. The roots can be traced to the writings of Jacques Fitz-End (2000), founder of the Saratoga Institute, and recognized as one of the leaders in examining how ROI applies to the Human Resources function. Among his disciples is Jack Phillips, former President of the American Society for Training & Development (ASTD), who has written extensively on the topic (1996, 1997, 2003, e.g.) and built a consulting practice on helping companies find ways to measure ROI for training activities. The vast majority of other’s writings on the subject have been similarly targeted at training (see Selected Annotated Bibliography).

When it comes to measuring ROI, I believe there is a fundamental difference between training and executive education. The objective of a training event is to provide the target population with the skills required to accomplish a specific task, or to manage a defined activity. For example, we train people on professional selling, delivering performance appraisals, and on using newly installed computer systems. It is easier to measure the effectiveness of the training when the outcomes are fairly narrowly defined. After receiving training, it is possible to measure whether or not the salespeople are more productive.

Education, by definition, is a process designed to change the way people think. One of the primary purposes of an executive development activity is to prepare participants for future roles within the organization. In this context of filling the ‘leadership pipeline’, the education is less oriented on specific skills or tasks. Rather, it is designed to provide new ways of understanding the business by teaching different frameworks or models that can be used to analyze the company’s performance and competitiveness. Measuring the effectiveness of this type of education is much more slippery. The payoff is longer term and subject to a range of externalities that make it extraordinarily difficult to isolate the effect of a development activity on business performance over time.

The inability to control for confounding variables, coupled with the growth of the executive development industry (without the demand for proof of payoff), has limited the research on ROI. David Lewin conducted one of the few recent empirical research efforts in this field. His work examined the effect of an open enrollment executive education program on “learning transfer and business results” (2002). Lewin’s results showed some positive correlations between executives participating in an executive and management development program (which he referred to as EMD) and business results. To his credit, Lewin used a quasi-experimental design (see Campbell and Stanley, 1983) to attempt to isolate the “treatment” effect. In pairing past participants with those who were in similar positions, but who did not yet experience EMD, Lewin attempted to control for the impact of externalities. However, the study involved participants from a variety of companies, which made it difficult to compare business results across different types of organizations and industries. Thus, the data were not highly significant and the connection between the experience (treatment effect) and business results was tenuous.

Research Design

The intent of this research project was three-fold:

- To attempt to identify appropriate and meaningful measures of ROI as related to executive development initiatives;
- To apply these measures to one company's customized executive development activity for analysis and illustration; and
- To provide the client company a substantive framework for analyzing ROI for its set of customized programs on an on-going basis.

By focusing the study on the results of a customized executive development program, a more apples-to-apples comparison was enabled, thus limiting the impact of some of the confounding variables from Lewin's study (i.e., varying business conditions, corporate cultures, and performance metrics). The participants all worked for the same company, albeit from different parts of the organization.

The customized program that was selected for the study was The Home Depot's (THD) 2002 Accelerated Leadership Programs (ALP). The Office of Executive Education at Emory University's Goizueta Business School served as the academic partner in designing and delivering the 2002 ALP sessions. The primary objectives of ALP, as initially defined, were as follows:

- Prepare 'director-level' managers for promotion to officer positions in the company within three years;
- Enhance the participants' business acumen and leadership capabilities;
- Provide an environment in which the participants could develop relationships with peers from across the company; and
- Provide a forum for senior executives to articulate the company's vision and strategic priorities.

To achieve these objectives, the ALP had the following comprehensive design components:

- Broad general management curriculum with emphasis on strategy, operational excellence and leadership effectiveness;
- Leadership assessment activities, including 360-degree feedback, assessment center simulations, and the Birkman Profile;
- Individual coaching/feedback providers (utilizing internal coaches);
- Post program follow-up (utilizing the Friday-5's system developed by the Fort Mill Co.);
- Business challenge projects – participants assigned to cross-functional teams to research identified business problems and recommend actions for THD to the senior executive team.

Participants in ALP were nominated through THD's elaborate HR Review process. Each Division identified a subset of directors that were categorized as "officer candidates" and nominated them for participation in the program. Final sign-off on participation in ALP came from the CEO, Bob Nardelli.

Each ALP class had approximately thirty officer candidates. Two ALP classes were conducted in 2002 – totaling 60 participants. Due to the corporate calendar, the two programs were held within a span of sixteen weeks. Each individual ALP session was a two-week spaced residency experience, with a gap of 4-6 weeks between the two five-day classroom residencies.

There are more officer candidates nominated for ALP each year than there are available spaces in the programs. Therefore, it was possible to use a quasi-experimental design in order to control for as many externalities as possible. The research began in the Summer 2004. By that time, there were 55 past participants from the 2002 programs remaining with the company. A control group of 33 other officer candidates was identified for the study. These individuals had the same profile as the ALP participants (managerial level, performance, identified as officer candidates, functional/divisional representation) with the exception of not having experienced the ALP program. Therefore, the experimental group in the study consisted of 55 individuals who experienced the treatment effect (ALP). The control group consisted of 33 individuals who were similar in profile to the experimental group in every way except they did not receive the "treatment".

Data Collection

As the purpose of the study was to identify meaningful and substantive measures of ROI in an executive development activity, a variety of dependent variables were used. Both quantitative and qualitative data were collected. The underlying framework was Kirkpatrick's four levels of program evaluation (1998), which is a standard model in the industry (Phillips, 2003; Paquet, Kasl, Weinstein and Waite, 1987, e.g.). These four levels are briefly described below:

- Level One: Participants' reaction to the program
- Level Two: Participants' learning from the program
- Level Three: Participants' changes in behavior resulting from the program
- Level Four: Impact on business performance as a result of the participants' changes in behavior

Data were collected at each Level. Comparisons between the Experimental and Control groups were made at Levels Three and Four. Both primary (new) and secondary (existing) data were collected. Primary data consisted of the following:

1. Survey of all remaining 2002 ALP participants (n=55)
2. In-depth interviews with a stratified random sample of 2002 ALP participants (n=10)
3. Survey of managers and HR partners for the stratified random sample (n=15)
4. Business outcomes resulting from the business challenge projects from both 2002 ALP classes (as reported by senior executives at THD).

The secondary data collected provided the opportunity to compare the Experimental and Control groups at Levels Three and Four. These data included:

1. *Annual 360-degree feedback results.* Since THD conducts regular 360-degree (multi-rater) feedback assessments, it was possible to compare pre-treatment and post-treatment results for the Experimental group with similar data for the Control group.
2. *Performance review ratings.* Similarly, it was possible to compare changes in performance review data between the Experimental and Control groups over the same timeframe.
3. *Promotion and retention.* Data were provided by THD that enabled comparisons of promotions and retention over the two-year period between the Experimental and Control groups.
4. *ALP Program Evaluations.* THD conducted (Level One) evaluations of each 2002 ALP session. This information (from the Experimental group only) was compared with the participants' comments about the program in 2004.
5. *Friday 5's results.* Each 2002 ALP participant developed a list of three desired outcomes of changes in behavior (Level Three) that each would commit to accomplishing through the Friday 5's follow-up system. The self-reported results from the Friday 5's data were reviewed (Experimental group only).

The application of the data to Kirkpatrick's model was as follows:

- Level One
 - Program evaluations completed at the conclusion of each ALP session
 - Post-program evaluations (survey) by participants 18+ months after the program
- Level Two
 - Participants' self-assessment of what they learned from the ALP program (survey)
- Level Three
 - Changes in 360-degree feedback results (comparison of Experimental and Control groups)
 - Self-report of changes in behavior by ALP participants (survey, Friday 5's, and in-depth interviews)
 - Report of changes in behavior of ALP participants by their managers and human resources partners (survey)
- Level Four
 - Comparison of promotion and retention data between Experimental and Control groups
 - Comparison of performance review ratings between Experimental and Control groups
 - Self-report of business results attributed to ALP experience by 2002 ALP participants (survey and in-depth interviews)
 - Report of business results derived from the recommendations made by 2002 ALP business challenge project teams (interviews with THD executives)

Data Analysis

The data were analyzed to test the null hypothesis: *there were no significant differences between the Experimental and Control groups attributable to the treatment effect*. The null hypothesis can either be rejected or accepted based upon the results of the analysis. If accepted, the inference of causality can be drawn that the differences were the result of the treatment effect, i.e., participation in the ALP program.

To test the null hypothesis on the quantitative data, a SAS version of multivariate analysis of variance (MANOVA) was employed (citation). This level of analysis tests for significance in matched pairs across the multiple dependent variables. An omnibus measure of significance was initially used (F-test) to determine if there were significant differences between the experimental and control groups. When the F-test showed a sufficient difference between the groups, a more detailed analysis to isolate particular variables was subsequently conducted using Tukey's test of significance (Cook & Campbell, 1979). The Tukey test was used as it accounts for comparing groups of unequal cell sizes.

To protect privacy, the results of both the Experimental and Control groups on the 360-degree feedback and performance review data were coded by THD. The data analysis focused on the pre-treatment and post-treatment changes in scores for each subject. Similarly, the promotion and retention data were provided by THD in aggregate form, protecting individual identities. Promotion data included both changes in job responsibilities and managerial level (officer v. director).

Due to the relatively small sample size, there are limits to the rigor of the statistical analysis. The response rate of the 2002 ALP participant population was 58% (32 out of an n=55). There were ten in-depth interviews conducted of the 2002 ALP participant population using a stratified random sample approach. In order to ensure a reasonable distribution of field versus corporate positions, the stratification was based upon job functions and corporate divisions. There was a random selection of interview subjects within the stratifications to control for selection bias. The response rate to the survey of managers and human resources partners of these interviewees was just 40%, which also limits the rigor of the data.

The two survey and in-depth interview protocols are provided in Appendix x. The surveys were distributed to the 2002 ALP participants and the relevant managers and human resources partners electronically. Two rounds of follow-up were conducted to provide as large a response rate as possible. The surveys were constructed in reference to the Kirkpatrick model to provide data for each of the four levels of evaluation.

The research team members (see Appendix) conducted the in-depth interviews by telephone in the spring, 2004. Data were collected on all ten of the identified sample population. The information was immediately transcribed and submitted to the project director. The Fort Mill Company provided the analysis on the Friday 5's program follow-up data.

Since there was no single source of information on the business challenge projects, results were derived through conversations and interviews with a variety of THD managers and executives who had knowledge of specific business outcomes that were attributable to the 2002 ALP project teams' recommendations. Several of the 2002 ALP participants were also aware of some specific business outcomes that resulted from their project teams' work.

Results

THD provided important financial data to use in the ROI analysis. It was reported by the ALP Program Manager that the direct costs for each 2002 ALP participant was \$10,000 (with 60 participants in 2002, the total program-related expenditure was \$600,000).

It was also reported that the search firm costs for filling an officer position at THD in 2002-03 was \$150,000. Internal promotions to officer that could be attributed to the ALP program would therefore represent a significant financial savings for the Company.

There were indirect costs associated with conducting the 2002 ALP sessions that were not included in the analysis. For example, the salaries of the internal staff supporting ALP were not factored into the analysis. Neither were costs associated with the 2002 ALP participants being away from their offices for the eleven classroom days that they attended at Emory University. Should the results of the ROI analysis be inconclusive, these additional expenses could be considered significant. In reality, they were very difficult to determine and were considered marginal to the overall analysis.

As might be anticipated, the in-depth interviews and survey of the 2002 ALP participants provided the richest data. The impact of the ALP experience could best be extrapolated from the reflective observations and insights of the participants themselves. Their comments ranged from the philosophical to specific results. The power of this information appears strong enough to withstand the skepticism that naturally accompanies self-reporting.

The MANOVA analysis provided less conclusive results. If only using this level of data analysis, the null hypothesis would have to be accepted. Only for a few dependent variables was there a statistically significant difference between the Experimental and Control groups.

The promotion and retention data comparison had mixed results (see Table 1). There was no meaningful difference between the Experimental and Control groups on retention, which is somewhat surprising. But the data on the differences in promotion between the two groups was noteworthy. Of the 55 remaining 2002 ALP participants, 14 were promoted to an Officer position within 18 months of the conclusion of the programs. No Officer promotions were made from the Control group (although several of the members of the Control group moved laterally to different jobs, but they were still at the director level).

From the aggregate data of the participant survey and in-depth interviews, the following findings were identified:

- Most impactful academic content from the ALP experience:
 - Strategy/strategic thinking
 - Finance/creating shareholder value
 - Leadership

- Most impactful components of the ALP program for the participants:
 - Network created among the participants from each class
 - Opportunity to interact with THD senior executives in the classroom
 - Learning about best practices and the best current thinking on key topics from experts
 - Focus on leadership effectiveness
- Most impactful outcomes to the Company from ALP (according to participants):
 - Revenue growth from new business concepts
 - Cost savings resulting from improved processes
 - Utilization of more strategic thinking and financial analysis in decision making
 - Enhanced focus on leadership practices and developing associates
 - Cascade effect of ALP participants transferring their learning to their direct reports
 - Increased interest among ALP participants in continuing their education (at their own expense while continuing to work full-time)

In applying the data to the Kirkpatrick framework, the results were as follows:

- *Level One* (participant reactions 18+ months after the experience)
 - **94% reported that the ALP experience was ‘very good’ to ‘excellent’ (average rating was 4.8 out of 5 point scale)**
 - Comments from participants included:
 - “Best experience I’ve had in 12 years in retail”
 - “Best education I’ve had since I began at THD 15 years ago”
 - “Best experience I have had at THD. It was probably the best education experience I’ve had...period”
 - “Yesterday was my 15th anniversary with THD. ALP was one of my most memorable experiences in those 15 years...it was the best education I’ve had since I began with THD. I will always treasure the experience and support the program fully”
 - “As a result of ALP, I decided to go back to school”
- *Level Two* (learning resulting from the ALP experience)
 - **80% of the 2002 ALP participants’ managers reported that ALP greatly impacted the leadership effectiveness and business acumen of the participant in their division (of the in-depth interview sample)**
 - Comments from participants included:
 - “It helped broaden my understanding and knowledge base of the retail business; broader involvement in looking deeper into the organization; stronger business acumen, particularly regarding financials and how each piece impacts the bottom line”
 - “I now challenge my direct reports to be more strategic in their thinking...better balance of strategic versus tactical thinking”

- “I use the strategic concepts I learned in ALP every day, especially during the quarterly and annual strategic meetings I have with my direct reports”
- *Level Three* (changes in behavior resulting from ALP experience)
 - **88% of participants rated ALP as having had a lasting impact on their leadership behavior**
 - **92% of participants rated ALP as have had a lasting impact on their performance**
 - Comments from participants included:
 - “I now give my store managers case studies and task them with working together on improving processes. I have recently formed an ASM (assistant store manager) Council – giving them pieces of the business and tasking them with coming up with systems or a discipline for a needed process. I encourage a lot more collaborative problem solving...and I have developed a book list that I share with my team”
- *Level Four* (impact of ALP experience on business performance)
 - **85% of the participants rated ALP as having a lasting impact on their business unit’s and Company’s performance**
 - Comments from participants included:
 - “Within one year, my team’s new strategy has caused sales to increase by \$80 million. Because this strategy has permanently changed the way people think about the business, this is sustainable growth”
 - “(our unit experienced) 20% growth in operating profits on top of being cannibalized five times (new store opening up in their geographic region); increased sales by 3%; gross margin growth of 10%; average ticket increase of 7%; sales per hour per rep was a \$7.22 increase over last year”
 - “All of my stores are now making their sales plan...29% increase in profit as a district this past year; 83% increase in employee performance bonuses”

Implications for Measuring ROI

Kirkpatrick's model does not specifically address return on investment. Phillips (1996) categorizes ROI as the 5th Level of program evaluation. For the 2002 ALP programs, in which \$600,000 was spent in direct costs, what return can be documented to THD for this significant investment? Part of the answer to that question is provided above in the Level Four analysis. Particularly among the 2002 participants who have field responsibilities, specific metrics were reported that document business results that they attribute to the ALP experience.

The critical question becomes “*can these specific business outcomes truly be isolated as having been caused by the ALP experience*”? As part of the in-depth interviews, whenever a participant identified a specific business result, they were asked to what degree (on a scale of 1 – 100) they attributed that result to ALP. The responses varied in degree but were highly consistent in the affirmation by the participants that these changes in business performance resulted from their ALP experience.

For example, one of the participants reported that he employed a new framework in merchandising one of his key stores. This new approach was based upon his learning about “return on invested capital (ROIC)” and strategic thinking in ALP. The participant trained his direct reports on this framework and reported that their merchandise decisions were significantly improved with this more intense focus on profitability. He cited a particular result to demonstrate the point. One product category alone generated \$5million more in profit (annually) than the products he would have selected for this category in the past using his former decision making process. When asked to what degree he would attribute that new business outcome to his ALP experience alone, after a good deal of thought the participant said “at least 20 out of 100 points”.

Certainly, the precision of the self-reported data can be questioned. How did the participant derive the \$5 million increase in profitability? Many other factors could be involved in these business results. The report of 20 points out of 100 is also somewhat arbitrary. At the same time, there is a clear business result here that is connected to the participants' ALP experience.

On both the participant survey and in-depth interview protocols, participants were asked a direct question regarding ROI at the individual level. The question was phrased “*The ALP experience had a direct cost of \$10,000 per participant – how does the participant view the value of that investment today?*” Here are some typical responses:

“Very substantial...millions...magnitude of 100X”

“Exponentially beyond what was invested”

“10 times” (most common response)

“Hard to say. I definitely make better decisions on multi-million dollar projects...in a heartbeat they received back their investment”

Among the participants who responded to the survey, the least favorable response to this question was – “The investment was worth at least \$10K, but not as much as \$50K”.

A “Balanced” Approach

It should not come as a surprise that it was not possible to derive a single ROI percentage from the Company’s \$600,000 direct investment. There is too much complexity in the data and too many uncontrollable factors to enable that degree of precision. But clearly the programs had an impact on the Company’s performance (Level 4) that can be documented.

Ulrich, Becker and Huselid (2001) have written extensively about applying the Balanced Scorecard methodology when evaluating the Human Resources function within an organization, building on the work of Jacques Fitz-End. The purpose of this approach is that the value of the HR function to the organization as a whole cannot meaningfully be isolated to a single frame of reference. Robert Kaplan’s Balanced Scorecard model (1996) provides a more comprehensive view upon which to measure value.

The need for a balanced approach to evaluating the ROI of an executive development activity can be similarly argued. Interestingly, without employing the full Balanced Scorecard methodology, THD uses a “four-block” methodology for measuring its overall business performance (not just for HR). This framework incorporates business results in four major categories – financial, strategic, operations and people.

This four-block model was applied to the ROI research results to determine if the framework could provide a more substantive perspective on determining value. It was also helpful that presenting information in this format was consistent with the Company’s standard method of analyzing its performance (on both the organizational and individual levels). Chart A below presents how the ROI metrics fit into each of the four-block performance categories:

Home Depot ROI Study Balanced “4-Block” Analysis

<u>Financial</u>	<u>Strategic</u>
Revenue growth Cost savings – operations Cost savings – recruiting/replacing	Strategic orientation Revenue growth/new business Corporate transformation process Impact on senior executive team
<u>Operational</u>	<u>Leadership</u>
Improved business processes Work unit level productivity Labor savings from network	Promotion/Retention 360/performance appraisals Network power Interest in continuing education

Taking that one step further, some of the data collected in the study is presented below in Chart B:

Home Depot ROI Study Balanced “4-Block” Analysis

<u>Financial</u>	<u>Strategic</u>
<i>\$80M sales growth (RVP)</i> <i>20% growth in operating profits (DM)</i> <i>29% increase in profits (DM)</i> <i>Saved \$2.1M in search fees (14)</i> <i>20% decrease in workers comp exp.</i>	<i>Using strategic framework and ROIC, made decision on merchandising a new store that generated \$5M inc profits</i> <i>Spend much more time on strategic issues – permeated all levels of organization;</i> <i>Projects: superstore, small appliances, low volume stores</i>
<u>Operational</u>	<u>Leadership</u>
<i>Saved 77K work days</i> <i>Accident related transports down 44%</i> <i>Impacted whole division’s forecasting, scheduling, stock basics, etc. (DM)</i> <i>Due to ALP network, I received info in minutes that would have taken 3</i>	<i>Added item on horizontal thinking to performance review for managers</i> <i>I now dedicate about 70% of my time to developing people</i> <i>84% inc. in bonuses in district attributable to cascaded “critical thinking” among direct reports</i>

Conclusion

The multidimensional analysis provides a more holistic perspective of the impact of the ALP on the Company's business performance. Did THD get a good return on the direct investment of \$600,000? Absolutely. Adding up the self-reported financial gains resulting from the participants' experiences gives a figure easily in the tens of millions. Even if the ALP were responsible for just 10% of those financial gains, it would provide an exceptional ROI—in excess of 100%. When the other components of the four-block are considered, the “value” of the ALP becomes even more pronounced.

For those involved in providing executive development programs for companies, the implications of this study are as follows:

1. ROI is a misleading concept for evaluating executive development activities. It is more meaningful to measure “impact” on the organization. And, to do so, it is important to connect the definition of impact for any particular activity to the company's context – including business climate, organizational structure, strategic/operational imperatives and corporate culture.
2. The best single source of data to evaluate “impact” is in-depth interviews with participants and their managers/subordinates.
3. One of the primary benefits of attempting to measure impact is that it enhances the clarity of objectives and focus of the executive development activity, if considered at the front end. If the program objectives and key deliverables can be specified in the beginning, then it will be possible to determine the program's impact at the back end.
4. Conducting a comprehensive ROI analysis is labor intensive and certainly not appropriate for all executive development activities. Using the methodology articulated in this paper should be employed selectively.
5. The impact of a major executive development activity is optimally determined over time within the organization. Therefore, longitudinal data collection is important even though it adds to the cost of the analysis, as well as to its complexity. The use of statistical analytic tools, such as MANOVA, is also better served with larger sample sizes – supporting longitudinal data collection as well. If the activity is to be repeated over a number of years, the data collection framework can be put in place at the beginning and then data can be collected over the program's duration.
6. The ability to document impact in a systematic, objective way is highly rewarding and worthwhile to both the sponsoring organization as well as to the provider!

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Most executives, managers and investors do not fully appreciate the value of job training because they are relying on accounting and reporting systems that were developed for the industrial age rather than today's knowledge-based economy. Companies would be better able to justify expenses if they could recognize its positive effect on market valuation. Investors could improve portfolio performance by acting on this information. Companies are not currently required to separately report training expenses and, due to liability issues, are reluctant to publicly report additional information. GAAP guidelines dictate that training be expensed as a cost rather than amortized as a capital investment. This may be an outdated convention as human capital, rather than equipment and facilities, is increasingly the basis for business value. Companies, however, do not "own" human capital.

The ASTD has collected a standardized database of training information on over 2500 companies. This data indicates a significant relationship between training expenditures and corporate performance. Specifically, there is a significant positive relationship between training investment and the following year's total stockholder return (TSR). Using a multivariate regression that equalizes outside factors (such as firm size, industry, prior financial performance, etc.), a one standard deviation increase in a firm's training and education investment (around \$680 per employee) corresponds to a 6% increase in the following year's TSR. Similar results were recognized in other performance metrics, such as gross profit and ROA. Further, when absolute values were replaced with the year-over-year percentage change, the same patterns emerged – higher training investment corresponded with greater positive percentage change. The market is unable to immediately reward companies for their investment in training and education, because investors cannot access this information. This lag in the market's response discourages investment.

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While organizational assets were considered the cornerstone of corporate value during the industrial era, organizational intelligence is increasingly the driver of corporate valuation today. Of particular importance is the intelligence that enables corporations to quickly adapt to changing competitive environments. Over the past two decades, the value of intangible assets has increased from 40% of the total market value of U.S. corporations to 80%. This trend reflects the US economy's increasing emphasis on technology and services. The SEC encourages that managers disclose their perspectives with regard to intangible assets, but it is struggling to define how these intangible assets should be measured and reported.

There is evidence that corporate investment in education and training can contribute to a firm's business results and therefore its market valuation. Some investment analysts are beginning to incorporate this into their investment decisions. One investment firm, Knowledge Asset Management (KAM), makes portfolio recommendations based on a financial model that predicts market performance based on investment in training and development. While there is a strong correlation between training and economic value add (EVA), some questions remain regarding the causal relationship. Eleven companies from the KAM portfolio are briefly profiled with regard to their training initiatives. Primarily, these are internal training programs. Some common, but not universal, themes include (1) using training to establish consistent corporate norms and operational standards, (2) using e-learning to deliver training more efficiently (though one firm, CDW, specifically prefers to "bring people together so they can learn from each other"), (3) ensuring that training programs are specifically designed to support firm strategy and corporate goals, (4) considering training an investment rather than a cost, and (5) using training to boost employee recruitment, satisfaction, motivation, and retention. One firm, Hillenbrand Industries, summarizes the value of corporate training in today's U.S. economy by recognizing that effective management of its "talent portfolio" is a critical process in creating shareholder value.

Martin, J. *ROI: Do It and Prove It*, American Society for Training and Development website, [Virtual Community](#), July 2001.

The justification for corporate learning initiatives is dependent upon demonstrated Return on Investment (ROI). Strong ROI indicates that programs are closely tied to overall business goals. Only 14% of organizations quantify ROI, the majority act on faith. ROI is difficult to quantify for several reasons: (1) it is difficult to isolate resulting benefits, (2) it is difficult to account for all costs, as multiple departments and accounting centers are typically affected, (3) traditional "smile sheet" analysis fails. The critical test in measuring ROI is to define how the training will improve job performance and the company's business results. The first step is to identify problem areas, then establish a baseline measurement before training begins. ROI can be improved by using automation and strategic use of information technology to minimize costs and by using rewards and corporate communications for effective reinforcement. ROI is best measured by converting any "soft" concepts into hard numbers. ROI is calculated by dividing the total benefits by total costs. Another useful numerical benchmark is payback time. Several cases studies are briefly mentioned. Internet based learning programs are used to reduce costs for both GenAm Benefits and TeleTech. TeleTech uses an innovative system that automatically generates training programs to selected call center reps during off-peak hours and suspends training when call volume increases.

4. Paquet, B., Kasl, E., Weinstein, L., & Waite, W. *The Bottom Line – Here's how one company proved the business impact of management training*, Training and Development Journal, May 1987.

The CIGNA Corporation's corporate management development and training (CMD&T) set out to prove that management training makes a real business contribution by using the language of management – specifically business results and ROI. By demonstrating a direct link to improved productivity in the workplace, CMD&T could (1) justify its worth and budget, (2) better market its training programs, and (3) redesign programs and develop new ones. To obtain meaningful data, impact evaluation data should be built into the program itself – this makes measurement cost effective and time efficient and ensures participation by management trainees. The linkage between training and workplace results is seen as a chain reaction – the first level of impact is in the participant's own opinions, the next level is the knowledge, skill, or attitude acquisition, and the next link is the impact on the workplace (measured by survey of direct reports). All measurements compare before and after (3 months) data. Survey data was collected using a Likert-type scale. Two resulting indices were assigned to “Manager Behavior” and “General Climate”. Each was measured for time period improvement and Managerial Behavior was measured against the benchmark General Climate to ensure that managerial improvement was not simply due to an improved general climate. CMD&T uses individualized productivity measurements by focusing on work unit performance. Rather than relying upon a single set of criteria for measurement across all business units, each manager essentially sets his own measurement criteria and justifies his own productivity gains. Productivity is a central focus of the training program. Trainees are taught to create and track productivity measures and how to use them for goal setting. Individualized productivity measures are put in place for each trainee's action plan and they contracted to bring back measurable results to a follow-up session. Each trainee is expected to apply their individual business unit measurement to a base period (at least three months prior to training), which is then compared to post-training results after 16 weeks. Results will be defined differently from manager to manager, which does not lend itself to summary analysis. CMD&T reviews a randomly selected handful of individual case studies to evaluate trends and draws inferential conclusions based on these results. In this study, 3 cases were analyzed. Each produced positive ROI (730%, 5900%, and 4500%) and the total savings and/or additional income generated (\$280,000) by the three cases was sufficient to pay for the cost of training the entire managerial population for an entire year. Additionally, by forcing managers to consider the payback ROI, managers were forced to better focus on appropriate business unit productivity issues.

5. Phillips, J. *Measuring ROI: The Fifth Level of Evaluation*, Technical & Skills Training, April 1996.

Training departments increasingly have to justify the dollars spent on training employees, according to the author. This renewed emphasis on return on investment (ROI) in training requires a systematic process for calculation. In order to isolate results or business outcomes to the specific training activity, a number of methodologies can be employed, including trend line analysis, forecasting, customer input, expert testimony, subordinate input, and supervisor input. Converting this data to monetary values is possible using similar methodologies – most specifically, estimates from participants, supervisors, and outside experts. Armed with this data, according to Phillips, the ROI can be calculated using the formula:

$$\text{ROI (\%)} = \frac{\text{Benefits} - \text{Costs} \times 100}{\text{Costs}}$$

This formula calculates the annual net program benefits divided by program costs, where the net benefits are the monetary value of the benefits minus the costs of the program.

Phillips acknowledges the difficulty of precision when converting “soft” data into monetary amounts based upon estimates by those involved. Given the challenges, he encourages training officers to focus in on a specific program, as opposed to a range of courses, to attempt the ROI measurement. This enables a more focused and micro level analysis that can more readily be defended.

6. PeopleSoft White Paper, *The ABCs of Return on Investment*, June 2001.

This white paper addresses the challenges that Human Resources departments face in justifying technology investments that support this transition. A model is presented for valuation of both the hard and soft dollar savings associated with strategic technology investment. Return on investment is particularly difficult to justify in an internal function such as HR, with no direct impact on revenues, and must often rely on cost savings. The appropriate cost savings analysis relies on an activity-based costing model that compares the current “As Is” costs of performing an activity (benefits enrollment, for example) and the “To Be” costs of completing the task using internet-based technology. Solution costs include both startup and ongoing costs. While management may be interested in an ROI analysis, a Net Present Value analysis, which accounts for the time-value-of money, is a more appropriate analysis for serious financial managers. Hard dollar savings are realized through reductions in labor costs and material and distribution costs, and through productivity savings. Further, online resources and self-service options can lighten the “work burden” and increase employee satisfaction. This reduces employee recruitment and replacement costs, as a 2% increase in employee satisfaction corresponds to a 1% reduction in employee turnover. Finally, by giving employees direct access to services, HR can refocus on more strategic issues, such as timely competitive compensation analysis, rather than administrative tasks. This further boosts employee retention levels. Managers are best convinced of the rationale for HR technology investments when they are involved in the justification and evaluation process so that they may understand how soft benefits can result in tangible savings.

Table 1

ROI Research Study: Secondary Data Analysis - Summary

ALP 1							
	Component Averages 2002		Component Averages 2003		Absolute Change		
	Mean	Median	Mean	Median	Mean	Median	
	Delivers Results	4.19	4.17	4.13	4.04	4.13	4.04
Acts Strategically	4.01	4.00	4.14	4.13	4.14	4.13	
Drives Excellence	4.06	4.04	4.07	4.06	4.07	4.06	
Customer Service	4.09	4.10	4.12	4.15	4.12	4.15	
Inspires Achievement	3.95	4.00	3.95	3.93	3.95	3.93	
Lives Integrity	4.26	4.33	4.21	4.14	4.21	4.14	
Builds Relationships	4.02	4.09	4.05	4.02	4.05	4.02	
Creates Inclusion	3.94	3.93	3.94	3.90	3.94	3.90	

ALP2							
	Component Averages 2002		Component Averages 2003		Absolute Change		
	Mean	Median	Mean	Median	Mean	Median	
	Delivers Results	4.09	4.14	4.07	4.10	-0.50	0.00
Acts Strategically	3.99	3.98	4.14	4.23	0.17	0.00	
Drives Excellence	3.98	4.04	4.03	4.06	-0.02	0.00	
Customer Service	4.01	4.03	4.02	4.05	-0.06	0.00	
Inspires Achievement	3.91	3.97	3.84	3.79	-0.08	0.00	
Lives Integrity	4.17	4.25	4.21	4.30	-0.30	0.00	
Builds Relationships	3.89	3.94	3.96	4.04	-0.35	0.00	
Creates Inclusion	3.85	3.89	3.83	3.87	-0.13	0.00	

Control							
	Component Averages 2002		Component Averages 2003		Absolute Change		
	Mean	Median	Mean	Median	Mean	Median	
	Delivers Results	4.08	4.10	3.98	3.98	0.00	3.95
Acts Strategically	4.03	4.04	4.07	4.04	0.00	4.00	
Drives Excellence	4.00	4.00	3.96	4.02	0.00	3.63	
Customer Service	4.06	4.03	4.10	4.13	0.00	3.55	
Inspires Achievement	3.89	3.88	3.83	3.86	0.00	3.82	
Lives Integrity	4.26	4.36	4.19	4.24	0.00	3.54	
Builds Relationships	4.02	4.03	3.99	3.97	0.00	3.57	
Creates Inclusion	3.93	3.89	3.91	3.89	0.00	3.55	

	Retention No	Retention %	Avg. # Promotion
ALP1	2	6.67%	0.48
ALP2	3	10.71%	0.00
Control	2	6.06%	0.26

	Title Change	Title Ch. %	VPs	%
ALP1	14	46.67%	9	30.00%
ALP2	14	50.00%	5	17.86%
Control	11	33.33%	0	0.00%

Appendix

Research Team

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- 3 full-time MBA students at Goizueta Business School
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