

Forecasting ROI

Dr. Jack J. Phillips

Chairman, ROI Institute

ROI INSTITUTE™

Phone (205) 678-8101 Fax (205) 678-8102

www.roiinstitute.net



ROI Possibilities

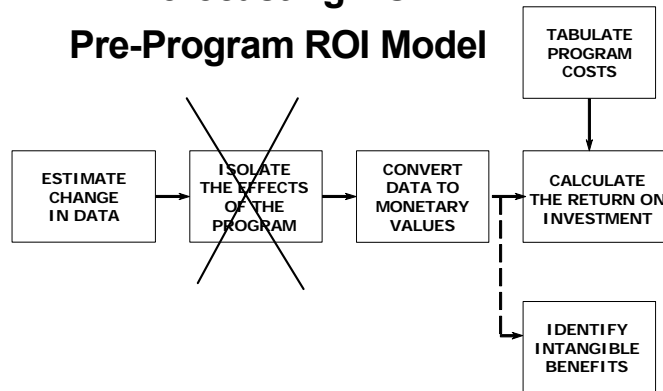
- Pre-Program ROI Forecast
- End-of-Program ROI Forecast with Level 1 Data
- End-of-Program ROI Forecast with Level 2 Data
- Follow-Up ROI Forecast with Level 3 Data
- Follow-Up ROI evaluation with Level 4 Data

ROI at Different Levels

ROI with:	Data Collection Timing - (Relative to the Initiative)	Credibility	Accuracy	Cost to Develop	Difficulty
		Least Credible	Least Accurate	Least Expensive	Least Difficult
Pre-Program Forecast	Before	↓	↓	↓	↓
Level 1 Data	During				
Level 2 Data	During				
Level 3 Data	After				
Level 4 Data	After	↓	↓	↓	↓
		Most Credible	Most Accurate	Most Expensive	Most Difficult

Forecasting ROI

Pre-Program ROI Model



Retail Merchandise Company (RMC) Part A - Pre-Program ROI Forecasting

Situation

Retail Merchandise Company (RMC) is a national chain of 420 stores, located in most major USA markets. RMC sells small household items, gifts of all types, electronics, and jewelry, as well as personal accessories. It does not sell clothes or major appliances. The executives at RMC have been concerned about the slow sales growth and were experimenting with several programs to boost sales. One of the concerns focused on the interaction with customers. Sales associates were not actively involved in the sales process, usually waiting for a customer to make a purchasing decision and then proceed with processing the sale. Several store managers had analyzed the situation to determine if more communication with the customer would boost sales. The analysis revealed that the use of very simple techniques to probe and guide the customer to a purchase should boost sales in each store.

The senior executives asked the training and development function to consider a very simple customer interactive skills program for a small group of sales associates. The specific charge from the management team was to forecast the impact and ROI of this proposed program. If the program's forecast showed an increase in sales and represented a significant payoff for RMC, it should be piloted in a small number of stores.

The Proposed Solution

The training and development staff conducted a very brief initial needs assessment and identified five simple skills that would need to be covered in the program. From their analysis, it appeared that the sales associates did not have these skills or were very uncomfortable with the use of them. A program called "Interactive Selling Skills" was selected – a program with significant use of skill practices. The program had two days of training, where participants had an opportunity to practice each of the skills with a fellow classmate, followed by three weeks of on-the-job application. Then, a final day of training was planned, including a discussion of problems, issues, barriers, and concerns about using the skills. The program, an existing product from an external training supplier, would be taught by the staff of the training supplier for a predetermined facilitation fee.

Questions for discussion:

1. Is a pre-program forecast possible? Explain.

2. Which groups should provide input to the forecast?

Retail Merchandise Company (RMC)

Part B - Pre-Program ROI Forecasting

The training and development manager contacted the following “experts” who provided an estimate of sales increase in 3 months that would be attributed to the proposed training program. Each expert was provided with a description of the program, the skills, and the need. The estimate is a “best guess” based on their experience and perspective. The following table shows their estimates and the calculated ROI for each estimate:

“Expert” Input for Estimate	Sales Increase Estimate (Δ)	Forecasted ROI
Sales Associates	0%	-100%
Dept. Managers	5%	-30%
Store Managers	10%	33%
Senior Executive (Sponsor)	15%	110%
Analyst (Needs Assessment)	12%	95%
Vendor (Supplier)	25%	350%
Marketing Analyst	4%	-40%
Finance Staff	2%	-80%
Benchmarking Data	9%	22%

Questions for discussion:

1. Assess the credibility of each “expert” group.

2. Is there any additional information you need?

3. How would you present this to senior management to make a decision to implement the program?

Steps for Pre-Program ROI Forecast

- Develop Level 3 and 4 objectives, with as many specifics as possible
- Estimate/Forecast monthly improvement in Level 4 data (ΔP)
- Convert unit Level 4 measure to monetary value (V)
- Develop the estimated annual impact for each measure ($\Delta P \times V \times 12$)
- Estimate fully loaded program costs
- Calculate the forecasted ROI using the total projected benefits and costs
- Use sensitivity analysis to develop several potential ROI values with different levels of improvement (ΔP)
- Identify potential intangible benefits
- Communicate analysis with caution

Sensitivity Analysis for Expected ROI Values

Potential Sales Increase (Existing Customers)	Potential Compliant Reduction (Monthly Reduction)	Expected ROI
3%	10	60%
3%	20	90%
3%	30	120%
6%	10	90%
6%	20	120%
6%	30	150%
9%	10	120%
9%	20	150%
9%	30	180%

Input to Forecast

- Previous experience with same or similar programs
- Suppliers/Designer experience in other situations
- Estimates from supplies/designer
- Estimates from SMEs
- Estimate from client/sponsor
- Estimates fro target participants

Forecasting ROI from a Pilot Program

- Develop Level 3 and 4 objectives
- Design/Develop pilot program without the bells and whistles (or use a supplier program)
- Conduct the program with one or more “typical” groups
- Develop the ROI using the ROI Process model for Level 4 post-program data
- Make decision to implement based on results

Level 1 Measures

- Program Content
- Materials
- Facilitator/Coordinator
- Relevance/Importance
- Perceived Value
- Amount of New Information
- Recommendation to Others
- Planned Improvements
- Opportunity for Forecast

Important Questions to Ask on Feedback Questionnaires

Planned Improvements

Please indicate what you will do differently on the job as a result of this program

1. _____
2. _____
3. _____

As a result of any change in your thinking, new ideas, or planned actions, please estimate (in monetary values) the benefit to your organization (i.e., reduced absenteeism, reduced employee complaints, better teamwork, increased personal effectiveness, etc.) over a period of one year. _____

What is the basis of this estimate? _____

What confidence, expressed as a percentage, can you put in your estimate?

(0%=No Confidence; 100%=Certainty) _____%

ROI with Level 1 Data

- What knowledge or skills have been improved?
- What actions are planned with the improved knowledge and skills?
- Which measures will be influenced?
- What impact, in monetary units, will this improvement have in the work unit?
- What is the basis for this estimate?
- What level of confidence do you place on this estimate?

Then, compare total “adjusted” benefits with program costs.

Notes:

Retail Merchandise Company (RMC)

Part C – Level 1 ROI Forecasting

The Retail Merchandise Company has implemented on a pilot basis a new interactive selling skills program to improve the current level of sales performance. In all, 48 sales associates were involved (3 groups of 16 each). Sales growth is always a critical issue at RMC and usually commands much management attention. The program focused on simple dialogue with customers, assisting them, and guiding them to a purchase decision. Program participants were expected to improve sales within three months after attending the program. At the end of the three-day program, participants completed a comprehensive reaction questionnaire that asked about specific action items planned as a result of this program and the sales increase attributed to the use of skills. In addition, participants were asked to explain the basis for estimates and place a confidence level on them. The first group of participants provided the following data:

Participant No.	Sales Increase Estimate	Basis	Confidence Level
1	25%	Sales	90%
2	20%	2 sales per day	80%
3	30%	Sales increase	70%
4	40%	3 sales daily	60%
5	30%	4 sales each day	95%
6	100%	More sales	100%
7	30%	3 more sales	80%
8	50%	4 sales – 1 sale	75%
9	10%	One more sale	30%
10	22%	2 new sales	80%
11	25%	Sales	90%
12	15%	2 sales each day	70%
13	0%	No increase	60%
14	100%	Many new sales	95%
15	50%	Additional sales	50%
16	Unlimited	More sales and satisfaction	100%

Questions for discussion:

1. What is your strategy for analyzing this data?

2. How reliable is this data?

3. How could you use this data?

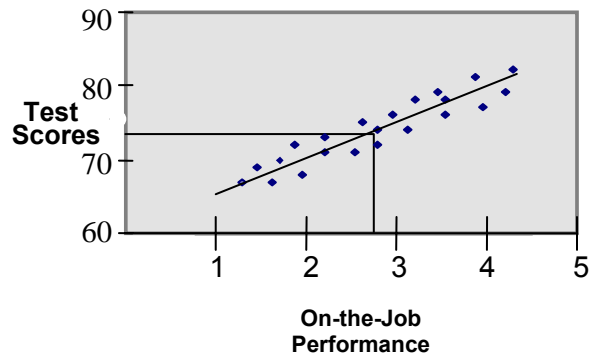
Level 2 Evaluation

- Tests
- Opportunity for Forecast
- Skill Practices
- Self Reports
- Exercises
- Observations During the Training Program
- Checklists by Facilitator
- Team Assessments

ROI with Level 2 Data

- Develop an end-of-program test that reflects program content.
- Establish a relationship between test data and output performance for participants.
- Predict performance levels of each participant with given test scores.
- Convert performance data to monetary value.
- Compare total predicted value of program with program costs.

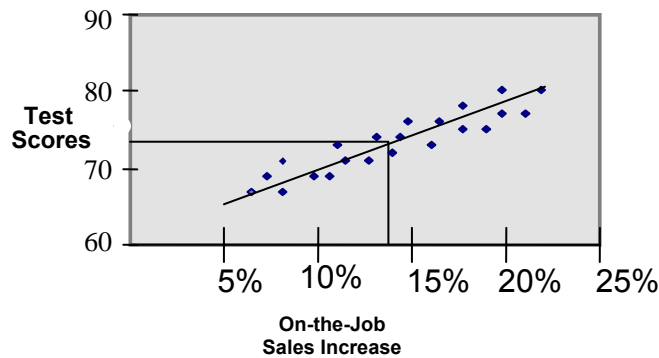
Relationship Between Test Scores and Performance



Retail Merchandise Company (RMC)

Part D – Level 2 ROI Forecasting

When RMC implemented the interactive selling skills program, the program coordinator developed a test to predict sales performance based on the knowledge and skills taught in the program. At the end of the program, participants take the comprehensive test. As part of the test, participants analyze customer service and sales situations and decide on specific actions. To validate the test, RMC developed correlations between test scores and actual sales from associates. The correlation was very strong and statistically significant, enabling program coordinators to use test scores to predict the sales increase for each participant. As a quick way of calculating the return for a program, RMC estimates output levels for each item, converts them to monetary values, and calculates the ROI. The figure below shows the correlation:



For the first group of participants the average score was 74 with a predicted sales increase of 14%. The average sales per week per associate at the beginning of training is \$9,698, the profit margin is 2%, and the cost of training is \$687 per person. Consider a 48-week annual work period.

Questions for discussion:

1. Calculate the forecasted ROI.

2. How reliable is this estimate of ROI at Level 2? What other issues might need to be considered in this process?

3. Is this information useful? If so, how should the information be used?

Retail Merchandise Company (RMC)

Part E – Level 3 ROI Forecasting

RMC implemented an interactive selling skills program. The program focuses on five basic competencies:

- Identifying customers' needs
- Profiling the user of the product
- Recommending specific products
- Listening and reacting to customers
- Providing excellent customer service

The managers of the sales associates indicated that the competencies should account for 55% of their job. In the target group being evaluated, the average annual salary (plus benefits) was \$17,332. Thus, multiplying this figure by the amount of job success accounted for by the competencies (55%) yielded a dollar value of \$9,533 per participant. If a person were to perform successfully in these competencies for one year, the value to RMC would be \$9,533.

Managers rated the skills for each of the competencies before the program was conducted using a scale of 1 to 10. The average level of skills required to be successful was determined to be 6.32. The skill ratings, prior to the job, were 4.12, which represented 65% of the 6.32 (i.e., participants were performing at 65% of the level to be successful in the competencies). After the program, the skill rating was 6.24, representing 99% of the level to be successful.

Dollar values were assigned based on the participants' salaries. Performance at the required level was worth \$9,533. At a 65% proficiency level, the sales associates were performing at a contribution value of \$6,196. Six weeks after the program, this value had reached 99%, representing a contribution of \$9,438. The difference in these values (\$3,242) represents the gain per participant attributable to the program. The program cost \$687 per participant.

Questions for discussion:

1. What is the ROI for this program?

2. How credible is this approach to calculating ROI?

3. Could this same approach be used to forecast the value prior to the implementation of the program?

ROI with Level 3 Data

- Develop competencies for the target job.
- Indicate percentage of job success that is covered in the program.
- Determine monetary value of competencies, using salaries and employee benefits.
- Compute the worth of pre- and post-program skill levels.
- Subtract post-program values from pre-program values.
- Compare the total added benefits with the program costs.

Advantages of Forecasting

- Increases the usefulness of data collection
- Focuses attention on business outcomes
- Monitors the path to success
- Compares forecast to actual results to improve forecasts

Forecasting Realities

- If you must forecast, forecast frequently
- Consider forecasting an essential part of the evaluation mix
- Forecast different types of data
- Secure input from those who know the process best
- Long-term forecasts will usually be inaccurate
- Expect forecasts to be biased
- Serious forecasting is hard work
- Review the success of forecasting routinely
- The assumptions are the most serious error in forecasting
- Utility is the most important characteristic of forecasting

Origin/Development

- The ROI Methodology™ was developed by Dr. Jack J. Phillips in the 1970s, refined through application and use in the 1980s, and implemented globally during the 1990s.
- First impact study – 1973, Measuring the ROI in a Cooperative Education Program, for Lockheed-Martin
- First public presentation on the methodology – 1978, ASTD Annual Conference
- First book published to include methodology – 1983, *Handbook of Training Evaluation and Measurement Methods*, Gulf Publishing (this was the first USA book on training evaluation)
- First one-day public workshop –1991, Birmingham, Alabama
- First two-day public workshop –1992, Johannesburg, South Africa
- First case study book published – 1994, *Measuring Return on Investment*, ASTD
- First international partnership established – 1994, Indonesia
- First public certification workshop – 1995, Nashville, Tennessee
- ROI Network organized - 1996
- First ROI Network Conference –1997, New Orleans, Louisiana
- First international ROI Network conference – 2002, Toronto, Canada
- First ROI in Government Conference – 2003, Gulfport, Mississippi, Co-sponsored by the University of Southern Mississippi
- First ROI software release – 2003, KnowledgeAdvisors
- On-line ROI certification launched – 2006, University Alliance

Use

- Over 3,000 organizations are using the ROI methodology, through planned implementation.
- 2,000 organizations have formally implemented the methodology through ROI Certification™ conducted by the ROI Institute.
- approximately 5,000 impact studies are conducted annually in learning and development and human resources.
- At least 200 public sector governmental units are using the methodology.
- ROI implementation was first pursued in manufacturing, then moved to service, healthcare, non-profits, governments, and is now in educational systems

Applications

Typical applications include:

- | | | |
|-------------------------|----------------------------|--|
| • Apprenticeship | • Gainsharing | • Safety & Health Programs |
| • Career Management | • Meetings and Events | • Self-Directed Teams |
| • Competency Systems | • Management Development | • Skill-Based/Knowledge-Based Compensation |
| • Diversity | • Leadership Development | • Technology Implementation |
| • E-Learning | • Organization Development | • Total Quality Management |
| • Coaching | • Orientation | • Wellness/Fitness Initiatives |
| • Information Assurance | • Recruiting | |

Articles and Publicity

- Over 60 articles have been published on the ROI methodology in major publications in 20 countries.
- The ROI methodology has been a cover story on at least 15 publications, magazines, and journals.
- At least 50 interviews in major global business and professional publications
- Over 25 radio and TV interviews in different countries

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Books

- Sixteen books have been published on the ROI methodology and its application (www.roiinstitute.net)
- Primary reference – *Return on Investment in Training and Performance Improvement Projects*, 2nd Edition, Jack J. Phillips, Butterworth-Heinemann, Woburn, MA, 2003 (originally published in 1997)
- Award winning book – *Bottomline on ROI*, Patti P. Phillips, CEP Press, Atlanta, GA, 2002 (received ISPI award)

Case Studies

- Over 100 case studies published in books, journals, and industry publications
- Four-volume set published by ASTD in 1994, 1997, 2001, and 2005
- First public sector case book – 2002, published jointly by the International Personnel and Management Association and the American Society for Training and Development
- First International case book – 2005, Ireland published by Skillnets
- International case studies under development in 12 countries

Workshops (One-Day, Two-Day, and Three- Day)

- Approximately 200 one-day workshops conducted with over 8,000 participants
- Approximately 500 two-day workshops conducted with more than 15,000 specialists and managers attending (offered in almost every major international city)
- Routine schedules of one-day, two-day, and three-day workshops offered in the USA by ASTD (www.astd.org) and through partners around the world

ROI Certification™

- Five-day workshop plus two work products lead to certification for ROI implementation
- Over 3,000 professionals have attended certification, representing over 2,000 organizations in at least 50 countries
- Certifications offered routinely about 25 times per year both internally and publicly by the ROI Institute (www.roiinstitute.net)
- On-line certification begins every month-six months duration (www.roiinstituteonline.com)

Global Implementation

- First implementation of the ROI methodology outside the USA – 1992, South Africa
- First certification in non-English language – 1995, Italy
- Implementation is accomplished through partners in various countries
- Implementation is currently occurring in 44 countries, with additional implementations planned in other countries
- Books published in 28 languages
- Twelve international case study books in development or in the planning stages

Jack J. Phillips, Ph.D.

As a world-renowned expert on accountability, measurement and evaluation, Dr. Phillips provides consulting services for Fortune 500 companies and major global organizations. The author or editor of more than 50 books, Phillips provides workshops and conference presentations throughout the world.

His expertise in measurement and evaluation is based on more than twenty-seven years of corporate experience in five industries (aerospace, textiles, metals, construction materials, and banking). Phillips has served as training and development manager at two Fortune 500 firms, senior HR officer at two firms, president of a regional bank, and management professor at a major state university.

His background led Phillips to develop the ROI Methodology—a revolutionary process that provides bottom-line figures and accountability for all types of learning, performance improvement, human resources, technology, and public policy programs.

Phillips regularly consults with clients in manufacturing, service, and government organizations in 44 countries in North and South America, Europe, Africa, Australia, and Asia

Books most recently authored by Phillips include *Investing in Your Company's Human Capital: Strategies to Avoid Spending Too Much or Too Little*, Amacom 2005; *Proving the Value of HR: How and Why to Measure ROI*, SHRM 2005; *The Leadership Scorecard*, Elsevier Butterworth-Heinemann 2004; *The Human Resources Scorecard: Measuring the Return on Investment*, Elsevier Butterworth-Heinemann 2001; *Building a Successful Consulting Practice*, ASTD 2002; *The Consultant's Scorecard*, McGraw-Hill 2000; *Managing Employee Retention*, Elsevier Butterworth-Heinemann, 2003; *Return on Investment in Training and Performance Improvement Projects, 2nd Edition* Elsevier Butterworth-Heinemann 2003; *The Project Management Scorecard*, Elsevier Butterworth-Heinemann 2002; *How to Measure Training Results*, McGraw-Hill 2002; and *Performance Analysis and Consulting*, ASTD 2000. Phillips served as series editor for ASTD's In Action casebook series, one of ASTD's more ambitious publishing projects with 30 titles. Now, he serves as series editor for Elsevier Butterworth-Heinemann's Improving Human Performance series and Pfeiffer's new series on Measurement and Evaluation.

Phillips has received several awards for his books and his work. The Society for Human Resource Management gave him its highest creative award for an ROI study and an award for one of his books. The American Society for Training and Development gave him its highest award, Distinguished Contribution to Workplace Learning and Development. *Meeting News* named Phillips one of the 25 most influential people in the Meetings and Events industry, based on his work on ROI for the industry.

Phillips has undergraduate degrees in electrical engineering, physics, and mathematics; a master's degree in decision sciences from Georgia State University; and a Ph.D. in human resource management from the University of Alabama.

Jack Phillips has served on several boards of private businesses – including two NASDAQ companies – and several non-profits and associations, including the American Society for Training and Development. He is Chairman, ROI Institute, Inc. and can be reached at (205) 678-8101, or by e-mail at jack@roiinstitute.net.