ulation was distilled down from 20,000 to 1,800 participants). If cultural differences were negated, we found the subject population sufficiently statistically valid, 95 percent, to be able to extrapolate results for the rest of the Western European community.

Evaluation Methodology

Model

This impact study uses Phillips's (1997) model. In addition to his overall ROI model, we found it useful to add an additional component at the beginning of the process model, the training needs analysis (TNA). Prior to investing in an extensive ROI study, too many companies fail to strategically link training initiatives to the overall business thrust. The focus on a TNA helps to clearly identify exactly what needs to be accomplished with a given training initiative. A TNA also identifies critical success factors that link to corporate strategy. The ROI study must be based on these identified critical success factors, such as key business indicators.

The methodology steps are as follows: data collection, training effects isolation, data conversion to monetary value, intangible benefits identification, and program costs tabulation and ROI calculation. As the reader will note throughout this study, data for each of the steps is investigated and applied with consequent success.

Data Collection Methodology

Table 1 shows the eight-month data collection plan, March through October, for the UK launch team.

The authors and their team collected data at four levels to thoroughly validate the impact study and to provide information to several interested parties. Due to the geographical distribution of trainees, we used questionnaires to collect data in conjunction with published sources such as annual reports, price lists, and actual sales records. For cost reasons we could not conduct observations of on-the-job application, interviews, or focus groups. Instead, we ascertained the key metrics that would drive business impact (number of units sold and margin per unit realized) from the questionnaire and then validated the metrics with actual figures confirmed by the client.

Therefore, for purposes of this study, focus was directed to the posttraining and six-month follow-up questionnaires, which yielded the percentages and numbers needed to directly calculate the ROI. Both questionnaires contained exactly the same questions except for a change in tense for the six-month follow-up version. The questionnaires

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Table 1. Data collection plan for the UK new product launch.

Level	Broad Program Objectives	Data Collection Method	Timing of Data Collection	Responsibilities for Data Collection
1. Reaction, satisfaction, and planned actions	Determine participant satisfaction (meeting logistics, training content, and facilitator delivery) Distribute and collect posttraining questionnaire	Standard participant satisfaction questionnaire Posttraining questionnaire on job application and business results and impact	End of training day End of training day	Moderator and facilitator Moderator and facilitator
2. Learning	Lesson objectives per leader's guide	Posttest on knowledge (electronic handset) (No pretest)	End of training day	Moderator and facilitator PC operator and programmer
3. Job application	Distribute and collect six-month follow-up questionnaire Sell product based on consultative selling techniques Conversion of competitive brand Test drives conducted Prospect-to-sales ratio	Six-month follow-up questionnaire to sales consultants, based on sales consultants' estimates and confidence factor (Level 3 and 4 data)	Six months after training session and product release to specific country	Launch team Objective third party—agency
4. Business results	Distribute and collect six-month follow-up questionnaire Increase conversion rate Increase margin Increase sales	Six-month follow-up questionnaire to sales consultants, based on sales consultants' estimates and confidence factor (Level 3 and 4 data)	Six months after training session and product release to specific country	Launch team Objective third party—agency

asked the respondents for their perceptions, though it is clear that these "perceptions" were much more precise after the experience of six months in the field. In addition these figures were subsequently compared with actual, hard figures collected by the manufacturer.

Questions four and five on the questionnaire provided actual percentage and numerical data for an ROI calculation. The data collection plan focused on conversion rate, margin, and sales to get the data for Level 4, business results.

Participants received the questionnaire twice and returned it twice. They received the first questionnaire by hand at the end of the initial vehicle launch training day along with, but separate from, the standard participant satisfaction questionnaire. Then, six months after the original training, they received by mail the second distribution. Due to an extensive, conscientious, and carefully instructed distri-bution and collection network, 366 questionnaires were returned, 50 more than the 316 required to maintain statistical validity representing a participant population of 1,800.

Training Effects Isolation Methodology

Of the 10 traditional approaches currently in use (Phillips, 1997) to isolate the cause-and-effect relationship between training and performance improvement, the following three approaches were utilized here:

- *training impact:* sales consultants' perception of the influence of sales launch training on actual car sales
- *confidence factor:* sales consultants' certainty of their estimates about the influence of training and other factors, such as advertising, sales incentives, promotional activities, and competitors' initiatives, on actual car sales
- *customer validation:* final sales data collected by the customer and used to substantiate sales consultant estimates.

These approaches were selected for ease of use and realistic credibility of sources. We considered the sales consultants resident experts on when, how, and how many additional cars each sold due to increased vehicle knowledge and awareness. The consultants' estimate provided an adequate indicator of additional sales, since we correlated these estimates with actual sales figures. We could have used alternative approaches, such as control groups, monitoring on-the-job application of principles learned in training, and trend-line analyses. Though we chose not to in this instance, in future ROI initiatives it will be beneficial to compare and contrast other methods of isolating data wherever practical and cost efficient to do so.

Data Conversion Methodology

The conversion of data was relatively easy since units of cars sold can be multiplied by a given unit price and unit margin to establish the monetary benefits. One way to determine a retail organization's benefits is to express the benefit as the delta between unit margins. In this case, it is possible to express the benefit as the delta between unit margins realized on the old model versus the margins to be realized with the new model. With the figures for the UK example, the calculation would look like this: $540 per unit multiplied by the number of incremental units to be sold as a result of the launch training (2,052 units) plus all the other units sold anyway, to which the better margin would also be applied (51,848). Please see figure 7, ROI for the retail distributor, and figure 8, Calculations for retail distributor, which are described in more detail in the section "Program Costs Tabulation and ROI Calculation."

Intangible Benefits Identification Methodology

Intangibles are those benefits and measures that cannot be expressed easily in monetary terms. In our case, we asked a number of questions to provide more general feedback on the value of the training intervention. The questionnaire posed the following three important questions about intangible benefits:

1. "Did the sales launch training help you to sell the new model car?" As figure 2 shows, 96 percent of sales consultants who had received training on the new car indicated that training helped them to sell the new model, not just the day immediately after sales training occurred, but six to eight months after as well. Their response indicates that the training was effective and well received, but in itself this result cannot be expressed in dollars and cents.
2. "To what extent has the training influenced the following measures in your work: sales volume, customer satisfaction, conversion ratio?" Figure 3 graphically illustrates the answers to question two. While an answer to this question does not provide conclusive proof, it does furnish a good indicator of the influence and positive results from the sales consultants' training. Future studies can use alternative methods and questions. Responses about the impact on volume, customer satisfaction, and conversion ratio (ratio of prospects to actual sales) in themselves do not translate into monetary values. We did not expect very high ratios, so were pleased to note that all three dimensions were nearing the midrange of moderate, or three. This