

This paper's purpose is to contribute with evidence on training evaluation estimating training programs return on investment (ROI) using data from a manager of road and railway infrastructure.

Evaluating training returns allows accessing, comparing and evaluating data, and thus supporting HR training decisions and help in selecting training methods. Companies seem to be less interested in investing in ROI's training evaluation, perhaps due to difficulties in estimating associated costs and benefits. Some HR professionals believe that it is not only impossible but also a waste of time to estimate the ROI of their human development programs.

According to recommended targets this level of analysis should reach 10 per cent of all training programs carried out in the firm, although it is estimated by only 5 per cent of the organization's programs on average.

Thanks to the framework provided by Kirkpatrick and Kirkpatrick (2005) and later improved by Phillips (2006), we have a way to calculate training programs' ROI.

Despite skeptics, this model is widely accepted and used in many companies. The combined approach of Kirkpatrick–Phillips states that the evaluation levels can be associated to the training programs. According to Nichols (2012), the ROI process is a conservative one, based on limited data collection and a standard analysis. It may promote financial and non-financial results.

ROI estimation presents several advantages ; it foments the justification of current and future budgets ; it improves the selection of training programs ; it has a positive impact in the cost monitoring ; it increases the revenue forecast based on service improvement and product selection.

Phillips (2006) state that complete accuracy in ROI estimation is not possible (Pineda, 2010). Because ROI calculation is not precise, the value shall be calculated with conservative estimates.

A successful ROI estimation faces several barriers, such as lack of preparation and qualification of the professionals, or time and human or financial resources consumed.

When determining ROI, a number of inaccuracies may occur leading to ambiguity (Phillips, 2006) ; incorrect needs assessment ; the fear of making mistakes ; or the false assumptions used. Most managers argue that ROI estimation of training programs is very hard to assess in a precise and efficient way. However, there is some general agreement regarding its effectiveness. Parry (1996) recommends companies to focus in programs which are considered to be of critical importance and to include the monitoring of costs which are recognizable, available and easy to calculate. This approach favors the monitoring of activities that can be measured.

The aim of this paper is to explore possible differences among ROI from training programs in different domains. This study uses company records on training programs (direct and indirect costs) and output indicators on global performance levels.

ROI for each training program considers estimated costs and benefits associated to each program. We anticipate that training programs in diverse training families will reach different values.