elQ for sme

e-learning quality for sme's: guidance and counselling

Guide for Training Consultants: e-Learning Quality and ROI Evaluation

GUIDE FOR TRAINING CONSULTANTS: e-Learning Quality and ROI Evaluation

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Publisher: University of Tartu, Distance Education Centre

Ulikooli 18 50090 Tartu, Estonia

Telephone: +372 737 63 06

Fax: +372 732 55 62

E-mail: Lehti.Pilt@ut.ee

Homepage: http://www.ut.ee

Other contacts:

Partnership contact: elq-sme@lists.ut.ee

Promoter contact: estudos@cecoa.pt

Project Homepage: http://www.nettskolen.com/in_english/elq-sme/

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Guide for Training Consultants: e-Learning Quality and ROI Evaluation

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Project Coordination

Vanda Vieira, CECOA, *Portugal*

Authors

Diederick Stoel, ProfitWise, *Netherlands*

Rene van Leeuwen, ProfitWise, *Netherlands*

Partners Validation

Isabel Rucabado, CCC, *Spain*

Javier Coll, CCC, *Spain*

Jörg Spath, BFI, *Austria*

Lehti Pilt, University of Tartu, *Estonia*

Morten F. Paulsen, NKI, *Norway*

Natalie Morawietz, F-BB, *Germany*

Niels-Christian Moe, NKI, *Norway*

Triin Marandi, University of Tartu, *Estonia*

Vanda Vieira, CECOA, *Portugal*

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Contents

1. Introduction

The *Guide for Training Consultants: E-Learning Quality and ROI Evaluation* was developed under the Pilot Project ELQ-SMEs - e-Learning Quality for SMEs: Guidance and Counselling, supported by the Leonardo da Vinci Programme.

This guide is targeted to training consultants and Vocational Training Centres. CECOA was responsible for the technical coordination of the *Guide for Training Consultants: E-Learning Quality and ROI Evaluation*. ProfitWise was responsible for the internal evaluation of the product and provided also the contents, case demonstration and support.

The partnership is fully aware that this *Guide for Training Consultants* is not a complete work. It must be seen just as a "step forward" in the attempt to guidance and orientation to the training consultants during their contact with the SMEs.

We hope that this product result will help training consultants, training coordinators, trainers and e-learning providers to demonstrate the added-value of e-learning for SMEs and to guiding employers to settle e-learning solutions at sectorial level. Assuming this project as the beginning of a continuous improvement process, the partnership welcomes all contributions, suggestions and comments that end-users would like to forward.

1.1. What is e-learning?

The difference between e-learning and a good e-learning depends on the application of a couple of basic rules.

It requires a 'back to basic' approach. One has to think about the major learning goals that have to be reached. One does have to let go of the traditional ways of learning. One has to look to the type of organisation that one is working for.

More concrete it will lead to a set of basic rules that one has to keep in mind when developing e-learning.

Those rules are:

Type of organisation:

An organisation can be directive managed: this will lead to a instructive e-learning. It also leads to an e-learning that can reach to insight learning goals.

An organisation that is project driven requires an e-learning that will give hand vessels within the playing field of the organisation. So you can next to reproductive learning goals also reach reproductive skills.

An organisation that is let bottom up requires an e-learning that will offer space to learning goals that come up to productive learning goals. And for the total collaborative organisation we can develop an e-e-learning that comes up to productive skills. In this case we are talking about a parallel reality. In the last two cases we are talking about online interactive. Think about sales challenges and the parallel reality. In this kind of environments people are improving their knowledge and skills as it is in reality. The learning effect will be higher than in the first two cases.

When we start developing e-learning we have keep in mind that learning from a monitor requires a lot of different aspects than learning in a classroom.

For instance we have to make sure that people stay connected to the content. How to get people connected to their monitor?

Therefore we have developed 10 triggers and 5 conditions:

Triggers to keep people connected to their monitor:

1. Control;
2. Eye catcher;
3. Surprise;
4. Score;
5. Practical;
6. Alternatives;
7. Recognizable;
8. Enrichment;
9. Eye opener;
10. Confronting.

Conditions for format and content:

1. Diversity;
2. Short;
3. Clear;
4. Visual;
5. Oversight.

If one is able to create an e-learning with those items in mind, people will stay connected to their monitor and will the effect of the e-learning at least reached the effects of an traditional training. So the choice for an e-learning is not only a financial choice but first of all the possibility to reached the determined learning goals in a more effective way than via traditional training a development.

Therefore the presented method of calculating the ROI of an e-learning leads to the comparison of investments vs. benefits. An alternative is also presented but this compares the costs of traditional vs. e-learning.

1.2. Rationale

As an SME consultant you work for a target group which is responsible for 80% of all business. It is likely that you also regularly wonder how many opportunities are available to this target group, which have not yet been capitalised on. In a word, you are still faced with extensive undeveloped territory. In this document we will show you how you can develop part of this undeveloped territory. Here we are referring to the field of education and training with the focus on e-learning in particular.

We are convinced that SME's do not invest in e-learning, because they feel that the added value offered by this type of education has not yet been adequately revealed. Consequently, this is where you have work to do! One of the most common methods of showing that investing in education is worthwhile is by comparing income and expenditure in a clearly defined manner. Calculating ROI, or return on investment, is a classical method which is used for this purpose.

With the aid of this document, we are providing you with tips which you can use to calculate ROI. We have broken this document down into two parts. First of all, we show you how to perform a single ROI calculation. Because you have to contend with various stakeholders who all have their own interests, in the second part we show you how to perform a multi-pronged ROI calculation. It is precisely in this respect that this document differs from traditional views of ROI.

2. What is ROI, why ROI and how do you calculate ROI?

2.1. What is ROI?

Return on investment is the yield of an investment in relation to the costs involved in it expressed as a percentage. In view of the fact that ROI does not necessarily involve money, a percentage is calculated. For example, expenditure can also be measured in terms of time. In this case, for example, we refer to the time required to break even. However, we can often see that it is practical to express units in terms of money in order

to state added value in the form of a ROI percentage in this way, and to facilitate comparison.

2.2. Why ROI?

ROI is an aid to which decision-makers respond. The decision-makers often base their decisions on the feeling that they have, when they receive proposals. This feeling is often largely determined by a proposal's financial impact. It is therefore preferable to calculate ROI in terms of money.

2.3. How do you calculate ROI?

To put it briefly, ROI is income less expenditure divided by expenditure multiplied by 100%!

Put another way, how much added value does an investment generate in relation to the financial sacrifice that must be made in order to secure it? When calculating ROI it is therefore vitally important to present as comprehensive a breakdown of the expenditure and attributable income as possible. In order to do this factors are mentioned, which are expressed as financial figures. In this respect you may wish to consider, for example, the value of additional sales after one has completed training, the marketing costs involved in the launch of a product when it is developed, or what costs are occasioned by delay where staff cannot make any sales while they are attending training. Alternatively, there is the cost of lost opportunities or the income which is generated thanks to the fact that, after staff have attended training, they are capable of working more effectively and/or more efficiently (operational excellence).

Example:

A company hires a representative to sell its products to its customers. This representative costs the company €100,000.00 in the form of an annual salary. In order to work this representative requires a car. The investment in this car, including all relevant expenses (fuel, insurance, and the purchase and depreciation of the vehicle), amounts to €50,000.00.

As such, the total expenditure amounts to €150,000.00.

If this representative succeeds in achieving sales worth €200,000.00, his ROI will amount to the following:

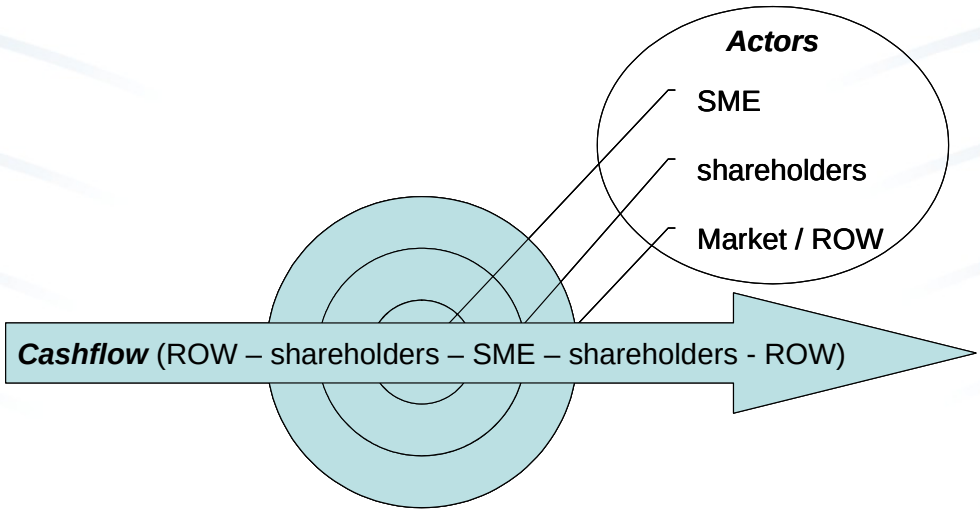
{[(income): €200,000.00 less (expenditure): €150,000.00] divided by (expenditure) €150,000.00} x 100% = 33.3%

In other words, for every euro which it invests, the company receives €1.33.

As you can see, ROI has everything to do with an economic chain. After all, investments are made and goods are sold to others. We will focus on this economic chain in the next section.

3. Economic chain

As a consultant for SMEs working in the public and private sector, you are part of an economical system. You are doing business with other parties (actors). You have to deal with customers, suppliers and other shareholders. You are part of a market, your market! This market is part of a larger economical system (local, nationwide, European or even worldwide). As you look to your business in this perspective you will see that it is important to deliver value to your business environment. In this chapter we will tell you something about this economical system so you can better understand the way you can advise and help your customers.



3.1. Chain

If one examines a macro-economic chain, what it amounts to – to put it briefly – is that an economy is a circuit into which money enters and, after various actors have added value to it (be it in return for payment or not), it then leaves the chain again. This chain therefore actually consists of a number of layers or shells enveloping each other. These layers or shells are formed by a micro-economic chain (for example, within a company), a meso-economic chain (within a collaborative relationship) and a macro-economic chain (the meso-economy plus an indeterminate array of actors who are also known as the rest of the world).

3.2. Actors

Actors are organisations or people who add value to a product or service. These actors often operate as part of a customer-supplier relationship. Naturally, it is possible that the activities which an actor adds, cannot be directly attributed to a product or service but do generate expenses (investments are demanded). In this respect, you may wish to

consider the allocation of the cost of HR services to that of a specific type of potato peeler which a household goods company sells. For example, consider the manner in which your customers assign your services to their products.

3.3. Cash flows within a chain

Within a chain cash flows are based on the ability to bear costs. Someone accepts the cost of delivery (the cost-bearer). Every addition to a product or service is charged to the next actor. The cost of an advertising campaign is included in the relevant product's selling price.

3.4. Cash flows outside a chain

Ultimately, expenditure is charged to an indeterminate number of actors (for example, consumers in the retail trade) or is included in an unspecified product (the potato peeler mentioned above). In this way the money leaves the chain and the financial impact of the relevant investment is shared in a product which cannot be accounted for in greater detail. As such, the money leaves the meso-economic chain and goes on to become part of the macro-economic chain. In this respect, you can imagine that, for example, a supplier of photocopying paper is able to calculate the cost of his production process and to invoice his customers accordingly (Actor 1 invoices Actor 2). It is then almost impossible for Actor 2 to specify the added value incorporated in the use of the photocopying paper in his product. Consequently, the precise item of expenditure becomes part of a larger component of generic expenses and is charged on to an unspecified number of customers as part of a larger entity (the money leaves the chain and 'disappears' amongst the rest of the world).

In view of the fact that we now know how ROI is calculated and the manner in which cash flows constitute part of the overall economic chain, we will be able to focus predominantly on the method used to associate cash flows and ROI with each other in the next section.

4. Method

4.1. Financial and economic chain

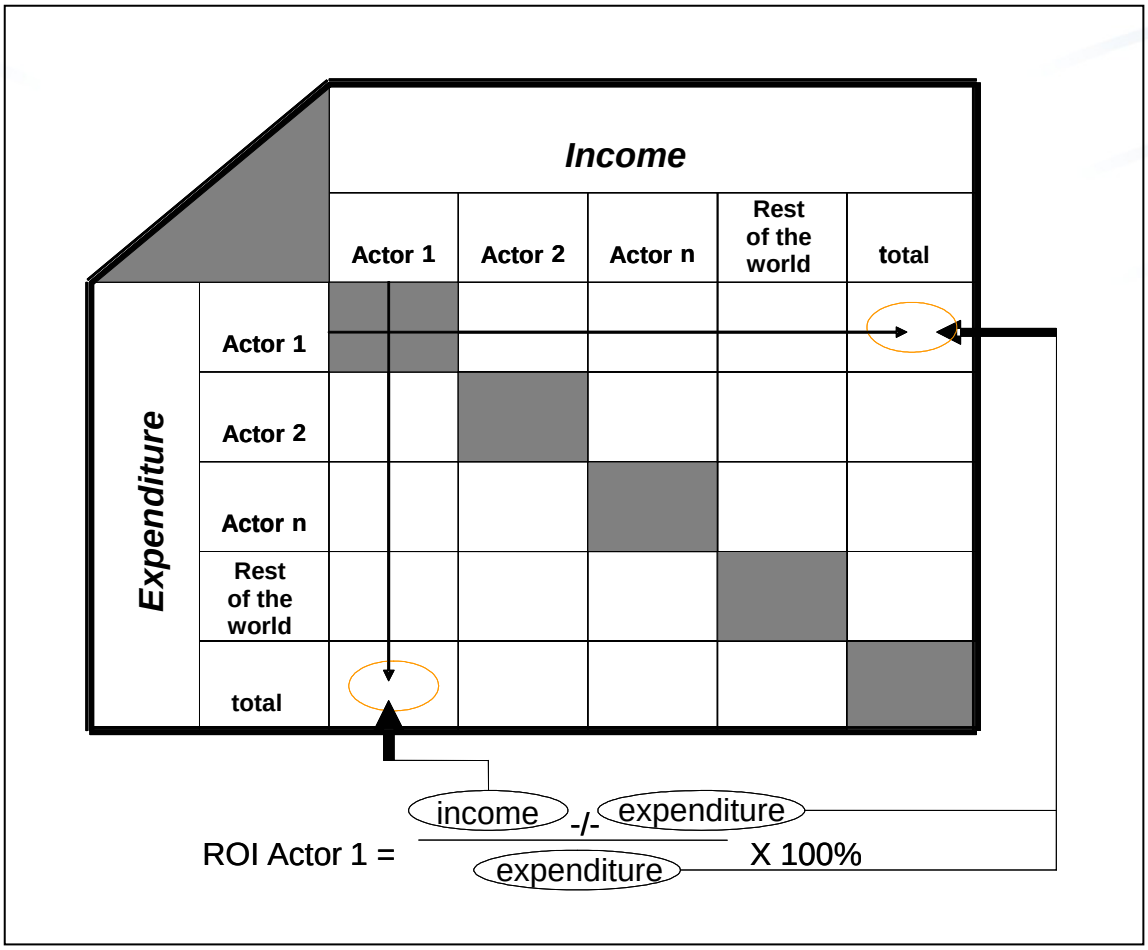
In the meantime we have determined that ROI is actually the ratio of investments to the income which can be attributed to these investments. This gives rise to the question as to whose investments and income this refers to.

What we are actually concerned with here is whether a consultant can answer this question for the following three parties:

1. His client;
2. His client's customers;
3. And ultimately himself!

Assuming that income for one party simultaneously represents expenditure to another, this gives rise to the following matrix.

The income for each actor is filled in along the horizontal axis. The expenditure of each actor is entered along the vertical axis. Eventually, the total costs of each actor are filled in at the end on the right, while their overall income is entered right at the bottom.



Expenditure		Income				
						Total
	Total					
		Income	-	Expenditure		
	ROI of Actor 1		Expenditure			

If we take the data from the first example and enter it into the table below, this produces the following.

	income			
Expenditure	*x*	*Organisation*	*ROW* *(car dealer, representative)*	***Total***
	Organisation	**x**	**150,000**	***150,000***
	ROW *(sales to customers)*	**200,000**	**x**	***200,000***
	Total	***200,000***	***150,000***	***x***

The following is evident:

- The organisation's income amounts to €200,000.00;
- The company's expenditure amounts to €150,000.00.

Expressed as a formula: [(€200,000.00 – €150,000.00) / €150,000.00] x 100% = 33.3%.

If we extrapolate this example further, we could, for example, also calculate what the organisation's customers gain. If the representative in this example were able to show

what gains his customers could offer their customers, they may be more inclined to purchase goods from him.

At the start of this document we noted that SMEs do not fully appreciate the value of e-learning, for example. A cycle is created in this manner. Any customer, who can see what benefit your advice would have for him and for his customers, would be more inclined to invest in good advice and development: your advice!

We refer to this as a multi-pronged ROI calculation. Such a calculation is provided in greater detail in the following example.

An example

This example makes use of a situation which has occurred in the Netherlands. A baker engaged the services of a consultant to resolve a problem which had occurred in his business. Matters have been simplified in order to ensure that this example is clear. However, this simplification does not in any way affect the return calculated in this example. The current situation is that, based on the advice provided by the consultant, the baker in this example now has three highly profitable retail outlets coupled with bakeries, and currently supplies bread to five health care institutions. No names are mentioned in this case study for reasons relating to privacy.

We will be calculating the ROI for the various actors based on a description of the situation.

We will reveal the ROI for the following parties in consecutive order:

- A flour supplier;
- A baker;
- A health care institution;
- A business training provider.

A baker buys flour from a wholesaler, uses it to bake bread and sells his bread to a health care institution for senior citizens (an old-age home), amongst other things.

Flour wholesaler

As a result of poor harvests a flour wholesaler raises his prices for the supply of flour to a baker. The flour supplier's return on his supplies remains constant as a result. Once the price of flour falls to its current level again next year because there will have been a normal harvest, the flour supplier will then be able to drop his prices, so as to ensure that his return (ROI) remains constant. His ROI consequently remains constant and may increase in the future.

Baker (introduction)

The baker is unable to pass on the price increase that has been announced, to his end customer (the health care institution), otherwise he will lose his supply contract. The health care institution's primary concern is that its clients feel fine. Healthy nutrition is an important factor in this respect.

The baker purchases flour from the wholesaler for a price of €500.00 and adds value amounting to €250.00 to the flour (processing, time, electricity and transport). Every day the baker supplies the health care institution with bread valued at €1000.00.

The baker's ROI amounts to 33.33% ([(€1000.00 - €750.00) / €750.00] x 100%).

As a result of poor harvests suffered by its suppliers the flour plant's price increase amounts to €100.00.

As a result the baker's ROI amounts to 17.64% ([(€1000.00 - €850.00) / €850.00] x 100%).

Apparently there has been a decrease of 15.69%!

The baker now has a choice. Either he accepts a 45% (from 33.33% to 17.64%) drop in his return or he looks for a way to ensure that his ROI remains at a higher level without his end customer experiencing any inconvenience as a result.

Health care institution

The baker comes up with the idea that it is actually much better for elderly people to eat bread which is not too fresh. This would have a positive impact on their digestive system, which works more slowly, with the result that these people would feel better. If consumers feel better thanks to his bread, then than the health care institution would be providing greater added value through its services! An increase in the added value of these services would mean a rise in the number of its clients. This would in turn elicit more in the way of government subsidies. As long as it is possible for the health care institution to expand within the bounds of its capacity, this would not push up its fixed expenses, with the result that it would be possible to provide more and better care with only a limited increase in its expenditure (after all, only its variable costs would rise). This would have a positive impact on the health care institution's ROI: greater satisfaction amongst its clients and more in the way of subsidies to ensure the provision of even better care.

Baker (cont.)

The health care institution has given the baker an undertaking that his three-year contract will be renewed for a further period of three years, if he succeeds in partly

ensuring that the health care institution's customers feel better. He believes that it will be a simple matter to do this by supplying bread which is only one day old.

The baker wishes to substantiate this with facts and funds a medical study (research) into the digestive system of the human body. The cost of this study amounts to €6,000.00. At the same time the baker thinks that he will no longer be inconvenienced in the form of a loss due to an incorrect estimate on his part of his daily sales. He will take the excess of his normal production on one day and supply it to the health care institution on the following day. As a result his loss (approximately 10% of his daily turnover of €1500.00) will be reduced to 0%.

If we now examine the baker's ROI, we see the following.

The Baker's income

Normal income from his supplies: €1000.00.

Additional income thanks to a reduction of his loss on the excess: €150.00 (because his loss on this excess amounting to 10% of €1500.00 has been reduced to 0% of the latter).

The Baker's expenditure

Research subsidy

€6,000.00 spread over a period of three years (five deliveries per week over a period of three years amounts to 780 deliveries – 5 x 52 x 3 – per annum). This represents an investment in additional expenditure of €7.70 (€6,000.00 / 780).

Production costs

The cost of production amounts to €850.00 per delivery.

As such, the baker's ROI amounts to the following:

[(€1150.00 - €857.70)] / €857.70 x 100% = 34.07%

The baker's ROI has risen from 33.33% to 34.07% as a result of an investment in knowledge and in spite of an increase in expenditure.

Suppose that flour prices recover and drop to their current lower level, because next year's harvest is as it was in the past. In this case his ROI would rise by a further 17.71%. After all:

[(€1150.00 - €757.70)] / €757.70 x 100% =51.78% (compared with 34.07%, this represents an increase of 17.71%).

Business training provider

Suppose that the baker and then also receives sound business training from his professional association, as a result of which he is able to procure supplies at keener prices (for example, procurement savings of only 2%). Taken over a period of three years (780 deliveries) this would amount to €9,360.00 (€600.00 x 2% x 780). An average procurement course currently costs approximately €5,000.00. The baker's investment in this course produces a ROI for him of 87.2% ([(€9,360.00 – €5,000.00)] / €5,000.00 x 100%).

Suppose that this business training provider decides to offer the course in electronic form. What would his ROI be in this case?

The development of a procurement course in electronic form requires an investment of €250,000.00. It is anticipated that he will have approximately 2000 trainees (spread over various target groups). This is because a procurement course is a form of generic training which can offer added value to the entire SME sector. Suppose that the professional association offers the course for €500.00. (This represents 10% of the costs involved. After all, attending such a course costs €5,000.00). As such, the provider's income amounts to €1,000,000.00 (€500.00 x 2000). This means that the training institute's ROI amounts to 300% ([(€1,000,000.00 – €250,000.00) / €250,000.00] x 100%)!

If all of the data taken over a period of three years (which is 780 deliveries five times a week over 52 weeks per annum over three years – 5 x 52 x 3 = 780) is inserted in a table, the latter will be as follows.

		INCOME					
EXPENDITURE	*x*	*Flour Plant*	*Baker*	*Old-age Home*	*Training Centre*	*ROW*	***Total***
	Flour plant	**x**	**9,360**[1]	**-**	**-**	*NA*	***NA***
	Baker	**468,000**[2]	**x**	**-**	**5,000**[3]	*195,000*[4] *6,000*[5]	***674,000 (669,000+5,000)***
	Old-age home	**-**	**780,000**[6]	**x**	**-**	*-*	***780,000***
	Training centre	**-**	**-**	**-**	**x**	*250,000*[7]	***250,000***
	ROW	*-*	*117,000*[8]	*780,000*[9]	*995,000*[10]	*x*	***1,896,500***
	Total	***468,000***	***906,360 (897,000+ 9,360)***	***780,000***	***1,000,000***	***451,000***	***x***

Savings achieved through procurement at keener prices:

savings of 1% x €600.00 (purchase price per delivery) x 780 deliveries = €9,360.00

Total value of the deliveries made by the flour plant to the baker:

€600.00 x 780 = €468,000.00

Cost of procuring a course for SMEs: €5.000.00

The baker adds €250.00 to the product in the case of each delivery multiplied by 780 deliveries = €195,000.

One-off investment in research into the human digestive system amounting to €6,000.00.

780 deliveries to the old-age home of €1,000 = €780,000.00.

Investment in the development of a course on ‘effective procurement’.

A gain of 10% x €1,500.00 x 780 deliveries = €117,000.00 on the baker’s normal daily turnover, because he is now able to deliver bread that is one day old, to the old-age home. This is a conservative estimate, because the baker makes an average of six deliveries a week (Mondays to Saturdays), while the calculation is based on five deliveries per week.

This refers to the cost of the bread which the old-age home accounts for as food in its budgets.

This refers to income from 199 courses (the baker procures one) for a fee of €5,000.00 (199 x €5,000 = €995,000.00).

Baker’s ROI on deliveries to the old-age home:

[(€897,000 – €669,000) / €669,000] x 100% = 34.08%

Baker’s ROI on the procurement of the course he attends:

[(€8,950,50 – €5,000) / €5,000] x 100% = 79.01%

Training centre’s ROI:

[(€1,000,000 – €250,000) / €250,000] x 100% = 300%

Method:

- Identify the actors within the relevant chain (clients, contractors, customers);
- Specify the earnings of the various actors and identify those actors for whom they represent expenditure;
- Develop the model until you reach the rest of the world (ROW);
- Total the income and expenditure;
- Calculate the ROI in accordance with the formula, [(income – expenditure)/expenditure] * 100%;
- Present the outcome for each actor.

In this way it is possible to calculate a multi-pronged ROI: one for a client (for example, a financier), one for a contractor and one for a customer.

Another example

A commercial provider of products wants to train his sales department. There are 30 people working on the sales department as account manager. Their task is to sell the products.

The entrepreneur feels the need to train his people on their competences.

According to CEDEFOP Glossary a competence is the ability to apply knowledge, know-how and skills in a habitual and/or changing work situation.

For a traditional program is needed:

- A docent for knowledge (3 days);
- A trainer for skills (3 days);
- A business coach for expression and culture (3 days);
- A personal coach for motivation (3 days).

After running the program there has to be attention for transfer because programs often run in a short time. We have to be careful that the skills can grow to natural behaviour.

Let's look at this case in a financial way:

The cost for running this program will be 12 days (€ 1500, a day) x € 1500 = € 18.000. People are 12 days unproductive. The labor cost per hour is about € 50. For 12 days this means 12 x 8 x € 50 = € 4800.

So the cost per program will be about € 22.800,

We did not count the cost for accommodation, loss of sales, etc. Because there are 30 account managers working in this company, we have to run the program three times.

The total cost for this program is 3 x € 22.800 = € 68.400

If we offer this program in a digital form the cost for a flat e-learning that covers knowledge and skills, we have to pay € 40.000. For a sales challenge based on individuals we have to invest € 20.000. These investments are based on the average price of e-learning applications that develop the knowledge and skills of an individual. The total costs will be € 60.000.

Let's look from an educational point of view

In the traditional way we are doing role plays. One or two participants can do a role play a time. The others are watching. People can learn from watching but learn more from doing.

The average time of a role play is about 30 minutes. The effective time during a training day is about 6 hours. This means that we can do 12 role plays a day. In three days we can do at most 30 role plays, because of explanation of sales theory, etc. That means 3 active role plays per person. To be more precise, 1,5 times in a role as account manager and 1,5 times in the role of customer. Often we see that the feedback from the other participants is subjective. People know each other, didn't watch very good.

During a sales challenge each person does 20 role plays in his role as account manager. The participant receives personal objective feedback (based on specific organizational subjects and matters) from the system and can share his experiences with other people by P2P development reports.

Let's be careful and say that the effectiveness of a traditional trainer is twice the effectiveness of a digital solution. This means that a digital solution is still more than 300% more effective. In a calculation: 3 time's personal attention during a traditional role play x 2 = 6 times personal attention in a traditional way. 20 times during a digital sales challenge.

[20/6] x 100% = 333%!

Let's look at this case from a logistic point of view

When the company hires a new employee on the sales department, this person has to wait till there are 10 new persons before they can start a new program. If the company chooses for a digital solution the newly hired can start with his educational program at any time. So this person is earlier ready to perform in his role as an account manager.

It is also a fact that individual digital solution is presented "just in time" and due to a good assessment "just enough". So the effective study time will reduce with about 75%.This is next to the fact that it shows that people prefer to study on Sunday and Thursday evening (in their own time). So the company does not have the loss of labor force during working time.

Conclusion

Choosing for a digital solution is much cheaper and far more effective for an organization, than choosing for a traditional way of education. But the proof is still in eating the pudding. Are you hungry?

5. Conclusions

By clarifying what gains can be achieved and where this can occur, the threshold is lowered for SMEs to go along with the development of e-learning. In this case the example provided the following:

- An ROI for the flour plant (not worked out in concrete figures, because none are available);
- A multi-pronged ROI for the baker (relating to his deliveries and training);
- An ROI for the health care institution (not in the form of figures but based on its mission – providing the best possible service to its clients);
- An ROI for the training centre (this could simply be the education department of a professional association).

All in all, this represents precisely the type of calculation of multiple ROIs and a multi-pronged ROI, which should enable consultants to explain solutions to their interlocutors in a qualitative manner.

When you are able adding value to your customers you can improve your ROI. In fact you are creating a win-win-win situation. You are able to show your value to your customers (which will affect your ROI positive) by helping to show their value to their market (which will affect their ROI positive) and so on.

In addition, it is precisely the benefits that are offered together with the educational preferences of a rejuvenating target group, which offer ample opportunities to generate more income frequently coupled with reduced expenditure (this need not even be the case in some situations, as the example reveals) and to achieve greater staff satisfaction, because a better response is produced to accommodate the educational requirements of the most important productive factor to be found in a business: its human capital.

In this method we have chosen to calculate the ROI as a comparison between the investment that had to be made and the benefits that one receives. It is also possible to calculate the ROI in a comparison between the costs and benefits for an traditional course and the costs and benefits for an e-learning course. However, the choice for e-learning does not only depend on the financial outcome of a calculation. In some cases it is not possible to train people on a traditional way due to a timeframe or because of logistic problems (when people work on different places and it is not possible to come together on a collective time and date.

6. Partnership contacts

CECOA – Centro de Formação Profissional para o Comércio e Afins

Rua da Sociedade Farmacêutica, nº 3

1169-074 Lisbon

Tel: ++ 351 213112400

Fax: ++ 351 213112424

E-mail: vanda.vieira@cecoa.pt

Contact Person: Vanda Vieira

www.cecoa.pt

BFI

Mariengasse, 24

8020 Graz

Tel: ++ 4331672761

Fax: ++ 4331672753

E-mail: joerg.spath@bfi-stmk.at

Contact Person: Jörg Spath

www.bfi-stmk.at

F-BB, Research Institute for In-House Training

Obere Turnstr, 8

90429 Nurnberg

Tel: ++ 49 911 277 79 22

Fax: ++ 49 911 277 79 50

E-mail: morawietz.natalie@f-bb.de

Contact Person: Morawietz Natalie

www.f-bb.de

University of Tartu, Open University Centre

Ulikooli, 18

50090 Tartu

Tel: ++ 372 737 63 06

Fax: ++ 372 732 55 62

E-mail: Lehti.pilt@ut.ee

Contact Person: Lehti Pilt

www.ut.ee

Confederació de Comerç de Calalunya

Via Layetana, 32, 2 ND, 50-52 Offi

08003 Barcelona

Tel: ++ 93 491 06 06

Fax: ++ 93 491 25 16

E-mail: ccc@confecomercat.es

Contact Person: Javier Coll

www.confecomercat.es

ProfitWise

WG Plein 189

1054SC Amsterdam

Tel: ++ 31 20 412 1392

Fax: ++ 31 20 412 1406

E-mail: roi@profitwise.info

Contact Person: Diederick Stoel

www.profitwise.info

NKI Distance Education

Hans Burums vei 30,

PO Box 111,

1319 Bekkestua

Tel: ++ 47 67588800

Fax: ++ 47 67530500

E-mail: morten@nettskolen.com

Contact Person: Morten Flate Paulsen

www.nettskolen.com

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para o Comércio e Afins (Portugal) **www.cecoa.pt**

BFI (Berufsförderungsinstitut) Steiermark (Austria)
www.bfi-stmk.at

Forschungsinstitut Betriebliche Bildung (f-bb) gGmbH (Germany)
www.f-bb.de

University of Tartu, Open University Centre (Estonia)
www.ut.ee

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www.confecomercat.es

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www.profitwise.info

NKI Distance Education (Norway)
www.nki.no

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