

TECHNOLOGICAL TOOLKIT FOR ENTREPRENEURS – [TTE@40](#)

Training Needs Analysis: The Romanian Case

Silvia Avasilcai, Ph.D.

Carmen Aida Hutu, Ph.D., MSOD

The Technical University “Gh. Asachi” of Iasi
Iasi – Romania



LEONARDO DA VINCI II

1. INTRODUCTION AND OBJECTIVES

1.1. INTRODUCTION

1.2. OBJECTIVES

2. METHODOLOGY

2.1. POPULATION

2.2. TARGET GROUP

2.3. SAMPLE

3. RESULTS

3.1. ABOUT THE RESPONDENT

3.2. RESPONDENT' BUSINESS

3.3. RESPONDENT TRAINING AND DEVELOPMENT NEEDS

3.4. TRAINING DELIVERY

4. CONCLUSION

1. INTRODUCTION AND OBJECTIVES

1.1. INTRODUCTION

1.2. OBJECTIVES

- To determine the profile, training and development needs, learning methods, and skills and competencies of the primary target group, namely mid-career, unemployed, underemployed, at risk of being unemployed and inactive men and women
- To gain insight on the challenges and opportunities facing would-be entrepreneurs in the new business environment e.g. globalisation/internationalisation of entrepreneurs, changing nature of the workforce, entrepreneurial spirit, mindset, risk, importance of teambuilding, access to research and finance, administrative hurdles

2. METHODOLOGY

2.1. POPULATION

The population of the study consists primarily of the target group to which the [TTE@40](#) project is addressing, namely mid-career, unemployed, underemployed, at risk of being unemployed and inactive men and women. This is a large potential target group and one that is not homogeneous. Due to the increasing pace of innovation and change the project will focus specifically on training our ageing labour force to create and grow technology-based, innovative enterprises.

2.2. TARGET GROUP

Mid-career entrepreneurs planning to create of innovative, technology-based SMEs.

2.3. SAMPLE

The sample was made of 250 mid-career entrepreneurs.

N° of surveys sent	250
Responses	26
Percentage of responses	10,4 %

Distribution channels of the questionnaire		
	N°	Percentage
Mailing	170	68 %
E-mail	80	32 %
Fax	0	0 %
Web site	0	0 %
Total	250	100 %

3. RESULTS

3.1. ABOUT THE RESPONDENT

1. Gender of the respondent		
	Nº	Percentage
Male	16	61.5 %
Female	9	34.6 %
Missing values	1	3.8 %
Total	26	100 %

2. Age of the respondent		
	Nº	Percentage
Under 34	7	26.9 %
35 – 44	10	38.5 %
45 – 54	4	15.4 %
55 – 64	1	3.8 %
65 +	4	15.4 %
Missing values	0	0 %
Total	26	100 %

3. Formal education of the respondent		
	Nº	Percentage
Under Secondary school	0	0 %
Secondary school certificate	0	0 %
Post secondary education	2	7.7 %
University degree	12	46.2 %
Postgraduate degree	12	46.2 %
Missing values	0	100 %
Total	0	100 %

4. Other training/professional qualification of the respondent		
	Nº	Percentage
Undergraduate	12	46.2 %
Postgraduate	11	42.3 %
Missing values	3	11.5 %
Total	26	100 %

5. Respondents that started a business in the last 2 years		
	Nº	Percentage
Yes	7	26.9 %
No	16	61.5 %
Missing values	3	11.5 %
Total	26	100 %

6. Respondent involvement in the business				
	Nº		Percentage	
	Yes	No	Yes	No
Own shares in the firm	5	5	19.2 %	19.2 %
Missing values	16		61.5 %	
Total	26		100 %	
Employ members of staff	7	2	26.9 %	7.7 %
Missing values	17		65.4 %	
Total	26		100 %	

7. Methods of financing for respondents business				
	Nº		Percentage	
Personal savings	7		26.9 %	
Borrowed from friends/family/etc.	2		7.7 %	
Borrowed from the bank	0		0 %	
Equity from a business angel	0		0 %	
From a venture capital company	0		0 %	
Grant/loan from a government scheme	0		0 %	
Missing values	17		65.4 %	
Total	26		100 %	

8. Respondents beliefs				
	Nº		Percentage	
I believe I have the training, education and skills needed to be successful in this new business	5		19.2 %	
I feel I have spotted a market opportunity	3		11.5 %	
I saw starting a small business as a desirable career choice	10		38.5 %	
I believe my previous work experience will help me in my new business	8		30.8 %	
I started this business as I couldn't find another job	1		3.8 %	
I was aware of local training courses to help me start my business	4		15.4 %	
If this new business is not successful it will be easy for me to find a good job or start another business	1		3.8 %	

9. Respondent length of work experience				
	Nº		Percentage	
Less than 5 years	5		19.2 %	
5 – 10 years	1		3.8 %	
10 – 15 years	1		3.8 %	
15 – 20 years	0		3.8 %	
Over 20 years	4		15.4 %	
Missing values	15		57.7 %	
Total	26		100 %	

10. Respondent type of work experience				
	Nº		Percentage	
	Yes	No	Yes	No
Large companies	5	6	19.2	23.1
Missing values	16		61.5	
Total	26		100	
Small companies	5	5	19.2	19.2
Missing values	16		61.5	
Total	26		100	
Public sector	3	7	11.5	26.9
Missing values	16		61.5	
Total	26		100	
Voluntary sector	0	10	0	38.5
Missing values	16		61.5	
Total	26		100	

11. Respondent background		
	Nº	Percentage
Employed	9	34.6 %
Self employed	0	0 %
Student	2	7.7 %
Retired	0	0 %
Not working	0	0 %
Missing values	15	57.7 %
Total	26	100 %

12. Respondents planning to start a business in the next 12 months		
	Nº	Percentage
Yes	14	53.8 %
No	6	23.1 %
Missing values	6	23.1 %
Total	26	100 %

13. Beliefs of the respondents planning to start a business in the next 12 months		
	Nº	Percentage
I believe I have the training, education and skills needed to be successful in this new business	10	38.5 %
I feel I have spotted a market opportunity	11	42.3 %
I saw starting a small business as a desirable career choice	11	42.3 %
I believe my previous work experience will help me in my new business	12	46.2 %
I started this business as I couldn't find	1	3.8 %

another job		
I was aware of local training courses to help me start my business	4	15.4 %
If this new business is not successful it will be easy for me to find a good job or start another business	1	3.8 %

14. Respondent length of work experience		
	Nº	Percentage
Less than 5 years	3	11.5 %
5 – 10 years	4	15.4 %
10 – 15 years	4	15.4 %
15 – 20 years	1	3.8 %
Over 20 years	5	19.2 %
Missing values	9	34.6 %
Total	26	100 %

15. Respondent type of work experience				
	Nº		Percentage	
	Yes	No	Yes	No
Large companies	7	10	26.9	38.5
Missing values	9		34.6 %	
Total	26		100	
Small companies	4	13	15.4	5.
Missing values	9		34.6 %	
Total	26		100	
Public sector	9	8	34.6	30.8
Missing values	9		34.6 %	
Total	26		100	
Voluntary sector	2	15	7.7	57.7
Missing values	9		34.6 %	
Total	26		100	

16. Respondent background		
	Nº	Percentage
Employed	15	57.7 %
Self employed	2	7.7 %
Student	0	0 %
Retired	0	0 %
Not working	0	0 %
Missing values	9	34.6 %
Total	26	100 %

3.2. RESPONDENT' BUSINESS

1. Main sector of industry / services		
	Nº	Percentage
Industrial design	4	15.4 %
Retail	4	15.4 %
Manufacturing of industrial products	6	23.1 %
Clothing manufacturing	4	15.4 %
Distribution	2	7.7 %
Real estates	2	7.7 %
Consultancy	2	7.7 %
Entertainment	2	7.7 %
Total	26	100 %

2. Business relies on the use of new technology		
	Nº	Percentage
Yes	11	42.3 %
No	6	23.1 %
Missing values	9	34.6 %
Total	26	100 %

3. Number of employees		
	Nº	Percentage
46	1	3.8 %
20	4	15.4 %
5	4	15.4 %
4	4	15.4 %
3	2	7.7 %
2	2	7.7 %
Missing values	9	34.6 %
Total	26	100 %

3.3. RESPONDENT TRAINING AND DEVELOPMENT NEEDS

A. Exporting		
	Nº	Percentage
Most	5	19.2 %
Quite	4	15.4 %
Average	2	7.7 %
Not very	2	7.7 %
Least	5	19.2 %
Missing values	8	30.8 %
Total	26	100 %

B. Global business environment		
	Nº	Percentage
Most	9	34.6 %
Quite	3	11.5 %
Average	5	19.2 %
Not very	5	19.2 %
Least	1	3.8 %
Missing values	3	11.5 %
Total	26	100 %

C. Information technology		
	Nº	Percentage
Most	5	19.2 %
Quite	5	19.2 %
Average	3	11.5 %
Not very	6	23.1 %
Least	1	3.8 %
Missing values	6	11.5 %
Total	26	100 %

D. Business plan writing skills		
	Nº	Percentage
Most	9	34.6 %
Quite	5	19.2 %
Average	1	3.8 %
Not very	2	7.7 %
Least	2	7.7 %
Missing values	7	26.9 %
Total	26	100 %

E. Advertising and promotion		
	Nº	Percentage
Most	8	30.8 %
Quite	3	11.5 %
Average	4	15.4 %
Not very	2	7.7 %
Least	3	11.5 %
Missing values	6	23.1 %
Total	26	100 %

F. Strategic management		
	Nº	Percentage
Most	7	26.9 %
Quite	5	19.2 %
Average	4	15.4 %
Not very	4	15.4 %
Least	1	3.8 %
Missing values	5	19.2 %
Total	26	100 %

G. Market analysis / segmentation		
	Nº	Percentage
Most	5	19.2 %
Quite	4	15.4 %
Average	8	30.8 %
Not very	4	15.4 %
Least	1	3.8 %
Missing values	4	15.4 %
Total	26	100 %

H. Human resource management		
	Nº	Percentage
Most	8	30.8 %
Quite	6	23.1 %
Average	3	11.5 %
Not very	4	15.4 %
Least	2	7.7 %
Missing values	3	11.5 %
Total	26	100 %

I. Employment law		
	Nº	Percentage
Most	4	15.4 %
Quite	3	11.5 %
Average	6	23.1 %
Not very	1	3.8 %
Least	7	26.9 %
Missing values	5	19.2 %
Total	26	100 %

J. Creativity / Innovation		
	Nº	Percentage
Most	12	46.2 %
Quite	3	11.5 %
Average	4	15.4 %
Not very	1	3.8 %
Least	2	7.7 %
Missing values	4	15.4 %
Total	26	100 %

K. Supply chain management		
	Nº	Percentage
Most	3	11.5 %
Quite	1	3.8 %
Average	4	15.4 %
Not very	8	30.8 %
Least	2	7.7 %
Missing values	8	30.8 %
Total	26	100 %

L. Business law		
	Nº	Percentage
Most	6	23.1 %
Quite	4	15.4 %
Average	6	23.1 %
Not very	2	7.7 %
Least	2	7.7 %
Missing values	6	23.1 %
Total	26	100 %

M. Language skills		
	Nº	Percentage
Most	7	26.9 %
Quite	3	11.5 %
Average	6	23.1 %
Not very	4	15.4 %
Least	2	7.7 %
Missing values	4	15.4 %
Total	26	100 %

N. Financial management		
	Nº	Percentage
Most	5	19.2 %
Quite	6	23.1 %
Average	7	26.9 %
Not very	1	3.8 %
Least	0	0 %
Missing values	7	26.9 %
Total	26	100 %

O. How to exploit scientific R & D		
	Nº	Percentage
Most	5	19.2 %
Quite	4	15.4 %
Average	3	11.5 %
Not very	3	11.5 %
Least	5	19.2 %
Missing values	6	23.1 %
Total	26	100 %

P. Pay and benefits		
	Nº	Percentage
Most	2	7.7 %
Quite	8	30.8 %
Average	3	11.5 %
Not very	4	15.4 %
Least	4	15.4 %
Missing values	5	19.2 %
Total	26	100 %

Q. Finding premises for my business		
	Nº	Percentage
Most	4	15.4 %
Quite	7	26.9 %
Average	3	11.5 %
Not very	5	15.4 %
Least	1	3.8 %
Missing values	6	23.1 %
Total	26	100 %

R. Leadership skills		
	Nº	Percentage
Most	4	15.4 %
Quite	7	26.9 %
Average	6	23.1 %
Not very	0	0 %
Least	1	3.8 %
Missing values	8	30.8 %
Total	26	100 %

S. Time management		
	Nº	Percentage
Most	9	34.6 %
Quite	4	15.4 %
Average	3	11.5 %
Not very	3	11.5 %
Least	1	3.8 %
Missing values	6	23.1 %
Total	26	100 %

T. Sources of business finance		
	Nº	Percentage
Most	10	38.5 %
Quite	4	15.4 %
Average	2	7.7 %
Not very	0	0 %
Least	3	11.5 %
Missing values	7	26.9 %
Total	26	100 %

U. Pricing my product / service correctly		
	Nº	Percentage
Most	7	26.9 %
Quite	1	3.8 %
Average	7	26.9 %
Not very	2	7.7 %
Least	3	11.5 %
Missing values	6	23.1 %
Total	26	100 %

V. Operations management		
	Nº	Percentage
Most	5	19.2 %
Quite	2	7.7 %
Average	5	19.2 %
Not very	7	26.9 %
Least	2	7.7 %
Missing values	5	19.2 %
Total	26	100 %

W. Finding customers		
	Nº	Percentage
Most	9	34.6 %
Quite	6	23.1 %
Average	6	23.1 %
Not very	1	3.8 %
Least	1	3.8 %
Missing values	3	11.5 %
Total	26	100 %

X. Selling skills		
	Nº	Percentage
Most	9	34.6 %
Quite	4	15.4 %
Average	4	15.4 %
Not very	2	7.7 %
Least	2	7.7 %
Missing values	5	19.2 %
Total	26	100 %

Y. Are there any other areas where you feel you need training?		
	Nº	Percentage
Yes	7	26.9 %
No	14	53.8 %
Missing values	5	19.2 %
Total	26	100 %

Days of formal management training in the last 3 years		
	Nº	Percentage
None	6	23.1 %
1 - 3	4	15.4 %
3 - 5	1	3.8 %
5 - 8	2	7.7%
Over 8 days	8	30.8 %
Missing values	5	19.2 %
Total	26	100 %

3.4. TRAINING DELIVERY

1. Who do you trust to deliver high quality business training?

A. External consultants		
	Nº	Percentage
Yes	13	50 %
No	13	50 %
Missing values	0	0 %
Total	26	100 %

B. Local business link		
	Nº	Percentage
Yes	6	23.1%
No	20	76.9 %
Missing values	0	0 %
Total	26	100 %

C. Local Training and Enterprise Council		
	Nº	Percentage
Yes	16	61.5%
No	10	38.5 %
Missing values	0	0 %
Total	26	100 %

D. Chamber of Commerce		
	Nº	Percentage
Yes	4	15.4%
No	22	84.6 %
Missing values	0	0 %
Total	26	100 %

E. Professional body		
	Nº	Percentage
Yes	4	15.4%
No	22	84.6 %
Missing values	0	0 %
Total	26	100 %

F. University / Further education college		
	Nº	Percentage
Yes	18	69.2 %
No	8	30.8 %
Missing values	0	0 %
Total	26	100 %

2. How long should it take		
	Nº	Percentage
Half day	0	0 %
Full day	3	11.5 %
2 days	1	3.8 %
Weekend	14	53.8 %
I want to do training when and where I like in my own time	7	26.9 %
Missing values	1	3.8 %
Total	26	100 %

3. Would you use any of the following methods for developing your skills?

A. CD roms		
	Nº	Percentage
Yes	14	53.8 %
No	11	42.3 %
Missing values	1	3.8 %
Total	26	100 %

B. Internet based training		
	Nº	Percentage
Yes	20	76.9 %
No	5	19.2 %
Missing values	1	3.8 %
Total	26	100 %

4. Can you use a computer for basic word processing and spreadsheets?		
	Nº	Percentage
Yes	19	73.1 %
No	6	23.1 %
Missing values	1	3.8 %
Total	26	100 %

5. Do you use email?		
	Nº	Percentage
Yes	19	73.1 %
No	7	26.9 %
Missing values	0	0 %
Total	26	100 %

6. Do you use the Internet?		
	Nº	Percentage
Yes	19	73.1 %
No	7	26.9 %
Missing values	0	0 %
Total	26	100 %

7. Can you access web addresses?		
	Nº	Percentage
Yes	18	69.2 %
No	6	23.1 %
Missing values	2	7.7 %
Total	26	100 %

8. Can you use a search engine?		
	Nº	Percentage
Yes	18	69.2 %
No	6	23.1 %
Missing values	2	7.7 %
Total	26	100 %

9. Have you ever used any educational software product?		
	Nº	Percentage
Yes	14	53.8 %
No	10	38.5 %
Missing values	2	7.7 %
Total	26	100 %

10. Would you prefer to use evenings for training?		
	Nº	Percentage
Yes	18	69.2 %
No	6	23.1 %
Missing values	2	7.7 %
Total	26	100 %

11. Do you prefer to use part of the weekend for training?		
	Nº	Percentage
Yes	23	88.5 %
No	1	3.8 %
Missing values	2	7.7 %
Total	26	100 %

12. Which factors do you rate most highly when choosing management development courses for yourself?

A. Location		
	Nº	Percentage
Yes	16	61.5 %
No	10	38.5 %
Missing values	0	0 %
Total	26	100 %

B. Quality		
	Nº	Percentage
Yes	22	84.6 %
No	4	15.4 %
Missing values	0	0 %
Total	26	100 %

C. Cost		
	Nº	Percentage
Yes	16	61.5 %
No	10	38.5 %
Missing values	0	0 %
Total	26	100 %

D. Word of mouth recommendation		
	Nº	Percentage
Yes	3	11.5 %
No	23	88.5 %
Missing values	0	0 %
Total	26	100 %

E. Timing		
	Nº	Percentage
Yes	12	46.2 %
No	13	50 %
Missing values	1	3.8 %
Total	26	100 %

F. Marketing materials		
	Nº	Percentage
Yes	6	23.1 %
No	20	76.9 %
Missing values	0	0 %
Total	26	100 %

G. Type of delivery		
	Nº	Percentage
Yes	14	53.8 %
No	12	46.2 %
Missing values	0	0 %
Total	26	100 %

H. Personalised counseling		
	Nº	Percentage
Yes	9	34.6 %
No	17	65.4 %
Missing values	0	0 %
Total	26	100 %

I. Reputation of the training organisation		
	Nº	Percentage
Yes	21	80.8 %
No	5	19.2 %
Missing values	0	0 %
Total	26	100 %

13. If you would not consider training please tell us why not?

A. I believe I have the skills needed to start/run a business		
	Nº	Percentage
Yes	3	11.5 %
No	1	3.8 %
Missing values	22	84.6 %
Total	26	100 %

B. The subjects are not relevant to my business/market		
	Nº	Percentage
Yes	1	3.8 %
No	3	11.5 %
Missing values	22	84.6 %
Total	26	100 %

C. It costs too much money		
	Nº	Percentage
Yes	1	3.8 %
No	3	11.5 %
Missing values	22	84.6 %
Total	26	100 %

D. It takes up too much time		
	Nº	Percentage
Yes	0	0 %
No	4	15.4 %
Missing values	22	84.6 %
Total	26	100 %

14. Would you be interested in talking to other entrepreneurs on line about their experiences of starting/running a new business?		
	Nº	Percentage
Yes	21	80.8 %
No	3	11.5 %
Missing values	2	7.7 %
Total	26	100 %

15. May we contact you after this questionnaire and send you details of how you can join this network (at no cost to you or your business)?		
	Nº	Percentage
Yes	22	84.6 %
No	2	7.7 %
Missing values	2	7.7 %
Total	26	100 %

17. Are you available/interested in joining a local group to validate the intermediate and final products of this project?		
	Nº	Percentage
Yes	21	80.8 %
No	3	11.5 %
Missing values	2	7.7 %
Total	26	100 %

4. CONCLUSIONS

Most of the Romanian entrepreneurs responding to our survey were male (61.5 %), almost double compared to the female respondents (34.6 %). In terms of age, the bigger weight had the age range between 35 and 44 years old. The majority of the respondents had a university or postgraduate degree, also possessing another training / professional qualification.

Only 26.9 % of the respondents started a business in the last two years, while 61.5 % are potential entrepreneurs. Most of the current entrepreneurs financed their business from personal savings.

Concerning the respondents beliefs about their business, 38,5 % stated that they saw starting a small business as a desirable career choice and 30.8 % considered that their previous work experience would help them in running their business. It's worth noting that only 15,4 % of the respondents were aware of the local training courses that could help them to start the business, while 19.2 % believed that they have the training, education and skills needed to be successful in their business. In terms of work experience the Romanian group had two extremes: 19.2 % had a work experience of less than 5 years old, while 15.4 % had a work experience of more than 20 years old. The work experience of the respondents was related to large companies (19.2 %), small companies (19.2 %) and public sector (11.5 %).

More than half (53.8 %) of the respondents expressed their intention to start a new business in the next 12 months. Among these 42.3 % stated that they've spotted a market opportunity, while 42.3 % saw starting a small business a desirable career choice. Also, they felt very comfortable about that since 46.2 % stated their belief that their previous work experience will help them in the new business and 38.05 %

believed that they have the training, education and skills needed to be successful in the new business.

Concerning the training and development needs, the hierarchy is as follows:

1. Creativity / Innovation;
2. Sources of business finance
3. Global business environment; business plan writing skills; time management; finding customers; selling skills
4. Advertising and promotion; human resource management;
5. Strategic management; language skills; pricing my product / service correctly
6. Business law
7. Exporting; information technology; market analysis / segmentation; financial management; how to exploit R & D; operations management;
8. Employment law; finding premises; leadership skills

However, when listing the top 3 areas of priority the first one was business plan writing skills, followed by the global business environment and sources of finance.

In terms of formal management training undertaken in the last 3 years, 30.8 % reported more than 8 days, while 23.1 % declared that they didn't had any formal training.

The most "credible" bodies to deliver high quality business training were perceived to be:

1. University / Further education college
2. Local Training and Enterprise Council
3. External consultants
4. Local business link
5. Chamber of Commerce; Professional body

Internet based training was very much agreed (76.9 %) as a method for developing entrepreneurial and business skills, closely followed by CD roms (53.8 %).

Assessing the e-skills it was revealed that 73.1 % of the respondents can use a computer for basic word processing and spreadsheets, are using e-mail and Internet. Also, 69.2 % of the respondents can access a web address and are able to use a search engine. In the mean time, only 53.8 % have used before an educational software product. Most of the respondents (88.5 %) prefer to use part of the weekend for training, but also the use of evenings for training is widely accepted (69.2 %).

Among the factors considered when choosing a management development course the highly rated were:

1. Quality and the reputation of the training organisation
2. Location and cost
3. Timing
4. Personalised counseling

Finally, 80.8 % of the respondents were interested in talking to other entrepreneurs on line about their experience in starting / running a new business and also were interested in joining a local group to validate the intermediate and final products of the [TTE@40](#) Project.