



DEMERIC

Development of a Model to Raise Individual Competencies Using Blended Learning in Collaboration of Universities, Sectors and Society



Need Analysis Report

Training Need Analysis

This questionnaire is not mandatory; however, we would most welcome your feedback. We would appreciate if you would take a few moments to fill it out, your comments will be analyzed and taken into account when organising the blended trainings in order to maintain the highest quality.

1. What is the Nace Sector of enterprise?

- Manufacturing
- Electricity, gas, steam and air conditioning supply
- Construction
- Information and communication
- Financial and insurance activities
- Professional, scientific and technical activities
- Administrative and support service activities
- Education

2. What is the size of enterprise?

- 1-9 10-49 50-250

3. What is the demographic range of the enterprise?

Age	Men	Women
up to 16		
17 to 24		
25 to 49		
50 to 64		
65 and more		
Total		

4. What is educational background of employees?

Level of education	Number of employees
Primary school	
Secondary school (general)	
Secondary school (VET)	
University /Undergraduate	
Post graduate studies	

5. Is the owner of business also the general manager?

- Yes No

6. What is the number of employees in the following professions/occupations?

Professions/Occupations	Men	Women
Engineers or Professionals		
Technicians or associate professionals		
Office workers		
Total		

7. Please choose the problematic areas you think your enterprise is facing and for those put the level of importance. (1:lowest, 5:highest)

Problem areas	1	2	3	4	5
Technological challenges					
Need to improve quality					
Attitudes and working behavior of employees					
Shortage of skilled work force-competent and experienced employees					
Increase of industrial accidents					
Administrative problems					
Other (specify)					

8. How the training within the company is organized?

- Internally – with own trainers
Outsourced
Combined as per defined needs

9. Who in the company is responsible for human resources and training activities?

- Director
Department or responsible HR person
No such an assignment

10. If you organize training, what is the reason for it? (1:lowest, 5:highest)

Type	1	2	3	4	5
To catch up with new technologies and trends					
To increase the quality of services					
To improve the company image					
To learn about new governmental/legal requirements					
To improve the skills of new employees					

11. Is there any annual reserved budget for the training investment?

- Yes No

12. Where you usually find information about available trainings?

- Media
Mouth to mouth advertisement
Other enterprises
Other

13. Provide information about the days spent on training or skills/competences improvement programs in the last year (2012) per employee?

	Number of days			
	0	1-5	6-10	10+
Professions/occupations				
Engineers or Professionals				
Technicians or associate professionals				
Office workers				
Total				

14. Please mark which of the below listed training areas most useful in your company?

	Useful	Partially useful	Not useful
Marketing and sales			
Financial management			
Accounting			
Intellectual/industrial property rights			
E-commerce			
Occupational health and safety			
Business plan preparation			
Information technologies			
Efficient use of energy			
Social and communication skills development			
Other (specify)			

15. Do you cooperate with training providers?

Type	Never	Rarely	Sometimes	Often	Always
Public/governmental agencies					
Private service providers and consulting companies					
Individual consultants					
Universities					
Secondary educational institutions / VET providers					
Chambers					

16. How important are following factors in your decision related to selection of programs for HR development (training, education and skill development)?

	Important	Not important
Proper timing		
Duration of the program		
Location		
Applied methodology		
Certificate provision		
Information on training offered		
Price		
Trainer's quality		
Level of motivation among employees		
Other (specify)		

17. What is the most suitable timing for conducting the training, education and skill improvement programs?

	Not appropriate	Appropriate	Required
During work hours			
After work hours			
During weekends			

18. What are the most appropriate methods used for conducting the training, education and skill improvement programs?

	Not appropriate	Appropriate	Required
Practical on the job training			
Mix of lecturing and interactive approach (discussion, case studies etc.)			
Technology and ICT oriented (using simulation, distance learning, video)			



conference)			
Study visits			
Other (specify)			

Please use the space below if you have any further comments or suggestions.

Thank you for taking the time to complete this questionnaire. Your comments are important to us and provide us with valuable feedback on the quality of the blended training contents.

Methodology

Sample

The first issue to be addressed was the availability of representative up-to-date SMEs statistics.

The lack of such reliable data on SMEs and entrepreneurs, necessitated for the application of the Snowball Sampling Method (SSM) for the TNA research. Snowball sampling is a special non-probability method used when the desired sample is difficult to access or its characteristics are rare. It may be extremely difficult or cost prohibitive to locate respondents in these situations. Snowball sampling relies on referrals from initial subjects or target group stakeholders to generate additional subjects to be interviewed. While this technique can dramatically lower search costs, it comes at the expense of introducing bias, because the technique itself reduces the likelihood that the sample will properly represent the research universe.

Snowball sampling begins by identifying Individuals/groups who meet the criteria for inclusion in the envisaged study. These are then asked to recommend others that they may know, who also meet the criteria. Although this method would hardly lead to a completely representative sample, there are times when it may be the best method available. Snowball sampling is especially useful when it is necessary to reach populations that are inaccessible, not accurately recorded or hard to find.

The criteria used to identify the final sample of 85 SMEs were as follows:

- priority sectors
- company age over 3 years
- size segmentation into micro (<10 employees), small (<50) and medium (<250) companies
- company's location
- export orientation

Questionnaire

The TNA Questionnaire structure comprise of 18 items, with single/multiple-choice closed-ended questions. The Questionnaire was divided in three main sections; each of them focused on specific learning areas:

- Part 1: Functional Skills analysis

The objective was to uncover needs through the more “objective” method of assessing key business areas (business planning, management, marketing, sales, production, finance, etc.) within the target enterprises.

- Part 2: Personal Skills analysis

This second TNA part gathered the subjective evaluation of entrepreneur regarding his/her personal

skills (communication, technical, supervision, etc.)

- Part 3: Training Preferences

This part had the objective to prioritize the enterprises' gaps in soft and hard skills, manifesting a collection of overall management skills that needed to be improved.

The three parts of TNA Questionnaire, when taken together, form a mix of Training Needs Assessment tools that gives complementary and comprehensive information about technicians/officers learning needs, balancing objective and subjective answers, with the ultimate aim of better understanding and interpreting their real needs.

Results

○ Part 1 – Functional Skills Areas

There is a strong need to improve business planning, financial management systems and project management among enterprises. Furthermore, there appears to be a lack of awareness about the importance of strategic and business planning, as key functions in the company. This is particularly true among the very small enterprises, where management is often centered on the enterprise owner. Moreover, the relationship between enterprise owner and the workers needs strengthening.

SMEs are in great need of systematizing their project and process management systems, to structure and document their operations, so as to assure an effective transfer of working methods, techniques, control functions and other operations and technology functions.

In order to stay competitive as a manufacturing location, there is an overarching need among enterprises to, (i) improve their administrative techniques and use available software based accounting and budgeting tools, and, (ii) become more sophisticated in calculating costs. If done properly, cost analysis allows the enterprise to evaluate if a specific business or product will be profitable for them or not. Through cost control functions and corresponding managerial techniques the staff may take a more proactive approach to reducing costs, take strategic pricing decisions and manage the production and organization more efficiently. In fact, cost control can be regarded as a “link” between production planning and marketing and sales.

- Part 2 – Personal Skills Areas

According to the survey results, technicians/officers regard verbal communication skills as important and that these skills will be increasingly important to them in the future. The most highly regarded verbal communication skills (now and for the future) were negotiation skills, appraisal, face-to-face communication, counseling, interpersonal skills and coaching. These should be an integrate part of training modules aimed at strengthening the overall management capacity of target groups.

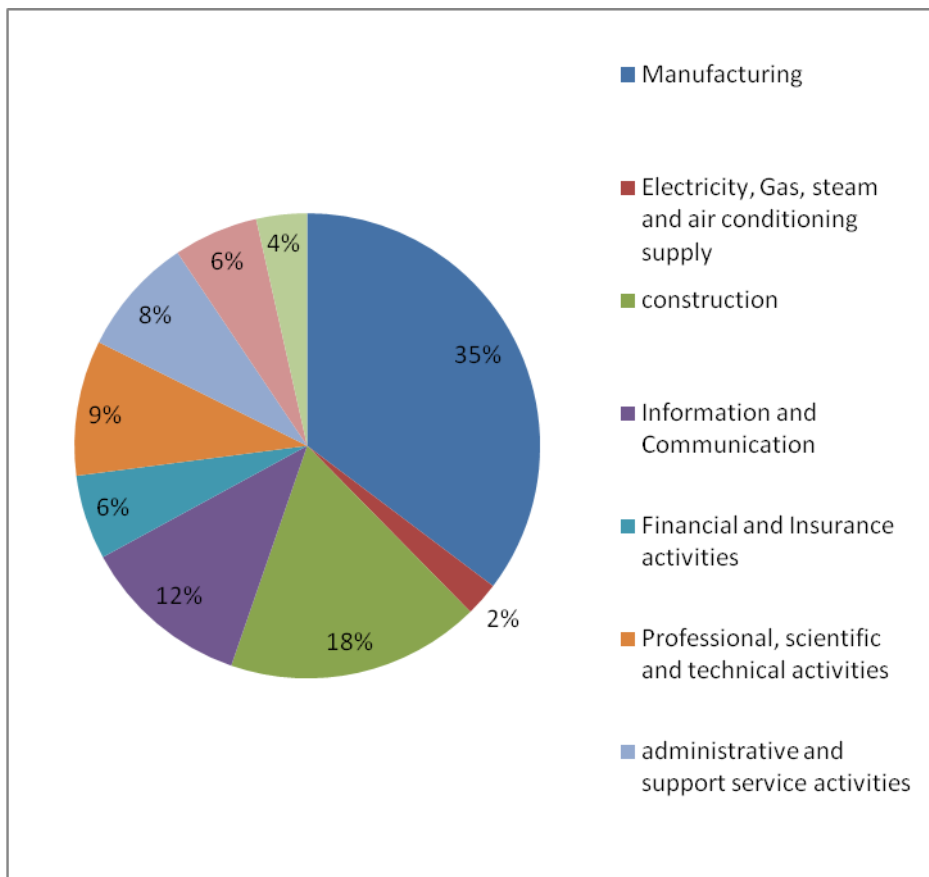
The three most important technical skills currently (presentation of operating process, internet technologies and spread sheet applications) are all integrating parts of a blended learning system and should be included in the training module. The future perceived high need for word processor skills is

probably related to the need for more formal management and business planning structures and corresponding need for improved writing skills.

- Part 3 – Training Preferences

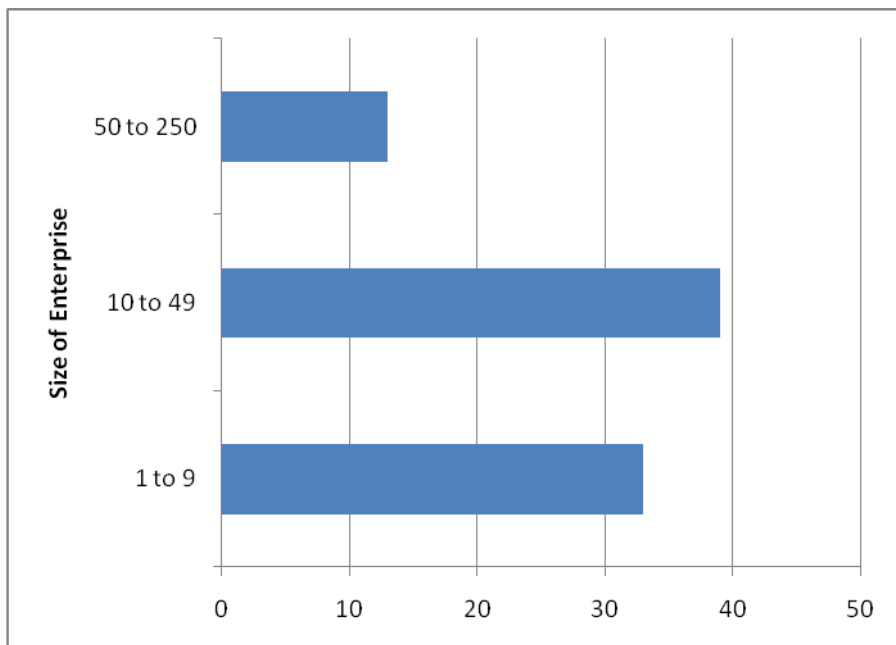
Sales and marketing are regarded as the most important knowledge areas to develop, followed by innovation & technology, leadership, production management, quality management systems, finance and control, personnel and organization and problem-solving skills. The technicians/officers knowledge preferences are very much in line with their training needs in the functional skills area.

According to the results of the questionnaire, most of the participants are from manufacturing, construction, information and communication sectors.



What is the Niche Sector of Enterprise?									
Manufacturing	Electricity, Gas, steam and air conditioning supply	construction	Information and Communication	Financial and Insurance activities	Professional, scientific and technical activities	administrative and support service activities	education	other (specify)	Total
30	2	15	10	5	8	7	5	3	85

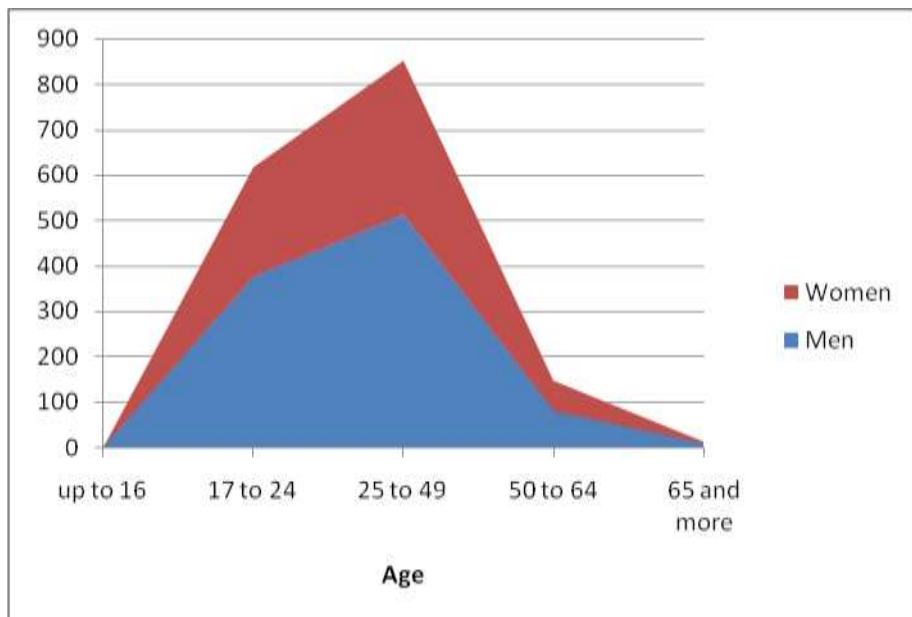
Size of those enterprises is mostly between 10 and 49 workers.



What is the size of enterprise			Total
1 to 9	10 to 49	50 to 250	
33	39	13	85

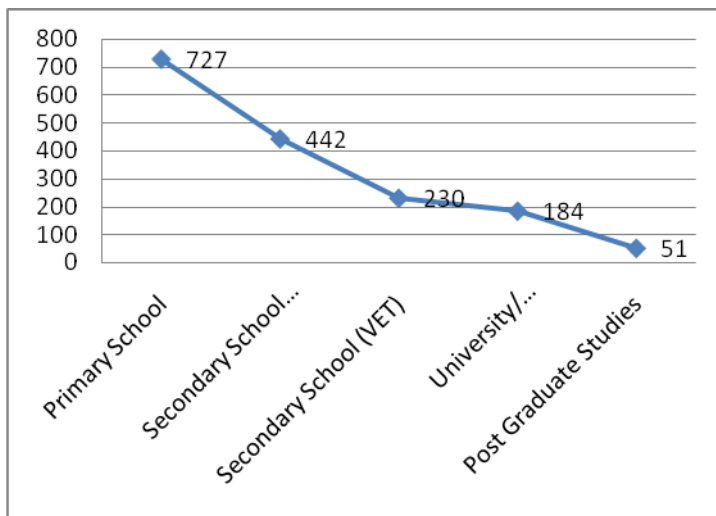
According to the demographic range of the enterprise, 91% of their age limit is between 17 and 49.

60% of the workers are men.



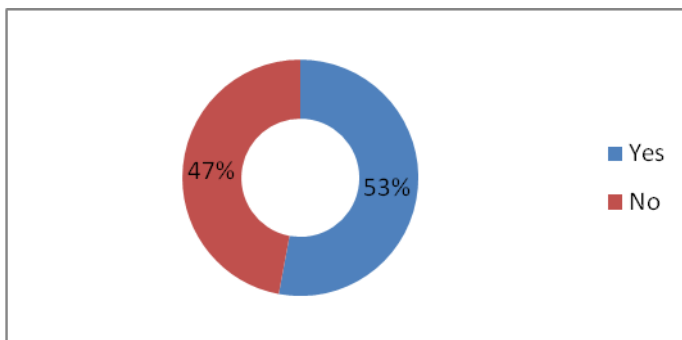
What is the demographic range of the enterprise?			
Age	Men	Women	Total
up to 16	2	0	
17 to 24	377	241	
25 to 49	513	339	
50 to 64	81	67	
65 and more	10	4	
Total	983	651	1634

According to the educational background of employees, 44,5% of them are graduated from primary school and 41% of them are graduated from secondary schools (general + VET).



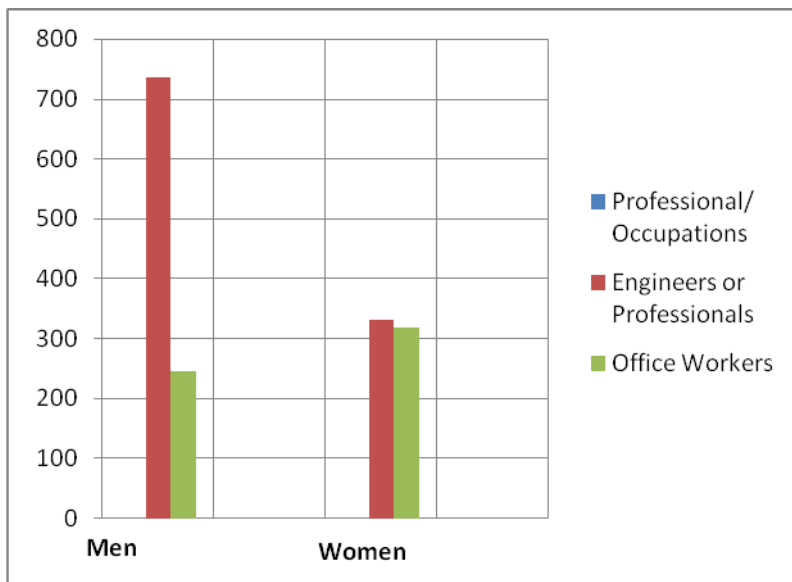
What is the education background of employees?	
Level of Education	Number of employees
Primary School	727
Secondary School (general)	442
Secondary School (VET)	230
University/Undergraduate Studies	184
Post Graduate Studies	51
Total	1634

There is a balance of the answers about the management style. 45 owner of the SMEs' are also general manager, 40 of them are not.



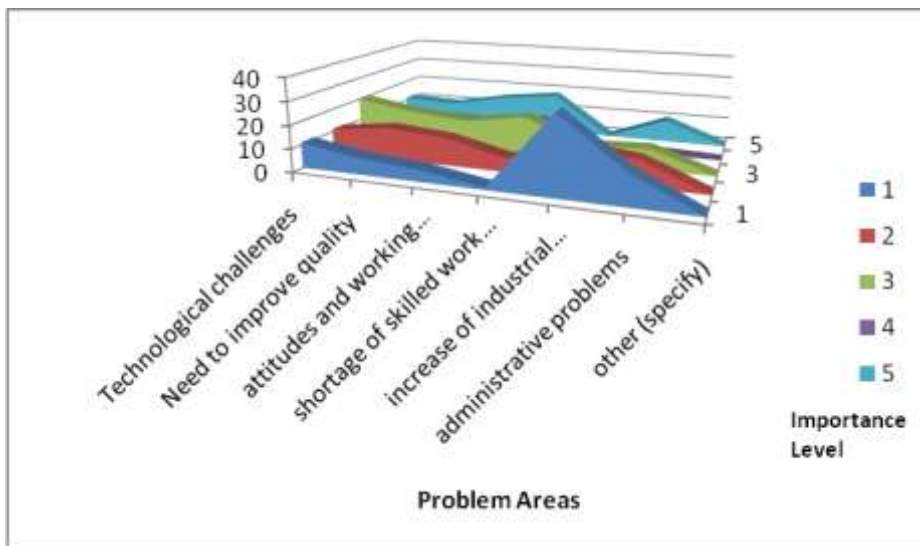
Is the owner of the business also a general manager?	
Yes	45
No	40
Total	85

The most of the workers (65%) are engineers/professionals at those SMEs.



What is the number of employees in the following professions/occupations?		
Professional/Occupations	Men	Women
Engineers or Professionals	736	332
Office Workers	247	319
Total	983	651

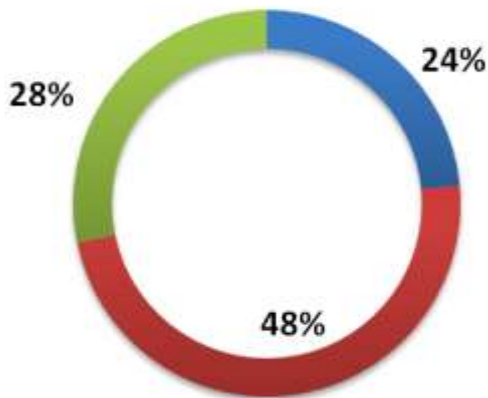
According to the answers from 85 SMEs representatives, 3 most important problematic areas are attitudes and working behavior of employees; shortage of skilled work force-competent and experienced employees; technological challenges.



Please choose the problematic areas you think your enterprise is facing and for those put the level of importance. (1:lowest, 5:highest)					
Problem Area	1	2	3	4	5
Technological challenges	11	11	20	10	11
Need to improve quality	7	14	16	9	10
attitudes and working behavior of employees	5	12	14	8	15
shortage of skilled work force-competent and experienced employees	1	6	18	11	18
increase of industrial accidents	33	14	8	0	0
administrative problems	13	11	9	1	10
other (specify)					
Total	70	68	85	39	64

Trainings within the companies are organized mostly outsources (48%).

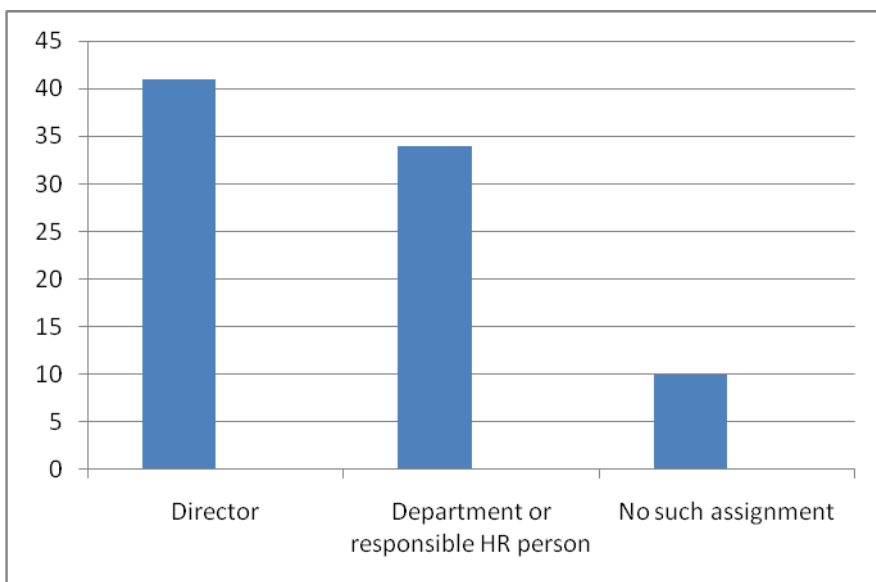
■ Internally - with other trainers ■ Outsourced
■ Combined as per defined needs



How the training within the company is organized?

Internally - with other trainers	20
Outsourced	41
Combined as per defined needs	24
Total	85

Directors (%48) or HR departments (%40) of those companies are responsible for human resources and training activities.



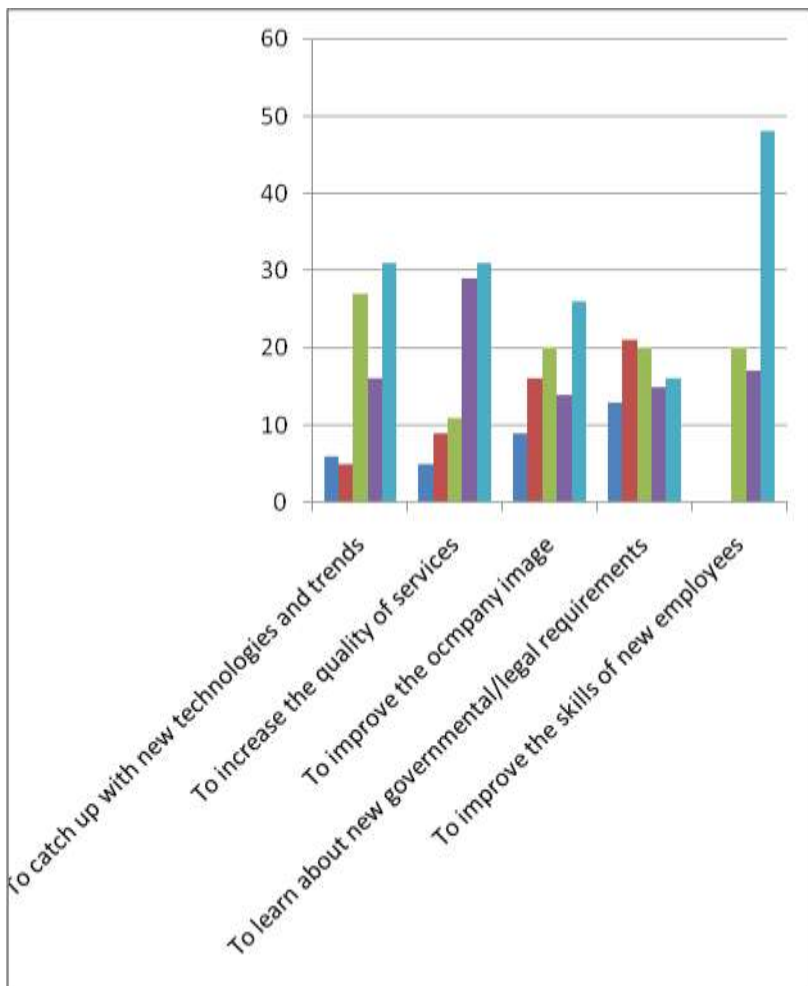
Who in the company is responsible for human resources and training activities?	
Director	41
Department or responsible HR person	34
No such assignment	10
Total	85

Main reasons to organize trainings for those 85 SMEs are;

to improve the skills of new employees

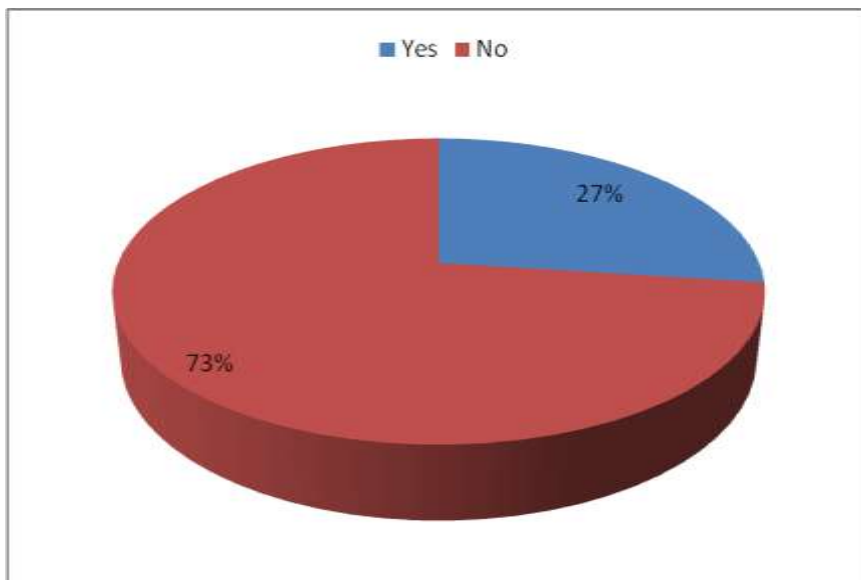
to increase the quality of services

to catch up with new technologies and trends



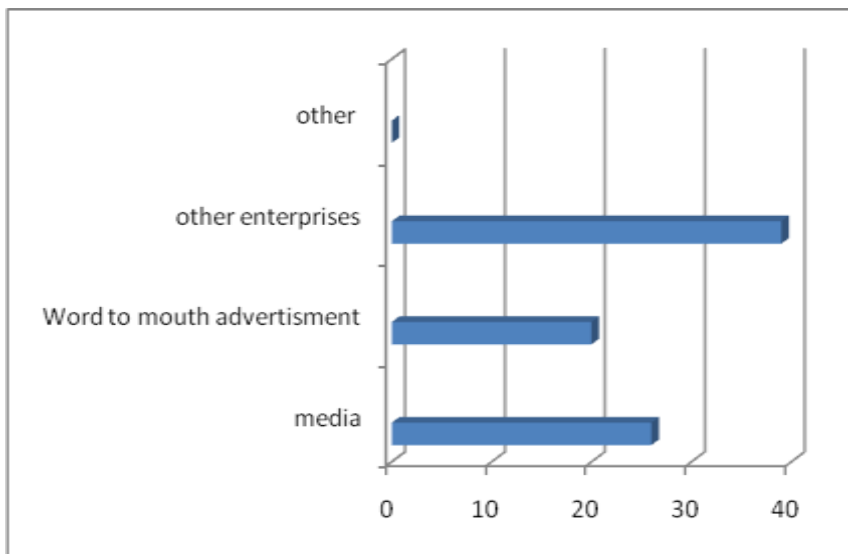
If you organize training, what is the reason for it? (1: Lowest, 5: highest)					
Type	1	2	3	4	5
To catch up with new technologies and trends	6	5	27	16	31
To increase the quality of services	5	9	11	29	31
To improve the company image	9	16	20	14	26
To learn about new governmental/legal requirements	13	21	20	15	16
To improve the skills of new employees	0	0	20	17	48
Total	33	51	98	91	152

73% of those SMEs has not any annual reserved budget for the training investment.



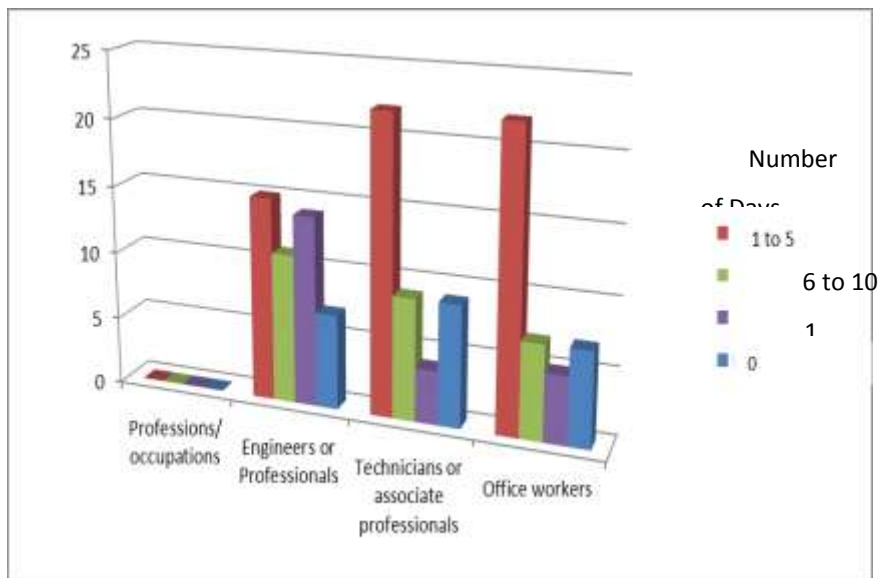
Is there any annual reserved budget for the training investment?	
Yes	23
No	62
Total	85

They usually find information about available training from other enterprises (47%), media (31%) or mouth to mouth advertisement (22%).



Where do you usually find information about available training?	
media	26
Word to mouth advertisement	20
other enterprises	39
other	0
Total	85

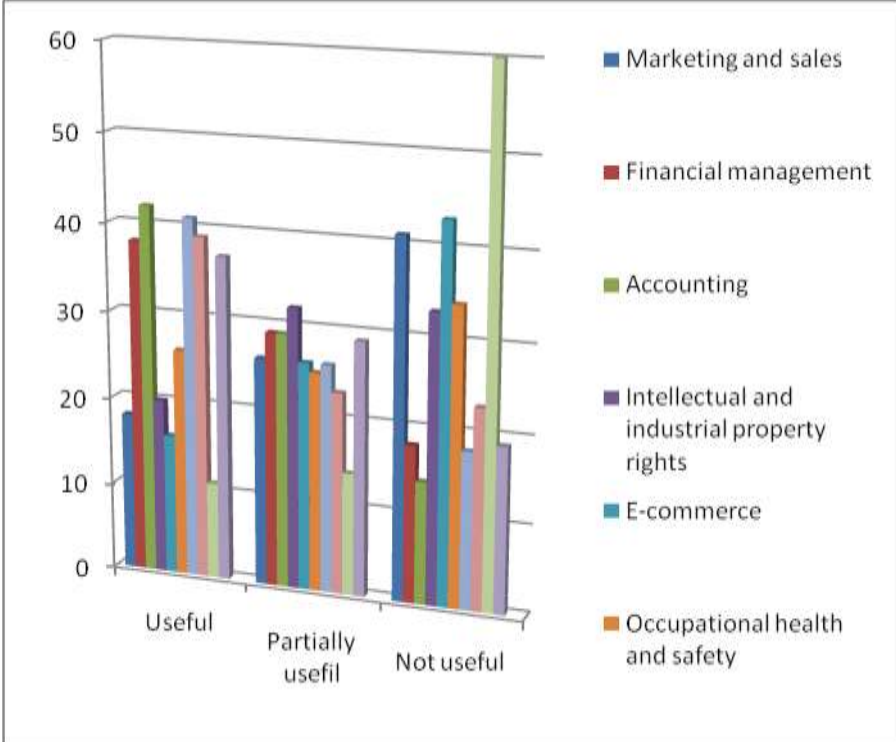
Those SMEs spent more than 10 days on training or skills/competences improvement programs in the last year (2012) per engineers. 69% of those SMEs organized trainings between 1 and 5 days for technicians. 26% of those SMEs organized trainings between 1 and 5 days for office workers.



Provide information about the days spent on training or skills/competences improvement programs in the last year (2012) per employee?

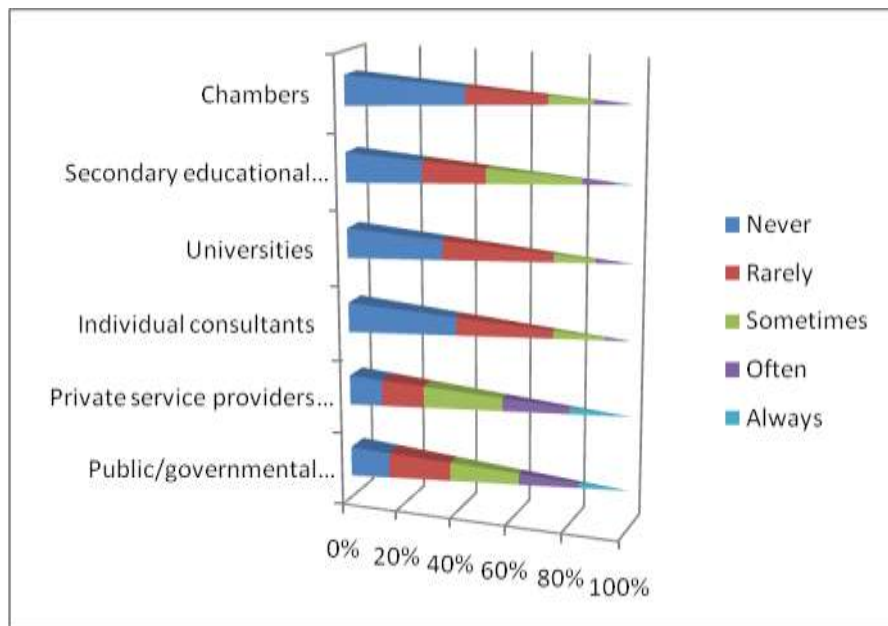
Professions/ occupations	Number of Days			
	0	1 to 5	6 to 10	10+
Engineers or Professionals	7	15	11	14
Technicians or associate professionals	9	22	9	4
Office workers	7	22	7	5
Total	23	59	27	23

According to the result of the most useful training areas; accounting, bussines plan preparation, information Technologies, financial management, social and communication skills development are the most useful trainings.



Please mark which of the below listed training areas most useful in your company?			
	Useful	Partially useful	Not useful
Marketing and sales	18	26	41
Financial management	38	29	18
Accounting	42	29	14
Intellectual and industrial property rights	20	32	33
E-commerce	16	26	43
Occupational health and safety	26	25	34
Business plan preparation	41	26	18
Information technologies	39	23	23
Efficient use of energy	11	14	60
Social and communication skills development	37	29	19
Other (specify)			
Total	288	259	303

Most of those 85 SME's are cooperate with mostly public/governmental agencies or private services providers and consulting companies. They don't prefer to work too much with individual consultant or chambers as training providers.



Do you cooperate with training providers?					
Type	Never	Rarely	Sometimes	Often	Always
Public/governmental agencies	12	19	21	18	15
Private service providers and consulting companies	10	13	24	20	18
Individual consultants	33	29	15	8	0
Universities	29	33	12	9	2
Secondary educational institutions / VET providers	23	19	28	9	6
Chambers	36	24	13	12	0
Total	143	137	113	76	41

According to responses from 85 participant enterprises, factors in their decision related to selection of programs for HR development (training, education and skill development) are :

Price 88%

Certificate provision – 86%

Level of motivation among employees - 81%

Location – 80%

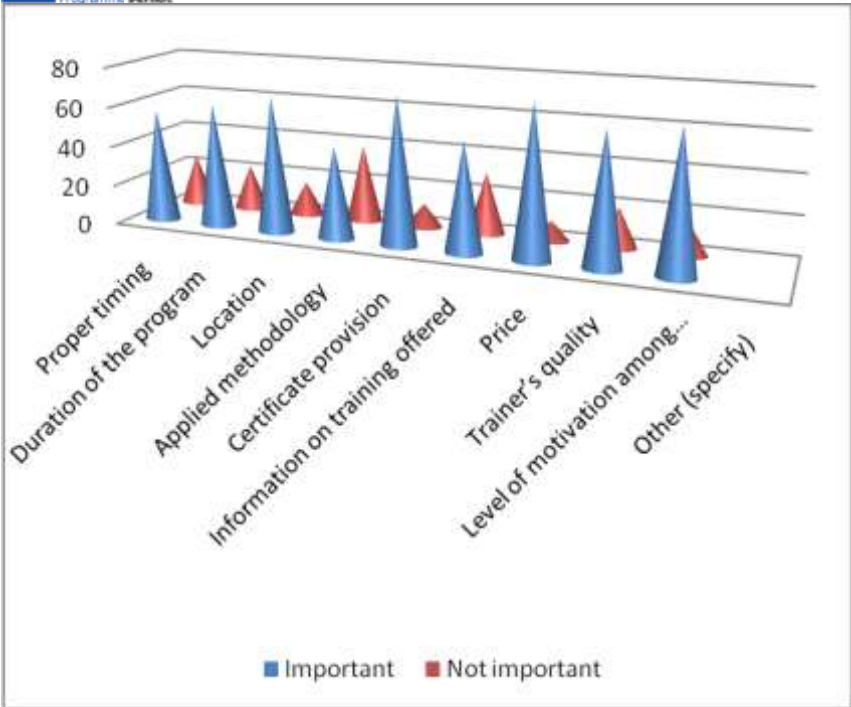
Trainer's quality – 76%

Duration of the program - 73%

Proper timing - 69%

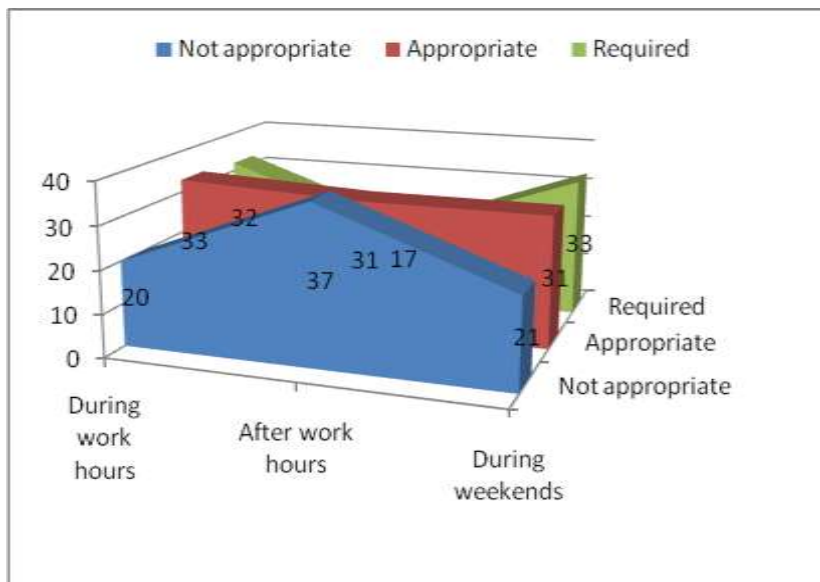
Information on training offered – 64%

Applied methodology – 54%



How important are following factors in your decision related to selection of programs for HR development (training, education and skill development)?		
	Important	Not important
Proper timing	57	26
Duration of the program	62	23
Location	68	17
Applied methodology	46	39
Certificate provision	73	12
Information on training offered	54	31
Price	75	10
Trainer's quality	65	20
Level of motivation among employees	69	16
Other (specify)		
Total	569	194

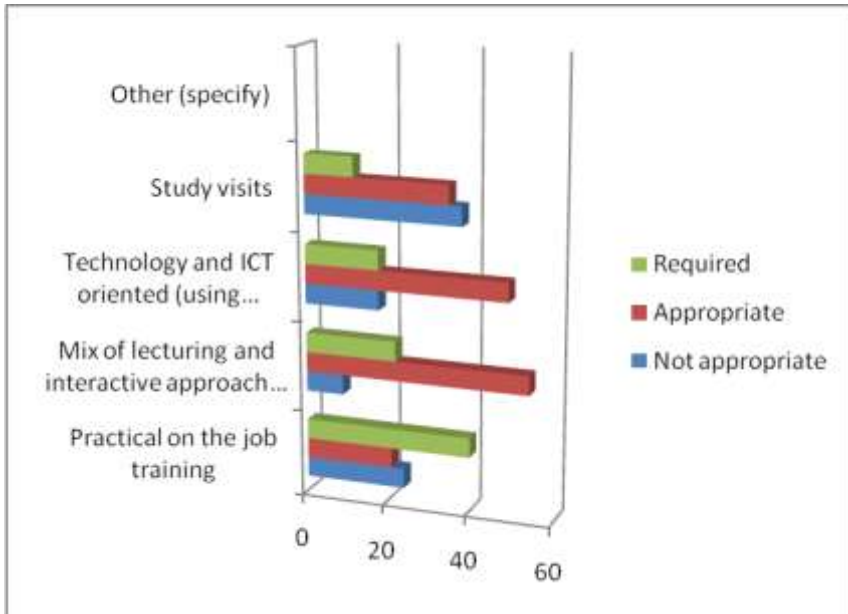
The most of the employers want to give trainings for their employees during work hours or weekends. The most suitable timing for conducting the training, education and skill improvement programs are during weekends.



What is the most suitable timing for conducting the training, education and skill improvement programs?

	Not appropriate	Appropriate	Required
During work hours	20	33	32
After work hours	37	31	17
During weekends	21	31	33
Total	78	95	82

Mix of lecturing and interactive approach (discussion, case studies, etc.), technology and ICT oriented (using simulation, distance learning, video conference) is the most appropriate method used for conducting the training, education and skill improvement program.



What are the most appropriate methods used for conducting the training, education and skill improvement programs?

	Not appropriate	Appropriate	Required
Practical on the job training	24	21	40
Mix of lecturing and interactive approach (discussion, case studies etc.)	9	54	22
Technology and ICT oriented (using simulation, distance learning, video conference)	18	49	18
Study visits	38	35	12
Other (specify)			
Total	89	159	92