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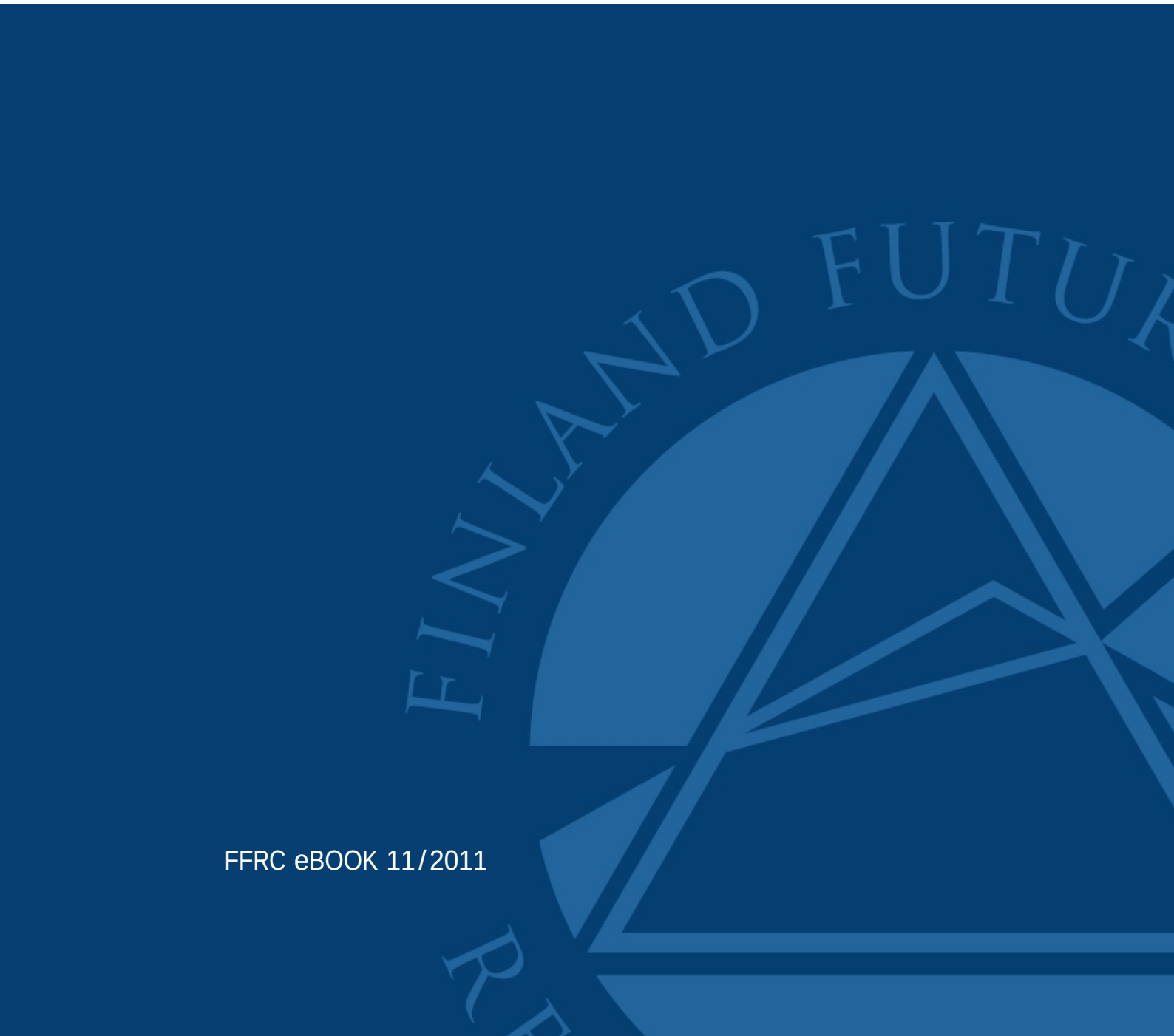
BUILDING THE FUTURE OF EUROPEAN LIFE-LONG LEARNING STRATEGIES AND POLICIES: DEFINING CRITICAL KEY DRIVERS OF LIFELONG LEARNING IN EUROPE



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CONTENTS

1. INTRODUCTION

Lifelong learning (LLL) has been prominent in most European education and training policies. Lifelong learning is also providing better knowledge base and better innovation capacity for the European Union. Lifelong learning has generated much social and political debate. Lifelong learning is a catchy phrase, but making it happen is a highly complicated matter. It does not happen automatically and it is essential to understand the prerequisites for making it happen. For this reason we conduct a situation analysis of LLL in the European Union in this paper.

The need for lifelong learning has become widely accepted and is a major part of European Union policy. The pace of change and technological development in modern life necessitates the development of a culture of learning throughout lives – not just at comprehensive school. It is often noted that lifelong learning has to become a reality for all employees if we are to create and sustain organizations which can survive in the knowledge economy of the future. However, there are not so many empirical analyses of how lifelong learning contributes to the knowledge economy and what kinds of impacts it has on the society.

It is almost truism that modern knowledge societies cannot function well without the lifelong learning of their citizens. Edwards and Usher (2001) have noted that LLL can be seen a postmodern condition of education. For some scholars, the postmodernism is seen as a part of the globalization of capitalist economic relations and the growth of post-industrial and consumer-oriented social formations within an information-rich environment enabled by new technologies (Harvey 1989, Pantzar 2005, Olkinuora, Rinne, Mäkinen, Järvinen, & Jauhiainen 2005).

Developing systems that support LLL implies establishing stronger links between educational systems and work life. LLL also supports information and knowledge sharing activities in postmodern information-rich societies. We know that there are many highly diversified learning areas and settings. Learning can take place intentionally or unintentionally at work, at home or during leisure time. Learning can be formal, non-formal or informal (see e.g. Elliott 1999, Ginther 2004).

Lifelong learning (LLL) has been prominent in most European education and training policies. Lifelong learning has generated much social and political debate. Lifelong learning is a catchy phrase, but making it happen is a highly complicated matter. It does not happen automatically and it is essential to understand the prerequisites for making it happen. For this reason we conduct a situation analysis of LLL in the European Union in our paper. (Belanger, Gelpi, Goldberger & Tarule 1986, Alheit & Kammler 1998, Coffield 1999, Chapman & Aspin2000).

The paper contributes to the first theme by defining all the key drivers of life-long learning processes in the European Union. This novel contribution helps all the European Union member states to plan their LLL systems on the basis of statistical evidence of cross-sectional data. The novel contribution will help the European Commission, European member states and other European agencies to implement a more effective LLL strategy than previous strategies have been.

The paper contributes to the one key theme of knowledge society by identifying key capacity building fields needed to implement effective life-long learning strategy in the European Union. Key capacity

building challenges are connected (1) costs of CVT activities, (2) other simultaneous training efforts, (3) better ability of keep a job, (4) better possibilities to get a new job/profession, (5) possibilities to get a certificate, (6) possibilities to meet new people and have fun, (7) ability to minimize other obstacles to participate in CVT activities.

For women, strategically a specific important driver was health and age issues. For males, a critical strategic driver was training was too expensive or he could not afford it (too expensive training). In this article specific correlation results for females and males are reported. The authors will also report second round correlation results of key drivers (the drivers of the drivers -analysis). This correlation analysis provides more comprehensive basis for the European life-long-strategy. The contribution provides a firm basis for evidence-based life-long learning policy in the European Union.

Lifelong learning can also see as a preventive tool to avoid higher unemployment in Europe. In general, education can be seen as tool of capacity building of labour force. However, all the labour force is not allowed to participate to LLL, which raises a question of workers right to work (Dworkin, 1977, Sen, 2000).

Lifelong learning can be seen one of the worker's rights, but in a many countries this kind of interpretation is not taken seriously. Building an inclusive education and training system is still a big challenge for many European countries. This study verifies such conclusions. We claim that there is some kind of inclusiveness gap in European employment and labor policy. The legitimacy and efficiency of social Europe is much based on lifelong learning activities. One key strategy is to encourage lifelong learning. The objective of the Lisbon Strategy is to make the European Union the most competitive and dynamic knowledge-based economy in the world, capable of sustaining growth with more and better jobs and greater social cohesion (see e.g. European Commission 2003).

EU's White Paper of Education and Training notes that "*Training and apprenticeship policies, which are fundamental for improving employment and competitiveness, must be strengthened, especially continuing training*" (White Paper on Education and Training 1999, 2). Many studies indicate that LLL is improving skills and competences of the labour force, thus leading to better employment of the workforce. This article analyzes empirical data of the OECD (European Union 2010), which is cross-sectional data about female and male lifelong learning, % the population aged 25-64 participating in education and training over the four weeks prior to the survey in European countries.

Thus, in this study we measure LLL by the survey indicator "percentage of the population aged 25-64 participating in education and training over the four weeks prior to the survey".

2. METODOLOGY OF THE STUDY

In many contexts lifelong learning is basically seen as adult education or lifelong education. However, lifelong learning is a broader concept than mere adult education. Lifelong learning involves children, youth and adults: all generations are its stakeholders. Sometimes the concept of lifelong learning is used as another word for adult education, professional development, or integrated systems of educational provision. Lifelong learning as a concept is much vaguer than any of the concepts mentioned above, and certainly much less identifiable than what has hitherto been understood as the public education system. We can expect that LLL apparently advantages everyone and disadvantages no-one. It has been noted that everybody wins if LLL services are provided widely in the society (see e.g. Griffin 1987, Griffin 1999). However, if the LLL services are not provided equally to all the citizens, this may cause social polarization inside society.

European policy-makers have noted in many influential statements that the biggest challenge of lifelong learning is to give all people a fair chance and equal opportunities and access to learning throughout their lives. However there is a social threat that lifelong learning becomes a mechanism that reproduces unequally.

Cultural dimension is in the focus of understanding lifelong learning. This paper gives perspective to cultural dimension LLL because our survey data is very wide and contains 27 European countries. To compare cultural dimension of lifelong learning is a very interesting issue.

In previous research concerning lifelong learning, one critical background factor explaining LLL behaviours has noted to be mindsets of adult workers. In decision theory and general systems theory, a mindset is a set of assumptions, methods or notations held by one or more people or groups of people which is so established that it creates a powerful incentive within these people or groups to continue to adopt or accept prior behaviours, choices, or tools (see. e.g. Erikson 1975, Hutchins 1995).

Thus, the mindset is a broad concept that is culturally preconditioned. There are many cultural factors which explain such background factors. These factors are: the price of adult education services, availability of adult education services (access), constrains and incentives of adult education. In this study we provide some results which indicate that in different European Union member states the mindsets of adult workers are really different. This means that in the life plans of adult workers, lifelong learning has a different importance level.

Typical constraints for adult education are time and financial constraints. Typical incentives are diplomas and certificates. This study does not analyze this kind of background factors and elements of mindsets.

Eurostat database of lifelong learning (European Union 2010, 243-244) enables us to analyze 34 European countries' activity in lifelong learning. In our data sample there is also an aggregated indicator of EU-16 and EU-27 countries. In other words, we have a comprehensive database to analyze European activity level in the field of lifelong learning.

The EU Labour Force Survey (LFS) provides quarterly results on participation in education and training in the four weeks preceding the survey. Annual averages of LFS results show a slight increase in participation over the last five years in most member states although still far from the target set by the Council (12.5 % by 2010).

There are different measures and sources of participation in education and training due to the heterogeneity of activities and providers and their distribution throughout the year. The 2008 LFS results show that 9.5 % of the persons aged 25-64 participated in education and training activities in the EU. The participation rate was generally higher among women (10.4 % against 8.7 % for men). The Netherlands had the smallest difference among countries with high participation rates. Low gender gaps were recorded in some other member states such as Bulgaria, Greece and Romania (with low participation) or the Czech Republic, Germany and Malta (with participation closer to average).

Methodological analysis of the empirical study is based on statistical correlation analysis of cross-sectional data. In the article (1) the total activity of life-long learning, (2) the activity of females to participate to life-long learning and (3) the activity of males to participate to life-long learning are analyzed on the basis of multivariate correlation analyses. In the article statistically significant correlations (p-values) between key variables are reported.

The statistical results are presented for all citizens, for female citizens and for male citizens. This methodological approach allows to analyze the drivers of life-long learning in a gender specific way. This kind of basic statistical approach is useful when there is available a reliable data base. The database of the study is constructed from databases of the Eurostat and the European Commission Directorate-General for Employment, Social Affairs and Equal Opportunities. Database covers 21 European countries' databases and it is describing the European social situation in 2008 (European Union 2010).

3. RESULTS AND POLICY IMPACTS AND IMPLICATIONS

The results in this article are path breaking ones, because they will help the European Union to plan more effective strategies for life-long- learning policy. The results will inform European governments, companies, educational experts and policy makers about the driving forces of the life-long learning in Europe. The results are broadly motivated with second round drivers analyses, because also the statistically significant correlating drivers of the first round key drivers are identified in the study. These kinds of broad results reveal many new policy options for the European Union and other European labour market stakeholders.

The results may have many potential positive impacts on the welfare and education planning of the European citizens. Here we report detailed results of statistical correlation analyses.

3.1. Drivers of life-long learning: Total population

The correlation between two indicators/variables is a statistical measure of the relationship between two variables. This relationship, which is expressed by what is known as the correlation coefficient, is represented by a value within the range of -1.00 to +1.00. A correlation coefficient of +1.00 indicates that two variables move in the same direction at all times. If indicator X increases, we would expect indicator Y to gain as well. A correlation coefficient of 0 indicates that the indicator changes are totally random. A change by indicator X provides no insight into the expected movement of welfare indicator Y. A correlation coefficient of -1.00 indicates that two variables move in the opposite direction at all times. If variable X gains increases, we would expect variable Y to decrease (see Figure 1). Correlation simply measures the relationship of movement between variables. (Rodgers & Nicewander 1988, Aldrich 1995).

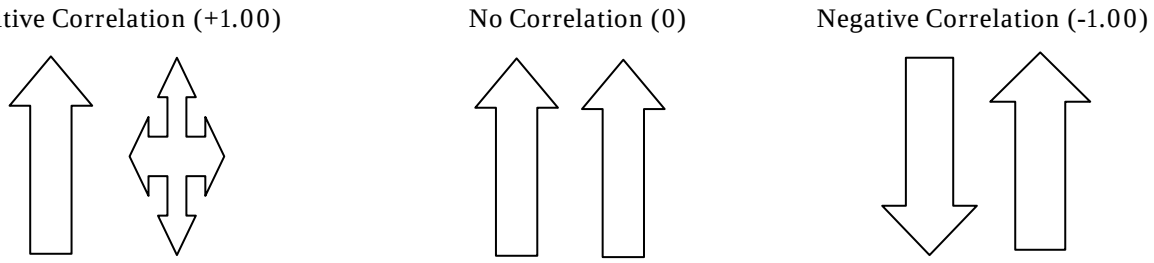

Figure 1. Basic correlation alternatives

Here we present our results in a form of Pearson coefficient correlation matrix, which allows the user to compare correlation coefficients across all of variables. In this section we report the correlation analysis results concerning total population of the 21 European countries.

The Pearson correlation coefficient indicates the strength of a linear relationship between two variables, but its value generally does not completely characterize their relationship. We can observe both positive and negative correlations which statistical significance level is very high ($p < 0,05$). If statistical significance level is marginal ($0,5 > p > 0,10$), we have marked this result as cursive. If statistical significance level is very high ($p < 0,05$), we have marked this result as bold letters (Tables 1-10).

Table 1. Drivers of life-long learning of total population

Variable	**Correlation**	**p-value**
FEMALES	0,98668	**<0,0001*** **
MALES	0,93971	**<0,0001*** **
C	CVT activities were performed as needed	
	-0,59919	**0,0041*** **
D	CVT activities considered too expensive	
	-0,57874	**0,006*** **
H	major training effort realised in a previous year	
	-0,37012	**0,0986**
K	to be less likely to lose job	
	-0,3927	**0,0782**
L	to increase possibilities of getting a job or changing a job/profession	
	-0,45417	**0,0386*** **
Q	to obtain certificate	
	-0,45668	**0,0374*** **
R	to meet new people or just for fun	
	0,38714	**0,0829**
S	other obstacle	
	0,62461	**0,0025*** **
U1	male: training was too expensive or respondent could not afford it	
	-0,38314	0,0865
YY2	female: health or age	
	0,70871	0,0003***

In this correlation analysis n was 21, thus there 21 European countries in the sample (countries were BE, BG, CZ, DE, EE, EL, ES, IT, CY, LV, LT, HU, NL, AT, PL, PT, SI, SK, FI, SE, NO). The lifelong learning activities were statistically correlated with the following variables:

- Females (+0.98668)
- Males (+0.93971)
- CVT activities were performed as needed (-0.59919)
- CVT activities considered too expensive (-0,57874)
- to increase possibilities of getting a job or changing a job/profession (-0,45417)
- to obtain certificate (-0,45668)
- other obstacle (+0,62461)
- female: health or age (+0,70871).

These variables are key drivers of lifelong learning in Europe according to this database.

3.2. Drivers of life-long learning: Males

In this section 3.1.2., we report the correlation analysis results concerning total population of the 21 European countries. We can observe both positive and negative correlations which statistical significance level is very high ($p < 0,05$). If statistical significance level is marginal ($0,5 > p > 0,10$), we have marked this result as cursive. If statistical significance level is very high ($p < 0,05$), we have marked this result as bold letters (Table 2).

Table 2. Drivers of life-long learning of males

Variable	Correlation	p-value
TOTAL	0,93971	**<0,0001*** **
FEMALES	0,95544	**<0,0001*** **
C	CVT activities were performed as needed	
	-0,59129	**0,0048*** **
D	CVT activities considered too expensive	
	-0,6287	**0,0023*** **
H	major training effort realised in a previous year	
	-0,36983	**0,0989**
K	to be less likely to lose job	
	-0,40494	**0,0686**

L	to increase possibilities of getting a job or changing a job/profession	
	-0,43852	**0,0468*** **
M	to start own business	
	-0,3702	**0,0986**
Q	to obtain certificate	
	-0,42348	**0,0558**
S	other obstacle	
	0,65377	**0,0013*** **
U1	male: training was too expensive or respondent could not afford it	
	-0,4892	**0,0244*** **
YY2	female: health or age	
	0,67227	**0,0008*** **

In this correlation analysis n was 21, thus there 21 European countries in the sample (countries were BE, BG, CZ, DE, EE, EL, ES, IT, CY, LV, LT, HU, NL, AT, PL, PT, SI, SK, FI, SE, NO). The lifelong learning activities of the European men were statistically correlated with the following variables:

- TOTAL (+0,93971),
- FEMALES (+0,95544),
- CVT activities were performed as needed (-0,59129),
- CVT activities considered too expensive (-0,6287),
- to increase possibilities of getting a job or changing a job/profession (-0,43852),
- other obstacle (+0,65377),
- male: training was too expensive or respondent could not afford it (-0,4892), and
- female: health or age (+0,67227).

We can observe that drivers of lifelong learning are specific for male workers in Europe. For European men such variables like expensive CVT activities and other obstacles are strongly determining lifelong learning activity. It is also interesting that variable Female: health of age increases LLL activities of European men (correlation +0,67). One interesting observation is also that variable "CVT activities were performed as needed" is correlating negatively (-0,59) with men´s LLL activities.

3.3. Drivers of life-long learning: Females

In this section we report the correlation analysis results concerning the females of the 21 European countries.

Table 3. Drivers of life-long learning of females

Variable	Correlation	p-value
TOTAL	0,98668	**<0,0001*** **
MALES	0,95544	**<0,0001*** **
C	CVT activities were performed as needed	
	-0,55849	**0,0085*** **
D	CVT activities considered too expensive	
	-0,55576	**0,0089*** **
L	to increase possibilities of getting a job or changing a job/profession	
	-0,45265	**0,0394*** **
M	to start own business	
	-0,38766	***0,0825***
Q	to obtain certificate	
	-0,42386	***0,0555***
R	to meet new people or just for fun	
	0,37222	***0,0966***
S	other obstacle	
	0,59592	**0,0044*** **
Y2	female: respondent did not have time because of family responsibilities	
	-0,37657	***0,0925***
YY2	female: health or age	
	0,72881	**0,0002*** **

In this correlation analysis n was 21, thus there 21 European countries in the sample (countries were BE, BG, CZ, DE, EE, EL, ES, IT, CY, LV, LT, HU, NL, AT, PL, PT, SI, SK, FI, SE, NO). The lifelong learning activities of the European female workers were statistically correlated with the following variables:

- TOTAL (+0,98668),
- MALES (+0,95544),
- CVT activities were performed as needed (-0,55849),
- CVT activities considered too expensive (-0,55576),
- to increase possibilities of getting a job or changing a job/profession (-0,45265),
- other obstacle (+0,59592), and
- female: health or age (+0,72881).

We can observe that drivers of lifelong learning are specific for female workers in Europe. For women especially variable “Health of age” is correlating strongly with the LLL activity (+0.72).

We can conclude that European Union need to plan tailored lifelong learning strategies for female and male workers. *In other case, there will be risks of gender bias in the European LLL policy*.

4. SECOND ROUND ANALYSES: THE DRIVERS OF THE DRIVERS-ANALYSIS

In this section we report the results of 2nd round correlation analyses. Here we analyse drivers of key drivers. Seven key drivers are analysed in this section.

4.1. Driver 1: CVT activities were performed as needed (C)

In Table 4 correlation analysis results of the variable C "CVT activities were performed as needed" are presented.

Table 4. CVT activities were performed as needed (C)

C CVT activities were performed as needed

Variable	Correlation	p-value
TOTAL	-0,59919	**0,0041*** **
FEMALES	-0,55849	**0,0085*** **
MALES	-0,59129	**0,0048*** **
D	CVT activities considered too expensive	
	0,39488	***0,0765***
K	to be less likely to lose job	
	0,42997	***0,0517***
R	to meet new people or just for fun	
	-0,43272	**0,0501*** **
S	other obstacle	
	-0,79465	**<0,0001*** **
T1	male: respondent did not have the prerequisites	
	0,53271	**0,0129*** **
T2	female: respondent did not have the prerequisites	
	0,46848	**0,0322*** **
X1	male: training conflicted with the work schedule	
	0,43674	**0,0478*** **
X2	female: training conflicted with the work schedule	
	0,44306	**0,0443*** **

Z2	female: there was no training offered at the reachable distance	
	0,39034	***0,0802***
YY1		
	male: health or age	
	-0,5132	**0,0173*** **
YY2	female: health or age	
	-0,58789	**0,0051*** **
ZZ1	male: other	
	-0,53593	**0,0123*** **
ZZ2	female: other	
	-0,44943	**0,041*** **

We can conclude that variable C "CVT activities were performed as needed" is really a strategic variable of European lifelong strategy. Thus, timing of lifelong learning possibilities is a key success factor of European lifelong strategy. Very many variables (13 driver variables) are correlating with variable C. Strongest correlations are found with variables "other obstacle" (-0,79), "female: health of age" (-0,59) and "male: respondent did not have the prerequisites" (+0,53).

All these background variables should be taken seriously in the planning of European lifelong learning strategy, because they are correlating either negative or positively on this critical variable C.

4.2. Driver 2: CVT activities considered too expensive (D)

In Table 5 correlation analysis results of the variable C "CVT activities considered too expensive" are presented.

Table 5. CVT activities considered too expensive

Variable	**Correlation**	**p-value**
TOTAL	-0,57874	**0,006*** **
FEMALES	-0,55576	**0,0089*** **
MALES	-0,6287	**0,0023*** **
C	CVT activities were performed as needed	
	0,39488	***0,0765***
E	lack of suitable CVT courses in the market	
	0,38091	***0,0885***
F	other reasons	
	0,65259	**0,0013*** **
H	major training effort realised in a previous year	
	0,42828	***0,0527***

I	difficulty to assess enterprise's needs	
	0,53646	**0,0122*** **
N	to be obliged to participate	
	-0,47062	**0,0313*** **
S	other obstacle	
	-0,4224	***0,0565***
U1	male: training was too expensive or respondent could not afford it	
	0,56041	**0,0082*** **
U2	female: training was too expensive or respondent could not afford it	
	0,45108	**0,0401*** **
Z2	female: there was no training offered at the reachable distance	
	0,40586	***0,0679***
YY1	male: health or age	
	-0,38932	***0,0811***
YY2	female: health or age	
	-0,49539	***0,0224**** **

One key strategic variable of lifelong learning activity is variable D "CVT activities considered too expensive". Very many variables (9 driver variables) are correlating with variable D. Strongest correlations are found with variables "Males" (-0,63), "Other reasons" (+0,65) and "male: training was too expensive or respondent could not afford it" (+0,56). All these background variables should be taken seriously, because they are correlating either negative or positively on this critical variable D.

To sum up: The economic costs of lifelong training and education are a vital strategic issue for the European Union. Both for European men (more) and women this is a critical policy issue.

4.3. Driver 3: To increase possibilities of getting a job or changing a job/profession (L)

In Table 6 correlation analysis results of the variable L "To increase possibilities of getting a job or changing a job/profession" are presented.

Table 6. To increase possibilities of getting a job or changing a job/profession

Variable	Correlation	p-value
TOTAL	-0,45417	**0,0386*** **
FEMALES	-0,45265	**0,0394*** **
MALES	-0,43852	**0,0468*** **
F	other reasons	
	0,43496	**0,0488*** **
I	difficulty to assess enterprise's needs	
	0,37757	***0,0915***
K	to be less likely to lose job	
	0,66452	**<0,001*** **
M	to start own business	
	0,87296	**<0,0001*** **
O	to get knowledge /skills useful in everyday life	
	0,68981	**0,0005*** **
O	to get knowledge /skills useful in everyday life	
	0,68981	**0,0005*** **
P	to increase knowledge/s kills on an interesting subject	
	0,56478	**0,0076*** **
Q	to obtain certificate	
	0,77824	**<0,0001*** **
YY1	male: health or age	
	-0,46502	**0,0337*** **
YY2	female: health or age	
	-0,57903	**0,006*** **

One key strategic variable of lifelong learning activity is variable L "*To increase possibilities of getting a job or changing a job/profession*". Very many variables (11 driver variables) are correlating with variable L. Strongest correlations are found with variables "*to start own business*" (+0,87), "*to obtain a certificate*" (+0,78), "to get knowledge /skills useful in everyday life" (+0,69), "*to get knowledge /skills useful in everyday life*" (+,69) and "*to be less likely to lose job*" (+0,66)

Again, all these background variables should be taken seriously, because they are correlating either negative or positively on this critical variable L. Especially variable "*to start own business*" should be taken very seriously in the European LLL strategy. Both for European men (more) and women this is a critical issue.

4.4. Driver 4: To obtain certificate (Q)

In Table 7 correlation analysis results of the variable Q "To obtain certificate" are presented.

Table 7. To obtain certificate

Variable	Correlation	p-value
TOTAL	-0,45668	**0,0374*** **
FEMALES	-0,42386	***0,0555***
MALES	-0,42348	***0,0558***
I	difficulty to assess enterprise's needs	
	0,47113	**0,0311*** **
J	to do job better and improve carrier prospects	
	0,49123	**0,0237*** **
K	to be less likely to lose job	
	0,62956	**0,0022*** **
L	to increase possibilities of getting a job or changing a job/profession	
	0,77824	**<0,0001*** **
M	to start own business	
	0,71158	**0,0003*** **
O	to get knowledge /s kills useful in everyday life	
	0,71505	**0,0003*** **
P	to increase knowledge/s kills on an interesting subject	
	0,53721	**0,012*** **
R	to meet new people or just for fun	
	0,39155	***0,0792***
YY2	female: health or age	
	-0,3805	***0,0888***

One strategic variable of lifelong learning activity is variable Q "*to obtain certificate*". Very many variables (8 driver variables) are correlating with variable Q. Strongest correlations are found with variables "*to increase possibilities of getting a job or changing a job/profession*" (+0,78), "*to get knowledge /s kills useful in everyday life*" (+0,71), "*to start own business*" (+0,71), and "*To be less likely to lose job*" (+0,63).

Again, all these background variables should be taken seriously, because they are correlating either negative or positively on this critical variable Q "*to obtain certificate*".

Especially variable "*to increase possibilities of getting a job or changing a job/profession*" should be taken very seriously in the European LLL strategy. Both for European men (more) and women this is a very critical issue in the work life. People do not like to have any extra certificates, if a new certificate is not promoting their career directly. They seem to be very pragmatically oriented and they do not want to use too much extra resources for certificates.

4.5. Driver 5: Other obstacle (S)

In Table 8 correlation analysis results of the variable S "Other obstacle" are presented.

Table 8. Other obstacle

Variable	Correlation	p-value
TOTAL	0,62461	**0,0025*** **
FEMALES	0,59592	**0,0044*** **
MALES	0,65377	**0,0013*** **
C	CVT activities were performed as needed	
	-0,79465	**<0,0001*** **
D	CVT activities considered too expensive	
	-0,4224	***0,0565***
F	other reasons	
	-0,40756	***0,0667***
H	major training effort realised in a previous year	
	-0,37663	***0,0924***
R	to meet new people or just for fun	
	0,49812	**0,0216*** **
U1	male: training was too expensive or respondent could not afford it	
	-0,42261	***0,0563***
ZZ1	male: other	
	0,55073	**0,0097*** **
ZZ2	female: other	
	0,60364	**0,0038*** **

One key strategic variable of lifelong learning activity is variable S "Other obstacle". Many variables (7 driver variables) are correlating with variable S. Strongest correlations are found with variables "CVT activities were performed as needed" (+0,79), "Female: other" (+0,60), "Male: other" (+0,55) and "to meet new people or just for fun" (+0,50).

All these background variables should be taken seriously, because they are correlating either negative or positively on this critical variable S. Especially variable "CVT activities were performed as needed" should be taken very seriously in the European LLL strategy. The more specific need analyses of education and training are needed to perform right kind of CVT services. Both for European men (more) and women this aspect of future LL education is a critical issue.

4.6. Driver 6: Male: training was too expensive or respondent could not afford it (U1)

In Table 9 correlation analysis results of the variable U1 "Male: Training was too expensive or respondent could not afford it" are presented. For European men this a critical policy issue.

Table 9. Male: Training was too expensive or respondent could not afford it

Variable	Correlation	p-value
TOTAL	-0,38314	***0,0865***
MALES	-0,48920	**0,0244*** **
A	impact of public measures on enterprises continuing vocational training plans	
	-0,38316	***0,0864***
D	CVT activities considered too expensive	
	0,56041	**0,0082*** **
F	other reasons	
	0,53191	**0,0131*** **
J	to do job better and improve carrier prospects	
	0,43648	**0,0479*** **
K	to be less likely to lose job	
	0,44713	**0,0421*** **
P	to increase knowledge/s kills on an interesting subject	
	-0,57972	**0,0059*** **
R	to meet new people or just for fun	
	-0,37645	***0,0926***
S	other obstacle	
	-0,42261	***0,0563***
U2	female: training was too expensive or respondent could not afford it	
	0,94502	**<0,0001*** **
Z1	male: there was no training offered at the reachable distance	
	0,69411	**0,0005*** **
Z2	female: there was no training offered at the reachable distance	
	0,6604	**0,0011*** **

XX1	male: respondent was not confident with the idea of going back to something that is like school	
	0,37297	***0,0959***

One key strategic variable of lifelong learning activity is variable U1 "Male: Training was too expensive or respondent could not afford it". Many variables (9 driver variables) are correlating with variable U1. Strongest correlations are found with variables "female: training was too expensive or respondent could not afford it" (+0,94), "male: there was no training offered at the reachable distance" (+0,69), "female: there was no training offered at the reachable distance" (+0,66) and "to increase knowledge/skills on an interesting subject" (-0,58).

All these background variables should be taken seriously, because they are correlating either negative or positively on this critical variable U1. Especially variables "female: training was too expensive or respondent could not afford it" and "male: there was no training offered at the reachable distance" should be taken very seriously in the European LLL strategy. There is need to provide LLL possibilities to both men and women not too far away from their homes. Both for European men (more) and women "*reachable distances*" are a very critical issue.

4.7. Driver 7: Female: Health or age (YY2)

In Table 10 correlation analysis results of the variable YY2 "Female: Health or age" are presented.

Table 10. Female: Health or age

Variable	**Correlation**	**p-value**
TOTAL	0,70871	**0,0003*** **
FEMALES	0,72881	**0,0002*** **
MALES	0,67227	**0,0008*** **
C	CVT activities were performed as needed	
	-0,58789	**0,0051*** **
D	CVT activities considered too expensive	
	-0,49539	**0,0224*** **
L	to increase possibilities of getting a job or changing a job/profession	
	-0,57903	**0,006*** **
M	to start own business	
	-0,46435	**0,034*** **
Q	to obtain certificate	
	-0,3805	***0,0888***

Y2	female: respondent did not have time because of family responsibilities	
	-0,42045	***0,0577***
YY1	male: health or age	
	0,75861	**<0,0001*** **

One key strategic variable of lifelong learning activity is variable YY2 *"Female: Health or age*". Many variables (8 driver variables) are correlating with variable U1. Strongest correlations are found with variables *"male: health or age"* (+0,76), *"Females"* (+0,72), *"Males"* (+0,67) and *"CVT activities were performed as needed"* (-0,59).

All these background variables should be taken seriously, because they are correlating either negative or positively on this critical variable YY2.

Both health conditions and demographic age structures are really very critical background factors for the LLL strategy of the European Union. There is a strong need to provide LLL possibilities to both men and women with a special concern of health and age. This kind of approach will probably lead European Union to better socio-cultural sustainability of the LLL policy.

Without taking these issues into consideration social marginalisation and polarisation are obvious end results of the health based discrimination or age discrimination. However, if there exist health or age discrimination in the LLL policy, European workers probably do not prefer longer work life careers. This will probably lead to sustainability problems of European pension and social security systems. From this perspective the LLL strategy of European Union is a grand challenge for European countries.

5. SUMMARY

In this e-book we have identified 7 critical policy variables of the European life-long learning strategy. This process is methodologically interesting, because it enables us to define the key drivers of any trend, if we have an empirical cross-sectional database of various relevant variables.

They are: (1) CVT activities were performed as needed (C), (2) CVT activities considered too expensive (D), (3) To increase possibilities of getting a job or changing a job/profession (L), (4) To obtain certificate, (5) Other obstacle (Q), (6) Male: training was too expensive or respondent could not afford it (U1) and (7) Female: Health or age (YY2).

Thus, the European LLL strategy should focus on these 7 issues:

- Need analyses of CVT activities,
- Pricing and support mechanism of CVT activities,
- Job opportunities of workers,
- The motivational and incentive mechanism of LLL activities and education,
- Existence of obstacles to get participate in CVT activities,
- Fair and motivational pricing of CVT activities, and
- Possibilities of women to participate in CVT activities without age and health discrimination.

We also provided “the drivers of the drivers” analysis. This DD analysis revealed complexity of drivers of European lifelong learning processes.

When European Union develops strategy for European LLL strategy and better social inclusion, these complex policy linkages need to be considered carefully, because CVT and LLL activities depends on these linkages and social structures.

This study has identified the existence of these critical policy linkages.

Especially, social inclusiveness cannot be improved without understanding of these kinds of real-life facts and social connections. From this perspective, the results of this article support evidence based policy planning in the European Union. Our empirical results also indicate that gender aspects should be taken into serious consideration, when European LLL strategies and programmes are planned.

It is also good to underline the fact that we have in this article only analysed cross-section data, not time series. This methodological starting point has, of course, its limitations, but we are sure that all analyses performed in this study are really adding value to European policy planning and programming in the field of lifelong learning.

If the European Union wants to improve its innovation dynamics and capacities for systemic and structural transformations, the analysis provided in this article is going to be useful in the future LLL policies and planning processes.

Variables (analysed in this study):

A	**impact of public measures on enterprises continuing vocational training plans**
B	limited time to provide certain/more CVT activities
C	CVT activities were performed as needed
D	CVT activities considered too expensive
E	lack of suitable CVT courses in the market
F	other reasons
G	focus on apprenticeship p or traineeship rather than on CVT activities
H	major training effort realised in a previous year
I	difficulty to assess enterprise's needs
J	to do job better and improve carrier prospects
K	to be less likely to lose job
L	to increase possibilities of getting a job or changing a job/profession
M	to start own business
N	to be obliged to participate
O	to get knowledge/s kills useful in everyday life
P	to increase knowledge/s kills on an interesting subject
Q	to obtain certificate
R	to meet new people or just for fun
S	other obstacle
T1	male: respondent did not have the prerequisites
T2	female: respondent did not have the prerequisites
U1	male: training was too expensive or respondent could nof affort it
U2	female: training was too expensive or respondent could nof affort it
W1	male: lack of employer's support
W2	female: lack of employer's support
X1	male: training conflicted with the work schedule
X2	female: training conflicted with the work schedule
Y1	male: respondent did not have time because of family responsibilities
Y2	female: respondent did not have time because of family responsibilities
Z1	male: there was no training offered at the reachable distance
Z2	female: there was no training offered at the reachable distance
XX1	male: respondent was not confident with the idea of going back to something that is like school
XX2	female: respondent was not confident with the idea of going back to something that is like school
YY1	male: health or age
YY2	female: health or age
ZZ1	male: other
ZZ2	female: other

REFERENCES

Aldrich, J. (1995) Correlations genuine and spurious in Pearson and Yule. Statistical Science 10 (4), 364–376. Web: http://www.jstor.org/stable/2246135.

Alheit, P. & Kammler, E. (Eds.) (1998) Lifelong Learning and its Impact on Social and Regional Development. Bremen, Donat Verlag.

Belanger, P., Gelpi, E., Goldberger, N.R. and Tarule, J.M. (1986) Lifelong Learning. Dordrecht, Kluwer Academic Publishers.

Chapman, J.D. and Aspin, D.N. (2000) Lifelong learning: concepts and conceptions. International Journal of Lifelong Education, Vol 19 No 1 Jan-Feb 2000, 2-19.

Coffield, F. (1999) Breaking the consensus: lifelong learning as social control. British Educational Research Journal, Vol. 25. Issue 4, 479-499.

Council of Europe (1998) Lifelong Learning for Equity and Social Cohesion: a New Challenge to Higher Education, Strasbourg, Council of Europe, DECS-HE 98/5 rev 2.

Dworkin, R. (1977) Taking Rights Seriously. London, Duckworth.

Edwards, R. and Usher, R. (2001) Lifelong learning: a postmodern condition of education? Adult Education Quarterly. Vol. 51. No. 4, 273–287.

Elliott, G. (1999) Lifelong Learning: The Politics of the New Learning Environment. London, Jessica Kingsley.

Erikson, E.H. (1975) Identität und Lepenszyklus. Frankfurt am Main, Surkamp.

European Commission (2003) Choosing to Grow: Knowledge, Innovation and Jobs in a Cohesive Society. Report to the Spring European Council, Brussels, COM(2003) 5.

European Commission (2009) The Social Situation in the European Union 2009. Brussels, European Commission Directorate-General for Employment, Social Affairs and Equal Opportunities – Unit E.1 Eurostat – Unit F.4

European Commission 2000. Memorandum on Lifelong Learning. Brussels, Commission of European Communities, Brussels.

Ginther, D.K. (2004) Why women earn less: Economic explanations for the gender salary gap in science. Awis Magazine, Vol. 33, No. 1, 6–10.

Griffin, C.M. (1987) Adult Education as Social Policy. London, Croom Helm.

Griffin, C.M. (1999) Lifelong learning and welfare reform. International Journal of Lifelong Education, Vol. 18, No. 6 Nov-Dec 1999, 431-452.

Harvey, D. (1989) The Condition of Postmodernity. Oxford, UK, Basil Blackwell.

Hutchins, E. (1995) Cognition in the Wild. Cambridge, Mass. London, MIT Press.

Olkinuora, E., Rinne, R., Mäkinen, J., Järvinen, T. and Jauhiainen, A. (2005) Promises and risks of the learning society: the meanings of lifelong learning for three Finnish generations. Studies in the Education of Adults, Volume 40, Number 1, Spring 2008, 40-61.

Pantzar, E. (2005) Lifelong learning and learning environments in the Information society. In Pantzar. E. & al. Constructing Europe – The European Educational Space and its Different Manifestations. Uni Bremen. FB 12. Bremen, 3-14.

Rodgers, J.L. and Nicewander, W.A. (1988) Thirteen ways to look at the correlation coefficient. The American Statistician, 42(1), 59–66.

Rogers, A. (2006) Lifelong learning and the absence of gender. International Journal of Educational Development, Vol. 26. No. 2, 189-208.

Sen, A. (2000) Work and rights. International Labour Review, Vol. 139, No. 2, 119-128.

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