THE CROSS-COUNTRY ANALYSIS OF THE EFFECTS OF SOME EMPLOYMENT CHARACTERISTICS ON HAPPINESS AND LIFE SATISFACTION LEVELS IN THE EUROPEAN UNION

by

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EU European Union

HR Human Resource

WHR World Happiness Report

NA Not Applicable

UK The United Kingdom

p.p. Percentage points

SOEP The Socio-Economic Panel

CHAPTER 1. INTRODUCTION

The current state and number of studies on both happiness and life satsifaction levels by country is promising. With the emerge of such papers as the World Happiness Report it has become much clearer, which countries are considered the best, mid-range and the worst in terms of the happiness level of their population and, hence, suggest the quality of life there.

For governments willing to increase happiness of their population, it is very important to understand how the level of happiness and life satisfaction people is determined. There are always certain factors that influence it on a periodic basis, and those differ and depend usually and mostly on the region and time the survey was taken.

It is also necessary to define happiness and life satisfaction, since both those categories are going to be used in the thesis. Both of these are more of the psychological nature, yet it is important to define them in order to avoid confusion onwards. According to Courtney Ackerman (2020), "life satisfaction is the evaluation of one's life as a whole, not simply one's current level of happiness". The latter is defined as the in-the-moment and quick experience, which does not fulfill the life satisfaction requirements as a whole. Similarly, Bar-Anan et. al (2009) characterise happiness as the more momentary concept that can be triggered by lots of life events, either major or minor, and not as stable as a feeling of satisfaction. In its turn, life satisfaction is a long-lived perception, which is broader in scope and determines the general way of how one treats its life and the processes of it.

One of the key components that have a significant impact on people's life satisfaction and happiness levels is the employment status (Krause, 2014). It seems obvious at first, as usually the presence of the job in one's life means the stable income and, thus,

gives the resources to support the household's well-being. The biggest interest in this topic is more about the marginal effects of many other related employment-related factors determining happiness and life satisfaction, such as the education and status of a person, if one's contracted for a set number of hours or decides on his/her own, industry one works in, number of people under one's responsibility etc.

The research relies upon a multifactor regression model to better understand the marginal contribution of each of the components to the happiness and the declared life satisfaction. Specifically, the ordered probit model works the best and the most correctly to describe the results of the research.

To summarize, as a result of this research, the following questions will be answered: what are the employment aspects that impact the happiness and life satisfation levels the most? Which of the factors could be considered by the HR-departments of firms, so that to increase both the happiness and life satisfaction levels of the current and future employees?

CHAPTER 2. LITERATURE REVIEW AND RELATED STUDIES

Although the "pursuit of happiness" was declared firstly in the United States' Declaration of Independence in 1776, and then in France as the ideology of the post-revolutionary state in 1789, the scientific studies of this topic only started to grow in the late 20th century with the development of methods, surveys and indices to empirically measure happiness and related concepts (Graham 2008). Nowadays, the economic terms of happiness are already being widely studied and researched. Over the last decades, this, at a first glance, purely philosophical and psychological concept had started to draw more and more attention of the economists all around the world.

Bruno S. Frey in 'Happiness: a revolution in economics' (2008) claims that the research on happiness can dramatically change the economics as a discipline. He has brought up three crucial aspects for the standard economics that have not been used before: the investigation of people's experience and declared well-being with the psychologists' means; the new vision on goods and service valuation which includes the social conditions and relations an individual is living in; and the new policies that can be imposed by the governments based on the vision and the collected information on people's behaviour in order to influence their happiness and life satisfaction levels.

The economic science is more interested in the first two aspects, psychologists' tools and evaluation of goods and services using non-material values. These instruments would help to better understand the behaviour of the consumers alongside with the other ways of happiness measurement, and hence, to provide the better level of satisfaction to them. The widely conducted surveys turn out to be among the best tools for such evaluation. So, in terms of the topic of my research, the provided data of the European Social Survey will help to concentrate more on the employment factor in the overall level of life satisfaction and break this component down into more detailed parts, in order to have a better look at how those affect the overall happiness of an individual.

In regards to the effect of employment on happiness specifically, a study with a very related topic has been done. Böckerman and Ilmakunnas (2004) have explored the connection between those two parameters in Finland, using the data from 1990, 1996 and 2000. Motivated by a remarkable increase in the unemployment rate in the country during the 1990s, these economists decided to see the effect on happiness and life satisfaction levels. It turned out that unemployment reduced life satisfaction, while the effect on happiness was insignificant. Other regression's results concluded that the unemployed status had negative effect, if people declared low level of happiness, while having no significant effect for the ones with higher scores. They also have discussed the dependence of happiness and life satisfaction on low income. In this case, the impact was negative on both indicators. This study is limited to Finland. The World Happiness Reports of the past years and other related surveys conducted before suggest that the Finnish case cannot be extended for all the other European countries, as such generalization would not be significant enough. I will extend this research by considering various aspects of employment to discover the channels, through which the employment affects happiness and life satisfaction. In addition, the study is based on the data from various European states, so the difference in the impacts across countries is better detectable.

Winkelmann and Winkelmann (1998) have studied the relationship between happiness and unemployment using panel data from the German Socio-Economic Survey to control for individual fixed effects through time. They have found that losing a job has a deleterious effect on life satisfaction. They also stated that the importance of losing income was significantly less than the impact associated with non-pecuniary concerns. The paper mostly emphasizes the social costs of unemployment.

This idea was further developed by Darity and Goldsmith (1996) in their paper "Social Psychology, Unemployment and Macroeconomics". They explain the effects of unemployment on psychological well-being with the changes in the individuals' perception of life, emotions, cognitive abilities and attitude toward work. The main finding here is the

empirical proof of the fact that unemployment hurts the mental health, which negatively impacts the individual's productivity.

The effect varies depending on the type of employment. Berger (2009) in her paper "Maternal Employment and Happiness: The Effect of Non-Participation and Part-Time Employment on Mothers' Life Satisfaction" discusses the relationship between life satisfaction and various types of employment (part-time, full-time and unemployed) for the mothers in Germany on the basis of the local Socio-Economic Survey. The study showed that unemployed or partially employed mothers are more satisfied than a mother with a full-time contract. This might be explained by the presence of children, so the effect for mothers is rather a contradiction to the previous findings. Specifically, Booth and van Ours (2008) in their research on the topic of family and parental status have found that the mothers and fathers working full-time are more satisfied with life than non-working parents. This might be explained by the difference between the non-working and unemployed statuses, since non-working people are not considered a part of the labour market and are not actively seeking job. However, they found no significant effect of employment relative to non-employment on life satisfaction for the people without children.

Lelkes (2008) describes the difference in life satisfaction levels over the course of life could happen due to the changing age-specific circumstances. For instance, elderly people tend to decrease the importance of job, but rather increase the family and religion role in their lives.

Blanchflower (2007) in his paper discusses the impact of unemployment and and level of inflation on happiness in the European Union. Overall it was found that both higher unemployment and higher inflation rates decrease the happiness levels. Various other macroeconomic factors were also examined, revealing that the higher interest rates tend to decrease happiness levels, while higher GDP of the country impacts the happiness levels much more significant in poorer states. Less educated people felt less happy when

there is high unemployment (caring less about the inflation rates), and better educated people had more concerns about the higher inflation rather than higher unemployment rates.

On the contrary, Alekankina (2018) found that the inflation and unemployment levels are not significant for determining the happiness levels in Ukraine. The most important aspects of them in the country under analysis were the health status, size of the city, in which a person lives, the family status and number of its members. Those do not have much in common with a person's career.

In her discussion paper, Krause (2014) emphasizes the statement about the work being a meaningful part of people's lives and the determinant for the life satisfaction. This research contains valuable points about the job satisfaction. According to the author, it consists of several things, including the atmosphere inside the team, variousity of tasks and the safeness at the workplace. It is also stated job satisfaction causes the job seeking process, as well as the short-term effect of promotion on the prior. Also the freelancers report higher levels of job satisfaction. This can be related to the additional freedom that they possess.

Coad and Binder (2014) have reviewed the connection between work and life satisfaction on the example of Germany using the panel data approach. They took the SOEP data from 1984 to 2008 and also confirmed the statement that the additional freedom at work results in higher declared scores on job satisfaction. They advise the employers to increase the autonomy of their workers, as it leads to the better levels of job and life satisfaction.

To summarize, this research will contribute to the literature in two main ways. Firstly, the existing literature does not explain how employment and unemployment affect happiness and life satisfaction. I am going to fill in this gap. In business terms, it could be interesting for the human resource departments of the companies which are eager to

improve the job satisfaction level of the employees, as this paper will give some specific impacts on it. Secondly, most of the studies use the example of one country. This study will compare the impact in different countries with different labour markets to put the results into more practical perspective. This approach will help to better understand the mechanisms and may explain some differences accoss countries.

CHAPTER 3. METHODOLOGY

In the research, it is the most reasonable to use the ordered logistic regression, since the dependent variables (happiness and life satisfaction) are measured on the 0-10 scale. The regression model is constructed as follows:

$$Y = \beta_0 + \sum_{i=1}^{n} \beta_i x_i + \sum_{i=1}^{n} \beta_i D_i + \varepsilon ,$$

where

- Y describes the variable "happy" in the first model, explaining the level of happiness by the factors of employment, and "stflife" in the second model, explaining the subjective life satisfaction indicator;
- x_i depicts the independent variables affecting Ys.
- D_i includes various control variables.

Overall, 17 variables from the dataset were taken. Two main explanatory variables are:

- *happy* – how happy are you on a scale from "0" (extremely unhappy) to "10" (extremely happy).
- *stflife* – how satisfied are you with your life as a whole nowadays on a scale from "0" (extremely dissatisfied) to "10" (extremely satisfied).

As the explanatory variable *happy* has the range of 0 to 10, it was decided to form three groups of results of this parameter in order to receive less specific, but more usable results: the values from "0" to "4" were collected into the "Unhappy" category, values from

"5" to "7" fell under the "Neutral" state, and values "8" to "10" yielded the "Happy" group of people.

For simplicity of interpreting the results, the following codes were assigned as: "Unhappy" – code "1", "Neutral" – code "2" and "Happy" – code "3".

The same was done with the life satisfaction dependent variable, *stflife*. "0" to "4" fell under the "Dissatisfied" category, "5" to "7" formed the "Neutral" group, and "8 to "10" values returned the self-claimed "Satisfied" people. The codes for this variable are: "Dissatisfied" – code "1", "Neutral" – code "2" and "Satisfied" – code "3".

The grouping for the dependent variables was needed, as it makes much more sense to report the marginal effects of being, for instance, "neutral" rather than "dissatisfied", than being "5 out of 10" rather than "4 out of 10" on the life satistaction scale. It is more eloquent.

In order to justify such grouping, I have done a research in the literature, but did not manage to find a standard way to proceed with it. Then I tried to clusterize the variables using *kmeans* package in R, however, too many different variables explain the dependent, so the data was not clusterized correctly. Thus, the grouping of dependent variables is an assumption for better representation of the results.

The countries were divided up into four groups from the happiest to the least happy, based on the results of the latest edition of the latest World Happiness Report:

- "The Happiest" contains Austria, Finland, the Netherlands, Switzerland and Norway (although the latter two are technically not a part of the EU, they maintain close ties with it);

- "Somewhat Happy" are the UK, Ireland, Germany, Czech Republic and Belgium;

- "Not Very Happy" are France, Italy, Poland and Slovenia;

- Finally, " The Least Happy" are Estonia, Hungary, Bulgaria and Serbia (the latter will be perspectively joining the EU by 2025).

The key independent variables are the following:

- *eduyrs* – years of completed full-time education. Varies from 0 to 51. Values over 30 were excluded from the analysis, as

- *wrkctra* – describes the type of the contract:. "1" is the unlimited contract, "2" is the limited one and "3" means that a person does not have a contract.

- *wkdcorga* – describes if a person is allowed to decide how to organise his/her daily work. Varies from "0" – had no control, to "10" – had full control.

- *wkhct* – represents the total contracted hours per week on the main job excluding overtime hours. The range to accept is from 0 to 168. Observations over 150 were excluded from the analysis, as it is highly unlikely that person works for 24 hours seven days a week.

- *impdiff* – importance to try many various things during the lifetime. Varies from "1" – not important at all to "6" – very important.

There were also the dummy variables included in the analysis such as:

- *atncrse* – if a person has attended any additional education to improve the knowledge and work skills (courses, lectures, conferences) within the last 12 months. "1" for yes, "0" for no.

- *jbspv* – if a person was responsible for supervising other employees. "1" for yes, "0" for no.

- *uemp3m* – if a person has ever been jobless for a more than 3 months in a row. "1" for yes, "0" for no.

- *uemp5yr* – if a jobless period took place within the last 5 years. "1" for yes, "0" for no.

The next group of dummy variables detects the current activity of the respondent within the last 7 days before the interview:

- *pdwrk* – if a person has been doing paid work. "0" for not marked, "1" for marked.

- *edctn* – if a person has been a full-time student. "0" for not marked, "1" for marked.

- *dsbld* – if a person has been chronically sick or disabled. "0" for not marked, "1" for marked.

- *uempli* – if a person has been unemployed, but not looking for a job. "0" for not marked, "1" for marked.

- *uempla* – if a person has been unemployed and currently searching for a job. "0" for not marked, "1" for marked.

- *hswrk* – if a person has been performing the household activities or staying at home with children. "0" for not marked, "1" for marked.

The survey was conducted in 2018 for the 19 states, members of the European Union, including the United Kingdom. The full list of countries is available on the European Social Survey website.

Observations with missing answers were excluded or assigned the value of "no" when no answer was the appropriate choice.

So, the overall of 15 independent variables were taken into account for the conducted analysis. The analysis was performed in R as well using the *oglmx* package. The regressions for "polar" groups of countries were separately estimated using two dependent variables (*happy* and *stflife*).

CHAPTER 4. DATA DESCRIPTION

For the purposes of the conducted analysis the data from the European Social Survey was taken. I have taken the most recent round of the survey (Round 9), which took place in 2018. Overall, there were 36,015 observations. The variables in the dataset amounted to the sum of 492 and were divided into following 11 groups:

- Subjective well-being, social exclusion, religion, national and ethnic identity
- Media and social trust
- Justice and Fairness
- Human values
- Politics
- Socio-demographics
- Gender, Year of birth and Household grid
- Timing of life
- Administrative variables
- Country
- Weights

In particular, I have now used only 17 variables for the model, that could be named the employment factors. They were described in more detail in the methodology. Mostly,

the variables were taken from the groups "Subjective well-being, social exclusion, religion, national and ethnic identity" and "Socio-demographics".

To prepare the data for the model, I constructed the dataframe of the particular variables to use and cleaned the dataset's NAs and other invalid and meaningless values. After the procedure there were 23,807 observations left for the regression model itself, because there were a lot of NA values across the important variables, and also a lot of extreme and unrealistic values in some cases that would sabotage the regressions' results.

Then two more datasets were formed just for the "polar" groups of countries, which were described in the methodology. The dataset for the first group, *dataset_happy1*, contained 6588 observations, and the one for the fourth group, *dataset_happy4*, contained 5233 observations.

The expected signs of the effects of the variables on the happiness level are the following:

Table 1. Expected effect of the variables under regression

Variable	Short description	Expected sign for happiness	Expected sign for stflife
eduyrs	Years of completed full-time education.	Positive/neutral	Positive/neutral
atncrse	Courses, lectures, conferences attendance within the last 12 months.	Positive	Positive/neutral
wrkctra	Has/had a contract of limited duration or unlimited duration.	Neutral/Negative	Positive/neutral
wkdcorga	Allowed to decide how to organise his/her daily work	Positive	Positive
wkhct	Total contracted hours per week in main job	Negative	Negative
impdiff	importance to check out different activities	Positive	Positive
jbspv	Responsible for supervising other employees.	Neutral/Negative	Neutral/Negative
uemp3m	Has ever been jobless and saught work for a more than 3-month span.	Negative	Negative
uemp5yr	Jobless period was within the last 5 years.	Negative	Negative
pdwrk	Doing paid work.	Neutral/Negative	Positive/Neutral

edctn	Full-time student.	Positive/Neutral	Neutral
dsbld	Chronically sick or disabled.	Negative	Negative
uempli	Unemployed, but not looking for a job.	Negative	Negative
uempla	Unemployed and currently searching for a job.	Negative	Negative
hswrk	Household activities or staying at home with children.	Positive/Neutral	Positive

It is also necessary to know the value distribution of the variables under analysis before performing it. These are presented in the table form:

Table 2. Distribution of categorical values

Variable	Categorical Values Distribution
Happiness (dependent)	1: 1734 (7.28%); 2: 8158 (34.27%); 3: 13915 (58.45%);
Life satisfaction (dependent)	1: 2634 (11.05%); 2: 8498 (35.7%); 3: 12675 (53.24%).
Courses, lectures, conferences attendance within the last 12 months	1: 7067 (29.65%); 0: 16760 (70.34%);
Has/had a contract of limited duration or unlimited duration	1: 19481 (81.76%); 2: 3248 (13.63 %); 3: 1098 (4.6%);
Allowed to decide how to organise his/her daily work	0: 3244 (13.61%); 1: 1020 (4.28%); 2: 1255 (5.27%); 3: 1230 (5.16%); 4: 947 (3.97%); 5: 2284 (9.58%); 6: 1512 (6.34%); 7: 2681 (11.25%); 8: 3772 (15.83%); 9: 2483 (10.42%); 10: 3399 (14.27%);
Importance to check out new activities	1: 812 (3.41%); 2: 3336 (14%); 3: 4399 (18.46%); 4: 6030 (25.31%); 5: 6400 (26.86%); 6: 2850 (11.96%);
Responsible for supervising other employees	1: 6796 (28.52%); 0: 17031 (71.48%);
Has ever been jobless for more than 3 months	1: 7054 (29.6%); 0: 16773 (80.4%);
Jobless period was within the last 5 years	1: 2893 (12.14%); 0: 20934 (87.86%);
Doing paid work	1: 9934 (41.7%); 0: 13893 (58.3%);

Being a full-time student	1: 22646 (95.04%); 0: 1181 (4.96%);
Chronically sick or disabled	1: 23066 (96.8%); 0: 761 (3.2%);
Unemployed, but not looking for a job	1: 23425 (98.3%); 0: 402 (1.7%);
Unemployed and currently searching for a job	1: 23124 (97.05%); 0: 703 (2.95%);
Household activities or staying at home with children	1: 20326 (85.3%); 0: 3501 (14.7%);

CHAPTER 5. RESULTS

The results of the ordered logistic regression can be interpreted only as the signs of the effects. In order to get the magnitude, it is necessary to check out the marginal effects and odds ratios.

After trying both ordered logit and probit models, from the coefficients and significance levels the conclusion was to use the probit model, as it has better significance level on the important variables and less strong assumptions on the distribution (cumulative normal).

Overall, the results of the regression have complied with the expectations, however, there were some surprises, which are to be discussed later in the chapter.

The results of the regressions for both groups of countries in respect to happiness and life satisfaction are the following:

Table 3. Marginal effects for Group 1 (Austria, Switzerland, Finland, Norway and the Netherlands) and their significance: variable *happiness*

	Unhappy	**Neutral**	**Happy**	
Years of completed full-time education	-0.0003	-0.0016	0.0019	
Being a full-time student	0.0085	0.0406	-0.0492	*
Doing paid work	-0.0002	-0.0008	0.0010	
Chronically sick or disabled	0.0351	0.1676	-0.2027	***
Unemployed, but not looking for a job	0.0241	0.1150	-0.1391	***
Unemployed and currently searching for a job	0.0151	0.0723	-0.0875	*
Household activities or staying at home with children	-0.0051	-0.0245	0.0297	*
Has/had a contract of limited duration or unlimited duration	0.0028	0.0133	-0.0161	
Responsible for supervising other employees	-0.0024	-0.0116	0.0140	
Allowed to decide how to organise his/her daily work	-0.0022	-0.0104	0.0126	***
Total contracted hours per week in main job	0.0002	0.0008	-0.0010	.
Courses, lectures, conferences attendance within the last 12 months	-0.0048	-0.0231	0.0279	*
Importance to check out new activities	-0.0044	-0.0209	0.0253	***
Has ever been jobless for more than 3 months	0.0127	0.0608	-0.0736	***
Jobless period was within the last 5 years	0.0107	0.0513	-0.0621	**

Table 4. Marginal effects for Group 1 (Austria, Switzerland, Finland, Norway and the Netherlands) and their significance: variable *life satisfaction*

	Dissatisfied	**Neutral**	**Satisfied**	
Years of completed full-time education	0.0002	0.0007	-0.0009	
Being a full-time student	0.0079	0.0280	-0.0359	
Doing paid work	0.0070	0.0246	-0.0315	*
Chronically sick or disabled	0.0645	0.2277	-0.2922	***
Unemployed, but not looking for a job	0.0480	0.1694	-0.2173	***
Unemployed and currently searching for a job	0.0406	0.1433	-0.1838	***
Household activities or staying at home with children	-0.0035	-0.0125	0.0160	
Has/had a contract of limited duration or unlimited duration	0.0050	0.0177	-0.0227	.
Responsible for supervising other employees	-0.0100	-0.0354	0.0454	***
Allowed to decide how to organise his/her daily work	-0.0028	-0.0100	0.0128	***
Total contracted hours per week in main job	0.0002	0.0007	-0.0009	.
Courses, lectures, conferences attendance within the last 12 months	-0.0065	-0.0228	0.0293	*
Importance to check out new activities	-0.0045	-0.0159	0.0204	***
Has ever been jobless for more than 3 months	0.0197	0.0695	-0.0892	***
Jobless period was within the last 5 years	0.0141	0.0499	-0.0641	**

Table 5. Marginal effects for Group 4 (Estonia, Hungary, Serbia and Bulgaria) and their significance: variable *happiness*

	Unhappy	**Neutral**	**Happy**	
Years of completed full-time education	-0.0031	-0.0023	0.0054	**
Being a full-time student	-0.0806	-0.0589	0.1396	**
Doing paid work	-0.0539	-0.0394	0.0933	***
Chronically sick or disabled	0.1064	0.0778	-0.1842	***
Unemployed, but not looking for a job	-0.0063	-0.0046	0.0109	
Unemployed and currently searching for a job	-0.0141	-0.0103	0.0245	
Household activities or staying at home with children	-0.0741	-0.0541	0.1282	***
Has/had a contract of limited duration or unlimited duration	0.0045	0.0033	-0.0078	
Responsible for supervising other employees	-0.0336	-0.0246	0.0582	**
Allowed to decide how to organise his/her daily work	-0.0092	-0.0067	0.0158	***
Total contracted hours per week in main job	0.0008	0.0006	-0.0014	
Courses, lectures, conferences attendance within the last 12 months	-0.0662	-0.0484	0.1146	***
Importance to check out new activities	-0.0272	-0.0199	0.0471	***
Has ever been jobless for more than 3 months	0.0199	0.0146	-0.0345	*
Jobless period was within the last 5 years	0.0130	0.0095	-0.0225	

Table 6. Marginal effects for Group 4 (Estonia, Hungary, Serbia and Bulgaria) and their significance: variable *life satisfaction*

	Dissatisfied	**Neutral**	**Satisfied**	
Years of completed full-time education	-0.0046	-0.0008	0.0055	**
Being a full-time student	-0.1007	-0.0183	0.1190	**
Doing paid work	-0.0345	-0.0063	0.0408	***
Chronically sick or disabled	0.1487	0.0270	-0.1757	***
Unemployed, but not looking for a job	0.0552	0.0100	-0.0652	.
Unemployed and currently searching for a job	0.0759	0.0137	-0.0896	*
Household activities or staying at home with children	-0.0731	-0.0132	0.0864	***
Has/had a contract of limited duration or unlimited duration	0.0144	0.0026	-0.0170	
Responsible for supervising other employees	-0.0247	-0.0045	0.0291	.
Allowed to decide how to organise his/her daily work	-0.0153	-0.0028	0.0181	***
Total contracted hours per week in main job	0.0013	0.0002	-0.0015	*
Courses, lectures, conferences attendance within the last 12 months	-0.1225	-0.0222	0.1447	***
Importance to check out new activities	-0.0252	-0.0046	0.0298	***
Has ever been jobless for more than 3 months	0.0312	0.0057	-0.0368	*
Jobless period was within the last 5 years	0.0257	0.0047	-0.0304	

As for the reported results of the probit models, the McFadden's pseudo-R-squared is around 4-6% – a signal that the model describes the dataset well enough. Most of the variables themselves are significant at different confidence levels.

Only "polar" groups 1 and 4 were investigated, so that the difference in results could be more pronounced. The marginal effects can be interpreted the following way:

1. The additional year of education does not significantly affect either happiness or life satisfaction levels in the countries from Group 1. In the countries of Group 4 an additional year of full-time education increases the probability of being happy and satisfied (by 0.5 p.p. each), and decreases the probability of being neutral and unhappy or dissatisfied. So, in less happy states the connection between a certain level of happiness and life satisfaction and being well educated is stronger.

2. Being a full-time student in Group 1 countries as of the date of survey decreases the odds of being happy by 4.9 p.p. and increases the chances of choosing "neutral" options by 4 p.p. and "unhappy" by 0.85 p.p. (with no significant effect on life satisfaction). While in the less happy countries of Group 4 the probability of choosing happy increases by 13.96 p.p. and that of being satisfied with life – by 11.9 p.p. The odds of choosing neutral and unhappy/dissatisfied options are decreased significantly. This finding may be explained by the fact that in Group 1 states the educational system proves to be more demanding (OECD, 2020). The students supposedly study harder on average and, thus, might have less time to enjoy life in general.

3. Doing paid work decreases the odds of being satisfied with life in "happier" countries by around 3 p.p., having an insignificant effect on happiness. On the contrary, in "less happy" group of countries doing paid work increases the odds of picking "Happy" and "Satisfied" options by 9.3 and 4 p.p. respectively. It confirms that having a job makes an important contribution to people's happiness and life satisfaction in less happy states, also showing that among the happier group having a paid job decreases the life satisfaction levels. This might be explained by the amount of social security across the groups of countries under analysis.

4. Being permanently sick or disabled decreases the odds of choosing happy and satisfied scores, which was expected. However, in the Group 1 countries people with disabilities tend to choose neutral rather than unhappy/dissatisfied options, whereas in Group 4 people are more likely to choose the latter (16.7 and 22.7 p.p. for "Neutral" among Group 1 vs 7.7 and 2.7 p.p. for "Neutral" among Group 4). It could be due to the higher poverty rate among the disabled people in the "Least Happy" group (World Report on Disability, 2011).

5. People in the Group 1 countries tend to declare the lower level of happiness in case they are unemployed (the chances of picking happier scores decrease by around 14 p.p. if a person does not look for a job and by almost 9 p.p. if does; the chance of picking neutral increases by 11.5 p.p. if a person does not look for a job and by 7.2 p.p. if does). On the contrary, the effect among the Group 4 countries is insignificant. In both groups unemployed people are more likely to pick the lower level on life satisfaction scale.

6. In Group 4 people declare significantly higher happiness and life satisfaction scores, if they perform household activities or are at home with kids: chances to pick "happy" options increase by almost 13 p.p., "satisfied" options – by 9 p.p. In countries of Group 1 this effect is significantly lower for happiness level (chance to pick "happy" increases only by 3 p.p.), with the effect on life satisfaction being insignificant. It can be concluded that people in less happy states are happier and more satisfied with life when they are on housekeeping or spending time with children, than they are in happier states.

7. The responsibility for other employees increases the probability of picking better life satisfaction level in both groups, by about 4.5 p.p. in Group 1 and by about 3 p.p. in Group 4. While the effect on happiness in Group 1 was insignificant, in less happy states the odds of choosing "happy" still increase by almost 6 p.p., decreasing the odds of choosing both "neutral" and "unhappy" options.

8. Self-organising of the day increases the odds of picking "happy" and "satisfied" options across all countries by about the same margin (1-2 p.p.).

9. Additional 10 hours per week by the contract decrease the odds of picking "happy" and "satisfied" and increases the odds of picking both neutral and unhappy/dissatisfied options in a similar manner (by about 0.5-1.5 p.p. each).

10. The attendance of courses and other additional educational activities positively impacts the happiness and life satisfaction scores across all countries. However, in Group 1 the probability of choosing "happy" and "satisfied" options increases only slightly (by about 3 p.p. each), whereas in Group 4 countries this effect is much more significant (11.5 p.p. for "happy" and 14.5 p.p. for "satisfied").

11. The same effect is with the importance of trying out new things. It positively affects all the scores, but the probability of choosing "happier" options in Group 4 is slightly higher (+4.7 p.p. against +2.5 p.p. in "The Happiest" group).

12. Having an unemployed period in life for 3 months or more has a deteriorating marginal effect on both happiness and life satisfaction across all the countries under analysis. Across the Group 1 countries the odds of choosing "happy" decrease by 7.3 p.p. and with "satisfied" option it is down by almost 9 p.p. In the countries of Group 4 probability of picking both "happy" and "satisfied" decreases by about 3.5 p.p. If the jobless period took place within the last 5 years, among the Group 1 probability of picking "happy" decreases by about 6-7 p.p. with odds of being neutral increasing by about 5 p.p. In the Group 4 this effect was of no significance.

CHAPTER 6. CONCLUSIONS AND RECOMMENDATIONS

Firstly, the overall conclusion is that it is proven that the person's declared happiness and life satisfaction level are subject to many different factors, including the current activity, various factors of employment and some factors, which indicate the overall outlook on life. The model has also shown interesting results that can be used for the business purposes.

I would start with a brief discussion of findings for two factors, education and health. Although they are not in the focus of my research, I think the difference across two groups of countries are worth some discussion.

People who are better educated are reportedly happier and more satisfied with their lives on average only in less happy countries. The reason behind this remains a subject for discussions in the literature that relies upon more sophisticated approach. In my opinion, as both the compensation level for the lower-skilled jobs and the social security payments are higher on average in the Group 1 countries, people in those countries might lack motivation to study further and might feel happy and satisfied with life irrespective to education. It might be that educated people also are more likely to engage in activities that help them to feel happier (sport, travel, social interaction, etc.)

It is obviously tough for people that are permanently sick or disabled to declare high happiness and life satisfaction scores. However, in "happier" countries the alternative is "neutral" feelings while for their counterparts in the least "positive" states would feel dissatisfied and unhappy. This usually has to do with the positive attitude towards the disabled. The percentage of people with a positive attitude towards the disabled in the Group 4 countries tends to increase during the last decades, but still is on average around 2.6% lower than in the countries of Group 1 (Eurobarometer Survey, 2012).

Now, let me focus on employment characteristics.

1. The unemployment reportedly decreases the life satisfaction level across all investigated countries. The clearest explanation coming to mind is that unemployment in most countries leads to the significant reduction in monthly income. The happiness level is affected negatively only in the countries of Group 1, which proves that the link between the unemployment and happiness is stronger in happier countries.

2. For people's happiness and life satisfaction levels it seems important to have a paid job in less happy states, while in the happier states it is important not to be unemployed. As I mentioned earlier, this might be backed up by the higher unemployment benefits in the happier countries, so that there it is not necessary to have a job to be financially stable and feel more secure.

3. Another interesting outcome is that doing household activities or staying at home with children (as non-working parents) boost the level of happiness and life satisfaction in less happy countries more than in the countries of Group 1. It might be because people in "happier" states prioritize their lives in a different way, valuing their jobs more and their families less than people in the Group 4 countries do. It also may be explained by better opportunities to balance family and work in the Group 1 countries.

4. From the results of the model it is clearly seen that people in charge of other people on average are happier or more satisfied in all the countries under the analysis. It is interesting, however, that in the happiest countries people attribute the power over other people to life satisfaction while in the least happy to happiness per se.

5. The attendance of additional courses and lectures, as well as the importance to try new different things lead to a better happiness and life satisfaction scores in less happy states than it does across the countries of "The Happiest" group. This could

have a connection with the education level, as it seems people in Group 4 countries are confident that the better educated a person is, the further this person will proceed with their career.

The following recommendations for the human resource departments and companies' happiness managers are proposed:

1. As the conducted analysis has shown, it is crucial to promote workers – people supervising other workers feel happier or more satisfied (depending on the country's group). While the research reveals rather the correlation between happiness and supervision, the marginal impact of supervision on happiness is among the largest positive effects in the Group 1. Finding a way to share this responsibility, for instance, through acting on the volunteering projects helping the poorest people or the people in other sorts of need, can have a significant effect on the overall staff's reported happiness or life satisfaction. This advice works for both groups of countries under the analysis.

2. Another important factor is new experience. For a company in the Group 1, which has a goal to succeed in the long run, it can be some trips, joint picnics or another new activity for its employees. For a company in the Group 4, it is recommended to provide some corporate training program. The education correlates with higher happiness feelings, and after this analysis it may be stated not just from the personal experience. It is worth investing into it, as it is a strongly related to happiness in the least happy countries, which in turn leads to the enhanced productivity.

3. Adapting the business environment for the workers with different sorts of health issues in the Group 4 countries may actually bring up their happiness and life satisfaction levels, which would increase the atmosphere among the colleagues and thus, enhance productivity.

Finally, I would like to highlight that the cross-country analysis in this research shows how polarized the results are in the less happy counties. When comparing the marginal effects across categories one might notice that on average individuals are either happy or unhappy there. In contrast, in the first group the choice is between happy or neutral. This is one of the most important results. It means that in less happy country it is particularly important for companies to consider more flexible work arrangements and be more socially responsible.

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APPENDIX

Table 1. Odds ratios for the Group 1, variable: *happiness*

Variable	**Odds ratio**
Years of completed full-time education	1.006
Being a full-time student	0.858
Doing paid work	1.003
Chronically sick or disabled	0.531
Unemployed, but not looking for a job	0.648
Unemployed and currently searching for a job	0.761
Household activities or staying at home with children	1.097
Has/had a contract of limited duration or unlimited duration	0.951
Responsible for supervising other employees	1.045
Allowed to decide how to organise his/her daily work	1.040
Total contracted hours per week in main job	0.997
Courses, lectures, conferences attendance within the last 12 months	1.091
Importance to check out new activities	1.082
Has ever been jobless for more than 3 months	0.795
Jobless period was within the last 5 years	0.824

Table 2. Odds ratios for the Group 4, variable *happiness*

Variable	**Odds ratio**
Years of completed full-time education	1.014
Being a full-time student	1.440
Doing paid work	1.276
Chronically sick or disabled	0.618
Unemployed, but not looking for a job	1.029
Unemployed and currently searching for a job	1.066
Household activities or staying at home with children	1.398
Has/had a contract of limited duration or unlimited duration	0.980
Responsible for supervising other employees	1.164
Allowed to decide how to organise his/her daily work	1.042
Total contracted hours per week in main job	0.996
Courses, lectures, conferences attendance within the last 12 months	1.349
Importance to check out new activities	1.131
Has ever been jobless for more than 3 months	0.914
Jobless period was within the last 5 years	0.943

Table 3. Odds ratios for the Group 1, variable: *life satisfaction*

Variable	**Odds ratio**
Years of completed full-time education	0.997
Being a full-time student	0.897
Doing paid work	0.908
Chronically sick or disabled	0.411
Unemployed, but not looking for a job	0.516
Unemployed and currently searching for a job	0.571
Household activities or staying at home with children	1.050
Has/had a contract of limited duration or unlimited duration	0.933
Responsible for supervising other employees	1.148
Allowed to decide how to organise his/her daily work	1.040
Total contracted hours per week in main job	0.997
Courses, lectures, conferences attendance within the last 12 months	1.093
Importance to check out new activities	1.064
Has ever been jobless for more than 3 months	0.762
Jobless period was within the last 5 years	0.823

Table 4. Odds ratios for the Group 4, variable: *life satisfaction*

Variable	**Odds ratio**
Years of completed full-time education	1.016
Being a full-time student	1.415
Doing paid work	1.126
Chronically sick or disabled	0.599
Unemployed, but not looking for a job	0.827
Unemployed and currently searching for a job	0.770
Household activities or staying at home with children	1.286
Has/had a contract of limited duration or unlimited duration	0.952
Responsible for supervising other employees	1.089
Allowed to decide how to organise his/her daily work	1.054
Total contracted hours per week in main job	0.996
Courses, lectures, conferences attendance within the last 12 months	1.525
Importance to check out new activities	1.091
Has ever been jobless for more than 3 months	0.898
Jobless period was within the last 5 years	0.915