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THE IMPACT OF SOCIO-ECONOMIC AND JOB
CHARACTERISTICS, AND MOTIVATIONAL VALUES ON
EMPLOYEES' WELL-BEING:
A MULTI-COUNTRY COMPARISON

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Abstract

Developing a talent pool is an ongoing challenge for all of the company as they strive to remain ahead of the competition and the global market, managing and improving the well-being of the talent employee in the company is the priority in this issue, because well-being of the employee is associate with a number of positive outcomes in the workplace, the company cannot grow and develop without a fully advance program that improve the well-being of employee, the thesis discuss the influences of various factors on the well-being of the employees, and more deeply explore the why they have different impacts on employee well-being.

Firstly, this dissertation methodically review the advancement of history and relevant research on employee well-being; secondly it provides a framework and reviews the theories of the factors that exert influence on the employees' well-being and the diversified consequences that come along with; thirdly, we analyze the effect of different factors, such as socio-demographic and job characteristics, and motivational values on employees' well-being with the purpose of pointing out more promising ways to improve employees' well-being.

The data is adopted from the European Social Survey 2010. Different statistical methods such as descriptive measures, hypotheses testing, principal components analysis and linear multiple regression modeling are used to analyze the data and interpret the results.

The main conclusion of this thesis is that the difference of external factors like gender, age, education, remuneration, and balance between work and family, relationship between employee and supervisor, can lead to different levels of employees' well-being. Internal factors like positive employees values can predict and generate the desired organizational outcome, such as increase employees' well-being, satisfaction and organisational commitment. Job characteristics are external factors that also have a strong influence on well-being: the more abundant the content of job characteristics, the higher positive perceptions can be felt by employees.

Key words: Employees' well-being, Work-family life, Human values.
JEL Classification: I310, O150

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Chapter 1: Introduction

1.1 Research focus

Our understanding of knowledge and experience at the workplace has been consistently developing during the last decades and the importance of employees' well-being has been recognized more profoundly. This follows the redefinition of the concept of well-being, which has started as a one-dimensional concept – life was good only for those who had their needs satisfied – to the recent situation where well-being is considered multidimensional – being used to refer to different aspects of life (Travers and Richardson, 1997).

Well-functioning employees are highly acknowledged as the key component for productivity and value creation in a knowledge-based society (Hansson et al., 2004). In the meantime, there is growing awareness of how employees' well-being facilitates and expedites their work performance. There are also increasing concerns among companies and organizations about the surging expenditure related to medical prescription and disability reclamation (hospital care and relevant medical services), presenteeism, and low motivation resulting from stressful working conditions.

This dissertation attempts to dig out the deeper relationships between various factors and employees' well-being, trying to find out which factors have an impact on employees' well-being among different countries. Previous researchers (Andrews and Szalai, 1983) had already created a constructive and systematic way to explain the effect of socio-demographic variables on well-being; this dissertation will try to reevaluate their relationship, as well as alert to their limitations and explore new insights. So, the conceptual framework will also be based on the job demand-resources theory (Demerouti and Bakker, 2011) as well as on Schwartz theory of values (Schwartz, 2012). According to the first theory, the balance between job demand and job resources must be maintained, so it will be stimulating to determine whether the right level of resources and demands that employees obtain correspond to their level of well-being. Following Schwartz theory, motivational values are divided into 10 types and the relationships among them are viewed as congruent.

This dissertation uses data from six different European countries covered by the European Social Survey: Germany, Israel, Portugal, Spain, France, and Russia. The main module of the survey includes data on media and social trust, politics, subjective well-being, socio demographics, human values, immigration and health inequalities. Comparison between

countries with very different characteristics is beneficial for the implementation of management solutions tailored to different environments and cultures.

1.2 Structure of the study

The dissertation takes interdisciplinary methods, since it combines literature review with statistical data analysis. It is easy to be misled by the overwhelming amount of information; organizing the results and contributions of former research requires one method, selecting the relevant information requires a different one, carrying out statistical analysis and interpreting and drawing conclusions from results require others, so as to provide an overall picture of the diversified factors and influences that explain the level of employees' well-being. So, this dissertation is within the context of interdisciplinary research methods: literature reviewing, data selection, analyzing and combing results to create meaning. While the primary focus is on the work-related well-being, the dissertation also brings forward some broader societal effects and benefits related to personal characteristics, human values and healthy work environment.

After this Introduction, the dissertation is structured into four additional Chapters:
- Chapter 2: Literature review – we are going to review the past researches in the field of well-being, how different aspects or variables stimulate the development and improvement of the definition of well-being, and thereby, providing the conceptualization of demographic variables like gender, education, marriage status, in respite of this, job characteristics, human values, work family balance, which maybe more helpful to understand the correlation between these factors and well-being, and finally discuss the consequences of employees not having well-being at the workplace.
- Chapter 3: Methodology – includes an introduction to the European Social Survey data, the sampling method, measurement instrument, the different variables and the computational methods. The database is provided by the ESS survey, which can be seen through the link "http://www.europeansocialsurvey.org/"; the ESS survey uses a multi-stage sampling method targeting especially the population older than 15 years, regardless of the nationality and language; the questionnaire adopted by ESS survey is used for evaluating the ten motivational values and named as Human value scale. For the computing methods, we first calculate the means of ten values, then compute each

individual mean score over all 21 value items, and after, compute the centered scores of the 10 values. Finally, the statistical methods applied in this dissertation are also presented in this chapter: hypothesis tests for the equality of population means of different countries as well as multiple comparison tests, linear correlation coefficient to examine the association among variables, principal components analysis to identify the underlying assumptions of well-being and the linear multiple regression model to test the effect of different independent variables on employees' well-being.

– Chapter 4: Analysis and Results – we will present and interpret the results from the statistical analyses described in the previous chapter.

– Chapter 5: Discussion and Recommendations – we will discuss the results mentioned in the previous chapter, and try to answer the research questions of this dissertation: "Do factors like gender, education, job characteristics and human values really impact on well-being? If so, how do they influence well-being? Are countries with different cultures really different in terms of perception of well-being by their employees? If so, which are the differences among countries?" In the last chapter of this dissertation we will also acknowledge the contributions made by the present study, recognize its limitations, and give some suggestions for future studies.

Chapter 2: Literature review

2.1 The development of the concept of employees' well-being

Economic practitioners and their partners have been, for a very long time, poorly provided with the conceptualization of employees' well-being by the economic theorists. Most results have been obtained without the guidance of a theoretical framework. The misinterpretation of well-being has been presented over the last 70 years (Costanza et al., 2009) and there is little practical and theoretical impact if we continue to walk in this direction. Economic and financial development has caught most of the attention and economic theorists almost gave no attention to the improvement of subjective well-being, taking for granted that, with the growth of society's wealth, employee well-being would have a similar increasing trend. However, there is a curvilinear relationship between measures of subjective well-being and level of GDP, showing that above a certain level of income, there is no growth in well-being (Stevenson and Wolfers, 2013), so the concept of well-being cannot be just limited to the accumulation of social wealth, it is a multidimensional concept, and can be used to refer to many well-evaluated aspects of life. Many researchers have given their understanding of employees' well-being in recent years, notwithstanding the definitions and measures of well-being vary; there are three essential concepts that are often combined with a societal-level perspective. The first one refers to the physical health of employees; the second one is about the mental, psychological or emotional health of employees, (Law et al., 1998). The third one can be regarded as the material welfare (Headey at al., 2008). The following sections describe the conceptualisation of well-being.

2.2 Conceptualizations of well-being

Athough there are so many different definitions of well-being, according to the report released by the World Health Organization in 2005, there are two main concepts, one refers to the physical health of employees; it is the most conspicuous reflection of employee well-being, and when an employee displays symptoms like psychosomatic illnesses, digestive problems, headaches, high blood pressure, we can consider that this employee is not in a well-being state; disease and sickness are the main obstacles of employee well-being. The other method of defining well-being is related to the mental, psychological, emotional aspects

of the employees, for those who have depression, anxiety, emotion exhaustion and depersonalisation. Besides these two definitions there is also the social aspect of well-being, alcoholism and drug abuse being two examples of outcomes (Law et al., 1998).

2.2.1 General conceptualizations of well-being

Warr (1990) has conceptualised well-being with the most extensive reviews and by utilising the word health, successively: "*affecting well-being is one portion of general mental health, the others are competence, autonomy, aspiration, and integrated functioning*" (1990: 4). Affective well-being is a very important component of well-being, as it can determine the mental good health of the employee. Frequently, it can be differentiated into two different aspects: one is the general feeling (context free), the other is correlated with a specific situation (job related). In relation to affective well-being, the term "job" refers to the tasks the employee undertakes in some specific circumstance, while work refers to the occupation in general (Warr, 1979).

2.2.2 Positive and negative effects in affective well-being

In line with the finding of Warr (1990, 1994), there are two ways of defining affective well-being in the workplace, there are Positive Affective (PA) and Negative Affective (NA) well-being. They are also labelled as anxiety-comfort (high and low NA respectively), and depression-enthusiasm (low and high PA respectively). As we can draw from the above definition, well-being is the highest when PA is strong and frequent, and on the contrary, NA must be weak and infrequent (Pavot at al., 1991). PA and NA are strong and negatively associated. Many researchers have been engaging in digging out the demonstration of this sense (Diener et al., 1985).

PA can be regarded as happiness, enthusiasm, efficiency, confidence, and in correspondence, NA will be categorised as unhappiness, depression, and lack of self-esteem and confidence, so as to achieve the best result in working life, there is a balance between PA an NA that should be maintained; this balance can foster employee well-being at the workplace, and further, enhance the performance of the organisation in the market.

According to the Telic theory (Diener, 1984), employees can achieve well-being only in the situation of full satisfaction of inherent needs; when employees are under prolonged conditions of detrimental states, the body begins with downward progression; when specific

psychological responses are associated to natural physical responses, burnout occurs, progressively, leading to the appearance of absenteeism, depersonalization and presenteeism. According to the research of Johns (2010), presenteeism refers to the situation of employees doing work while feeling ill. It is the end result of an exhausted employee, causing productivity loss, with the workplace performance reaching the bottom-line.

When discussing the conceptualization of affective well-being, subjective and objective bases cannot be ignored, since through subjective evaluation of competence, autonomy and motivation, employee can actually obtain self-esteem (Diener, 2000).

2.2.3 Objective well-being

Over time economists have attributed the increase of well-being to the escalation of GDP (Costanza et al., 2009), based on the assumption that peoples' well-being increased with consumption (of food, clothing, housing and many other services and goods) and that GDP is the conjunction of investment and consumption. But many researchers realised that GDP is not a perfect definition of objective well-being, since sometimes the portion of investment outnumbers that of consumption, and the increase of GDP does not mean improvement of well-being.

The theory of Human Need by Doyal and Gough (1991) has defined the importance of fulfilment of needs in achieving well-being. With the fulfilment of the basic needs, people can achieve objective well-being. Basic needs include adequate nutritional food and drinks, adequate protective housing, non-hazardous work and physical environments, appropriate health care, security in childhood, significant primary relationships, physical and economic security, safe birth control and childbearing, and appropriate basic and cross-cultural education (Doyal and Gough, 1991). Following this, an assessment of the objective well-being achieved by an individual can be done according to the completion of basic needs.

2.2.4 Subjective well-being

McGillivray and Clarke affirm that "*subjective well-being involves a multidimensional evaluation of life, including cognitive judgments of life satisfaction and affective evaluations of emotions and moods.*"(2006: 4). Sometimes, people can get confused about the concepts of subjective well-being (SWB) and happiness: even if to some extent, happiness can reflect some aspects of subjective well-being, happiness is not equal to subjective well-being (Bruni,

2007). A comprehensive set of well-being should include a wide range of important measures or indicators, like happiness, life satisfaction, and job satisfaction and so on.

As Diener and Seligman (2002) points out, SWB can be utilised as an "umbrella", a term referring to different ingredients like emotional satisfaction and satisfaction with life domains such as marriage, work, income, housing and leisure; having positive effects (pleasant emotion and spirit) most of the time; infrequently experiencing negative feelings (depression, stress and anger); and leading to a fulfilling and meaningful life.

2.2.5 Specific conceptualizations of well-being

A number of conceptualisations of well-being are used in all of the aspects in society; there are also plenty of strategies adopted to be used with various constructs. Some of the most frequently used specific conceptualisations are psychological well-being, mental well-being, physical well-being, subjective well-being. Some studiers tend to put "well-being" in a broader sense, sometimes regarding both mental and physical characteristics as a single entity (McKee-Ryan et al., 2005), while others clearly see them as separate constructs (Sawyer et al., 2000).

One strategy often supported by researchers is a self-reported measure, the Subjective Happiness (SH) scale, which is a global, subjective assessment of whether one is a happy or unhappy person, and has been used in over 40 studies and in at least 4 cultures outside of the United States (Korean: Haskell et al., 2007; Japanese: Otake et al., 2006; Spanish: Fernandez-Berrocal and Extremera, 2006); conclusively, SH is a widely used self-reported measure of well-being and happiness in various domains and across cultures.

A recent meta-analysis of 225 studies (Lyubomirsky et al., 2005) showed that SH as well as other self-reported measures of well-being (subjective well-being, positive affective, and low negative affective) and psychological well-being, are associated with positive outcomes in work life, social relationships, health, perceptions of self and others, sociability and activity, social behaviour, creativity and problem solving. For example, self-reported extraversion has been found to be strongly related to positive outcomes (Costa and McCrae, 1980; Lucas et al., 2000), to subjective happiness (Lyubomirsky et al., 2006), satisfaction with life (Diener and Seligman, 2002) and other self-reported measures of happiness (Bradburn, 1969; Brebener et al., 1995).

Self-reported measures can be used to collect both dependent and independent variables (Schaubroeck et al., 1991), respondents can be asked to report their personality,

environmental characteristics, like workload and stress over the work situation, as well as job satisfaction, physical and psychological health.

According to the OECD guidance in 2013, self-reported indicators used to measure stress and stress-reactions, like other self-reported measures or questionnaire-based measures of well-being, are sensitive to the measuring methods. A number of studies have reported the potential inaccuracy of self-reporting measures (Shephard, 2003; Aadahl, 2003); generally, there are two kinds of mistakes in self-reporting: failure to recall the accurate details and social desirability effects. Problems with the recall are associated with the subjects' incapability to remember the exact details of the events, though these mistakes can be diminished by carefully constructing the questionnaire to better aid in memory recall. Social desirability causes subjects to tailor their response to present their behavior as being more supportive and less controversial. In this way, either deliberately or unconsciously, reports maybe slightly distorted.

2.3 Antecedent factors related to well-being

The framework presented in this dissertation has conceptualized several antecedent factors influencing the levels of well-being, encompassing work and non-work antecedent factors. At the very beginning of the industrial revolution, health-related issues in the workplace were not the particular issues that people worried about, because workers were deemed like "*the interchangeable cogs in a large production machine*" (Baker and Green, 1991: 5).With the unprecedented rapid advancement of the global economy, and especially with more prosecution of employees against employers at the workplace, to improve unsafe and unhealthy working environments, economists paid more and more attention to various demographic variables, to find out their importance in the explanation of employees' well-being. Until World War I, the consideration of occupational health started to emerge, with more and more awareness of the association between people, working life and their well-being. The approval of the Occupational Safety and Health Act (OSHA) was a milestone in the history of human being pursuing well-being at the workplace; it was an epoch-making significance which can be regarded as a huge step in the movement of human being rights in history. The safety and health of workers has continued to receive increasing attention ever since.

Smith et al. (1995) identified three major aspects of researches that relate organisational life to health of workers: (1) the association between unhealthy work environment and particular

illnesses and diseases; (2) the relation between ill-being and work environment; (3) the correlation of specific illnesses with the worker personality or specific types of work environment.

According to the findings of other researchers (Schaufeli and Jonge, 1998; Lee and Browne, 2008), in this dissertation, we would like to add socio-demographics and job characteristics to the variables that explain workers' well-being so as to get a more comprehensive and complete study.

2.3.1 Gender

Gender started to be brought into attention in the field of employee well-being since World War II, when men around the world were thought to have higher levels of well-being than women (Lalive & Stutzer. 2010). Irrespective of which concept of well-being is being used, the overall well-being levels were found to be higher in richer countries, and the gap between men and women highest in the rich countries and almost non-existent in the poorest countries. Nowadays, on the contrary, according to World Values Survey (2005-2008), there is a wider gap between men and women in poorer countries and in those with less equal gender rights. It is also noteworthy that the well-being gap between women and men is significantly higher in educated than in non-educated cohorts, women typically having higher degrees of well-being than men in the world as a whole, with the exception of the poorest countries, even though women tend to suffer from more disadvantages when compared to men, like sex discrimination, sexual harassment (Crocker and Kalembra, 1999). Key variables like marital status can be moderated by the state of gender rights (Graham et al., 2010), and also, when we look deeper into the effect of gender on well-being, the association between education and well-being starts to emerge.

2.3.2 Immigration

Immigration has always been a controversial topic. According to Becerra and Androff (2012), there are costs and benefits associated with immigration: native people have understood the good side effects brought by immigrants, but in the meantime, they are also struggling with the costs generated by the influx of immigrants; so their opinion on the issue of immigrants is diverse, how they view immigrants directly or indirectly, reflect the outline of a picture about which immigration affect their lives and social well-being.

There has always been two types of immigration, documented and undocumented; for the very first one, native people support more their arrival in the country, since their entrances are usually followed by benefits such as the introduction of new advanced technology, higher level of knowledge about different aspects of the society, or a significant amount of capital; these advantages brought by documented immigrants contributes to the economic development of the country, and the social well-being of the native people (Peri, 2010). Regarding the second ones, undocumented immigrants, there are always more problems coming along, with popular stereotypes always associating them with criminal activities (Piehl and Butcher, 2007; Rumbaut and Walter, 2007), considering them a serious threat to the natives' well-being. As for the undocumented immigrants, health care programs might not be eligible, but they are depleting the country's health resources due to emergencies; the less resources native people can use to protect their well-being, the more negative feelings and opinions they will have on immigration (Kraly and Gnanasekaran, 1987).

2.3.3 Religious attitudes

A rising interest on the consequences of religious effects on well-being is evident in the psychological literature. Some studies have been conducted to prove that people who are more committed to their religion has much less strain than the uncommitted (William et al., 1991); others studies illustrated that religious attitudes restrain psychological distress and depression in different aspects of life (Joshi and Neha, 2011). Young people tend to experience less anxiety when growing up if they have religious beliefs. The ones that reported higher level of spiritual sense also demonstrate greater objectives, higher job satisfaction and level of well-being (Fagan, 1996).

It has been well known that religious faith can alter psychological understanding of a person in pain and suffering from incapacity, because it creates a mind-set that helps the person to relax and helps cure on its own (Joshi and Neha, 2011). A number of researches show positive effects of religiosity on well-being (Joshi et al., 2008; Ardelt, 2003). According to Moberg (1979) happiness is greater and strain is lower for those participating regularly in religious services, and the study by Bergin (1991) found out that the average effect of religiosity on health is positive, although not dramatic.

2.3.4 Education

As stated by Crocker in 2002 "*The well-being of modern society is dependent not only on traditional capital and labour but also on the knowledge and ideas possessed and generated by individual workers. Education is the primary source of this human capital*". According to Statistics Canada (2011), more educated employees are more probable to have high salaries, high profitable jobs. Workers with less education have higher probability of getting more uncertain work, and lower salaries. Scarcity and disparity are proved to be the most predictable factors of poor well-being outcomes, and they are strongly related to low educational fulfilment and unhealthy lifestyle (Michalos, 2008).

Surprisingly, those who achieve very high education levels are generally low in the life satisfaction score, and also we can find out that the highest level of satisfaction is among those with no certification; some studies tend to conclude that these people have low aspirations, and tend to simplify issues in their lives, with less stress in mind, so more well-being will be achieved (Moyes et al., 2008). The highest negative relation is found for the unemployed. For the retired, education and satisfaction are very weakly related. Spouses with more education usually have richer life experiences at an early age and have more opportunities for learning through tuition and get assistance benefits (Hays et al., 2010). Education does have an indirect positive effect on life satisfaction as a consequence of greater economic status (they are more competitive than those with less or no education). According to Smith et al. (2008), the Social Role Theory concludes that when people are married the level of well-being is significantly different from those who are single, married people will be more likely to enhance interpersonal skills, and engage in productive activities, which will in turn, give them higher sense of achievement and enhancement of happiness. Spouses with more education easily have higher self-esteem, and see themselves as good and valuable, and feelings of self-worth can contribute to the improvement of well-being (Reitzes, 2003).

2.3.5 Training

In the modern society, workplaces are constantly altering in what regards to the methods things are done and all companies must unceasingly renew the knowledge and capacities to engender greater productivity and creativity. The development of training is related to a wide range of skills, including improved analytical thinking, and decision making and

communication capacities; in fact, all the advantages previously mentioned can effectively contribute to the improvement of employees' well-being (Brunetto et al., 2012).

According to Altalib (1991), training is to guide the employees in their position; career development is about the long-term career paths, skill management, succession and performance management. For example, the information obtained from the official website of Unilever informs that this company has made efforts in providing training and better development for workers, as a result, workers benefit from this training and from the company's advancement strategy. Through basic training, employees enhance the language of competence, a component of personal development which, in turn, is an indicator of psychological well-being (Melnikova and Zascerinska, 2014); additionally, the better communication they have with others, the higher the level of well-being they achieve.

2.3.6 Work-family relation

Work family relation is also an important factor that makes a difference in the field of employee well-being, many researchers have pointed out that the conflict between work and family is associated with various forms of mental ill-being (fatigue, distress, job exhaustion, and dissatisfaction at work and home), and work family balance, in turn is related to high job satisfaction and low distress and low job exhaustion, and also, work and family enhancement is positive correlated with family satisfaction (Aryee et al., 2005). According to Kahneman and Deaton (2010), the money issue is sometimes one of the most noteworthy one in well-being, can money buy happiness? More money does not buy more happiness, but less money is definitely related to emotional dissatisfaction, and normally 75000US$ is a threshold above which money cannot make further contribution to employees' well-being (Danier and Arora, 2010), Less free time and less recreation will be following with salary increase, which can lead to conflicts with friends or family members, high risk of getting diseases, individual well-being is conditioned by many other factors in their life circumstances. Keeping with Meglino et al. (1989), the fit between employees and supervisors values positively influences the overall satisfaction of employees; shared values can bring about similar perceptions in supervisor-subordinate set in relation with the demands and characteristics of the work condition, increasing subordinates' well-being and decreasing their turnover intention.

2.3.7 Human values

Today, companies around the world are trying their best to find the best employees in order to sustain the long-term growth plans, they are putting more and more effort and attributing more and more resources to enlarge their talent pool; after successfully attracting the best professionals, companies must consider the consequences of their best talent leaving hurriedly and ending up with harming the firm in the long run. All the effort and resources will be lost after the turnover of the talent. Employees with values aligned with those of the company can vastly lower the possibility of turnover, and be motivated to dedicate their work life into the success of the organization (Semmer, 1996).

According to Schwartz (1992), values are intrinsic beliefs, desirable goals, can be regarded as the standards or criteria, and fulfill the function of guiding actions. They motivate and stimulate the pursuit of the goals, represent the universal requirements which are the basic biological needs of human being. Values defined by Schwartz have 10 dimensions: Self-Direction, Stimulation, Hedonism, Achievement, Power, Security, Conformity, Tradition, Benevolence and Universalism. Some of them have multiple meanings. According to the study published by Rokeach in 1973, Self-Direction refers to creativity, freedom, choosing own goals, being curious and independent; Stimulation refers to a varied life, an exciting life, to daring; Hedonism refers to pleasure, enjoying life, being self-indulgent; Achievement refers to being ambitious, successful, capable, influential; Power refers to having authority, wealth, social power; Security refers to social order, family security, national security, being clean, to reciprocation of favors; Conformity refers to being obedient, to self-discipline, politeness, honouring parents and elders; Tradition refers to having respect for tradition, being humble, devout, accepting our portion in life; Benevolence refers to being helpful, honest, forgiving, responsible, loyal, having true friendship, feeling mature love; Universalism refers to being broadminded, to social justice, equality, world at peace, world of beauty, unity with nature, wisdom, protecting the environment. Sometimes being in pursuit of some specific values will generate conflict with other values; for example, achievement is not compatible with benevolence, since seeking for success will probably prohibit the action of promoting the welfare of the others, but achievement and power values are usually compatible, once someone enhance the position and has more authority, he/she begins to facilitate the process of gaining success. Values are motivational constructs, they refer to the

desirable goals people strive to obtain; they are also abstract goals, the abstract nature of values distinguishes them from concepts like norms and attitudes they are embedded in the minds of employees, and guide their principles in their daily life, with their values holding in their hands and minds, they are not easily frustrated by undesirable external conditions and are more inclined to achieve well-being. To some extent, work values can originate from general values, even if work values are more likely to proliferate in the management literature. Many studies have found out that general values are associated with work values of a similar degree (e.g., Kinnane and Gaubinger, 1963), work values can be deemed as a fruit growing from general values; they are significant, salient, and obvious functional at the workplace, through attitude and norms, and can indirectly impact on the organisation.

For example, Weeks and Kalhe (1990) found that salespeople who value more excitement tend to spend more time and energy in entrepreneurial selling than those who values less. The values of a sales manager directly influence the way salespersons deem the entrepreneurial selling and other challenging tasks. Some empirical evidence shows that people who care about their personal benefits, valuing power and hedonism, are more probable to make unethical decisions (Feather, 1995), which can damage the development of the company. The value that people put on friends and colleagues are positively correlated to the proneness to make ethical decision in managerial roles (Mumford et al., 2002); this has been proved to foster the establishment of a beneficial environment, enhancing the well-being of employees and the organisational performance. Congruence between employees and supervisors values is also important, because the higher the level of congruence, the more the employees will perceive themselves as part of company and will be more likely to engage in behaviors that facilitate the group performance (Podsakoff and Mackenzie, 1997).

Though people's activities in the workplace, such as searching for job, participating in training, playing organisational roles, balancing time between work and family, are likely to rely more on work values than on general values, the role of general values should not be neglected. For example, benevolence is likely to have an impact on how people view the relationships among colleagues, how they value the importance of well-being of others, how they will engage into activities to help others, this action being reciprocal, you help other, another will return the favor to you.

2.3.8 Theoretical models on employees' well-being

2.3.8.1 The job demands-resources model

The job demands-resources (JD-R) model includes two dimensions: job demands and job resources:

– Job demands are some forms of work environment, that excise workers' personal abilities and are related to psychological or physiological price (Bakker et al., 2004); job demands are not necessarily negative if they do not outnumber the capacities of workers. If they exceed them, job demands will then turn into stressors and culminate in burnout.

– Job resources can be regarded as physical, psychological, social, or organizational aspects of the work condition that (1) decrease the health-deteriorating effect of job demand, (2) are practical in obtaining objective in the workplace, (3) facilitate individual development and learning (Bakker et al., 2004). Job characteristic can include characteristics as diverse as skill variety, task identity, task significance, autonomy, and feedback; through the interaction of various elements of job characteristics, three psychological states will be prompted to generate plenty of personal and work outcomes, like job satisfaction, engagement, organizational commitment, internal work motivation (Schwab, 1970).

The job demands-resources (JD-R) model attempts to resolve some lasting issues in the early models of work psychology, including the job demands control model (Karasek, 1979) and the effort-reward imbalance model (Siegrist, 1996), which had the disadvantage of putting too much effort in analysing the negative aspects of work (excessive workload, insufficient rewards) and the negative outcomes of work (burnout, physical health problems). The JD-R model, by contrast, embraces a more positive vision and a wider variety of work aspects related to the employees' well-being.

The most important concept in the self-determination theory (SDT) is the basic psychological need, the ingredient that must be obtained by a living being to maintain its growth, integrity and health (Deci and Ryan, 2000). SDT scholars believe that satisfaction with the basic psychological needs (autonomy, belongingness, competence) is vital for employees to realise their potential, to thrive, and to prevent them from ill-being and malfunctioning (Deci and Ryan, 2000).

Self-efficacy theory (SET) tries to establish the relationship between job resources and engagement (Bakker and Schaufeli, 2008), and further elaborates upon and examines the informative role of satisfaction with basic psychological needs (as defined within the self-determination theory (Deci and Ryan, 1985)), the interconnection between job resources and work engagement, as well as the relationship between job demands, job resources and burnout.

2.3.8.2 The vitamin model

Researchers in the field of work and organisational psychology have become progressively attracted to the workers' maximum functioning and positive experiences at the workplace (Seligman and Csikzentmihalyi, 2000). Paying attention to the wellness of employees seems fruitful; from a more advanced perspective the prospering of employees can be instigated more fully, by avoiding ill-being and fostering well-being (Van der Wal, 2011).

According to the Vitamin Model of Warr (1994), three essential job characteristics (job demands, job autonomy and workplace social support) are associated with three key aspects of job-related well-being (job satisfaction, job-related anxiety and emotional exhaustion). The presence of these job characteristics has a beneficial influence on workers mental well-being, while their absence deteriorates workers mental health. Beyond a certain required level, job characteristics no longer have a positive effect on employees' well-being: once a plateau has been reached, the degree of affective well-being remains unchanged (Figure 1).

Job characteristics can include aspects as diverse as skill variety, task identity, task significance, autonomy and feedback. Through the interaction of various elements of job characteristics, plenty of personal and work outcomes will be generated, like job satisfaction, engagement, organizational commitment, internal work motivation (Schwab and Cummigns, 1970).

Figure 1 Relation between job characteristic and affective well-being
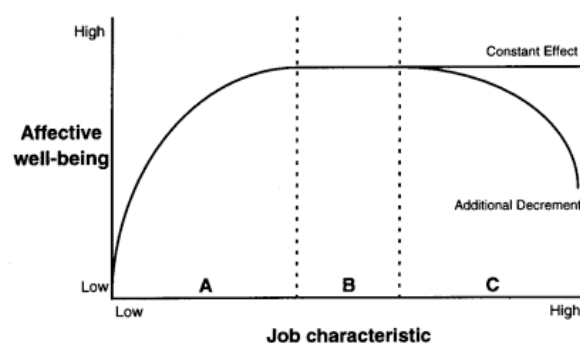
Source: Warr (1987)

The framework above has already mentioned many potential personal and governmental outcomes of low levels of employees' well-being; therefore, more concentration will be dedicated to the organizational consequences.

Factors that impact the health and wellness of workers can have a very essential impact on the financial health and productivity of a company (Cooper and Cartwright, 1994). According to Funk et al. (2005), ill-being can affect employees' working ability in various ways. With the deterioration of workers' health and well-being, an employee's working ability might decrease massively, which will lead to the inefficiency of the organisational performance. As we can see from the article of Karasek and Theorell (1990), the entire cost of ill-being to U.S. organisations, resulting from presenteeism, unsatisfactory performance, sickness turnover and health insurance, is more than $150 billion a year. Chronic conditions – such as high blood pressure, high cholesterol, depression, heart disease, diabetes, sleep disorder/insomnia and anxiety – impact the life of plenty of employees.

Figure 2 Chronic Disease in the United States (% of adults with disease/condition)
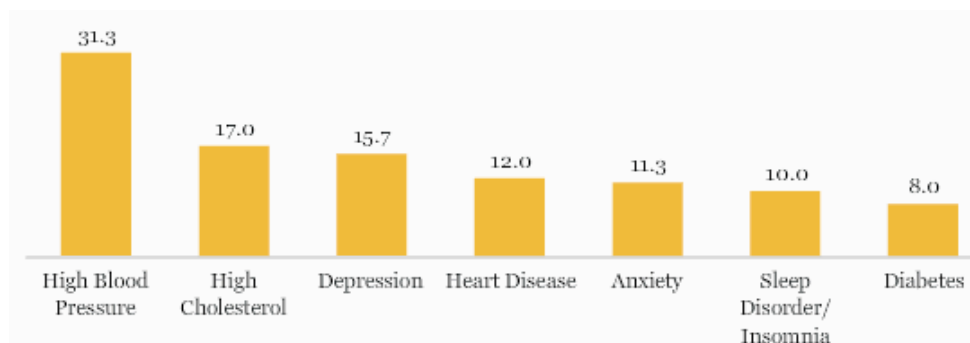
Source: Centres for Disease Control and Prevention (2004-2008)

According to the survey conducted by the international communications research company Gallup (Harter et al., 2002), 56% of workers feel enormous amount of pressure and 48% declared feeling stressed in many different ways, for example, ignoring details on quality control, burying incidents at work, lying about uncomfortable days, and defrauding the clients. Rapidly changing circumstances, likeacquisitions, downsizings, bad relationships with supervisors, subordinates, colleagues, work-family conflicts, poor working conditions, unsatisfactory opportunities for promotions and wage increases, are the principal causes of ill-being at work.

Gallup divides employee' well-being as "thriving" "struggling" or "suffering": the average annual new disease burden cost for people who are thriving is 723 US$, compared with 1,488

US$ for those who are struggling/suffering, so medical costs due to the disease burden (2008-2009) for the last group is twice the cost of the first group (Agrawal and Harter, 2009).

2.3.9 Chronic economic impact

The macroeconomic costs of poor well-being are startling, yet unluckily consistent. In 2007 the Milken Institute report titled "An Unhealthy America: The Economic Burden of Chronic Diseases" estimates that the total cost of the most popular chronic diseases is more than $1trillion every year. Various chronic diseases like asthma, heart disease, cancer, and diabetes kill more than 1.6 million Americans every year, and can be directly or indirectly relates to the death of 70% death in United States. The financial expenditure of chronic illnesses are gigantic, so much money spent on healthcare because of these types of diseases, the long-term influences of chronic diseases on economic development are more substantial than treatment costs and lost labour yield.

More and more businesses continue to struggle with the growing cost of coverage of health insurance; recent data from the Kaiser Family Foundation notes that the cost of premiums has increased 131% over the past century, and that the average family plan cost provided by companies is $13,375, with businesses taking much of that cost. Over the last years, the combination of rising health insurance costs and slow growth in real salaries has forced workers and working families to spend a much higher proportion of their income and complete compensation from work on health insurance premiums.

2.3.9.1 Costs of lost productivity and absenteeism

According to the research of Birchall (2015), 60% of respondents had at least one unplanned absence in 2014, for different reasons, with a shocking 57% of employees admitting they have been sick in the past few years. The Absence Management Annual Survey Report published by the Chartered Institute of Personnel and Development in 2014 (CIPD, 2014), for example, discovered that there was a decrease in absence level by a day per worker, from an average of 7.6 days in 2013 to 6.6 days in 2014; although the decrease is promising because it implies employees put more energy and effort at work, there are still very high costs associated to absenteeism.

The Advisory, Conciliation and Arbitration Service (ACAS, 2010) claims that the absence costs the UK economy is 17 UK£ billion per year, damaging clients' service and firm

reputation, decreasing the morale among employees, and forcing the hiring of temporary staff. More than 130 million days are lost because of sickness absence per year in the UK costing the national economy 100 UK£ billion every year. Moreover, the overall median cost of absence has changed little over the last few years.

2.4 Conceptual model

To summarize, the literature refers to six different sets of variables that impact on well-being:

- One set of variables includes socio-demographics – gender, age, education, marital status and spouse education – each one having a distinguished effect on employees' well-being.
- The second set consists of human values, which play an important role in determining the extent to which any given employee will display high or low level of well-being in a given organisational setting.
- The third set of variables comprises job characteristics: higher flexibility and autonomy, more opportunities to experience challenging tasks at work, can vastly enhance the level of employees' well-being at work.
- The fourth set is associated to the relationship with the supervisor can determine the level of wellness at the workplace.
- The fifth set of variables is related to remuneration or pay level: employees 'well-being is only modestly associated, companies cannot simply increase the pay level or remuneration to enhance the level of well-being of employees.
- The sixth set of variables includes the family-work relationship. Harmony in the relation between work and family can largely boost the employee well-being.

Employees' well-being can be classified as individual or organizational:

- Individual consequences include both physical benefits such as good health conditions, lower risk of chronic diseases, and preserved mental and emotional health.
- There also organizational consequences resulting from the well-being of employees: expenditure with healthcare programs will be reduced significantly, productivity will be improved, and the probability of turnover and presenteeism will be largely lowered.
- Altogether, the previously mentioned benefits will contribute to the commitment of employees and the development of the organization.

Figure 3 presents the conceptual framework that will be used in this dissertation and includes the six set of variables that impact on employees' well-being, as mentioned previously, as well as the consequences: individual (physical and psychological) and organizational (costs, productivity, absenteeism, turnover, presenteeism, commitment).

Data from the European Social Survey for six different countries will be used to estimate the lower part of this model. The hypotheses to be tested are the following:

- Socio-demographics, work-family relation, motivational values, job characteristics, remuneration and relationship with supervisor have a significant effect on employees' wellbeing measured as satisfaction with life in general.

- Work related satisfaction has a significant effect on employees' wellbeing measured as satisfaction with life in general.

- The previously mentioned effects vary according to the employees cultural environment.

Figure 3: Theoretical framework
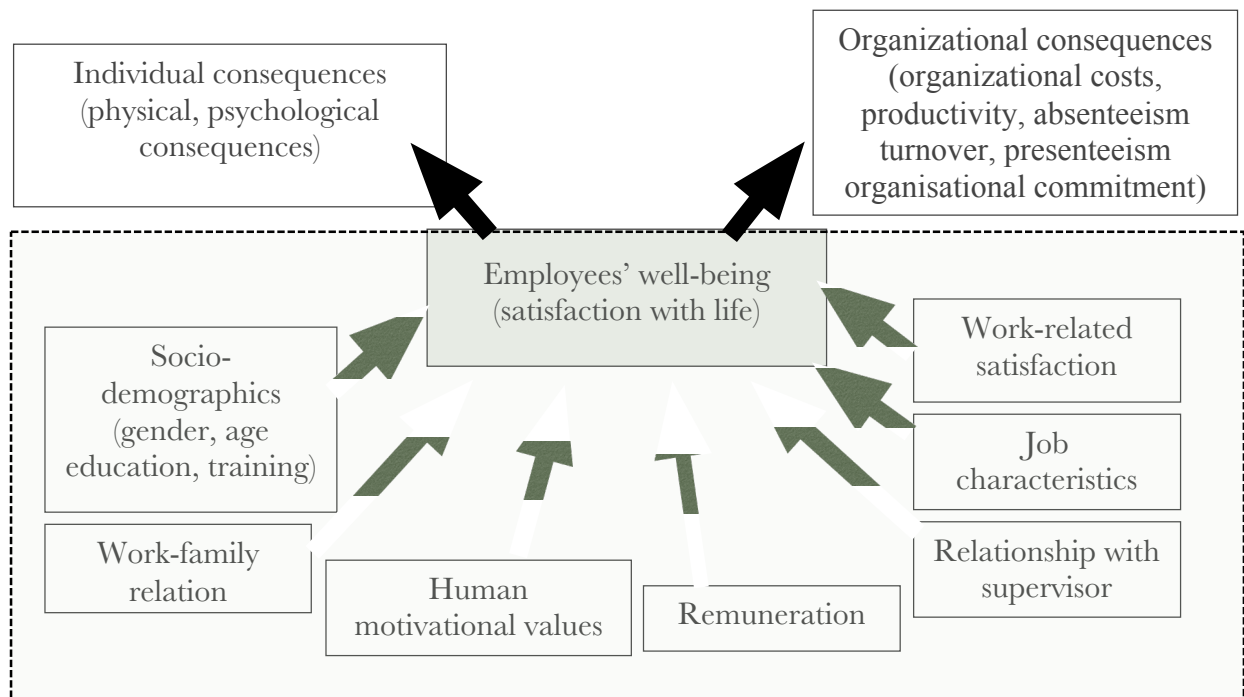
Secondary data will be used to estimate the model, more specifically data collected by the European Social Survey (ESS) in 2010. So, on the one hand, some information included in the theoretical framework is not available in the ESS, or is not accessible in the required format. On the other hand, different dimensions of work-related satisfaction can be included in the model (satisfaction with job, satisfaction with health condition and loneliness).

Chapter 3: Methodology

3.1 Database

The data used in this dissertation was collected by the European Social Survey [1], an academically driven cross-country survey that is conducted every two years in Europe since 2001.The main variables evaluated in the 2010 survey are attitudes, beliefs and behaviour patterns of different populations in more than thirty European nations which include the six countries chosen to be the research object of this dissertation: Germany, Israel, Portugal, Spain, France and Russia. The design of the survey and collection of data is based on rigorous and scientific rules to allow for comparison of results between countries, and is supported and funded through the European Commission's 7th Framework Program, the European Science Foundation and national funding bodies in every country.

3.2 Sampling process

The target population of the ESS includes all the individuals aged 15 years or more, regardless of nationality and citizenship or language.

Because the sampling resources can vary due to the differences between countries, the sample to be collected in each country was designed in a flexible way. Due to the strict rules ESS survey involved, it has very high coverage of the target population, with the target minimum response rate being 70%. A complex multi-stage sampling process was designed and applied.

In order to decide the required net and gross sample sizes, design effects have to be involved to guarantee the comparability of estimates from different countries. More information about the sampling method is available in the document "Sampling for the European Social Survey Round V1: Principles and Requirements".

3.3 Questionnaire

The main module of the ESS questionnaire includes questions on the following topics: media and social trust, politics, subjective well-being, gender and household, socio-demographics, job characteristics, immigration and health inequalities.

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[1] The database was downloaded from the European Social Survey link: http://www.europeansocialsurvey.org

The job characteristics questionnaire (European Social Survey, 2011) adopted in the thesis is used for evaluating the job situation of employees at work, every item representing one specific aspects of work, all of the items reflecting 5 core characteristic (i.e., skill variety, task identity, task significance, autonomy and feedback) that can influence many work-related outcomes (i.e., satisfaction, performance, presenteeism and turnover). For example, the choice respondents make for the following items reflect specific job characteristics: "Current job: variety in work" reflects the level of variety they accept at work; "Current job: can get support/help from co-workers when needed" reflects the level of feedback at work; "Current job: can decide time start/finish work" reflects the level of autonomy at work. Respondents can choose within a 4 point categorical scale: Not at all true, A little true, Quite true, Very true. The first category gives the smallest level of identification with the item, while the last one recognizes the biggest level of identification.

The Portrait Values Questionnaire (PVQ) (Schwartz, 2003; Schwartz et al., 1999; Schwartz, et al., 2001) is a complement used by ESS to evaluate the ten motivational values and is named as the Human Values scale. This scale has 21 items. Each item is one aspect of definition of value; values are desirable, trans-situational goals, differing in importance, that function as guiding principles in the daily life of people. For instance, important to have a good time, and important to seek fun and things that give pleasure, are examples that indicate a person for whom Hedonism is very significant, a person that values excitement, novelty, and challenges in life. Respondents have to choose within a 6 point categorical scale – Very much like me, Like me, Somewhat like me, Little like me, Not like me, Not like me at all. To the first category is associated the biggest level of identification, and to the last one the smallest level.

The questionnaire about well-being contains several parts; the first part measures the psychical health of respondents; the introductory question uses a simple straightforward evaluation ("Your general health"), the others being more specific. The item "Are you hampered in your daily activities by any chronic physical or mental health problem, illness or disability" It mentions about the disability or illness caused by the daily activities. The other part is to measure subjective well-being; it measures about the mental, emotional and psychological aspects of well-being. For example, "Have felt cheerful and in good spirits last 2 weeks", "Have felt calm and relaxed last 2 weeks" and "Have felt active and vigorous last 2 weeks" measure the individual good spirits, it has 6 scales from "All of the time" to "At no time", which clearly indicates different level of good spirits respondents achieved. Also,

items like "Work involve having to work overtime or evenings", which has 7 categories, from "Never" to "Every day", indicates how people are vulnerable to the illness by doing extra work.

The full version of the PVQ is presented in the Appendix 1. The job characteristics questionnaire is presented in Appendix 2. A partial version of the ESS well-being questionnaire is presented in Appendix 3.

3.4 Computing methods

Each value can be defined by 2 or 3 items of the Schwartz scale and is computed as a summative score. Table 1 shows the items included in each dimension, the methods applied to compute the raw and centred scores for each value.

Table 1 Methods to compute the raw and centred values scores

Values	Items in Index	Raw Scores	Centred values score
Conformity	7,16	Mean(V[1]7+V16)	MEAN(v7, v16) – MART[2]
Tradition	9,20	Mean(V9+V20)	MEAN(v9, v20) - MART
Benevolence	12,18	Mean(V12+V18)	MEAN(v12, v18) - MART
Universalism	3,8,19	Mean(V3+V8+V19)	MEAN(v3, v8, v19)-MART
Self-Direction	1,11	Mean(V1+V11)	MEAN(v1, v11) - MART
Stimulation	6,15	Mean(V6+V15)	MEAN(v6, v15) - MART
Hedonism	10,21	Mean(V10+V21)	MEAN(v10, v21) - MART
Achievement	4,13	Mean(V4+V13)	MEAN(v4, v13) - MART
Power	2,17	Mean(V2+V117)	MEAN(v2, v17) - MART
Security	5,14	Mean(V5+V14)	MEAN(v5, v14) - MART
1. V represents the score. V1 represent the score of the first question in the questionnaire, V2 represents the second items in the questionnaire and so forth. 2. MART represents each individual's mean score over all 21 value items, namely equal mean (V1 to V21).			

These computing methods can also be seen in the document "Computing Scores for the 10 Human values" (Schwartz, 1992). There are various solutions that Schwartz recommends to carry out the statistical analysis,

1. For multidimensional scaling, canonical or confirmatory factor analysis: utilize raw value scores for the item.

2. As for group mean comparisons, or covariance (t-test, ANOVA): apply the centred value scores as the dependent variables.

3. As for correlation analysis: utilize the centred value scores.

3.5 Statistical methods

First, in order to present summarized results, descriptive analysis is used to explore the features of the total sample and comparisons between countries. Descriptive analysis can provide comprehensive summaries about the sample and the observations, some measures of central tendency, dispersion and correlation can be calculated. Central tendency measures usually include the mean, median and mode; measures of dispersion include the comparison between minimum and maximum, variance and standard deviation and the Pearson linear correlation coefficient is used as a measure of linear association between two quantitative variables.

One-way analysis of variance (ANOVA) is used to determine if there are significant differences between the means of a dependent variable for more than two population groups. ANOVA is a parametric hypothesis test based on two types of hypothesis: the null hypothesis, H_0, assumes the group means are all equal and the alternative hypothesis, H_1, tests the existence of means differences between at least one pair of groups:

$$H_0: \mu_1 = \mu_2 = \mu_3 = \cdots = \mu_k$$

$$H_1: \exists\, \mu_i \neq \mu_j \text{ with } i \neq j \text{ and } i,j = 1,2,3,...,k$$

ANOVA test assumes normality of each population distribution and equal population variances. In this study all sample dimensions are big so there is no need to test for the assumption of populations' normality. The assumption of homogeneity of variances is tested with Levene test. The hypotheses for Levene test are:

$$H_0: \sigma_1^2 = \sigma_2^2 = \sigma_3^2 = \cdots = \sigma_k^2$$

$$H_1: \exists\, \sigma_i^2 \neq \sigma_j^2, \text{ with } i \neq j \text{ and } i,j = 1,2,3,...,k$$

When the null hypothesis of ANOVA is rejected, for a specific level of significance, multiple comparison tests can be applied to identify which groups are significantly different. As parametric tests, post hoc tests assume populations normality but some of them, for example Dunnett' C test, allow for different population variances.

Principal component analysis (PCA) is an analytical procedure that can be used to transform a number of original variables into a smaller number of linearly independent dimensions

called principal components. KMO statistic and Bartlett test of sphericity are used to evaluate if the original data are appropriate to apply PCA.

Principal components are linear combinations of the original variables; the number of principal components to be retained is less than the number of the original variables, so this is one of the main objectives of this type of analysis: find out a smaller number of dimensions that are not correlated between each other and explain as much as possible of the variance present in the original data. The transformation is processed in a way that assures the first component has the biggest possible variance (which can be accounted for as much of the variability as possible), the second principal component has the second highest variance, and so on. Different criteria can be applied to help choosing the number of principal components to be retained: the scree plot, Kaiser criterion based on the number of PCs with eigenvalues higher than 1, and the total variance explained.

A rotation method can be applied to allow for an easier interpretation of the PCs: among others, Varimax rotation allows the PCs to be independent and Promax rotation allows for correlated PCs.

Linear multiple regression model is used to estimate the effect of a set of independent variables on a dependent variable. The assumptions of the linear multiple regression model are the following:

1. The sample is drawn at random.

2. The dependent variable is linearly related to the independent variables: the linear correlation between the dependent variable and the independent variables is used to check for this assumption.

3. The normality of the random error: descriptive methods (histogram, Q-Q plots) as well as inferential methods (Kolmogorov- Smirnov test) can be used to check for this assumption.

4. The mean of the random error is null.

5. The variance of the random error is constant: homocedasticity can be evaluated by plotting the standardized residuals against the standardized predicted values.

6. The random error is not correlated to the independent variables.

7. There is no collinearity between independent variables: Variance Inflaction Factor (VIF) and Tolerance levels are used to verify this assumption.

Chapter 4: Results and analysis

Six countries were chosen to be analysed in this dissertation because of their different cultures: Germany, Israel, Portugal, Spain, France and Russia. The distribution of the total sample of 13,683 individuals is presented in Table 2. Germany is the country more represented in the sample (22%), followed by Russia (19%), while Spain and France have the lowest sample dimension (less than 14% of the total sample).

Table 2 Sample distribution by country

		n	%
Country	Germany	3031	22,2%
	Spain	1885	13,8%
	France	1728	12,6%
	Israel	2294	16,8%
	Portugal	2150	15,7%
	Russia	2595	19,0%
	Total	13683	100,0%

4.1 Socio-demographics

Gender distribution (Table 3) is similar for all countries with a slightly higher percentage of females. The percentage of females in Russia is 54.7%. Israel is the country where the distribution is almost equal for both genders, 50.2% of respondents in Israel being females.

Table 3 Gender distribution by country

		Gender			
		Female		Male	
		n	%	n	%
Country	Germany	1550	51,1%	1481	48,9%
	Spain	963	51,1%	922	48,9%
	France	905	52,4%	823	47,6%
	Israel	1152	50,2%	1142	49,8%
	Portugal	1130	52,6%	1020	47,4%
	Russia	1421	54,7%	1174	45,3%
	Total	7120	52,0%	6563	48,0%

Germany presents the highest mean number of completed years of full-time education (12.9 years), while Portugal has the lowest mean number of full-time completed education, which lasts on average 8 years.

Table 4 Years of full-time education completed by country

		Years of full-time education completed		
		Mean	Standard Deviation	Median
Country	Germany	12.9	3.6	13
	Spain	12.4	5.5	12
	France	12.1	4.0	12
	Israel	12.3	3.3	12
	Portugal	8.0	4.8	7
	Russia	12.4	3.2	12
	Total	11.8	4.4	12

The main activities of the interviewees (table 5) are "Paid work", for all countries except Portugal. The main activity in Portugal is "Retired" while the percentage of retired people in Israel is the lowest. There are 6.3% of respondents in Russia who are still in the education system, which is the lowest in comparison to the other countries, while Israel has the highest percentage of respondents who are having education. In Spain, France and Portugal, there are not any people who attend community or military service.

Table 5 Main activity by country (%)

		Country					
		Germany	Spain	France	Israel	Portugal	Russia
		%	%	%	%	%	%
Main activity last 7 days	Paid work	42.6	37.1	46.0	44.6	18.4	60.2
	Education	7.0	15.9	11.8	26.0	19.9	6.3
	Unemployed, looking for job	2.2	7.5	8.2	1.2	13.0	1.5
	Unemployed, not looking for job	1.0	7.9	2.4	1.3	.5	.5
	Permanently sick or disabled	4.3	6.5	1.5	3.1	.0	2.3
	Retired	20.1	10.2	13.8	9.5	29.3	23.6
	Community or military service	.3	.0	.0	3.9	.0	.0
	Housework, looking after children,	22.2	14.9	13.9	8.4	14.6	5.7
	Other	.4	.0	2.5	1.9	4.2	.0
	Total	100.0	100.0	100.0	100.0	100.0	100.0

As we can see from the table 6, in terms of employee relationship, employees occupy the biggest percentage in comparison with the other dimensions. More than 80% of interviewees are employees and self-employed ranks the second place in the categories of Employee relations. "Working for own family business" is the least represented category. Spain and Portugal present the highest percentage of self-employed people, and Russia has the highest percentage of employees.

Table 6 Employment relation by country

		Employment relation		
		Employee	Self-employed	Working for own family business
		%	%	%
Country	Germany	89.3	9.7	1.0
	Spain	82.0	16.7	1.3
	France	88.6	10.2	1.2
	Israel	87.0	12.1	.9
	Portugal	84.3	14.9	.7
	Russia	94.7	5.0	.3
	Total	88.1	11.0	.9

Regarding the question "You think employer consider your job to be temporary or permanent" (table 7) more employers in Spain tend to give temporary opportunities lasting less than 12 months to their employees (60%), followed by France and Portugal (more than 40%). Germany shows the highest percentage of employees that perceive their jobs as temporary or fixed term but lasting more than 12 months (40%). Israel and Russia have the highest percentage of permanent jobs.

Table 7 Temporary and permanent jobs by country

		You think employer considered job to be temporary or permanent			
		Temporary/fixed term job lasting less than 12 months	Temporary/fixed term job lasting 12 months or more	A permanent job	Other
		%	%	%	%
Country	Germany	31.4	40.4	22.2	6.0
	Spain	60.1	30.6	6.6	2.7
	France	46.9	29.5	20.6	3.0
	Israel	19.9	21.8	57.8	.5
	Portugal	43.2	25.5	24.2	7.2
	Russia	37.5	23.5	39.0	.0
	Total	35.7	27.6	33.9	2.8

The establishment size (table 8) measured by the number of employees shows that in Spain and Portugal around two thirds of establishments have up to 24 employees, while in Germany, France and Russia more than one third of the establishments have 100 or more employees.

Table 8 Establishment size (number of employees) by country (%)

		Establishment size				
		Under 10	10 to 24	25 to 99	100 to 499	500 or more
		%	%	%	%	%
Country	Germany	26.3	15.4	21.6	18.1	18.5
	Spain	47.5	20.7	17.4	8.1	6.4
	France	34.4	13.9	18.4	17.0	16.3
	Israel	32.2	17.8	20.0	13.0	17.0
	Portugal	46.0	19.0	18.7	10.0	6.4
	Russia	17.2	22.6	26.4	19.0	14.8
	Total	32.7	18.2	20.7	14.7	13.7

4.2 Job characteristics

The first 4 items in table 9 related to the current job have 4 categories, ranging from "Not at all true" to "Very true". For the last 3 items the 5-point Likert scale goes from "Agree strongly" to "Disagree strongly". The main conclusions from these results are:

- German and French respondents show the highest percentage of truthiness for variety at work. In comparison to these two countries, the Portuguese respondents show the lowest degree of truthiness.
- For the item "Job requires learning new things", the highest observed percentage are: France for the category "very true", Israel for "true" and Portugal for the categories "little true" and "not at all true".
- For the item "Wage/salary depends on effort put into work", Russia and Israel present the highest percentage of "very true" and "quite true", while Spanish, German and French respondents are the ones choosing more the category "not at all true".
- Regarding the item "Can get support/help from co-workers when needed", German, French and Spanish employees think they can get more support from their co-workers compared to the other countries.

Table 9 Job characteristics by country (%)

		Country						
		Germany	Spain	France	Israel	Portugal	Russia	Total
		%	%	%	%	%	%	%
Current job:	Not at all true	5.7	14.9	7.5	14.6	24.6	19.3	14.1
Variety in work	A little true	21.2	40.9	18.1	22.3	50.6	39.1	31.7
	Quite true	30.7	27.5	31.0	40.2	17.7	23.9	28.3
	Very true	42.4	16.8	43.4	22.8	7.1	17.7	25.9
Current job:	Not at all true	14.4	19.1	16.8	14.7	20.6	19.3	17.3
Job requires	A little true	31.7	32.1	24.0	23.0	51.0	32.9	32.5
learning new things	Quite true	29.3	24.3	24.5	38.4	17.0	26.7	26.9
	Very true	24.6	24.5	34.7	23.9	11.4	21.1	23.2
Current job:	Not at all true	66.1	70.1	62.2	35.3	47.9	28.3	50.6
Wage/salary depends	A little true	19.7	17.3	18.6	22.6	35.8	26.0	23.4
on effort put into work	Quite true	8.2	5.8	10.8	26.4	10.3	26.8	15.3
	Very true	6.0	6.8	8.5	15.7	6.0	18.8	10.7
Current job: can get	Not at all true	5.4	5.4	9.6	10.1	6.1	5.8	6.8
support/help from co-	A little true	15.9	24.3	18.3	16.6	53.8	24.4	24.7
workers when needed	Quite true	31.0	32.4	29.1	45.2	28.5	41.5	34.9
	Very true	47.8	38.0	43.0	28.1	11.6	28.3	33.6
Current job: Job	Agree strongly	19.9	24.7	15.9	16.6	13.6	15.9	17.7
requires work very	Agree	45.9	51.5	38.5	38.4	67.5	46.3	47.7
hard	Neither agree nor dis.	21.8	16.4	22.4	25.0	15.4	30.7	22.8
	Disagree	9.3	7.0	17.1	14.9	3.3	5.8	9.2
	Disagree strongly	3.2	.4	6.1	5.0	.1	1.2	2.6
Current job: Never	Agree strongly	11.6	11.6	19.6	10.9	8.9	5.8	10.9
enough time to get	Agree	29.0	29.6	35.4	21.0	51.3	19.5	29.9
everything done in job	Neither agree nor dis.	22.5	20.1	13.7	23.6	25.3	31.6	23.6
	Disagree	25.7	31.0	20.5	34.3	13.2	33.8	26.9
	Disagree strongly	11.2	7.7	10.8	10.1	1.1	9.3	8.7
Current job: Good	Agree strongly	4.7	5.3	5.9	7.9	3.2	3.4	4.9
opportunities for	Agree	22.4	30.2	19.0	27.9	25.4	19.9	23.6
advancement	Neither agree nor dis.	29.0	24.2	17.7	29.4	34.0	32.7	28.5
	Disagree	22.9	34.3	23.3	25.0	29.9	30.9	27.5
	Disagree strongly	21.0	6.1	34.2	9.8	7.4	13.1	15.6

- In terms of "Job requires work very hard", Portugal and Spanish interviewees show the highest levels of agreement ("strongly agree" or "agree"). Regarding "Never enough time to get done in job", the highest levels of agreement are found in Portugal and France. For "Good opportunities for advancement", higher expectations are found in Israel and Spain.

Job autonomy is measured with 3 items (table 10), all with a scale from 0 = "I have/had no influence" to 10 = "I have/had complete control". Russia has the lowest level of mean autonomy at the workplace according to tall items. Portugal presents very low levels of autonomy according to the items "Allowed to decide how daily work is organized" and "Allowed to change the pace of work". The last item is highest for Germany that, together with France and Spain, presents the highest means for "Allowed to decide how daily work is organized". Israel is the country where employees recognise more they are "Allowed to influence polity decisions about activities of organization", followed by Spain and France.

Table 10 Job autonomy by country (means)

	Country						
	Germany	Spain	France	Israel	Portugal	Russia	Total
	Mean	Mean	Mean	Mean	Mean	Mean	Mean
Allowed to decide how daily work is organized	6.6	6.3	6.8	5.5	5.3	4.5	5.7
Allowed to influence policy decisions about activities of organization	3.5	4.8	4.5	5.1	4.2	2.9	3.6
Allowed to choose/change pace of work	6.9	5.5	5.5	5.5	5.1	4.8	5.6

4.2.1 Job characteristics dimensions

PCA was first applied to the 7 job characteristics items and 3 principal components (PCs) were extracted (table 11) explaining 62.2% of the initial variance (KMO = 0.622, Bartlett's Test p value = 0.000). The 3 PCs are named as Job environment, Job stress and Remuneration.

Table 11 Principal components loadings (structure matrix)

	Component		
	Environment	Stress	Remuneration
Current job: Variety in work	,837	-,195	,083
Current job: Job requires learning new things	,816	-,285	,232
Current job: Can get support/help from co-workers when needed	,626	,192	,114
Current job: Never enough time to get everything done in job	-,140	,818	-,036
Current job: Job requires work very hard	-,082	,774	-,172
Current job: Wage/salary depends on effort put into work	,049	-,032	,843
Current job: Good opportunities for advancement	-,275	,198	-,652

PCA was applied again to three 3 items of Autonomy and 1 dimension was extracted (table 12) explaining 77.4% of the initial variance (KMO = 0.706, Bartlett's Test p value = 0.000).

Table 12 Principal component loadings (component matrix)

| | Component |
	Autonomy
Allowed to decide how daily work is organised	,912
Allowed to choose/change pace of work	,887
Allowed to influence policy decisions about activities of organisation	,839

4.3 Relationship between employees and employers

Two items were used to measure the relationship between employees and employers (table 13), the first one "How difficult/easy for immediate boss to know how much effort put into work", ranging from 0 (extremely difficult) to 10 (extremely easy). German people show the highest mean level of difficulty and Israel the highest mean level of easiness. As for the second item "Regular meetings between representatives of employer and employees at workplace (%)", the lowest percentages are found for Portuguese and Israeli employees, the highest for French employees who seem to be very interactive with the representatives of employers, when compared with other countries.

Table 13 Relationship between employees and employers (means and %)

| | Country | | | | | | |
	Germany	Spain	France	Israel	Portugal	Russia	Total
How difficult/easy for immediate boss to know how much effort put into work	6.6	7.5	7.4	7.7	7.4	7.3	7.2
Regular meetings between representatives of employer and employees (%)	53	45	62	38	21	48	50

4.4 Reasons for putting effort at work

Table 14 presents the main reason for people put effort into work. In Germany and Spain the most important reason is "Be satisfied with what I accomplished at work". In France this same reason is just slightly more important than "My work tasks are interesting ". For respondents in Israel and Portugal, "Keep my job" is the main reason. For Russia "Get a

higher wage or a promotion" is the main reason pointed out by employees for putting effort at work.

Table 14 Reasons for putting effort at work by country (%)

	Country						
	Germany	Spain	France	Israel	Portugal	Russia	Total
Be satisfied with what I accomplish	40.2	49.5	29.9	17.6	30.2	16.9	28.6
Keep my job	23.0	23.6	15.7	36.1	41.7	16.3	19.4
My work is useful for other people	9.7	10.1	15.2	11.1	10.3	13.9	12.6
Get a higher wage or a promotion	5.0	3.0	2.6	13.9	3.4	31.4	16.0
My work tasks are interesting	10.7	2.8	27.1	9.5	3.7	11.9	13.1
It is everyone's duty to always do their best	9.6	10.8	9.2	8.5	8.6	7.0	8.5
Other	1.4	.1	.4	2.4	2.0	1.5	1.1
I do not put effort into my work	.4	.0	.0	.9	.2	1.1	.6

4.5 Work-family relation

Three items are used to measure work-family relation – "Work involves working evenings/nights how often", "Work involves having to work overtime at short notice" and "Work involves working on weekends" – using a scale from "Never" to "Every day/week" (table 15).

Table 15 Work-family relation by country (%)

		Country						Total
		Germany	Spain	France	Israel	Portugal	Russia	
		%	%	%	%	%	%	%
Work involve Working evenings /nights, how often	Never	48.8	42.1	52.1	52.8	44.9	40.4	46.6
	Less than once a month	9.9	12.0	9.5	5.0	14.8	11.3	10.4
	Once a month	4.8	4.9	5.1	4.6	6.6	5.4	5.2
	Several times a month	17.0	21.0	10.6	10.2	14.3	17.9	15.5
	Once a week	3.1	2.4	5.7	4.7	3.7	4.2	3.9
	Several times a week	12.5	11.5	9.8	16.6	11.1	17.6	13.5
	Every day	3.9	6.2	7.3	6.2	4.7	3.1	5.0
Work involve having to work overtime at short notice, how often	Never	19.7	41.8	39.0	50.0	51.7	32.6	37.2
	Less than once a month	16.6	12.7	11.2	9.2	20.4	20.3	15.6
	Once a month	11.3	8.2	6.7	7.3	6.6	9.7	8.6
	Several times a month	20.5	20.1	15.3	16.3	8.8	19.1	17.1
	Once a week	6.9	2.3	8.0	5.3	2.1	4.7	5.0
	Several times a week	17.9	10.2	8.3	7.3	7.7	10.6	11.0
	Every day	7.2	4.7	11.5	4.6	2.7	3.0	5.5
Work involve working at weekends, how often	Never	37.2	37.4	45.0	67.2	45.0	21.8	40.5
	Less than once a month	16.8	12.5	14.8	5.0	13.2	18.1	13.9
	Once a month	11.6	8.3	8.2	6.0	9.5	10.4	9.3
	Several times a month	24.6	24.6	15.5	11.8	20.6	32.5	22.6
	Every week	9.8	17.2	16.5	10.2	11.8	17.2	13.6

The six countries do not show clear different profiles. However it is possible to conclude that work conditions in Israel facilitate relations with family because they involve less work in evenings/nights and weekends, and also less work overtime at a short notice. Russia presents a profile that makes relations between work and family more difficult.

PCA was first applied to the 3 items allowing the extraction of one principal component (table 16) explaining 61.4% of the initial variance (KMO = 0.642, Bartlett's Test p value = 0.000). The higher the scores of this PC the less favorable the work conditions are for the relation with family.

Table 16 Principal component loadings (component matrix)

	Component
	Work-family relation
Work involve working evenings/nights, how often	,836
Work involve working at weekends, how often	,768
Work involve having to work overtime at short notice, how often	,744

4.6 Motivational values

The scale to measure motivational value ranges from 1 = "Very much like me" to 6 = "Not like me at all". Since the scale is reversed, the lower the mean value for each item, the higher the identification with that item. The values the whole sample most identifies with are, on average (table 17):

- Important to be loyal to friends and devote to people close (1.9)
- Important that people are treated equally and have equal opportunities (2.0)
- Important that government is strong and ensures safety (2.1)
- Important to live in secure and safe surroundings (2.2)
- Important to make own decisions and be free (2.2)
- Important to help people and care for others well-being (2.2).

The values the whole sample less identifies with are, on average:

- Important to seek adventures and have an exciting life (4.0)
- Important to be rich, have money and expensive things (3.9).

Differences among countries are noticeable and point out a specific tendency: France is the country that, on general, less identifies with all items; mainly Israel, but also Spain and

Russia, tend to identify with most of the items; Portugal and Russia follow the mean profile for all countries.

Table 17 Motivational values by country (means)

		Country						
		Germany	Spain	France	Israel	Portugal	Russian Federation	Total
		Mean	Mean	Mean	Mean	Mean	Mean	Mean
1.	Important to think new ideas and being creative	2.5	2.4	2.6	2.3	2.7	2.8	2.6
2.	Important to be rich, have money and expensive things	4.2	4.2	4.7	3.2	4.0	3.1	3.9
3.	Important that people are treated equally and have equal opportunities	2.0	1.6	1.8	1.9	2.3	2.2	2.0
4.	Important to show abilities and be admired	3.5	3.4	3.5	2.3	2.8	2.7	3.1
5.	Important to live in secure and safe surroundings	2.3	2.1	2.8	2.0	2.3	2.0	2.2
6.	Important to try new and different things in life	3.0	2.9	3.0	2.8	3.0	3.1	3.0
7.	Important to do what is told and follow rules	3.3	3.0	4.0	2.5	3.1	3.1	3.3
8.	Important to understand different people	2.2	2.1	2.4	2.3	2.7	2.6	2.4
9.	Important to be humble and modest, not draw attention	2.7	2.2	2.4	2.3	2.6	2.6	2.5
10.	Important to have a good time	2.5	3.1	2.3	2.6	2.9	3.0	2.8
11.	Important to make own decisions and be free	2.0	2.1	2.6	2.1	2.5	2.3	2.2
12.	Important to help people and care for others well-being	2.0	1.7	2.4	2.1	2.4	2.4	2.2
13.	Important to be successful and that people recognize achievements	3.0	3.5	4.1	2.4	2.9	2.7	3.1
14.	Important that government is strong and ensures safety	2.3	2.0	2.7	1.9	2.5	1.8	2.1
15.	Important to seek adventures and have an exciting life	4.3	4.0	4.2	3.5	3.9	3.7	4.0
16.	Important to behave properly	2.8	2.3	2.8	2.3	3.0	2.5	2.6
17.	Important to get respect from others	3.3	3.5	3.7	3.0	2.9	2.4	3.0
18.	Important to be loyal to friends and devote to people close	1.7	1.7	1.9	1.8	2.3	2.0	1.9
19.	Important to care for nature and environment	2.1	1.9	2.4	2.0	2.4	2.1	2.1
20.	Important to follow traditions and customs	2.8	2.7	3.3	2.6	2.8	2.4	2.7
21.	Important to seek fun and things that give pleasure	3.2	3.0	3.1	2.7	3.2	3.3	3.2

4.6.1 Motivational values dimensions

To remove the previous identified tendency, and make appropriate comparisons between countries, centred values scores were calculated as described in table 1 of Chapter 3. The means for each country and the result of the ANOVA tests are presented in table 18. Mean values are significantly different between at least two countries.

Table 18 Motivational values by country (centred scores means)

	Country							Total
	Germany	Spain	France	Israel	Portugal	Russia	ANOVA	
	Mean	Mean	Mean	Mean	Mean	Mean	p-values	Mean
Conformity	.32	.02	.37	-.02	.20	.14	0.000	.21
Tradition	-.09	.26	-.17	.19	.02	.08	0.000	.02
Bnevolence	-.86	-.92	-.86	-.47	-.53	-.40	0.000	-.66
Universalism	-.65	-.76	-.81	-.36	-.37	-.35	0.000	-.56
Self-direction	-.52	-.37	-.39	-.22	-.23	-.09	0.000	-.29
Stimulation	.87	.79	.64	.75	.72	.84	0.000	.80
Hedonism	.08	.41	-.22	.24	.30	.53	0.000	.26
Achievement	.46	.79	.82	-.04	.06	.14	0.000	.42
Power	1.05	1.22	1.26	.68	.67	.18	0.000	.74
Security	-.41	-.62	-.26	-.45	-.46	-.69	0.000	-.53

To identify which countries are have significantly different means, Dunnett'C test was applied (Appendix 4) since the ANOVA assumption of population equal variances was violated for all dimensions (p-values=0.000 for the Levene test). The results, presented in table 19 can be summarised as follows:

- France is the country clearly identified with almost all values: when compared to other countries French employees identify themselves very highly with Tradition, Universalism, Stimulation and Hedonism, and highly with Benevolence and Self-direction.

- With some exceptions, Germany and Spain share a similar profile with France: the three countries highly identify themselves with Benevolence, Universalism and Self-direction and are clearly less identified with Achievement and Power.

- Russian employees present a profile that can be considered the opposite of France: they identify themselves very highly with Power and Security, and highly with

Conformity, Tradition and Achievement. They are the least identified with Benevolence, Universalism, Self-direction, Stimulation and Hedonism.

– Portugal and Israel present a value profile similar to Russia: the three countries are the least identified with Benevolence, Universalism, Self-direction and Hedonism; the exception is Stimulation which is highly identified with Portuguese and Israeli employees.

Table 19 Comparison of values among countries

	Germany	Spain	France	Israel	Portugal	Russia
Conformity	-	++	-	++	+	+
Tradition	++	-	++	-	+	+
Benevolence	+	++	+	-	-	-
Universalism	+	++	++	-	-	-
Self-direction	++	+	+	-	-	-
Stimulation	-	-	++	+	++	-
Hedonism	+	-	++	-	-	-
Achievement	-	-	-	++	++	+
Power	-	-	-	+	+	++
Security	+	++	-	+	+	++

++ = very high level of identification
+ = high level of identification
– = Low level of identification

4.7 Well-being

Different items are used to measure well-being: 4 of these items (table 20) measure happiness, satisfaction with life as a whole, with job, and with balance between time with job and other aspects, all using a scale from 0 = "Extremely dissatisfied/unhappy" to 10 = "Extremely satisfied/happy". Other 4 items measure cheerfulness and loneliness during the last 2 weeks, feeling of vulnerability in daily activities due to longstanding illness or disability, infirmity or mental health problem, and health in general; these items use different ordinal scales to measure the frequency or intensity of each phenomenon (tables 20 and 21). The main conclusions drawn from these tables are:

– Satisfaction with life as a whole and happiness are higher, on average, in Israel, Germany and Spain. They are lower in Russia and Portugal.

– Job satisfaction is lower, on average, in Russia and Portugal. Average satisfaction with balance between time on job and time on other aspects is clearly higher in Israel and lower in Russia.

Table 20 Satisfaction indicators by country (means)

	Country						Total
	Germany	Spain	France	Israel	Portugal	Russia	
	Mean	Mean	Mean	Mean	Mean	Mean	Mean
How satisfied with life as a whole	7.3	7.3	6.3	7.5	5.9	5.7	6.7
How happy are you	7.4	7.6	7.1	7.6	6.7	6.3	7.1
Satisfied with balance between time on job and time on other aspects	6.3	6.3	6.4	6.9	6.1	5.8	6.3
How satisfied are you in your main job	7.5	7.5	7.5	7.6	6.8	6.7	7.3

Table 21 Well-being indicators by country (%)

		Country						Total
		Germany	Spain	France	Israel	Portugal	Russia	
		%	%	%	%	%	%	%
Have felt cheerful and in good spirits last 2 weeks	All of the time	10.5	13.3	12.7	15.2	18.8	8.2	12.8
	Most of the time	51.1	45.8	44.4	38.0	42.4	32.2	42.4
	More than half of the time	20.2	23.0	18.9	23.7	20.3	28.1	22.5
	Less than half of the time	8.2	10.7	8.6	13.3	9.4	18.4	11.6
	Some of the time	8.7	5.5	13.4	7.2	7.0	11.9	8.9
	At no time	1.2	1.7	2.0	2.5	2.0	1.3	1.7
How much time during past week you felt lonely	None/almost none the time	76.3	66.1	67.1	64.6	69.0	53.5	66.4
	Some of the time	18.8	27.1	23.6	24.7	21.9	35.1	25.1
	Most of the time	3.5	5.5	6.9	8.8	6.6	8.9	6.6
	All or almost all of the time	1.3	1.4	2.4	1.9	2.6	2.5	2.0
How is your health in general	Very good	15.0	19.9	22.0	46.8	12.1	5.9	19.7
	Good	43.9	42.8	44.4	25.5	42.6	32.7	38.4
	Fair	31.4	26.6	26.2	18.8	31.2	49.2	31.3
	Bad	8.2	9.8	6.8	7.1	12.2	10.7	9.2
	Very bad	1.5	.9	.7	1.8	1.9	1.5	1.4
Hampered in daily activities by illness/…/ problem	Yes a lot	6.2	4.5	5.5	5.6	3.9	5.1	5.2
	Yes to some extent	22.0	10.4	16.4	15.7	13.1	25.7	17.9
	No	71.8	85.1	78.0	78.7	83.0	69.2	76.9

– Germany and Portugal are the countries where more employees have felt cheerful and in good spirits (last 2 weeks) all the time or most of the time; they also felt lonely

none/almost none of the time. Russia is the country where employees have felt less cheerful and lonelier.

- Israel is the country where subjective general health is more perceived as "Very good", while Russia and Portugal show the highest percentages of "Bad/Very bad".

- Russian and German employees feel more vulnerability in daily activities due to longstanding illness or disability, infirmity or mental health problem; this vulnerability is less felt in Spain and Portugal.

4.7.1 Dimensions of well-being

PCA was first applied to the 8 items measuring well-being and 4 principal components were extracted (table 22) explaining 74.3% of the initial variance (KMO = 0.750, Bartlett's Test p value = 0.000). The 4 PCs are named as Satisfaction with life, Satisfaction with job, Health self-perception and Loneliness.

Table 22 Principal components loadings (structure matrix)

	Component			
	Satisfaction with life	Satisfaction with job	Self perception of health	Loneliness
How satisfied with life as a whole	,894	,346	,257	-,267
How happy are you	,888	,354	,269	-,339
Satisfied with balance between time on job and time on other aspects	,293	,883	,141	-,206
How satisfied are you in your main job	,403	,860	,138	-,188
Hampered in daily activities by illness/disability/infirmity/mental problem	,138	,088	,866	-,187
Subjective general health	-,410	-,183	-,806	,164
How much time during past week you felt lonely	-,279	-,196	-,168	,936
Have felt cheerful and in good spirits last 2 weeks	-,555	-,232	-,275	,591

Extraction Method: Principal Component Analysis.
Rotation Method: Promax with Kaiser Normalization.

4.7.2 Comparison of well-being dimensions among countries

The mean profile of the four PCs for each country is presented in Figure 4. The results of the ANOVA tests show that mean values are significantly different between at least two

countries (p-values=0.000). To identify pairs of countries with significantly different means, Dunnett'C test was applied (Appendix 5) since the ANOVA assumption of population equal variances was violated for all dimensions (p-values=0.000 for the Levene test).

Figure 4 Dimensions of well-being among by country (means)
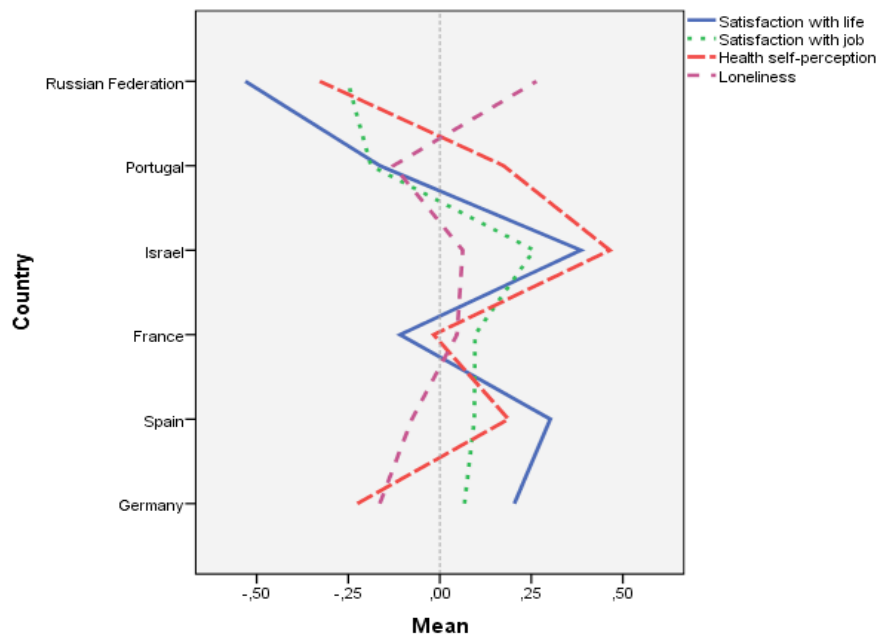
The results, presented in table 23 can be summarised as follows:

- When compared to the other countries Israel shows the highest mean level of satisfaction with life, with job, the best self-perceived health condition, but quite a high level of loneliness.

- Russian employees present a profile for the first three dimensions that can be considered the opposite of Israel: the lowest mean level of satisfaction with life and with job, the worst self-perceived health condition; but Russian employees feel an even higher level of loneliness.

- Portugal presents a mean profile similar to Russia for satisfaction with life and job (low) but is quite different for the two remaining dimensions: Portuguese employees perceive themselves as having good health and do not feel lonely.

- Germany, Spain and France share the same high level of satisfaction with job; Germany and Spain share the same high level of satisfaction with life and low level of loneliness; Germany and France share the same low level of self-perceived health condition.

Table 23 Comparison of well-being among countries

	Germany	Spain	France	Israel	Portugal	Russia
Satisfaction with life	+	+	-	++	-	-
Satisfaction with job	+	+	+	++	-	-
Health self-perception	-	+	-	++	+	-
Loneliness	-	-	+	+	-	++

++ = very high level
+ = high level
– = Low level

4.8 Explanatory model of well-being (Satisfaction with life)

The following independent variables were included in the multiple regression model to explain the variation of Satisfaction with life (dependent variable):

- five dummy variables representing the countries Portugal, Israel, Germany, Spain, France; Russia is the reference category;

- two variables for socio-demographic characteristics: Gender (female is the reference category) and Number of years of education completed;

- four dimensions of job characteristics: Job environment, Job stress, Remuneration and Work autonomy;

- one dimension for work-family relation;

- two variables for the relation between employees and employers: "How difficult/easy for immediate boss to know how much effort put into work" and "Regular meetings between representatives of employer and employees at workplace".

- three dimensions of work-related satisfaction: Satisfaction with job, Health self-perception and Loneliness;

- ten motivational values: Security, Power, Tradition, Conformity, Achievement, Self-direction, Stimulation, Hedonism, Benevolence, Universalism;

A stepwise estimation model was used, so only the independent variables with a significant effect on the dependent variable were included in the model. Validation of model assumptions is presented in Appendix 6.

Model goodness of fit: Adjusted coefficient of determination is 0.325, means that 32.5% of the variation of the dependent variable (Satisfaction with life) is explained by the independent variables which are included in the model (Satisfaction with job, Loneliness and Health self-perception; Germany, Israel, Spain, Portugal and France; Hedonism, Power, Tradition and

Conformity; Job environment and Remuneration; Work-family relation; Years of full-time education completed and Gender; Regular meetings between representatives of employer and employees at workplace; p-values ≤ 0.061).

Model validity: the results of this regression model can be generalized to the population of theses 6 countries. The independent variables do have a significant effect on the dependent variable, so the null hypothesis that all regression coefficients are zero is rejected (p-value=0.000).

From the model estimates (table 24) it can be concluded:

- Work related satisfaction dimensions are the most important variables to explain the variation in Satisfaction with life. In fact, Loneliness and Satisfaction with job have the highest effect on Satisfaction with life (standardized coefficients). The more the person is satisfied with the job, the more he/she is satisfied with life. Furthermore, the effect of loneliness is negative, so the more the person feels lonely, the less this person is satisfied with life. Subjective health perception has also a quite important and positive effect on satisfaction with life. The more positive perception a person has about his/her own health, the more he/she is satisfied with life.

- People living in Germany, Israel and Spain feel more satisfied with life compared to those who live in Russia. The same conclusion is also true for Portugal and France, but the effect on the level of satisfaction is lower in the last two countries.

- Years of completed full time education and Gender have significant effect on satisfaction with life. The more educated a person is, the more satisfied with life he is. Satisfaction with life is lower for males than females.

- 4 out of the 10 motivational values have a significant effect on Satisfaction with life. Hedonism, Tradition and Conformity have a negative effect, which means the less identified a person is with these three values, the less satisfied with life he will be. Furthermore, Power has a low positive effect, so the less identified a person is with this value, the more satisfied with life he/she will be.

- Only two job characteristic dimensions (Job environment and Remuneration) have a significant and positive effect on Satisfaction with life: Job environment has the highest positive effect – the more varied is the work, the more it requires learning new things, the more support/help they get from co-workers when needed, the higher the satisfaction with life; the effect of Remuneration is less significant, nevertheless, the more an employee believes the wage/salary depends on effort put into work and

agrees on the existence of good opportunities for advancement, the more satisfied with life will be. The effect of Job stress and Work autonomy are not significant.

- Work-family relation has a significant but low effect on Satisfaction with life; however and surprisingly this effect is positive, meaning that the more unfavourable are the working conditions (working more often evenings/nights, weekends and overtime at short notice) for a good family relation, the higher is satisfaction with life.

- Only one of the two variables evaluating the relation between employees and employers shows some effect on Satisfaction with life, even if small and not strongly significant (p-vaue=0.061): Regular meetings between representatives of employer and employees at workplace.

Table 24 Multiple linear regression coefficients estimates

Model	Unstandardized Coefficients		Standardized Coefficients		
	B	Std. Error	Beta	t	Sig.
(Constant)	-,433	,057		-7,627	,000
Satisfaction with job	,240	,013	,239	18,545	,000
Loneliness	-,235	,012	-,241	-19,079	,000
Health self-perception	,169	,013	,173	13,426	,000
Germany	,492	,039	,215	12,569	,000
Spain	,556	,046	,192	12,092	,000
Israel	,578	,044	,198	13,117	,000
Hedonism	-,072	,016	-,064	-4,463	,000
Job environment	,053	,014	,054	3,863	,000
Power	,030	,014	,028	2,085	,037
Portugal	,248	,044	,090	5,599	,000
Work-family relation	,046	,013	,045	3,597	,000
Gender	-,086	,024	-,044	-3,566	,000
Years of education completed	,010	,003	,041	3,024	,003
France	,148	,046	,054	3,215	,001
Tradition	-,052	,019	-,037	-2,812	,005
Remuneration	,025	,013	,025	1,902	,057
Conformity	-,028	,015	-,024	-1,888	,059
Regular meetings between representatives of employer and employees at workplace	,046	,025	,024	1,871	,061

a. Dependent Variable: Satisfaction with life

Chapter 5: Conclusions and recommendations

5.1 Main conclusions

This study aims to explore the general, objective and subjective well-being, its positive and negative influences. Also introduced in this study, are special strategies used in measuring well-being and theoretical models were created to understand how well-being can be improved. The study also seeks to determine the influence of various factors on well-being, which includes social demographic variables such as education, gender, job characteristics, human values, and work-family relationship, but also the similarities and differences between six countries (Portugal, Spain, German, Israel, Russia and France) chosen because of the different economic characteristics, cultural and religious attitudes. The literature about the differences between the countries and their correlations are incomprehensive in several areas. This study seeks to answer four questions:

1. What are the relations between well-being and the independent factors?
2. What are the consequences of low level of well-being?
3. Do countries diversify for well-being or for other antecedent factors mentioned in the thesis? What are the differences and similarities?

The main theoretical and empirical findings are chapter-specific and were summarized within the respective chapters. This section will synthesize the findings to answer the study's research questions.

1. What are the factors that influence well-being and how do they influence? According to the literature review these factors include socio-demographic and job characteristics and motivational values.
   - The level of well-being is higher for females than for males, but this difference is mediated by the economic situation: in poor countries women have significant higher level of well-being in comparison with the rich countries. The gap is higher in educated cohorts, even though women tend to be always more disadvantaged, due to sex discrimination and sexual harassment.
   - Documented and undocumented immigration have different effects on well-being: because of the benefits brought by documented immigration, people think more

positively about this type of immigration, and it does contribute to the improvement of well-being. However, for the undocumented immigration, many people tend to suffer from the influx of this type of immigration, so it will lower the level of their well-being.

– Religious faith can directly or indirectly increase the level of well-being: religious faith can lead people to think more positively in certain circumstances. Young people with religious faith grow up with less anxiety. The average effect of religiosity on health is positive.

– More educated people are more likely to have higher level of well-being: higher educated people have higher salary and more opportunities to get high income jobs in comparison with people who have lower education, which can lead to the increase of well-being.

– Training can enhance the level of employees' well-being: through training, employee can improve their skill and experience, which is part of personal development. This is an indicator of psychological well-being.

– People with motivational values holding in their mind have better level of well-being: with the influences of values, they are not easily frustrated by undesirable external conditions, and tend to be calmer and stronger, which contributes to the maintenance of their high level of well-being.

– Job characteristic can contribute to the improvement of well-being: the presence of specific job characteristics such as autonomy, have beneficial influences on employee mental well-being, where their absence deteriorates mental health. However, beyond a certain required level, job characteristics no longer have a positive effect on well-being, the degree of well-being remains unchanged.

– The balance between work and family can contribute to the improvement of well-being: the balance of work-family relation is associated with higher job satisfaction and low distress and job exhaustion.

2. Which are the consequences of low level of well-being?

– The impact on economy: the financial expenditure of chronic illnesses is enormous. Long-term influences of chronic disease on economic development are more substantial than treatment costs.

– Lost productivity and absenteeism: in many countries absence costs economy billions of dollars per year and a huge amount of money is lost because of absenteeism.

- Presenteeism: the overall cost of presenteeism in many economies is gigantic, because presenteeism also reduces the level of exports and investments.
- Cost of compensable disease and prosecution: overweight workers spend more medical resources than their normal weight peer. The total costs of employee diseases amount to billions of dollars, excluding thousands of complaints and charges of sexual harassment, absenteeism, replacement, and productivity losses which account for extra millions of dollars in damages to the companies.

3. Do countries diversify for well-being or for other antecedent factors mentioned in the thesis? What are the differences and similarities? The answer to this question is based on the empirical research carried out in this study.
    - The data and methods: used to analyse the differences and similarities between the countries was collected by the European Social Survey in 2010. The main objective of the ESS is to collect data on attitudes, beliefs and behaviour patterns of different populations. Six countries are chosen (Germany, Israel, Portugal, Spain, France and Russia) to be the research object of this dissertation because of their economic, cultural and religious differences. The target population includes all the individuals aged more than 15 years old. The questionnaire includes questions on the following topics: media, social trust, politics, subjective well-being, socio-demographics, job characteristic, values and health inequalities. This dissertation uses the following parts of the ESS questionnaire: socio-demographics, job characteristics, motivational values and well-being. Weighted data was used for statistical analysis and data on motivational values was standardized to allow for comparisons between countries. Different statistical methods were applied: descriptive statistics, linear correlation coefficients, hypotheses tests and multiple linear regression modelling.
    - Socio-demographics (Gender, Years of full-education completed, Main activity, Employment relation, Temporary and permanent jobs and Establishment size by country): the distribution of respondents by gender is very similar for all countries with females slightly more represented than males. Portugal has the lowest average number of years of completed full-time education, while Germany presents the highest average. The main activity of the interviewees of all the countries is "Paid work", except in Portugal, where "Retired" is the most frequent category. In terms of employment

relation, the category "Employees" occupies the first rank in comparison with the other categories ("Self-employed" and "Working for own family business"). Among the six countries, Russia presents the highest percentage of "Employees", while Spain and Portugal show the highest percentages of "Self-employed". Most respondents perceive their jobs as temporary or fixed term but lasting less than 12 months. Short time temporary jobs are more frequent in Spain; permanent jobs are more frequent in Israel and Russia. In Spain and Portugal around two thirds of respondents work in establishments with up to 24 employees, while in Germany, France and Russia more than one third work in establishments with 100 or more employees.

– Job characteristics (Job autonomy, Relationship between employees and employers, Main reason to put effort at work and Work-family relation by country): in terms of "Job requires work very hard", Portuguese and Spanish interviewees show the highest levels of agreement ("strongly agree" or "agree"). Regarding the item "Never enough time to get done in job", the highest levels of agreement are found in Portugal and France. For the item "Good opportunities for advancement", higher expectations are found in Israel and Spain. Portugal presents very low levels of autonomy according to the items "Allowed to decide how daily work is organized" and "Allowed to change the pace of work". For the question "How difficult/easy for immediate boss to know how much effort put into work", German people show the highest mean level of difficulty and Israel the highest mean level of easiness. In Germany and Spain the most frequent reason for putting effort at work is to "Be satisfied with what I accomplished at work". Work conditions in Israel facilitate more the relations with family because they involve less work in evenings/nights and weekends, and also less work overtime at a short notice.

– Motivational values among countries: French employees identify themselves very highly with Tradition, Universalism, Stimulation and Hedonism, and highly with Benevolence and Self-direction. Russian employees present a profile that can be considered the opposite of France: they identify very highly with Power and Security, highly with Conformity, Tradition and Achievement. Simultaneously, Russian employees are the least identified with Benevolence, Universalism, Self-direction, Stimulation and Hedonism.

– Work related satisfaction and Satisfaction with life: these dimensions are lower, on average, in Russia and Portugal, than in the other countries. When compared to the

other countries, Israel shows the highest mean level of satisfaction with life, with job, the best self-perceived health conditions, but quite a high level of loneliness.

5.2 Contributions

The study provides a new perspective to screen the relationship between a number of factors and well-being, and facilitate our understanding of the well-being of employees. In this research, employees' well-being is operationalized by the dimension Satisfaction with life.
The estimated regression model clarifies the effects of different independent factors on Satisfaction with life. The results show that:

- The work-related satisfaction dimensions are the most important predictors of Satisfaction with life: Job satisfaction, Loneliness and Health self-perception. Furthermore, the effect of loneliness is negative, so the more the employee feels lonely, the less this person is satisfied with life, the lower his/her level of well-being. Subjective health perception has also a quite important and positive effect on satisfaction with life.

- The economic, cultural and religious profiles of three countries (Germany, Spain and Israel) increase the employees' level of satisfaction with life. People living in these countries feel more satisfied with life compared to those living in Russia.

- The more educated a person is, the more satisfied with life he/she is and satisfaction with life is lower for males than females.

- The less identified a person is with Hedonism, Tradition and Conformity, the less satisfied with life he will be; the less identified a person is with Power, the more satisfied with life he/she will be.

- Regarding the job environment, the more varied is the work, the more it requires learning new things, the more support/help they get from co-workers when needed, the higher the satisfaction with life; the effect of Remuneration is less significant, nevertheless, the more an employee believes the wage/salary depends on effort put into work and agrees on the existence of good opportunities for advancement, the more satisfied with life will be. The effect of Job stress and Work autonomy are not significant.

- Work-family relation has a significant but low effect on Satisfaction with life; however and surprisingly this effect is positive, meaning that the more unfavourable are the

working conditions (working more often evenings/nights, weekends and overtime at short notice) for a good family relation, the higher is satisfaction with life.

– Only one of the two variables evaluating the relation between employees and employers shows some effect on Satisfaction with life: Regular meetings between representatives of employer and employees at workplace.

This research also confirms the previous research about cross-cultural norms (Schwartz, 2006), that concluded that countries with different cultural and religious environments do have differences in values. Moreover, these results can be utilized by the organization to improve the well-being of employees.

5.3 Limitations of this study

In this study, we achieved our goal and previously stated its main contribution. However, the limitations of the study should be considered when quoting the outcomes of study.

Firstly, some important factors referred in the literature are not included in the regression model to explain well-being, like immigration and training, because the European Social Survey does not provide adequate data on these variables.

Secondly, a different scale should be used to measure motivational values, for example the more comprehensive scale developed by Davidov and Eldad (2009). Respondents tend to avoid bad image and try pursuing meeting social exaltation; they tend to give those answers expected by society and employers, with a biasing effect which is difficult to eliminate.

Thirdly, multiple linear regression assumptions are not completely verified. Also, this type of statistical modeling does not allow the introduction of mediating variables. In fact, some of the independent variables introduced in the multiple linear regression model, such as work-related satisfaction should mediate the effect of job characteristics on satisfaction with life.

5.4 Directions for further research

After addressing the limitations of this study, we should give place to suggestions for future research.

In this dissertation, only six countries were studied, however other countries in Europe should also be included. Culture, environment, and state of economic development can be important

factors affecting employees' well-being, but are not included in this study, so future research should also consider this.

There is a need to apply different statistical methods such as for example structural equation models, to allow the estimation of more complex and realistic models. For example, demographic characteristics may be moderators between human values and well-being. The impact of education on the level of autonomy of employees, and how it influences the relationship between employers and employees should also be studied. Also, work-related satisfaction should mediate the effect of job characteristics on satisfaction with life. Important consequences of well-being like low productivity, absenteeism and presenteeism, could also be included in the model. These issues were not addressed in this research but the uninvolved aspects can be important to the theme.

We listed the effects of various factors on well-being, but how these effects can be used by the organization is still not known. Future research should also take into consideration the transition from theory to practice.

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Appendices

Appendix 1: Portrait Value Scale

Table A1.1

	How much like you is this person?					
	Very much like me	Like me	Some-what like me	A little like me	Not like me	Not like me at all
1. Thinking up new ideas[1] and being creative is important to him. He likes to do things in his own original way.	1	2	3	4	5	6
2. It is important to him to be rich. He wants to have a lot of money and expensive[2] things.	1	2	3	4	5	6
3. He thinks it is important that every person in the world should be treated equally. He believes everyone should have equal opportunities in life.	1	2	3	4	5	6
4. It's important to him to show[3] his abilities. He wants people to admire[4] what he does.	1	2	3	4	5	6
5. It is important to him to live in secure[5] surroundings. He avoids anything that might endanger his safety.	1	2	3	4	5	6
6. He likes surprises and is always looking for new things to do. He thinks it is important to do lots of different things in life[6].	1	2	3	4	5	6
7. He believes that people should do what they're told[7]. He thinks people should follow rules[8] at all times, even when no-one is watching.	1	2	3	4	5	6
8. It is important to him to listen to people who are different[9] from him. Even when he disagrees with them, he still wants to understand them.	1	2	3	4	5	6
9. It is important to him to be humble and modest. He tries not to draw attention to himself.	1	2	3	4	5	6
10. Having a good time is important to him. He likes to spoil[10] himself.	1	2	3	4	5	6
11. It is important to him to make his own decisions about what he does. He likes to be free and not depend[11] on others.	1	2	3	4	5	6
12. It's very important to him to help the people around him. He wants to care for[12] their well-being.	1	2	3	4	5	6
13. Being very successful is important to him. He hopes people will recognize his achievements.	1	2	3	4	5	6
14. It is important to him that the government ensures[13] his safety against all threats. He wants the state to be strong so it can defend its citizens.	1	2	3	4	5	6

15. He looks for adventures and likes to take risks. He wants to have an exciting[14]life.	1	2	3	4	5	6
16. It is important to him always to behave properly. He wants to avoid doing anything people would say is wrong.	1	2	3	4	5	6
17. It is important to him to get[15] respect from others. He wants people to do what he says.	1	2	3	4	5	6
18. It is important to him to be loyal to his friends. He wants to devote[16] himself to people close to him.	1	2	3	4	5	6
19. He strongly believes that people should care for[17] nature. Looking after the environment is important to him.	1	2	3	4	5	6
20. Tradition is important to him. He tries to follow the customs handed down by his religion or his family.	1	2	3	4	5	6
21. He seeks every chance[18] he can to have fun. It is important to him to do things that give him pleasure.	1	2	3	4	5	6

1 Having new ideas, with an emphasis on the creative side of having them through generating them himself.

2 "Expensive": in the sense of costing a lot rather than their being 'luxury' items.

3 The idea is to show whatever abilities he has, with no assumption that he actually has great abilities. It is important to him to be perceived as being able.

4 He wants his actions to be admired, not his person.

5 In the sense of the surroundings actually being secure, and not that he feels secure.

6 Important for himself (his life) is the focus.

7 The idea here is that when someone else tells you what to do in actual interpersonal interaction, (implying also that the person has some authority), you should do it.

8 "Rules" in the sense of 'rules and regulations'.

9 "Different" in almost any way. The key idea is that he sees difference/diversity positively and as something worth learning about.

10 "Spoil himself": "treat himself" is another idiom. Strongly negative 'self-indulgence' is not intended.

11 In the sense of not to have to depend on people

12 "Care for": here in the sense of actively promote their well-being.

13 "Ensures" in the sense of 'guarantees'.

14 "Exciting" more in the sense of 'exhilarating' than 'dangerous'.

15 Get/have this respect, not deserve respect

16 "Devote": is intended to convey deep concern for these people and readiness to invest his time, resources and energy in their welfare.

17 "Care for": look after, basically synonymous with 'looking after' in the second sentence.

18 Seeks: active pursuit rather than 'taking every' chance.

(The difference between female and male version of 21-PVQ is the representation of gender. In the male' version, "he" and "him" are used, while in the female version, "he" and "him" are replaced by "she" and "her")

Appendix 2: Job characteristics

Table A2.1

	Not at all true	A little true	Quite true	Very true	(Don't know)
There is a lot of variety in my work.	1	2	3	4	8
My job requires that I keep learning new things.	1	2	3	4	8
My wage/salary depends on the amount effort I put into my work.	1	2	3	4	8
I can get support and help from my co-workers when needed.	1	2	3	4	8

Table A2.2

Which of the reasons shown on this card is the main reason why you put effort into your work?						
	Agree strongly	Agree	Neither agree nor disagree	Disagree	Disagree strongly	Don't konw
My job requires that I work very hard	1	2	3	4	5	8
I never seem to have enough time to get everything done in my job	1	2	3	4	5	8
My opportunities for advancement are good	1	2	3	4	5	8

Table A2.3

How difficult/easy for immediate boss to know how much effort put into work														
Extremely difficult	1	2	3	4	5	6	7	8	9	Extremely easy	Not applicable	Refusal	Don't know	No answer
0	1	2	3	4	5	6	7	8	9	10	66	77	88	99

Table A2.4

	Yes	No	No applicable	Refusal	Don't know	No answer
At your workplace are there regular meetings between representatives of the employer and employees, in which working conditions and practices can be discussed	1	2	6	7	8	9

Table A2.5

Which of the reasons shown on this card is the main reason why you put effort into your work?	
– to be satisfied with what I accomplish	01
– to keep my job	02
– because my work is useful for other people	03
– to get a higher wage or a promotion	04
– because my work tasks are interesting	05
– because my work tasks are interesting	06
– I do not put effort into my work	07
– (Don't know)	88

Table A2.6

	Work involve working evening nights, how often	Work involve having to work overtime at short notice, how often
Never	1	1
Less than once a month	2	2
Once a month	3	3
Several times a month	4	4
Once a week	5	5
Several times a week	6	6
Every day	7	7
Not applicable	66	66
Refusal	77	77
Don't know	88	88
No answer	99	99

Table A2.7

	Work involve working at weekends, how often
Never	1
Less than once a month	2
Once a month	3
Several times a month	4
Every week	5
Not applicable	6
Refusal	7
Don't know	8
No answer	9

Table A2.8

Please say how much the management at your work allows/allowed you			
Allow to decide how your own daily work is/was organized	Allow to influence policy decisions about the activities of the organization	Allow to choose or change your pace of work	
00	00	00	I have/had no influence
01	01	01	
02	02	02	
03	03	03	
04	04	04	
05	05	05	
06	06	06	
07	07	07	
08	08	08	
09	09	09	
10	10	10	I have/had complete control
88	88	88	Don't know

Appendix 3: Well-being

Table A3.1

All things considered, how satisfied are you with your life as a whole nowadays? Please answer using this card, where 0 means extremely18 dissatisfied and 10 means extremely satisfied.												
Extremely dissatisfied										Extremely satisfied	Don't know
00	01	02	03	04	05	06	07	08	09	10	88

Table A3.2

Taking all things together, how happy would you say you are? Please use this card											
Extremely unhappy										Extremely happy	Don't know
00	01	02	03	04	05	06	07	08	09	10	88

Table A3.3

And how satisfied are you with the balance between the time you spend on your paid work and the time you spend on other aspects of your life?														
Extremely dissatisfied	1	2	3	4	5	6	7	8	9	Extremely satisfied	Not applicable	Refusal	Don't know	No answer
0	1	2	3	4	5	6	7	8	9	10	66	77	88	99

Table A3.4

How satisfied are you in your main job? Use this card where 0 is extremely dissatisfied and 10 is extremely satisfied											
Extremely dissatisfied										Extremely satisfied	Don't know
00	01	02	03	04	05	06	07	08	09	10	88

Table A3.5

Firstly, I am going to read out a list of statements about how you may have been feeling recently. For each statement I would like you to say how often you have felt like this over the last two weeks							
	All of the time	Most of the time	More than half of the time	Less than half of the time	Some of the time	At no time	Don't know
I have felt cheerful and in good spirits	1	2	3	4	5	6	8

Table A3.6

How much time you felt lonely				
None or almost none of the time	Some of the time	Most of the time	All or almost all of the time	Don't know
1	2	3	4	8

Table A3.7

How is your health in general				
Very good	Good	Fair	Bad	Very bad

Table A3.8

Are you hampered in your daily activities in any way by any longstanding illness or disability, infirmity or mental health problem?			
Yes a lot 1	Yes to some extent 2	No 3	Don't know 8

Appendix 4: Motivational values - Dunnett'C test for equality of population means

Table A4.1 Mean differences among countries – Conformity

Conformity	Germany	Spain	France	Israel	Portugal
Spain	-0.27*				
France	0.11*	-0.38*			
Israel	-0.30*	-0.03	-0.41*		
Portugal	-0.07	0.20*	-0.18*	0.23*	
Russia	-0.11*	0.17*	-0.21*	0.19*	-0.03

Table A4.2 Mean differences among countries – Tradition

Tradition	Germany	Spain	France	Israel	Portugal
Spain	0.37*				
France	-0.07	-0.44*			
Israel	0.28*	-0.09*	0.36*		
Portugal	0.17*	-0.20*	0.24*	0.12*	
Russia	0.21*	-0.16*	0.28*	0.08*	0.04

Table A4.3 Mean differences among countries – Benevolence

Benevolence	Germany	Spain	France	Israel	Portugal
Spain	-0.06				
France	0.01	0.07			
Israel	0.40*	0.46*	0.39*		
Portugal	0.38*	0.44*	0.37*	-0.02	
Russia	0.45*	0.51*	0.44*	0.06	-0.07

Table A4.4 Mean differences among countries – Universalism

Universalism	Germany	Spain	France	Israel	Portugal
Spain	-0.10*				
France	-0.11*	0.02			
Israel	0.31*	0.40*	0.42*		
Portugal	0.31*	0.41*	0.42*	0.00	
Russia	0.32*	0.41*	0.43*	0.01	0.01

Table A4.5 Mean differences among countries – Self-direction

Self-direction	Germany	Spain	France	Israel	Portugal
Spain	0.13*				
France	0.15*	0.02			
Israel	0.29*	0.17*	0.15*		
Portugal	0.26*	0.14*	0.12*	-0.03	
Russia	0.41*	0.28*	0.26*	0.11*	-0.14*

Table A4.6 Mean differences among countries – Stimulation

Stimulation	Germany	Spain	France	Israel	Portugal
Spain	-0.10*				
France	-0.28*	0.18*			
Israel	-0.17*	-0.07	0.11*		
Portugal	-0.26*	0.16*	0.02	-0.09*	
Russia	-0.09*	0.01	0.19*	0.08*	0.17*

Table A4.7 Mean differences among countries – Hedonism

Hedonism	Germany	Spain	France	Israel	Portugal
Spain	0.31*				
France	-0.37*	-0.68*			
Israel	0.13*	-0.19*	0.49*		
Portugal	0.15*	-0.16*	0.52*	0.03	
Russia	0.41*	0.09*	0.77*	0.28*	0.25*

Table A4.8 Mean differences among countries – Achievement

Achievement	Germany	Spain	France	Israel	Portugal
Spain	0.29*				
France	0.29*	0.00			
Israel	-0.52*	-0.81*	-0.81*		
Portugal	-0.49*	-0.78*	-0.78*	0.02	
Russia	-0.38*	-0.67*	-0.67*	0.14*	0.11*

Table A4.9 Mean differences among countries – Power

Power	Germany	Spain	France	Israel	Portugal
Spain	0.20*				
France	0.21*	0.01			
Israel	-0.34*	-0.54*	-0.56*		
Portugal	-0.36*	-0.56*	-0.58*	-0.02	
Russia	-0.85*	-1.05*	-1.06*	-0.51*	-0.49*

Table A4.10 Mean differences among countries – Security

Security	Germany	Spain	France	Israel	Portugal
Spain	0.20*				
France	0.16*	0.36*			
Israel	-0.02	0.18*	-0.18*		
Portugal	0.00	0.21*	-0.15*	0.03	
Russia	-0.27*	-0.06	-0.43*	-0.25*	-0.27*

Appendix 5: Well-being - Dunnett'C test for equality of population means

Table A5.1 Mean differences among countries – Satisfaction with life

Satisfaction with life	Germany	Spain	France	Israel	Portugal
Spain	0.10				
France	-0.31*	-0.41*			
Israel	0.18*	0.08	0.49*		
Portugal	-0.37*	-0.47*	-0.06	-0.55*	
Russian	-0.73*	-0.83*	-0.42*	-0.92*	-0.37*

Table A5.2 Mean differences among countries – Satisfaction with job

Satisfaction with job	Germany	Spain	France	Israel	Portugal
Spain	0.03				
France	0.03	0.00			
Israel	0.19*	0.16*	0.16*		
Portugal	-0.26*	-0.28*	-0.28*	-0.45*	
Russia	-0.32*	0.35*	0.35*	0.51*	-0.06

Table A5.3 Mean differences among countries – Health self-perception

Health self-perception	Germany	Spain	France	Israel	Portugal
Spain	0.41*				
France	0.21*	-0.20*			
Israel	0.67*	0.28*	0.48*		
Portugal	0.40*	-0.01	0.19*	-0.29*	
Russia	-0.10	-0.52*	-0.31*	-0.79*	-0.50*

Table A5.2 Mean differences among countries – Loneliness

Loneliness	Germany	Spain	France	Israel	Portugal
Spain	0.09				
France	0.21*	0.12			
Israel	0.23*	0.14*	0.02		
Portugal	0.04	-0.05	-0.17	-0.19*	
Russia	0.43*	0.34*	0.22*	0.20*	0.39*

Appendix 6: Validation of assumptions of the multiple linear regression model

A. Linearity: Table A6.1 shows not very strong but significant linear relations between satisfaction with life and some independent variables.

Table A6.1 Correlations among Satisfaction with life and independent variables

		Satisfaction with job	Health self-perception	Loneliness
Satisfaction with life	Pearson Correlation	,389**	,315**	-,360**
	Sig. (2-tailed)	,000	,000	,000
	N	6205	6205	6205

		Self-direction	Stimulation	Hedonism	Achievement	Power	Security
Satisfaction with life	Pearson Correlation	-,064**	-,031*	-,116**	,050**	,151**	,075**
	Sig. (2-tailed)	,000	,014	,000	,000	,000	,000
	N	6186	6183	6183	6184	6188	6185

		Conformity	Tradition	Benevolence	Universalism	Hedonism
Satisfaction with life	Pearson Correlation	,016	-,059**	-,071**	-,056**	-,116**
	Sig. (2-tailed)	,201	,000	,000	,000	,000
	N	6183	6187	6186	6190	6183

|		Years of full-time education completed
Satisfaction with life	Pearson Correlation	,131**
	Sig. (2-tailed)	,000
	N	6167

B. Normality of random errors: Figure A6.1 shows that residuals follow an approximate normal distribution.

Figure A6.1

Histogram
Dependent Variable: Satisfaction with life

Mean = 9,32E-4
Std. Dev. = 1,001
N = 4.954,6
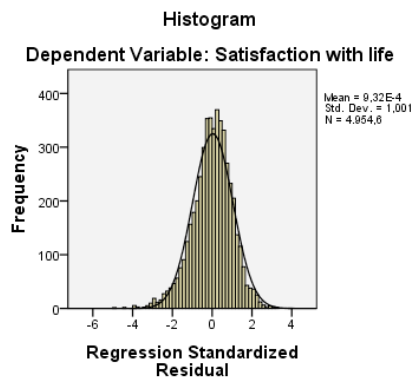
Cases weighted by Post-stratification weight including design weight

Normal P-P Plot of Regression Standardized Residual
Dependent Variable: Satisfaction with life
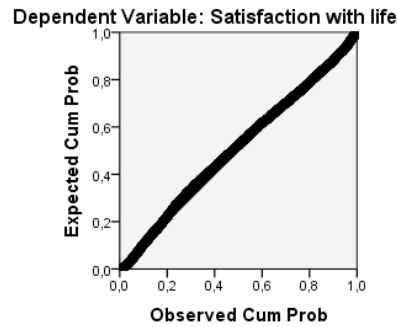
Cases weighted by Post-stratification weight including design weight

C. The mean of the random errors is zero and the variance is constant: Table A6.2 show that the mean of residuals is approximately zero and Figure 6.2 shows variance homogeneity of the residuals since they are approximately randomly distributed at the same distance from the zero line.

Table A6.2

Residuals Statistics[a]

	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	-2,747	1,381	-,006	,5669	4955
Residual	-4,021	3,113	,001	,8068	4955
Std. Predicted Value	-4,885	2,467	-,003	1,010	4955
Std. Residual	-4,989	3,862	,001	1,001	4955

Figure A6.2

Scatterplot
Dependent Variable: Satisfaction with life
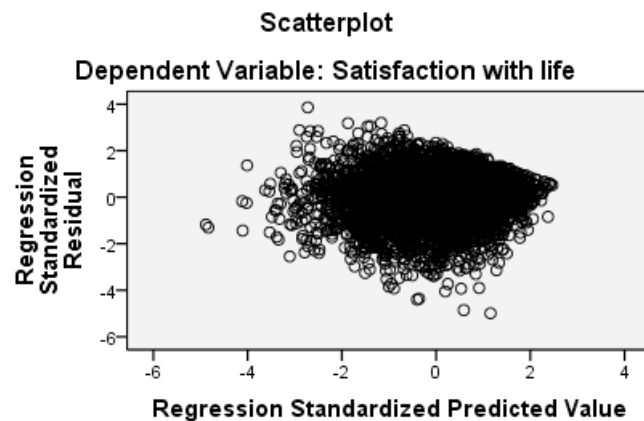
Cases weighted by Post-stratification weight including design weight

D. No correlation between the random errors and independent variables: Table A6.3 shows that there is no correlation between residuals and independent variables.

Table A6.3

		Tradition	Hedonism	Power	Security
Unstandardized Residual	Pearson Correlation	,000	,000	,000	,000

		Satisfaction with job	Health self-perception	Loneliness	Years of full-time education completed
	Sig. (2-tailed)	,989	,991	1,000	,999
	N	6143	6143	6143	6143
Unstandardized Residual	Pearson Correlation	,000	,000	,000	,000
	Sig. (2-tailed)	,986	,993	,983	,990
	N	6143	6143	6143	6143

**. Correlation is significant at the 0.01 level (2-tailed).
*. Correlation is significant at the 0.05 level (2-tailed).

E. Multicollinearity between independent variables: Table A6.4 shows there is no important collinearity between the independent variables since all Tolerance values are higher than 0.1 and VIF values are lower than 10.

Table A6.4

	Collinearity Statistics	
	Tolerance	VIF
Satisfaction with job	,844	1,185
Loneliness	,879	1,137
Health self-perception	,847	1,181
Germany	,480	2,081
Spain	,559	1,788
Israel	,619	1,617
Hedonism	,688	1,453
Job environment	,730	1,369
Power	,779	1,284
Portugal	,541	1,848
Work-family relation	,906	1,104
Gender	,928	1,078
Years of education completed	,769	1,300
France	,501	1,995
Tradition	,791	1,264
Remuneration	,789	1,268
Conformity	,839	1,192
Regular meetings between representatives of employer and employees at workplace	,880	1,136