Job Design in consultancy sector and its relationship with consultants' wellbeing

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Biographical Note

Maria Teresa Gonçalves was born in 28th November of 1990 in Porto.

In 2008, after concluded her high school with an average grade of 16 (out of 20), Teresa started to attend the Management Degree in *Faculdade de Economia da Univerdade do Porto* (FEP).

In 2012 Teresa finished her degree with an average grade of 14 (out of 20). In the same year she continued with her studies by enrolling in the Master's in Management also in FEP.

Since 2013 to the present, Teresa has been working at Deloitte Portugal as a strategy and human capital consultant on the financial services industry.

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Abstract

Job design is everywhere in organizations, which justifies the importance of research about this topic. Research has been proving that job design has an impact on organizations' success and in employees' wellbeing.

Additionally, based on my experience, consultancy sector is a very dynamic and volatile sector where people are the main asset.

As so, the main goal of this dissertation is to disclose the main job characteristics that consultants perceive in their work and in what way those characteristics have an impact in their wellbeing.

Through an online questionnaire with 156 answers, it was possible to conclude that job design in consultancy sector could be defined by three dimensions: Knowledge, Task and Social Characteristics. Knowledge characteristics are the most perceived by consultants.

Regarding the impact that those characteristics have in consultants' wellbeing, it was possible to conclude that consultants' wellbeing is positive influenced by task significance, autonomy, social support, specialization and feedback from others. On the other hand, consultants' wellbeing is negatively influenced by initiated interdependence.

Key words:
Job design, wellbeing, employees' satisfaction, consultancy sector.

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1. Introduction

This research aims to disclose the main job characteristics that consultants perceive in their work and in what way those characteristics have an impact in their wellbeing.

So, what is the relevance of studying job design and, additionally, studying it in the consultancy sector?

First of all, job design is a key element that defines the individual's relationship to their work and organization and has been suffering numerous changes over the years. In fact, in the early job design research, companies were only focused on job simplification in order to require less skilled and cheaper workforce, assuring the elimination of all unnecessary movement to execute a particular task, in order to achieve the most efficient ways of performing work activities (Oldham and Hackman, 2010). However, and due to several reasons like technological evolution and changes of organizational demands, nowadays companies are designing and applying different kinds of work organization such as working in teams rather than individually and increasing the challenge inherent to every job (Oldham and Hackman, 2010). Surprisingly, the interest in job design research has been decreasing over the time (Campion, 1996), but with all the changes in organizational context and job demand, it is necessary to update this research topic facing the new circumstances.

When it came to choosing a narrower focus of this theme, we chose to focus on the consulting sector. This choice was both a personal decision and a theoretical decision. I've been working as a consultant and in my opinion, based on my experience, it is a very dynamic and volatile sector where people are the main asset. Additionally the focus on the consultancy sector is an opportunity to take into account an occupational context with specific work characteristics and the impact on wellbeing, following the suggestions of. Morgeson, Dierdorff, and Hmurovic, (2010). Moreover, I think it would be interesting and useful for consulting firms to be aware about the job characteristics that have a great impact on consultants' wellbeing in order to be capable of developing initiatives to promote their satisfaction and work motivation thus reducing people turnover.

In order to achieve this goal, the document starts by exploring the concepts of job design and wellbeing in the literature and in what way they are related to each other. The research will follow Morgeson & Humphrey (2006) approach in what concerns job design and the Work Design Questionnaire (WDQ) developed by these authors on this topic will be applied. The rationale of these choices will follow as well as a detailed explanation of the questionnaire in the methodology section. Then results and main discussion are presented.

2. Literature Review

This chapter of literature review has four main sections. In the first one we will present the concept of job design, as well as its early appearance. The second part of this chapter will consist on the main perspectives about job design and its evolution during the time. In the third part, the concept of wellbeing will be explored. The fourth part of this chapter will be focused on the relationship between wellbeing and job design. Finally, in the fifth and last part of this chapter, you will find the main goal of the study and the research questions.

2.1. Job Design

For Parker & Wall (2001-a), job design consists on the nature or content of individuals' jobs. Decisions about job design include choosing the range of tasks that should be combined to make up a job, the level of discretion job incumbent has, the type and degree of social interaction need to accomplish the job, among others. In fact, when designing a job, many questions can arise like: Would it be appropriate to design this job for team work or it will be more advantageous designing it for individuals? What range of tasks this job should include? What kind of feedback should the job incumbent receive? This is a very important topic as these decisions surely impact people and organizational outcomes such as employee wellbeing and productivity.

These authors recognized that companies are becoming more proactive when it comes to think and apply new forms of job design instead of the traditional ones. Popular terms like empowerment, high-involvement working, and high-performance work teams turn out to be new forms of job design (Parker & Wall, 2001-b).

The earlier intellectual influences on job design emerged in Great Britain due to the Industrial Revolution. Before the Industrial Revolution people usually worked alone or in small groups. After the invention of machinery and the development of industrial factories, people started to work together in much bigger groups. This fact created the necessity to think about how to organize and manage the work of so many people. Probably the first

contribution to job design was from Adam Smith. A. Smith defended the division of labor. For him, the production of complex products should be divided into simpler tasks in order to save time between each task and increase the ability of performing a particular task by focusing only on it.

This was the starting point of the research and theory about job design. Since then, many perspectives and theories were developed, and today, although the job simplification principles remain present on modern work design (Cherns, 1978; Wall & Martin, 1987), companies give more focus to enriching people's jobs, that is, in giving employees more autonomy and responsibility, in order to obtain higher performance and avoid people getting bored and becoming unsatisfied. In the next section of this chapter the main perspectives of job design and the evolution of the concept during the time are presented.

2.2. Evolution and Main Perspectives about Job Design

(Morgeson & Campion, 2003) developed a review of literature on job design. In their work they identify and explain the major work design perspectives that have been investigated up to current times. For those authors, the major perspectives are: Scientific Management, Job Enrichment Approaches (where Motivator-Hygiene Theory from Herzberg and Job Characteristics Theory from Hackman and Oldham are included), Sociotechnical Systems Theory, Social Information Processing Perspective and Interdisciplinary Model of Job Design.

Although every theory is presented below, a special attention and detail is given to the Job Characteristics Theory because accordingly to Parker & Wall (2001-b) "the job characteristics model has proved to be the most widely used theoretical approach to job design yet proposed".

2.2.1. Scientific Management

As explained in the introduction section, the first contribution to the job design research was probably from Adam Smith. However, after A.Smith other contributors emerged like Charles Babbage. Babbage took on Smith's ideas and pointed additional advantages to labor division as the need for less skilled and therefore cheaper labor (Parker & Wall, 2001-b). Babbage and Smith were the pillars of the development of the Scientific Management approach. In fact, in 1911 Taylor took on Babbage's ideas and created the Scientific Management approach (Davis, 1971).

The main goal for Taylor was to find out how to design jobs in the most efficient way possible? To achieve this, Taylor proposed a new method for design jobs' included in his book *The Principles of Scientific Management* (Parker & Wall, 2001-b). The method consisted of five-point plan as follows:

"First. Find, say, ten or fifteen different men (preferably in as many separate establishments and different parts of the country) who are especially skillful in doing the particular work to be analyzed.

Second. Study the exact series of elementary operations or motions which each of these men uses in doing the work which is being investigated, as well as the implements each man uses.

Third. Study with a stop-watch the time required to make each of these elementary movements and then select the quickest way of doing each element of the work.

Fourth. Eliminate all false movements, slow movements, and useless movements.

Fifth. After doing away with all unnecessary movements, collect into one series of quickest and best movements as well as the best implements."

There is a difference between the early contributions from Smith and Babbage and the contribution of Taylor. While the two first contributors focused in the horizontal division of labor, Taylor was also concerned with the vertical division of labor. His goal was to eliminate employees' autonomy in deciding how to carry out their tasks, separating the "planning" phase of the "doing" phase of job (Parker & Wall, 2001-b). Basically, the Scientific Management approach can be seen as a process of job simplification, which was initially determined in reducing the number of tasks within jobs, then started to define the way of how jobs' incumbents should complete their tasks, and finally started to control the time that employees spend on those tasks (Parker & Wall, 2001-b). Later on, some studies on jobs like bicycle chain assembly, soap wrapping and others showed up and the results demonstrated that employees were dissatisfied with repetitive work and also concluded that repetitive work is not necessarily more productive (Burnett, 1925; Wyatt, Fraser & Stock, 1928).

In order to avoid employees' dissatisfaction, some new forms of job redesign emerged. The first one was job rotation, where employees started to move at regular intervals to perform different tasks, in an obligatory or in a voluntary way. The other form of job redesign was job enlargement, where job incumbents started to perform a greater number of tasks than before.

As so, in order to avoid the problems related to the reductionist nature of Taylor's approach, many contributors like Herzberg, McGregor, Likert and Hackman and Oldham, started to focus on the research about the characteristics that could improve employees'

satisfaction and assure the fulfillment of intrinsic needs (Morgeson & Campion, 2003). These new investigations are included in the job enrichment approaches and will be presented next.

2.2.2. Job Enrichment Approaches

There were two main contributions to this approach: Herzberg's motivator-hygiene theory and Hackman and Oldham's job characteristics theory.

The Two-Factor (or Motivation-Hygiene) Theory (Herzberg, 1974), claims that the work factors that affect employees' job satisfaction are different from the work factors that affect job dissatisfaction. Factors that affect job satisfaction are related with job's content and are also known as motivators, because when they are present in appropriate amounts in organizations they are responsible for positive job attitudes, job satisfaction and motivation. The main factors that are responsible for job satisfaction are achievement, recognition for achievement, interesting work, increased responsibility, growth and advancement (Herzberg, 1974).

Factors that affect job dissatisfaction are related with job context and are also known as hygiene factors. The main factors that are responsible for job dissatisfaction are company policy and administration practices, supervision, interpersonal relationships, working conditions, salary, status, and security.

Although research failed to fully confirm this theory, it remains important because it took into consideration some aspects that Scientific Management approach ignored and also, gave rise to the idea of job enrichment. Paul and Robertson (1970) defined job enrichment as "building into peoples' jobs, quite specifically, greater scope for personal achievement, recognition (and) more challenging and responsible work". Although the Two-Factor approach has lost some credibility over time, the concepts survived and remain central to modern studies and notions such as that of empowerment (Parker & Wall, 2001-a).

The Job Characteristics Model (Hackman & Oldham, 1976, 1980) is another theory that promoted job enrichment and has survived over the time. This theory is the most important to this particular investigation, because it proposes an important link between job design and job satisfaction, motivation and performance. Moreover the measure used (Work Design Questionnaire) in this research is based on it.

Having as background the work of Turner and Lawrence (1965) and Hackman and Lawler (1971), and their own findings, Hackman and Oldham (1975, 1976, 1980) identified five job characteristics that are related to employees' motivation and satisfaction:

- Skill Variety – the degree to which job incumbent has to use a wide variety of skills and abilities.
- Task Identity – in what way worker feels responsible for completing a whole, identifiable piece of work rather than just a part of it.
- Task Significance - the extent of the impact that job has on others inside and outside the organization.
- Autonomy – the degree of freedom and independence worker has in terms of exercise choice and discretion in his or her work.
- Feedback from the job – the degree to which the job itself (and not other people) provides job incumbents with information about their performance.

According to this theory, these five job characteristics produce critical psychological states in the job incumbent. From the first three job characteristics, skill variety, task identity and task significance, result the increasing *meaningfulness of work*. Autonomy was expected to increase *responsibility for work outcomes* and feedback was related to *knowledge of results of work activities.*

So, the five core job characteristics are presumed to produce the above critical psychological states but also, these psychological states are presumed to influence four main outcomes: internal work motivation, growth satisfaction, general job satisfaction and work effectiveness (Oldham, 1996). Additionally, the above effects were said to be moderated by *growth-need strength*, or the need for personal accomplishment (Morgeson & Campion, 2003). Figure 1 shows the most recent version of this model.

The Job Characteristics Model became the dominant approach for research on job attitudes (Staw, 1984) and widely used on job design research (Parker & Wall, 2001-b). The authors of this theory developed a consistent and attractive research with a set of measures covering the key variables. One of the consequences of this model was the Job Diagnostic Survey (JDS) (De Lange, Taris, Kompier, Houtman, & Bongers, 2003), then the Multimethod Job Design Questionnaire (Campion & Thayer, 1985) was developed in order to complete the JDS and finally, the Work Design Questionnaire was developed in order to avoid the measurement limitations that the old tools had (Morgeson & Humphrey, 2006). As pointed out before in the introduction section, the Work Design Questionnaire was the job design measurement tool chosen to collect information for this investigation and so, it will be explained in detail on the methodology section.
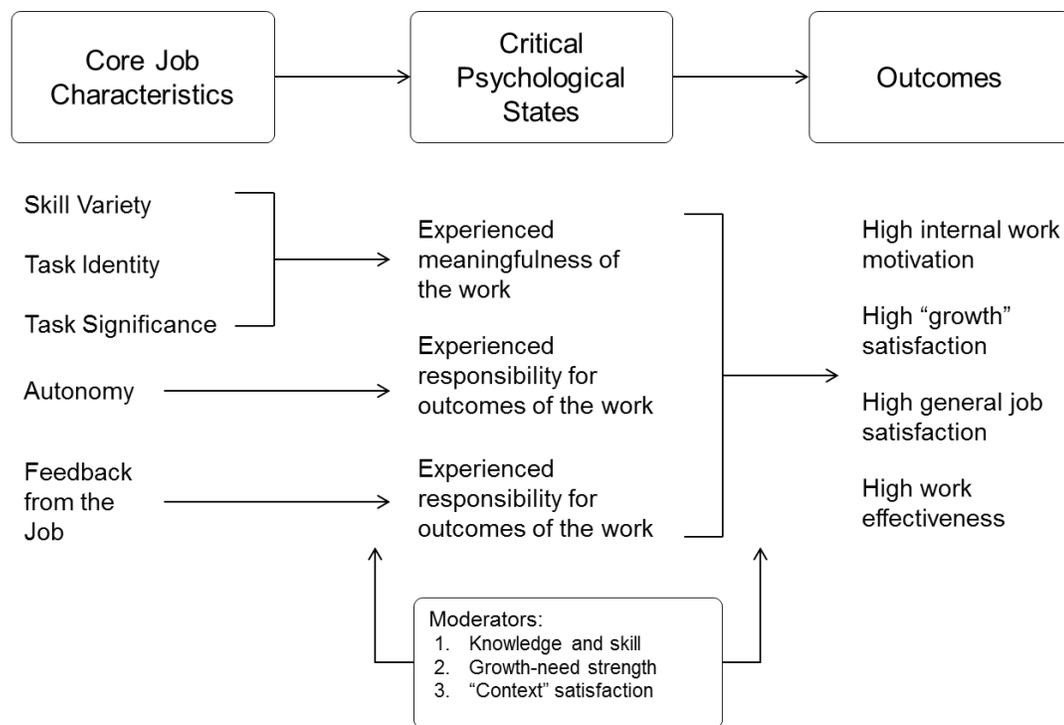
Figure 1 - The Job Characteristics Model
Source: "Job Design", G.R. Oldham, 1996, International Review of Industrial and Organizational Psychology, 11.

2.2.3. Sociotechnical Systems Theory

This theory has a lot in common with the job enrichment approaches (Rousseau, 1977) because it also focuses on points like autonomy, completing a whole piece of work (rather than just a part of it) and task feedback. In fact, the biggest difference between this theory and job enrichment approaches is the fact that focuses on team level rather than the individual level.

The sociotechnical system theory suggested that for organizational efficiency and productivity occur, social and technical systems need to be designed to fit each other (Trist, 1981).

Cummings (1978) stated that three conditions are fundamental to assure an appropriate sociotechnical design:

- The tasks performed should be previously defined in order to guarantee task differentiation and should form a self-completing whole.
- Job incumbents should have an adequate boundary control that allow them to influence and control transactions within task environment.
- Job incumbents should have autonomy to regulate their behavior and transform raw material into a finished product.

Despite the existence of a great amount of literature about this theory, the principles that underpin the sociotechnical approach have not been completely tested and validated. Even so, the sociotechnical theory has proved to be of value. It has encouraged the development of other theories about group work design (Parker & Wall, 2001-b).

2.2.4. Social Information Processing Perspective

This perspective developed by Salancik and Pfeffer (1978), highlighted the importance of the "effects of the context and the consequences of past choices as opposed to individual predispositions and rational decision-making processes" (Morgeson & Campion, 2003). In other words, this job design approach states that the job characteristics are not previously

defined but they emerge from the social information available. Also, this approach suggested that the process of job redesign could be affected by factors external to the objective features of work.

Although there have been no consensus in these effects, some research has found a relationship between social cues and perceptions of and reactions to work (Kilduff & Regan, 1988).

2.2.5. Interdisciplinary Model of Job Design

In order to counteract the fact that most job design research was based on a motivational approach, a single disciplinary orientation, Campion and other contributors developed an interdisciplinary model of job design.

From the existent literature on job design, the authors identified four different approaches, varying in their origin, recommendations and expected costs and benefits (Campion & Thayer, 1985). These four models are the motivational, approach, the mechanistic approach, the biological approach and the perceptual/motor approach.

The motivational approach usually recommends job enrichment and job enlargement methodologies and the expected benefits associated with this approach include job satisfaction, motivation, job performance, retention and customer service (Morgeson & Campion, 2003; Parker & Wall, 2001-b).

The mechanistic model principles came from the scientific management and motion study approach (Parker & Wall, 2001-b). This approach has expected benefits such as ease of staffing and low training requirements and costs such as decreasing employee satisfaction and increasing absenteeism (Parker & Wall, 2001-b).

The biological model was based upon various fields such as the biomechanics, ergonomics and work physiology (Campion & Tayer, 1985). The expected benefits of this model include, among others, decreasing employees' fatigue and a better physical health. On the other hand, costs of this model may include the necessary equipment to reduce physical exposure (Parker & Wall, 2001-b).

Finally, the perceptual/motor approach includes literature about human engineering, human factors or ergonomics, skilled performance and information processors (Campion & Thayer, 1985). The main goal of this approach is to reduce the information processing requirements of work in order to reduce the probability of errors, accidents and mental overload (Morgeson & Campion, 2003). Benefits of this approach could include reduced error, accidents and mental overload. The costs associated could be the decreasing job satisfaction (Parker & Wall, 2001-b).

One of the biggest advantages of this approach is the fact that highlights the different perspectives of job design that could be taken by professionals of different sectors (e.g., industrial engineers and ergonomists) (Parker & Wall, 2001-b).

2.3. Wellbeing

Wellbeing is a topic that has been in the spotlight not only for researchers and academics but also for economics, policy makers and social scientists. It is a concept that is present not only in everyday interactions among people (e.g. "how are you?") but it is also the focus of scientific scrutiny. Although the question "How are you?" could seem simple to answer, theorists found that wellbeing is much more complex than that (Ryan and Deci, 2001).

Accordingly with scientific literature, wellbeing has many different definitions, sometimes being seen as a synonymous for happiness. There are two distinct approaches about wellbeing: psychological wellbeing (PWB) and subjective wellbeing (SWB).

The psychological approach defines wellbeing as more than just happiness, relying also on the fulfilling of one's true nature (Ryan and Deci, 2001). This approach has been called eudaimonism (Waterman, 1993) because, accordingly with this theory, not all individual's desires will lead to one's wellbeing. Paschoal and Tamaayo (2008) stated that psychological wellbeing is a concept that focuses, beyond happiness, on personal realization and life purpose.

On the other hand, subjective wellbeing, also named as hedonic approach, could be defined as people's evaluations of their lives, both in terms of cognitions and feelings (Diener, 2012). This approach will support the rationalization of this investigation and therefore will be explored in a more detail bellow.

If we take a closer look at the previously distinction between wellbeing in terms of cognitions and feelings, we can find two different definitions that arouse from and at the same time are parts of subjective wellbeing: the affective wellbeing and the cognitive wellbeing. The affective wellbeing refers to the presence of positive effects (like feelings of happiness) and negative effects (like depressed mood). It comprises positive and negative emotions and moods and both are a monitor system of people's progress toward their goals and strivings. The cognitive wellbeing refers to individual's life satisfaction (global judgements of one's life) as well as the satisfaction with important domains (e.g. work satisfaction and marital satisfaction) (Diener (2000), Luhmann et al. (2012)).

Accordingly to Luhmann et al. (2012), affective wellbeing and cognitive wellbeing are different from each other relatively to their stability and variability over time and also in their relationship to other factors. One example of this difference is the fact that some recent studies concluded that the relationship between affective wellbeing and income is weaker than the relationship between income and cognitive wellbeing (Diener, Ng, Harter, & Arora, 2010; Kahneman & Deaton, 2010; Luhmann, Schimmack, & Eid, 2011).

An important question to ask when exploring wellbeing is about their predictors. Diener (2012) found that there are predictors that are general across cultures and others that are specific to some cultures. Feelings of social support trust and mastery, as well as, personality and fulfillment of basic needs are examples of universal SBW predictors across cultures. On the other hand, the fact that some individual characteristics are valued in some cultures more than in others, explains that happiness has different predictors among societies (Diener, 2012). There are plenty examples of this finding. Fulmer et al. (2010) found that extraverts' people are happier in extraverts' societies than in introverted societies. Diener, Tay and Myers (2011) found that religion is a predictor of SWB only in very religious nations like United Sates. Religious people in very religious nations tend to have a higher life satisfaction (Diener, Tay and Myers, 2011).

At this point, a very important question that should be asked is "What is the relationship between wellbeing and job design in organizations?"

2.4. Wellbeing and Job Design

Today, employees spend about one third of their time working and, more than ever, with the implementation of new ways of working, employees do not necessarily stop working when they leave their workplace (Conrad, 1988a). This fact has a huge impact on an individuals' personal life, sometimes making it difficult for example to keep a work life balance. As so, feelings like stress could start to appear and consequently they leave harmful physical and emotional scars due to excessive physical and mental pressure that work causes on individuals (Cooper & Cartwright, 1994).

Currently there are several studies and investigations about wellbeing at work. Peter Warr (1987), is a great example of those studies. Peter developed "The Vitamin Model" (VM), which assess individuals wellbeing in a positive way based on five components: affective wellbeing, individual competence, autonomy, ambition and social interaction. In order to measure affective wellbeing, Warr(1990) distinguished three key axes: (1a) displeased-please, (2a) anxious-contented and (3a) depressed-enthusiastic. Peter Warr (1987, 1994, 1996) noted that these three axes are affected in differently ways depending on the work characteristics. Work characteristics like autonomy, job demanding, competencies diversity, feedback and social support, affect the three key axes in a curvilinear way. These characteristics are positive up to a certain point after which they become harmful. On the other hand, work characteristics like remuneration, good and adequate physical working conditions and high social status, affect the three key axes in a linear way. The higher the presence of these work characteristics, the higher is the wellbeing level associated (Warr, 1987).

2.5. Main goal of the study and research questions

As it was said before, this research aims to reveal what are the main job characteristics that consultants perceive and in what way those characteristics have an impact in their wellbeing.

Therefore the following research questions were formulated and need to be answered:
1. What are the job characteristics that best characterize the consultancy sector?
2. What is the impact of job characteristics on consultants' wellbeing?

3. Empirical Study

3.1. Methodology

After the research questions and objectives were defined for this investigation becomes necessary to also define the methodology which is to be implemented.

Generally, a research could be classified as exploratory or conclusive. While the first has the main purpose of providing greater understanding about a problem through qualitative data, the second is carried out in order to test specific hypotheses and analyze relationships. The findings that came up from this second type of research are used for decision making and the data is essentially quantitative (Malhotra, 2009).

This investigation was a conclusive one. In order to collect data for this investigation, an online questionnaire was sent to several consultancy companies from April 6th to July 31st. All the *big four* companies (Deloitte, KPMG, PWC and EY) have contributed to this study. Also, several elements from strategic consulting firms like Mckinsey and Roland Berger gave their contribution by answering the questionnaire.

The questionnaire was designed merely with closed answers on a scale from 1 to 5 and all questions were mandatory. Therefore, of the 156 questionnaires obtained everything were considered valid.

The job design measure was the Work Design Questionnaire (WDQ) by Morgeson and Humphrey. The WDQ appeared in order to overcome the inexistence of a job design more up to date measure, complete and without measuring errors. This measure is more focused on work design and not only on the job, as dated job design measures, because it includes both the job and the link between jobs and the environment (Morgeson and Humphrey, 2006).

The questionnaire has three categories (see tables 1, 2 and 3). The first one, the motivational category assumed that jobs will be enriched and therefore more motivating and satisfying if high levels of these characteristics are present. This category could be divided in two: task characteristics and knowledge characteristics. Task characteristics are concerned with the range and nature of tasks associated with a particular job and how the

work itself is performed. The main task characteristics are: autonomy, task variety, task significance, task identity and feedback from job. Knowledge characteristics "reflect the kinds of knowledge, skill and ability demands that are placed on an individual as a function of what is done on the job" (Morgeson and Humphrey, 2006). The main knowledge characteristics are: job complexity, information processing, problem solving, skill variety and specialization.

The second category, Social, reflects the opportunities for social interaction with others. The main social characteristics are: social support, interdependence, interaction outside the organization and feedback from others.

The third category, contextual characteristics refers to the context in which work is performed including physical and environmental conditions. However, this dimension was not included in this questionnaire for considered less relevant on the consultancy sector and because the questionnaire was to long, this would be a limitation on the process of data collection.

Dimension	Component (characteristics)	SPSS Abbreviation - Question
Task Characteristics	Work Scheduling Autonomy	WSA_1 – The job allows me to make my own decisions how to Schedule my work
		WSA_2 – The job allows me to decide on the order in which things are done on the job
		WSA_3 – The job allows me to plan how I do my work
	Decision-Making Autonomy	DMA_1 – The job gives me a chance to use my personal initiative or judgment in carrying out the work
		DMA_2 – The job allows me to make a lot of decisions on my own
		DMA_3 – The job provides me with significant autonomy in making decisions
	Work Methods Autonomy	WMA_1 – The job allows me to make decisions about what methods I use to complete my work
		WMA_2 – The job gives me considerable opportunity for independence and freedom in how I do the work
		WMA_3 – The job allows me to decide on my own how to go about doing my work
	Task Variety	TV_1 – The job involves a great deal of task variety

		TV_2 – The job involves doing a number of different things
		TV_3 – The job requires the performance of a wide range of tasks
		TV_4 – The job involves performing a variety of tasks
	Task Significance	TS_1 – The results of my work are likely to significantly affect the lives of other people
		TS_2 – The job itself is very significant and important in the broader scheme of things
		TS_3 – The job has a large impact on people outside the organization
		TS_4 – The work performed on the job has a significant impact on people outside the organization
	Task Identity	TI_1 – The job involves completing a piece of work that has an obvious beginning and end
		TI_2 – The job is arranged so that I can do an entire piece of work from beginning to end
		TI_3 – The job provides me the chance to completely finish the pieces of work I begin
		TI_4 – The job allows me to complete work I start
	Feedback from Job	FFJ_1 – The work activities themselves provide direct and clear information about the effectiveness (e.g., quality and quantity) of my job performance
		FFJ_2 – The job itself provides feedback on my performance
		FFJ_3 – The job itself provides me with information about my performance

Table 1 - Mapping SPSS abbreviations and questions for the task dimension

Dimension	Component (characteristics)	SPSS Abbreviation - Question
Knowledge Characteristics	Job Complexity	JC_1 – The job requires that I only do one task or activity at a time
		JC_2 – The tasks on the job are simple and uncomplicated
		JC_3 – The job comprises relatively uncomplicated tasks
		JC_4 – The job involves performing relatively simple tasks
	Information Processing	IP_1 – The job requires me to monitor a great deal of information
		IP_2 – The job requires that I engage in a large amount of thinking
		IP_3 – The job requires me to keep track of more than one thing at a time
		IP_4 – The job requires me to analyze a lot of information
	Problem Solving	PS_1 – The job involves solving problems that have no obvious correct answer
		PS_2 – The job requires me to be creative
		PS_3 – The job often involves dealing with problems that I have not met before
		PS_4 – The job requires unique ideas or solutions to problems
	Skill Variety	SV_1 – The job requires a variety of skills
		SV_2 – The job requires me to utilize a variety of different skills in order to complete the work
		SV_3 – The job requires me to use a number of complex or high-level skills
		SV_4 – The job requires the use of a number of skills
	Specialization	S_1 – The job is highly specialized in terms of purpose, tasks or activities
		S_2 – The tools, procedures, materials, and so forth used on this job are highly specialized in terms of purpose
		S_3 – The job requires very specialized knowledge and skills
		S_4 – The job requires a depth of knowledge and expertise

Table 2 - Mapping abbreviations for the knowledge dimension

Dimension	Component (characteristics)	SPSS Abbreviation - Question
Social Characteristics	Social Support	SS_1 – I have the opportunity to develop close friendships in my job
		SS_2 – I have the chance in my job to get to know other people
		SS_3 – I have the opportunity to meet with others in my work
		SS_4 – My supervisor is concerned about the welfare of the people that work for him/her
		SS_5 – People I work with take a personal interest in me
		SS_6 – People I work with are friendly
	Initiated Interdependence	II_1 – The job requires me to accomplish my job before others complete their job
		II_2 – Other jobs depend directly on my job
		II_3 – Unless my job gets done, other jobs cannot be completed
	Received Interdependence	RI_1 – The job activities are greatly affected by the work of other people
		RI_2 – The job depends on the work of many different people for its completion
		RI_3 – My job cannot be done unless others do their work
	Interaction Outside Organization	IOO_1 – The job requires spending a great deal of time with people outside my organization
		IOO_2 – The job involves interaction with people who are not members of my organization
		IOO_3 – On the job, I frequently communicate with people who do not work for the same organization as I do
		IOO_4 – The job involves a great deal of interaction with people outside my organization
	Feedback from Others	FFO_1 – I receive a great deal of information from my manager and coworkers about my job performance
		FFO_2 – Other people in the organization, such as managers and coworkers, provide information about the effectiveness (e.g., quality and quantity) of my job performance
		FFO_3 – I receive feedback on my performance from other people in my organization (such as manager or coworkers)

Table 3 - Mapping abbreviations for the social dimension

Regarding the measure of consultants' wellbeing, there were the affective wellbeing characteristics considered through positive and negative emotions and cognitive wellbeing characteristics with a job satisfaction measure (see Table 4 - Mapping abbreviations for wellbeing measures).

The positive emotions are inspiration, enthusiasm, attention, determination and excitement. The negative emotions present on the questionnaire are nervous, apprehension, scared, annoyed and stress (Mackinnon, 1999).

Job satisfaction measure is related with accept again the same job, recommend the job to someone, expectation satisfaction and general satisfaction (Bonache, J., 2005).

Variable	Dimension	SPSS Abbreviation - Question
Wellbeing	Job Satisfaction	JS_1 – I am very satisfied with my current job
		JS_2 – I would accept the same job again
		JS_3 – I would recommend my current job to a friend
		JS_4 – My current job meets my expectations
		JS_5 – My overall satisfaction with my job is excellent
	Emotions	EM_1 - Inspired
		EM_2 – Nervous
		EM_3 – Apprehensive
		EM_4 – Enthusiastic
		EM_5 – Alert
		EM_6 – Scared
		EM_7 – Annoyed
		EM_8 – Determined
		EM_9 – Excited
		EM_10 – Stressed

Table 4 - Mapping abbreviations for wellbeing measures

3.2. Sample and Data Collected

From the 156 participants, 50,3% are female and 49,7% are male. Concerning the ages, the majority of the consultants are between the ages of 22 and 25 (40,4%) and only 6,4% of the participants are over the age of 35.

66% of the participants have a master degree and 25% have a bachelor. From the 156 consultants surveyed 86% are Portuguese, 10% are Australian and the remaining are from Ukraine, Angola, Poland, India (with 1% each) and South Africa with 0,6% of the participants.

In the relationship to the number of hours worked a week 46,8% of participants work between 46-50 hours a week and 8,8% work more than 50 hours a week.

60,3% of respondents have between 1 and 5 years of experience in consultancy and only 1,9% works in consultancy for more than 15 years. About the question if the consultants have or not a management position, only 19,9% do while 49,8% of participants do not.

From 156 participants, 126 are single (80,8%), 29 are married (18,6%) and 1 is divorced (0,6%).

86,5% of the respondents do not have children, 12,2% have between 1 and 3 and only 1,3% has more than 3 children.

Variables		Frequency	Percentage
Sex	Female	78	50,3%
	Male	77	49,7%
Age	20-21	0	0,0%
	22-25	63	40,4%
	26-30	62	39,7%
	31-35	21	13,5%
	>35	10	6,4%
Academic Degree	High School	7	4%
	Bachelor	39	25%
	Master	103	66%

	Doctor	3	2%
	MBA	4	2,6%
Nationality	Portuguese	134	86%
	Ukrainian	1	1%
	Angolan	2	1%
	Australian	16	10%
	Poland	1	1%
	India	1	1%
	South African	1	0,6%
Average number of hours worked a week	<40	0	0,0%
	40-45	38	24,4%
	46-50	73	46,8%
	>50	45	28,8%
Number of years of experience in consultancy	<1	18	11,5%
	1-5	94	60,3%
	5-10	30	19,2%
	10-15	11	7,1%
	>15	3	1,9%
Management position	Yes	31	19,9%
	No	125	49,8%
Civil Status	Single	126	80,8%
	Married	29	18,6%
	Divorced	1	0,6%
Nº of children	0	135	86,5%
	1-3	19	12,2%
	>3	2	1,3%

Table 5 - Questionnaire demographic data

3.3. Results

The data collected was processed and analyzed with the support of the data analysis program IBM SPSS Statistics 22 and Microsoft Excel.

In order to answer the research questions the following data analysis were carried out:

- Pre-factor analysis test (Kaiser-Meyer-Olkin (KMO) and Bartlett's' test)
- Factor analysis
- Data reliability test (Alpha de Cronbach)
- Composite measures analysis by dimension and components
- Correlations between job design and wellbeing
- Regression analysis in order to study the impact of job design in consultants wellbeing

3.3.1. Factor analysis

Data collected in the survey were subjected to an exploratory factor analysis with varimax rotation, intending to find out the number of dimensions that should be considered in the study. The factor analysis was applied to the dimension level of the questionnaire: task characteristics, knowledge characteristics and social characteristics (Job Design measures) and job satisfaction and emotions (wellbeing measures).

Factor analysis can be defined as "a set of statistical techniques looking for correlations between observable variables, simplifying the data by reducing the number of variables needed to describe them" (Pestana and Gageiro, 2003). In other words, the main applications of a factor analysis are (1) to reduce the number of variables to study and (2) to detect structure in the relationships between variables.

However, in order to apply the factor analysis two pre-tests should be executed: Kaiser-Meyer-Olkins (KMO) and Bartlett's test. Accordingly with Pestana and Gageiro (2003)

"the KMO and Bartlett test are two statistical procedures for assessing the quality of the correlations between variables in order to proceed with the factorial analysis".

Kaiser-Meyer-Olkins (KMO) statistics varies between 0 and 1. A value close to 0 indicates that the correlations between variables are weak and so, factor analysis would not be appropriate. On the other hand, a KMO close to 1 means small partial correlation coefficients (Pestana and Gageiro, 2003), or in other words, that patterns of correlations are relatively compact and so factor analysis could be applied.

Bartlett's measure tests the null hypothesis that the original correlation matrix is an identity matrix (Pestana and Gageiro, 2003). If the value is high and p-value is <0.001 or <0.05 means that the variables are significantly correlated and then factor analysis is recommended (Malhotra, 2010).

With the exception of task characteristics which has an acceptable statistic value of KMO (0.797) all variables have a good KMO statistical value being higher than 0.8. Regarding the Bartlett's test, all variables got a high value and p-value is zero for all of them, which are good indicators for the application of factor analysis. The tables 6,7,8, 9 and 10 present these values.

Kaiser-Meyer-Olkin measure of sampling adequacy.		,874
Bartlett's test of sphericity	Approx. Chi-square	1373,570
	Df	190
	Sig.	,000

Table 6 - KMO and Bartlett's test: Knowledge Characteristics

Source: SPSS Statistics Version 22

Kaiser-Meyer-Olkin measure of sampling adequacy.		,829
Bartlett's test of sphericity	Approx. Chi-square	1655,000
	Df	276
	Sig.	,000

Table 7 - KMO and Bartlett's test: Task Characteristics

Source: SPSS Statistics Version 22

Kaiser-Meyer-Olkin measure of sampling adequacy.		,797
Bartlett's test of sphericity	Approx. Chi-square	1254,751
	Df	171
	Sig.	,000

Table 8 - KMO and Bartlett's test: Social Characteristics

Source: SPSS Statistics Version 22

Kaiser-Meyer-Olkin measure of sampling adequacy.		,878
Bartlett's test of sphericity	Approx. Chi-square	639,806
	Df	10
	Sig.	,000

Table 9 - KMO and Bartlett's test: Job Satisfaction Characteristics

Source: SPSS Statistics Version 22

Kaiser-Meyer-Olkin measure of sampling adequacy.		,804
Bartlett's test of sphericity	Approx. Chi-square	602,818
	Df	45
	Sig.	,000

Table 10 - KMO and Bartlett's test: Emotions Characteristics

Source: SPSS Statistics Version 22

After passing through the two pre-tests of factor analysis we proceed with it.

The method of principal components "can transform a set of initial assessment scales variables correlated, in another set with a smaller number of uncorrelated variables called principal components that result from linear combination of the initial variables, reducing the complexity the interpretation of the data" (Pestana and Gageiro, 2003 p.502).

There are several different types of rotation methods. In this study we will apply the varimax wich is an orthogonal kind of rotation. Varimax rotation "aims to get a factorial structure in which one and only one of the original variables are strongly associated with a single factor and little with the remaining factors" (Marôco, 2014 p. 486).

In order to get the new number of components we should analyze the rotated matrix. This table contains the rotated factor loadings (factor pattern matrix), which represent how the variables are weighted for each factor and so, what are the new components after the factor analysis.

To select the final components the rotated matrix was analyzed taking into account factor loadings. The existent theory and the previous scale were also taken into account.

Cronbach alpha is the most common measure of internal consistency ("reliability") (Pestana and Gageiro, 2003). It is most commonly used when you have multiple Likert questions in a survey/questionnaire that form a scale and you wish to determine if the scale is reliable. Cronbach alpha varies between 0 and 1 and values above 0.6 are considered acceptable (Malhotra, 2009).

Regarding the task characteristics we confirmed the existence of 5 components. These 5 components are:
1. Autonomy
2. Task variety
3. Task significance
4. Task identity
5. Feedback from job

As we can see in table 11, all the new components have a Cronbach alpha higher than 0,7 which is a good indicator of data reliability.

Question	Task Characteristics				
	Autonomy	Task variety	Task significance	Task identity	Feedback from job
WMA_3	,826				
WMA_2	,786				
WSA_3	,754				
WSA_1	,724				
DMA_3	,719				
WSA_2	,666				
DMA_2	,649				
WMA_1	,517				
TV_2		,805			
TV_4		,792			
TV_3		,784			
TV_1		,693			
TS_3			,868		
TS_4			,806		
TS_1			,596		
TS_2			,576		
TI_2				,817	
TI_3				,742	
FFJ_3					,792
FFJ_1					,790
FFJ_2					,717
Cronbach Alpha	0,877	0,824	0,797	0,743	0,755

Table 11 - Rotated Factor Matrix: Task Characteristics

Source: SPSS Statistics Version 22

Regarding the knowledge characteristics rotated matrix, it confirmed the existence of 4 components: **1**- Variety of skills and information, **2**- Problem solving and job demand, **3**- Specialization and **4**- Job complexity.

Question	Knowledge Characteristics			
	Variety of skills and information	Problem solving and job demand	Specialization	Job complexity
PS_2	,832			
SV_1	,705			
SV_2	,648			
IP_1	,612			
SV_3	,588			
PS_1		,766		
PS_3		,664		
IP_2		,535		
PS_4		,439		
S_1			,759	
S_2			,749	
S_3			,618	
S_4			,402	
JC_4				,868
JC_3				,779
JC_2				,747
Cronbach Alpha	0,820	0,687	0,716	0,794

Table 12 - Rotated Factor Matrix: Knowledge Characteristics
Source: SPSS Statistics Version 22

All the new components have a Cronbach alpha higher than 0,6 which is an acceptable indicator of data reliability. The Problem solving and job demand component is the less reliable one with a Cronbach alpha of 0,687.

The Social characteristics rotated matrix confirmed the existence of 5 components: **1**-Interaction outside the organization, **2**- Social support, **3**- Feedback from others, **4**-Received interdependence and **5**- Initiated interdependence.

Question	Social Characteristics				
	Interaction outside the organization	Social support	Feedback from others	Received interdependence	Initiated interdependence
IOO_4	,892				
IOO_3	,870				
IOO_2	,857				
IOO_1	,815				
SS_6		,784			
SS_3		,682			
SS_1		,617			
SS_5		,601			
SS_2		,513			
FFO_3			,850		
FFO_1			,825		
FFO_2			,814		
RI_1				,759	
RI_3				,685	
RI_2				,627	
II_1					,784
II_3					,711
II_2					,635
Cronbach Alpha	0,903	0,735	0,818	0,665	0,753

Table 13 - Rotated Factor Matrix: Social Characteristics

Source: SPSS Statistics Version 22

The new components have an acceptable value of Cronbach alpha, varying between 0,665 (4- Received interdependence) and 0,903 (1- Interaction outside the organization).

The factor analysis for Job Satisfaction confirmed that this variable consists in only one component, having a high value of Cronbach alpha (0,934) (see table 14).

Cronbach Alpha	Cronbach Alpha based on padronized items	Nº of items
,934	,934	5

Table 14 - Internal consistency statistics: Job Satisfaction
Source: SPSS Statistics Version 22

Finally, the Emotions rotated matrix confirmed the existence of two different components: **1**- Positive emotions and **2**- Negative emotions. Both components have a good Cronbach alpha, higher than 0,7 (see table 15).

Question	Emotions	
	Positive emotions	Negative emotions
EM_9	,882	
EM_4	,860	
EM_8	,807	
EM_1	,786	
EM_3		,811
EM_2		,787
EM_6		,784
EM_10		,756
EM_5		,402
Cronbach Alpha	0,863	0,768

Table 15 - Rotated Factor Matrix: Emotions
Source: SPSS Statistics Version 22

The table below presents the new job design and wellbeing measures after the factor analysis.

Variable	Dimension	Component
Job Design	Task Characteristics	Autonomy
		Task Variety
		Task Significance
		Task Interdependence
		Feedback from job
	Knowledge Characteristics	Variety of skills and information
		Problem solving and job demand
		Specialization
		Job Complexity
	Social Characteristics	Interaction outside the organization
		Social support
		Feedback from others
		Received interdependence
		Initiated interdependence
Wellbeing	Job Satisfaction	Job Satisfaction
	Emotions	Positive emotions
		Negative emotions

Table 16 - Variables after factor analysis

3.3.2. Correlations

To explore data and preliminary relationships between the variables, correlations were computed. The table 17 shows in general correlations that although not very high, are positive and significant most of them to a significant level less than 0.001 (p<0.001).

Regarding the demographic variables, there is a positive and highly significant correlation between gender and the component job complexity. The knowledge characteristics dimension is positive and significantly correlated with consultants' age and gender and also the management position variable is positive and significantly correlated with negative emotions.

Job satisfaction is positive and significantly correlated with autonomy and task significance. Positive emotions are also correlated in a positive and significantly way with task significance.

When it comes to wellbeing in general, through the table we can see that there is no relationship between wellbeing and the demographic variables of this investigation. On the other hand, wellbeing is positive and significantly correlated with task, knowledge and social characteristics.
From the three dimensions of job design measure, the correlation between wellbeing and task characteristics is the strongest one. Social dimension has the weakest correlation with wellbeing.
As for the relationship between wellbeing and job design components, social support is the component with the strongest correlation with wellbeing. Received interdependence is the only job design component that is correlated in a negative way with wellbeing.

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27
1.Gender																											
2.Age	,290**																										
3.AD	,000	-,134																									
4.YE	,258**	,827**	-,315**																								
5.MP	,209**	,632**	-,160*	,659**																							
6.CS	,247**	,580**	-,071	,543**	,464**																						
7.TV	,169*	,239**	,025	,284**	,310**	,101																					
8.A	,199*	,308**	,039	,360**	,209**	,232**	,372**																				
9.TS	,141	-,017	,003	,011	,102	,003	,461**	,292**																			
10.TI	,036	,015	-,021	-,077	-,057	,121	,077	,294**	,283**																		
11.FFJ	,106	,102	-,031	,052	,072	,034	,290**	,297**	,312**	,338**																	
12.VSI	,252**	,268**	-,041	,256**	,290**	,131	,680**	,370**	,473**	,147	,252**																
13.PSJD	,131	,087	,066	,088	,143	,036	,580**	,330**	,485**	,199*	,155	,536**															
14.S	,215**	,206**	-,072	,171*	,170*	,068	,414**	,203*	,491**	,213**	,168*	,595**	,376**														
15.JC	,213**	,147	-,014	,106	,095	,020	,331**	,109	,223**	-,094	-,041	,409**	,333**	,289**													
16.IOO	,136	,103	,006	,122	,178*	-,089	,418**	,216**	,335**	,142	,070	,412**	,445**	,241**	,111												
17.SS	,052	-,009	,049	,011	,018	,016	,345**	,272**	,446**	,314**	,295**	,205*	,347**	,184*	,071	,369**											
18.FFO	-,166*	-,090	,098	-,100	-,043	-,095	,164*	,182*	,288**	,284**	,383**	,112	,221**	,177*	-,030	,210**	,389**										
19.RI	,123	,242**	,003	,239**	,301**	,183*	,385**	,087	,312**	-,053	,149	,424**	,334**	,251**	,085	,349**	,225**	,101									
20.II	,006	,008	-,097	,095	,176*	-,027	,088	-,026	,242**	,071	,191*	,198*	,159*	,215**	-,036	,209**	,135	,222**	,455**								
21.JS	,038	,037	,119	,051	-,023	,115	,327**	,469**	,407**	,315**	,217**	,261**	,211**	,290**	,097	,152	,413**	,339**	,334**	-,056							
22.PE	,068	,023	,139	,053	,008	,111	,316**	,415**	,424**	,209**	,276**	,270**	,188*	,271**	,131	,153	,396**	,270**	-,040	-,128	,703**						
23.NE	-,030	,014	-,128	-,056	,200*	,005	,053	-,115	,042	,028	,028	,017	,043	,077	-,028	,041	-,038	-,013	,079	,081	-,233**	-,077					
24.TC	,191*	,187*	,003	,166	,178*	,148	,625**	,679**	,698**	,632**	,683**	,559**	,509**	,439**	,141	,343**	,501**	,398**	,248**	,170*	,522**	,491**	,009				
25.KC	,273**	,234**	-,022	,206*	,224**	,081	,651**	,321**	,539**	,135	,160*	,822**	,719**	,737**	,726**	,381**	,255**	,146	,334**	,163*	,276**	,280**	,032	,521**			
26.SC	,053	,084	,013	,117	,206**	-,013	,436**	,221**	,495**	,224**	,321**	,431**	,472**	,335**	,064	,707**	,614**	,580**	,664**	,640**	,249**	,183*	,052	,502**	,406**		
27.WLLB	,040	,038	,073	,028	,086	,121	,362**	,410**	,454**	,291**	,269**	,286**	,229**	,331**	,105	,179*	,406**	,314**	-,055	,027	,789**	,845**	,309**	,535**	,306**	,253**	

Table 17 – Correlation Matrix

Legend – Gender: Female = 1, Male = 2; 3. Academic Degree: 1= High School, 2 = Bachelor, 3 = Master, 4 = Doctor, 5 = MBA; 4. Years of experience; 5. Management Position: 1 = Yes, 2 = No; 6. Civil Status: 1=Single, 2=Married, 3=Divorced; 7. Task Variety; 8. Autonomy; 9. Task Significance; 10. Task Identity; 11. Feedback from Job; 12. Variety of Skills and Information; 13. Problem Solving and Job Demand; 14. Specialization; 15. Job Complexity; 16. Interaction Outside Organization; 17. Social Support; 18. Feedback from Others; 19. Received Interdependence; 20. Initiated Interdependence; 21. Job Satisfaction; 22. Positive Emotions; 23. Negative Emotions; 24. Task Characteristics; 25. Knowledge Characteristics; 26. Social Characteristics; 27. Wellbeing.

3.3.3. Calculation of composite measures

In order to answer to the first research question "What are the job characteristics that best characterize the consultancy sector?" the average value of the components and dimensions were calculated.

Variable	Dimension	Component	Average
Job Design	Task Characteristics (Average=3,62)	Autonomy	3,47
		Task Variety	4,13
		Task Significance	3,79
		Task Interdependence	3,37
		Feedback from job	3,34
	Knowledge Characteristics (Average=3,80)	Variety of skills and information	4,04
		Problem solving and Job demand	3,92
		Specialization	3,68
		Job Complexity	3,57
	Social Characteristics (Average=3,75)	Interaction outside the organization	3,89
		Social support	3,97
		Feedback from others	3,77
		Received Interdependence	3,82
		Initiated interdependence	3,28

Table 18 - Job design composite measures

As we can see from the table above, from the three dimensions the knowledge characteristics is the most perceived one having the highest average value of 3,80 which, accordingly with our scale corresponds to the answer "agree". The task and social

characteristics dimensions have respectively an average value of 3,62 and 3,75 which also corresponds to the answer "agree".

Regarding the components, all of them have an average value higher than 3 which means that they can be considered as a job design barometer. Task variety is the component more perceived by the consultants that answer to this questionnaire with an average value of 4,13. On the other hand, Initiated interdependence is the less perceived component by consultants with an average value of 3,28.

3.3.4. The impact of job characteristics on consultants' wellbeing

In order to answer the second research question and understand what is the impact of job design on the consultants' wellbeing a linear regression analysis was performed.
Linear regression analysis is an approach for studying the relationship between a dependent variable (wellbeing) and one or more independent variables (job design components).

As we can see from the table below, there is a highly positive correlation between variables (R=0,627). The coefficient of determination (R Square) of 0,394 means that 39,4% of wellbeing total variance is explained by the independent variables (job design components).

From the ANOVA table we can conclude that the model is statistically significant (Sig.=0,000) which means that wellbeing is correlated with job design components.

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,627a	,394	,343	,41299

Table 19 - Model Summary

Source: SPSS Statistics Version 22

Model		Sum of Squares	df	Mean Square	Z	Sig.
1	Regression	15,830	12	1,319	7,734	,000b
	Residual	24,390	143	,171		
	Total	40,220	155			

Table 20 – ANOVA

Source: SPSS Statistics Version 22

Model		Unstandardized coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	,848	,364		2,327	,021
	Task_Variety	,114	,092	,123	1,236	,218
	Autonomy	,166	,059	,213	2,805	,006
	Task_Significance	,183	,069	,230	2,638	,009
	Task_Interdependence	,040	,054	,056	,731	,466
	Feedback_from_job	,005	,060	,006	,079	,937
	Variety_of_skills_and_information	-,060	,103	-,064	-,580	,562
	Specialization	,133	,073	,158	1,815	,072
	Job_complexity	-,021	,050	-,031	-,414	,679
	Interaction_outside_organization	-,038	,047	-,063	-,798	,426
	Social_support	,153	,077	,164	1,990	,048
	Feedback_from_others	,105	,058	,139	1,823	,070
	Initiated_interdependence	-,129	,050	-,184	-2,569	,011

Table 21 – Coefficients

Source: SPSS Statistics Version 22

The size of the coefficient for each independent variable gives the size of the effect that the variable is having on dependent variable.

Through the analysis of the Coefficients table, we can conclude that task significance is the variable that most contributes to explain consultants wellbeing (B=0,183), followed by

autonomy (B=0,166), social support (B=0,153), specialization (B=0,133), initiated interdependence (B=-0,129) and feedback from others (B=0,105).

These 6 variables have a significance level < 0,1. The remaining variables have a significance level > 0,1 and so they are not statistically significant.

Summing up, the constructed model is:

$$\boldsymbol{Wellbeing} \ = \ \boldsymbol{0,848} + \boldsymbol{0,183} \times \boldsymbol{Task\ significance} + \boldsymbol{0,166} \times \boldsymbol{Autonomy}$$
$$+ \ \boldsymbol{0,153} \times \boldsymbol{Social\ support} + \boldsymbol{0,133} \times \boldsymbol{Specialization} + \boldsymbol{0,105}$$
$$\times \boldsymbol{Feedback\ from\ others} - \boldsymbol{0,129} \times \boldsymbol{Initiated\ interdependence}$$

In others words, consultants' wellbeing is greater with the presence of the following job design components: task significance, autonomy, social support, specialization and feedback from others. On the other hand, consultants' wellbeing decreases with the presence of initiated interdependence.

4. Discussion and conclusions

The main goal of this investigation was to reveal what are the main job characteristics that consultants perceive and in what way those characteristics have an impact in their wellbeing.

The factor analysis done to the Work Design Questionnaire (WDQ) from Morgeson and Humphrey (2006), confirmed that job design in consulting could be defined by three dimensions: knowledge, task and social characteristics.

From the data analysis we can conclude that the dimension knowledge characteristics are the most perceived by consultants, followed by task and social characteristics.

All the new components emerged from factor analysis have a value higher than 3, which means they can be considered as a job design barometer to the consultant occupation. Task variety (task dimension) and variety of skills and information (knowledge dimension) are the most perceived components by consultants. Initiated interdependence (social dimension) and feedback from job (social dimension) are the less perceived components by consultants.

Morgeson and Humphrey (2006) were concerned if the WDQ could enable opportunities for work design theory. As so, one of the hypotheses tested and confirmed by the authors was if the task and knowledge dimensions are positively related to job satisfaction. Through a correlation analysis this investigation confirmed the results obtained by the authors; task and knowledge characteristics are positive and significantly correlated with job satisfaction.

Regarding the impact that job characteristics have or not on consultants' wellbeing a linear regression analysis was performed. From the analysis we can conclude that wellbeing is positive influenced by task significance, autonomy, social support, specialization and feedback from others. On the other hand, wellbeing is negatively influenced by initiated interdependence. The obtained model is somehow related to the model proposed by Peter Warr (1987) – "The Vitamin Model" (VM) as referred in the chapter of literature review.

This model considers that work characteristics like autonomy, job demanding, competencies diversity, feedback and social support, affect wellbeing. However, the author states that these characteristics are positive up to a certain point after which they become harmful.

The main limitation of this study is related to the small number of responses received to the questionnaire and that happened because the questionnaire is over extensive. A larger number of replies would provide greater data consistency and reliability.
Another limitation has to do with the elimination of the contextual dimension of this questionnaire in order to reduce it.

In regards the contributions for management, the constructed model can be applied by consultancy firms in order to adapt job design accordingly with the job characteristics that most influence consultants' wellbeing. This way consultancy firms would improve consultants' wellbeing and probably productivity and efficiency, as literature in general suggest that wellbeing at work may be related with performance, and probably would also reduce turnover, which is a big problem of consultancy firms.
The data collected for this investigation is generally from Portuguese consultants and it would be very interesting carry out this study with a more international sample.

5. Bibliography

Bonache, J. (2005) Job satisfaction among expatriates, repatriates and domestic employees. Personnel Review, 34 (1), pp. 110–124.

Burnett, I. (1925). *An experimental investigation into repetitive work*. Industrial Fatigue Research Board, Rep. No. 30. London:HMSO.

Campion, M. A., & Thayer, P. W. (1985). *Development and field evaluation of an interdisciplinary measure of job design*. Journal of Applied Psychology, 70, 29–43.

Campion, M. A. (1996). *Reinventing work*: *A new area of I/O research and practice.* Presidential address presented at the meeting of the Society for Industrial and Organizational Psychology, San Diego, CA.

Cherns, A. (1978). *The principles pf sociotechnical design.* Human Relations, 29, 783 – 792.

Conrad, P. 1988a. *Health and fitness at work: A participants' perspective*. Social Science Medicine, 26: 545–550.

Cooper, C. L., & Cartwright, S. (1994). Healthy mind; healthy organization—A proactive approach to occupational stress. Human relations, 47(4), 455-471.

Cummings, T. G. (1978). *Self-regulation work groups: A sociotechnical synthesis*. Academy of Management Review, 3, 625 – 634.

Davis, L. E. (1971). *Reading the unready: Post-industrial jobs*. California Management Review, 13, 27-36.

De Lange, A. H., Taris, T. W., Kompier, M. A., Houtman, I. L., & Bongers, P. M. (2003). " The very best of the millennium": longitudinal research and the demand control-(support) model. Journal of occupational health psychology, 8(4), 282.

Diener, E. 2000. Subjective Wellbeing. The science of happiness and a proposal for a national Index. American Psychologist. Vol 55, No 1, 34-43.

Diener, E. 2012. New findings and future directions for Subjective Wellbeing research. American Psychologist.

Diener, E., Ng, W., Harter, J., & Arora, R. (2010). Wealth and happiness across the world: Material prosperity predicts life evaluation, whereas psychosocial prosperity predicts positive feeling. Journal of Personality and Social Psychology, 99, 52–61.

Fulmer, C. A., Gelfand, M. J., Kruglanski, A., Kim-Prieto, C., Diener, E., Pierro, A., & Higgins, E. (2010). On "feeling right" in cultural contexts: How person-culture match affects self-esteem and subjective wellbeing. Psychological Science, 21, 1563–1569.

Hackman, J. R., & Lawler, E. E. (1971). Employee reactions to job characteristics. Journal of Applied Psychology Monograph, 55, 259 – 286.

Hackman, J. R., & Oldham, G. R. (1975). Development of the Job Diagnostic Survey. Journal of Applied Psychology, 60, 159 –170.

Hackman, J. R., & Oldham, G. R. (1976). *Motivation through the design of work: Test of a theory*. Organizational Behavior and Human Performance, 16, 250 –279.
Hackman, J. R., & Oldham, G. R. (1980). *Work redesign*. Reading, MA:Addison-Wesley.

Herzberg, Frederick (1974). Motivation Hygiene Profiles: Pinpointing what ails the organization. Organizational Dynamics.

Kahneman, D., & Deaton, A. (2010). *High income improves evaluation of life but not emotional well-being.* Proceedings of the National Academy of Sciences in the United States of America, 107, 16489–16493.

Kilduff, M., & Regan, D. T. (1988). What people say and what they do: The differential effects of international cues and task design. Organizational Behavior and Human Decision Processes, 4, 83-97.

Luhmann et al, 2012. *Subjective Well-being and adaptation to life events: a meta analysis.* Journal of Personality and Social Psychology. Vol 102(3) 592-615.

Luhmann, M., Schimmack, U., & Eid, M. (2011). *Stability and variability in the relationship between subjective well-being and income.* Journal of Research in Personality, 45, 186–197.

Mackinnon, A., Jorm, A. F., Christensen, H., Korten, A. E., Jacomb, P. A., & Rodgers, B. (1999). A short form of the Positive and Negative Affect Schedule: Evaluation of factorial validity and invariance across demographic variables in a community sample. Personality and Individual differences, 27(3), 405-416.

Malhotra, N. K. (2009), Marketing Research: an applied orientation, Boston: Pearson.

Marôco, J. (2014). Análise Estatística com SPSS Statistics (6ª Edição).

Morgeson, F. P., & Campion, M. A. (2003). *Work design*. In W. C. Borman, D. R. Ilgen, & R. J. Klimoski (Eds.), Handbook of psychology: Industrial and organizational psychology (Vol. 12, pp. 423– 452). Hobo-ken, NJ: Wiley.

Morgeson, Frederik P., Humphrey, Stephen E. (2006) The Work Design Questionnaire (WDQ): Developing and Validating a Comprehensive Measure for Assessing Job Design and the Nature of Work. Journal of Applied Psychology, Vol. 91, No. 6, 1321–1339.

Morgeson, Frederick P., Erich C. Dierdorff, and Jillian L. Hmurovic. (2010) "Work design in situ: Understanding the role of occupational and organizational context." Journal of Organizational Behavior 31.2-3, 351-360.

Oldham, G. R. (1996). *Job design*. In C. Cooper, & I. Robertson (Eds.), International review of industrial and organizational psychology (Vol. 11, pp. 33–60). New York: Wiley.

Oldham, Greg R. and J. Richard Hackman. 2010. Not what it was and not what it will be: the future of job design research. Journal of Organizational Behavior 31(23): 463–479.

Parker, Sharon & Toby, Wall (2001) – a. *Work Design: Learning from the Past and Mapping a New Terrain*. Handbook of Industrial, Work & Organizational Psychology. Volume 1 - Personnel Psychology, chapter 5.

Parker, Sharon & Wall, Toby (2001) – b. *Job and work design: organizing work to promote well-being and effectiveness.* Advanced topics in organizational behavior. London, SAGE Publications.

Paschoal, Tatiane, & Tamayo, Alvaro. (2008). Construção e validação da escala de bem-estar no trabalho. Avaliação psicológica, 7(1), 11-22.

Paul, W. P., & Robertson, K. B. (1970). *Job enrichment and employee motivation.* London: Gower.

Pestana, M. H. e Gageiro, J. N. (2003), Análise de Dados para Ciências Sociais – A Complementaridade do SPSS, Lisboa: Edições Sílabo.

Rousseau, D. M. (1977). Technological differences in job characteristics, employee satisfaction, and motivation: A synthesis of job design research and sociotechnical systems theory. Organizational Behavior and Human Performance, 19, 18-42.

Ryan, Richard M. and Deci, Edward L. On Happiness and Human Potentials: A Review of Research on Hedonic and Eudaimonic Well-being. Annual Review of Psychology, 2001. 52:141-166.

Salancik, G. R., & Pfeffer, J. (1978). *A social information processing approach to job attitudes and task design*. Administrative Science Quarterly, 23, 224-253.

Staw, B. M. (1984). *Organizational behavior: A review and reformulation of the field's outcome variables*. In M. R. Rosenzweig & L. W. Porter (Eds), Annual Review of psuchology (Vol. 35, pp. 627-666). Palo Alto, CA: Annual Reviews.

Trist, E. L. (1981). The sociotechnical perspective. In A. H. Van de Ven & W. F. Joyce (Eds.), Perspectives o organization design and behavior (pp. 19-75). New York: Wiley.

Turner, A. N., & Lawrence, P. R. (1965). *Industrial jobs and the worker*. Cambridge, MA: Harvard University Press.

Wall, T.D., & Martin, R. (1987). *Job and work design*. In C.L. Cooper & I.T. Robertson (Eds.), International Review of Industrial and Organisational Psychology (pp. 61–91). Chichester: Wiley.

Warr, P. (1987) *Work, Unemployment and Mental Health*. Oxford: Clarendon Press.

Waterman AS.1993. Two conceptions of happiness: contrasts of personal expressiveness (eudaimonia) and hedonic enjoyment. Journal of Personality and Social Psychology. 64:678 – 91.

Wyatt, S., Fraser, J. A.,& Stock, F. G. L. (1928). The comparative effects of variety and uniformity in work. Industrial Fatigue Research Board, Rep. No. 52. London: HMSO.

6. Appendix

Appendix 1 – Job Design in consultancy sector and its relationship with consultants' wellbeing survey

Job Design

This survey is part of a research project from the Faculty of Economics, University of Porto (FEP). It aims to develop a barometer of the most valued characteristics of working in the consultancy sector and in what way those characteristics are or not related with consultants' wellbeing. This questionnaire is anonymous.

Your cooperation is essential for the success of this investigation. As so, I would like to thank you in advance for your availability and contribution to this study.

1. Gender
   - ○ Female
   - ○ Male

2. Age

3. Academic degree
   - ○ High School
   - ○ Bachelor
   - ○ Master
   - ○ Doctor
   - ○ MBA

4. Nationality

5. Country(ies) where you work

6. Average number of hours worked a week

7. Number of years of experience in consultancy

8. Management position
   - ○ Yes
   - ○ No

9. Civil Status
   - ○ Single
   - ○ Married
   - ○ Divorced
   - ○ Widower

10. Number of children

11.	In order to answer these questions, please think about your work and your current role, placing in front of each statement the corresponding number to your answer: 1 - Totally disagree; 2 - Disagree; 3- Neither agree nor disagree; 4 - Agree; 5 - Totally agree				

	1	2	3	4	5
The job allows me to make my own decisions about how to schedule my work	○	○	○	○	○
The job requires that I only do one task or activity at a time	○	○	○	○	○
The job requires me to monitor a great deal of information	○	○	○	○	○
The job activities are greatly affected by the work of other people	○	○	○	○	○
The job involves a great deal of task variety	○	○	○	○	○
The job allows me to make decisions about what methods I use to complete my work	○	○	○	○	○
The job involves completing a piece of work that has an obvious beginning and end	○	○	○	○	○
I have the opportunity to develop close friendships in my job	○	○	○	○	○
The job requires me to keep track of more than one thing at a time	○	○	○	○	○
My job cannot be done unless others do their work	○	○	○	○	○
The job requires me to use a number of complex or high-level skills	○	○	○	○	○
The job requires me to be creative	○	○	○	○	○
Other people in the organization, such as managers and coworkers, provide information about the effectiveness (e.g., quality and quantity) of my job performance	○	○	○	○	○
The job requires me to accomplish my work activities before others complete theirs	○	○	○	○	○
The job requires me unique ideas or solutions to problems	○	○	○	○	○
The work performed on the job has a significant impact on people outside the organization	○	○	○	○	○
I receive a great deal of information from my manager and coworkers about my job performance	○	○	○	○	○
The job is highly specialized in terms of purpose, tasks, or activities	○	○	○	○	○

The job provides me with significant autonomy in making decisions	○	○	○	○	○
The job allows me to complete the work I start	○	○	○	○	○
I have the opportunity to meet with others in my work	○	○	○	○	○
The job requires a depth of knowledge and expertise	○	○	○	○	○
The job comprises relatively uncomplicated tasks	○	○	○	○	○
The work activities themselves provide direct and clear information about the effectiveness (e.g., quality and quantity) of my job performance	○	○	○	○	○
The job requires the performance of a wide range of tasks	○	○	○	○	○
The job allows me to make a lot of decisions on my own	○	○	○	○	○
The job is arranged so that I can do an entire piece of work from beginning to end	○	○	○	○	○
The job often involves dealing with problems that I have not met before	○	○	○	○	○
The job requires a variety of skills	○	○	○	○	○
The job involves spending a great deal of time with people outside my organization	○	○	○	○	○
Unless my job gets done, other jobs cannot be completed	○	○	○	○	○
The tasks on the job are simple and uncomplicated	○	○	○	○	○
People I work with are friendly	○	○	○	○	○
The job involves solving problems that have no obvious correct answer	○	○	○	○	○
The job itself provides me with information about my performance	○	○	○	○	○
The job involves doing a number of different things	○	○	○	○	○
The job allows me to decide on the order in which things are done on the job	○	○	○	○	○
The job gives me a chance to use my personal initiative or judgement in carrying out the work	○	○	○	○	○
My supervisor is concerned about the welfare of the people that work for him/her	○	○	○	○	○
Other jobs depend directly on my job	○	○	○	○	○
The job requires me to analyze a lot of information	○	○	○	○	○

On the job I frequently communicate with people who do not work for the same organization as I do	○	○	○	○	○
The job itself is very significant and important in the broader scheme of things	○	○	○	○	○
The job allows me to decide on my own how to go about doing my work	○	○	○	○	○
The job provides me the chance to completely finish the pieces of work I begin	○	○	○	○	○
I receive feedback on my performance from other people in my organization (such as manager or coworkers)	○	○	○	○	○
The tools, procedures, materials and so forth used on this job are highly specialized in terms of purpose	○	○	○	○	○
The job involves performing a variety of tasks	○	○	○	○	○
The job gives me considerable opportunity for independence and freedom in how I do the work	○	○	○	○	○
The job has a large impact on people outside the organization	○	○	○	○	○
The job requires the use of a number of skills	○	○	○	○	○
The job itself provides feedback on my performance	○	○	○	○	○
The job involves performing relatively simple tasks	○	○	○	○	○
The job involves interaction with people who are not members of my organization	○	○	○	○	○
The job requires very specialized knowledge and skills	○	○	○	○	○
The results of my work are likely to significantly affect the lives of other people	○	○	○	○	○
The job requires that I engage in a large amount of thinking	○	○	○	○	○
People I work with take a personal interest in me	○	○	○	○	○
The job depends on the work of many different people for its completion	○	○	○	○	○
The job requires me to utilize a variety of different skills in order to complete the work	○	○	○	○	○
I have the chance in my job to get to know other people	○	○	○	○	○
The job involves a great deal of interaction with people outside my organization	○	○	○	○	○
The job allows me to plan how I do my work	○	○	○	○	○

12.	Please think about the degree of satisfaction that you felt with your work during last month. In what extent do you agree with the following statements? 1 - Totally disagree; 2 - Disagree; 3- Neither agree nor disagree; 4 - Agree; 5 - Totally agree					
		1	2	3	4	5
	I am very satisfied with my current job					
	I would accept the same job again	○	○	○	○	○
	I would recommend my current job to a friend	○	○	○	○	○
	My current job meets my expectations	○	○	○	○	○
	My overall satisfaction with my job is excellent	○	○	○	○	○

13.	Think about the ten emotions described below. How often did you experienced them at work during the last month? Please use the following 5-point scale and place the corresponding number in front of each emotion. 1- Never; 2- Few times; 3- Sometimes; 4- Most of the time; 5 - Always					
		1	2	3	4	5
	Inspired	○	○	○	○	○
	Nervous	○	○	○	○	○
	Apprehensive	○	○	○	○	○
	Enthusiastic	○	○	○	○	○
	Alert	○	○	○	○	○
	Scared	○	○	○	○	○
	Annoyed	○	○	○	○	○
	Determined	○	○	○	○	○
	Excited	○	○	○	○	○
	Stressed	○	○	○	○	○