# ISCTE De Business School Instituto Universitário de Lisboa

# Factors that influence the choice of first jobs of the students and recent graduated students: Information technology area vs sociohumanistic and economic area

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Dissertation submitted as partial requirement to obtain the degree Master in Human Resources Management

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October, 2016

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# Acknowledgements

First of all I want to thank to my supervisor, Professor Alzira Duarte, primarily for accepting my invitation and for the patience, extra availability and dedication to help me during all the project. Without her rigor the achievement it would not be the same.

Second, a special thank to my family, especially my parents, my sister and my cousin (the flatmates) that were always available to discuss in order to improve each detail and incentivised me to not give up always with personal effort.

To my work colleagues for always getting me happy and encouraging me to concretize this achievement.

I want to thank also to all my friends, especially the more closed ones, for hearing my worries and supporting me all the time with a smile every day.

To some other professors (including during my degree and master) for teaching some unique things, transferring important knowledge, and helping me to develop myself as a student but with an exceptional life experience.

And last but not the least to all my master's colleagues for teaching me what is a wonderful class where is possible to help each other and make real friends.

Thank you, without each one of you this project would not have been the same achievement.

# Abstract

The present master dissertation was a result of the interest in investigate about which kind of determinant characteristics will influence the choice of first job by students and recent graduated students, especially the ones that belong to the Informatics and technology area and socio-economic/ socio-humanistic area. This empirical research was just applied to a national context.

Going on with this study, firstly were structured a literature review where was described and analysed as an influent dimensions organisational characteristics and characteristics according to wished function or task. Afterwards these specific dimensions were tested and analysed using a questionnaire answered by two hundred and four students.

Making this empirical study was possible to take some conclusions in terms of type of influent characteristics by academic graduation area, testing also if the same dimensions depend on factors such as gender or age.

The interest and convenience of this study relies on the actuality of the topic. In general and according to the valid sample of this study we can conclude that there are effective differences in terms how students and recent graduated students value the importance of function and organisational characteristics, mainly considering dimensions as work context and task characteristics and on the other side when making a correlation between the ten dimensions and age variable.

Key words: First job, recent graduate students, influent characteristics, Begining of career;

<u>Classifications according to the JEL Classification System</u>: A2 Economic Education and Teaching of Economics:

A22.Undergraduate, A23.Graduate

O1 Economic Development:

015 Human Resources • Human Development • Income Distribution • Migration

# Resumo

A presente dissertação de mestrado resultou do interesse em investigar as determinantes influenciadoras da escolha do primeiro emprego por parte de estudantes recémgraduados, principalmente os estudantes das áreas de Informática e Tecnologia e Ciências Sociais e Económicas. Este estudo empírico foi aplicado apenas num contexto nacional.

Para este efeito, numa primeira fase procedeu-se a uma revisão de literatura na qual se consideraram como dimensões influenciadoras características organizacionais e características de acordo com a função a desempenhar. Posteriormente estas foram testadas e analisadas através de um questionário submetido a duzentos e quatro alunos.

A partir deste estudo empírico foi possível retirar algumas conclusões relativas ao tipo de características influenciadoras por área de formação, testando também se as mesmas dependem de outros fatores como é exemplo género ou idade.

O interesse e conveniência deste estudo prendem-se principalmente pela atualidade do tópico. De maneira geral e segundo a amostra válida neste estudo conclui-se que efetivamente há diferenças na valoração de importância de caraterísticas funcionais e organizacionais, por parte de estudantes e recém graduados, principalmente considerando dimensões como contexto de trabalho e características da tarefa ou por outro lado a correlação entre as dez dimensões testadas, com a variável idade.

**Palavras-chave:** Primeiro emprego, estudante e recém graduados, características influenciadoras; Início de carreira;

#### Classificações de acordo com o Sistema de Classificação JEL:

A2 Economic Education and Teaching of Economics:

A22.Undergraduate, A23.Graduate

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## **1.** Introduction

Nowadays it becomes more social talk about attracting new great talents. The importance of "being a first-choice brand is a valuable asset for an organisation, both for remaining competitive and for attracting potential employees" (Rampl, 2014: 1486).

As well it is becoming social talking about costumer's retention. "Within-specific groups of products or services, being consumers' favourite brand – the consumer first-choice brand (FCBc) – is associated with many favourable outcomes" (Rampl, 2014: 1486), as an example, be the first choice in the selection of application process. Particularly, "strong brand connections lead to favourable brand preferences that are difficult for competitors to imitate" (Wallström, Steyn, and Pitt, 2010: 230) which would make each organization unique. Being an unique organization will stimulate the interest of new people to work there. A great example that makes an inimitable company are the people who work there, especially the ones that contact with public. From these references emerged the importance to search more about what kind of characteristics (organisational characteristics or task/ function characteristics) are more important and valued in the selection of application process, especially for first jobs, the beginning of career.

Clarifying the purpose of this master thesis will be to identify what are the factors that influence the choice of the first job, and which prevails. Take into consideration these influenced factors, would be interested to see if they are linking with academic graduations like searching what are the factors that influence the choice of the first job in Information and Technology area or in socio-humanistic/ socio-economic area. Observing the influenced factors for each group, are there differences between "Information and Technology" and "socio-humanistic/ socio-economic" areas. If not, what could be the independent factors (sex, age or others) that will guide the influenced factors for selection of application process of the first jobs, specially? All these issues were joined in one topic: "Factors that influence the choice of first job of the recent graduated students: Information Technology area and Socio-Humanistic/ Socio-Economic area."

To study the topic above, some dimensions were identified ("*Employer Brand*", "*Task characteristics*", "*Knowledge characteristics*", "*Social characteristics*" and "*Work Characteristics*") to measure (in a bi-polar rating scale of importance with seven points)

the intention of students. The main idea is to conclude if their choices depend (is influenced by) on his graduated area.

The research was split into six sections. Starting with a theoretical approach, where is presented the purpose of the topic, becoming clearer to the reader. This section includes an overview of professional careers and the evolution of them introducing also some characteristics and conditions that have an impact in how to conduct a career, in order to be possible to identify specific possible factors that could influence our choice, especially in first job opportunities. The main dimensions raised were employer branding and work conditions, including task, knowledge, social and Work context characteristics, saying why and how they are important for students and how they value these dimensions. Secondly was presented the methodology of the research, specifying the methods used and characterizing generally the sample. Later the statistical analysis clear up the statistical tests made and why they were used. The fourth section is the discussion where a link is done between literature review and results of the questionnaire made. Lastly the conclusion summarise the ideas exposed before answering to the main issues raised, including also limitations and recommendations to future researches.

#### 2. Literature Review

## 2.1. General approach

In the scope of the master in Human Resources Management, topics related with the uncertainty about career choices and motivations of students and recent graduated students when they are looking for their first jobs came up. This issue was a result of a missing information about influenced factors in the beginning of professional careers, as it is new cycle in young people's life.

The concept of career had been changing across last years, adapting to the Work context of instability and uncertainty that we live now. There were identified four meanings/ expressions for career by Hall (1976) including professional development, professional occupation, a sequential jobs or functions lifelong and a sequential professional experiences lifelong. Any of these meanings limit professional career in terms of organizations or country, which keep the concepts updated.

The changes of the career concept are also related with changes in organisational structures and Work context influencing also changes in terms of how to evaluate the success of professional careers. In general people does not wish just a professional career but a successful professional career, starting since the first years. Before this concept was characterized by high salary, hierarchical position, promotions or benefits longlife. Nowadays it have been changing, according to Seibert and Kramer (2001) a successful career is a multiple combinations of positive psychological results linked with the job performed. From Feldman an Ng (2007) professional success is measured by two types of indicators, objective and extrinsic (external indicators related with hierarchical progression or promotion and benefits gained over the years) or subjective and intrinsic (based on attitudes, emotions and individual work perceptions). So nowadays a successful professional career is more about work satisfaction, flexibility and work engagement.

Agreeing to Lautenschläger and Haasein (2011) in general motivation factors can be classified into cognitive personal factors on the one hand, contextual or environmental factors on the other. Cognitive factors are intended like: self realization, need for autonomy and independence, social recognition and status, the propensity to take risks, learning/ gaining experience, need for personal development, highlight financial success and high income and finally economic motives. Contextual or environmental factors are

related with culture, social aspects, political and economic nature. The social pressure from family, friends, parents or other people of reference was affirmed as a high influence on children's career decisions. Both factors will lead the motivation for specific life's decisions, as an example the interested area to study in university and consequently the area to work in future.

Authors as Knox and Freeman and Morgeson and Humphrey came up with influenced factors like employer brand, work conditions in general. These both factors were the ones taken into consideration in the study of the valid sample of this master thesis. The factors mentioned were consider an important impacts of the beginning of professional careers.

#### 2.1.1. Career: Concept and influenced motivators

Schein (1971) suggests that individual career development can be achieved in three ways as a rotation between departments in the same organization, promotion to higher positions and change of the direction of work in an organization. From these words a career is built just in one organization since the beginning. Three different kinds of careers could be constructed and always in the same organization, whether through being part of different departments of the organization, like being promoted (horizontal career evolution between classes or categories in the same role function) or having progressions (vertical career evolution between levels in the same role function) or even by changing the board directors of the organization. Schein (1978) said that the professional career should contemplate not just vertical progressions (hierarchy level) but also horizontal promotions (changing of tasks, function) and lateral/internal movements, which influence the highest power of organization.

Across the years the meaning of career has changed and Arthur and Rousseau (1996) pointed out that individuals can built their careers outside the organization, creating a different concept of career, a "Boundaryless career" defined as career ways that are not limited within a single organization and don't proceed based on the hierarchy. They was the first ones that raised this kind of concept about career, strongly distinguished of traditional concept. Sullivan (1999) distinguish traditional from contemporary careers saying that the contemporary concept take in consideration the following key aspects: attitudes and behaviours, transversal knowledge across various organizations, personal

identification with tasks/function, the specific learning in Work context, development of networking contacts, peer learning relationships, and individual responsibility for own career management. Kale and Özer (2012) also listed six themes among the concept, such as surpassing occupational limits, organisational boundaries and exceeding boundaries between roles and within the roles, making changes in work relations and establishing social and professional relationships with other individuals that work in other occupations, sectors or organizations. Greenhaus at al., (2010) centred the meaning of Boundaryless career approach in the mobility between organizations that can helps individuals to build their careers within the scope of a global career context, increasing the importance and highlighting development for individuals at professional life.

Resuming nowadays it is assumed that careers are flexible, do not depending on the organization where you work or worked, or even on the country where you live now or lived. A career path can be built in different organizations having also various roles inside each one and including diverse locations, countries. Also the meaning of career can change across professional path or also across to different countries where people establish their lives. This specific concept has becoming more and more knowing across de world, being not an exception but a reality of standard.

There are also other notions about career concept, as an example a "Protean career", from Greece god's name "Proteus", which had the capacity for changing his body shape according to his own desire. According to Hall (2004) the growth of professional career is just a responsibility of individual (worker) and not an organization's responsibility. The central ideals of this concept are liberty and growth where the individual has a high possibility of mobility and a strong compromise with work satisfaction, intending that the principal criteria for evaluate the individual success is a psychological success (subjective evaluation). So the individual and his own desires is the only one responsible for his own professional career planning and changings he wants. The protean career is a combination of high self-direction and strong orientation for personal values. According to Briscoe and Hall (2006) there are other three dimensions across protean career, such as dependent (individuals that do not follow their own personal values and are not responsible from own careers), reactive (individuals that managed his own professional careers but not follow his own values, adapting for example organization's values) and rigid (a contrary concept from reactive, the ones that can not manage own career but has a strong orientation for personal values).

Lautenschläger and Haasein, (2011) also investigated career's topics, but in terms of intentions across years and professional life. They concluded that after graduation, most of the students wish medium-sized firm (31.8%), followed by large companies (29.3%) and small-sized firms (12.4%). On the other hand, among the self-employment alternatives, was revealed that 'starting a business' (2.3%), 'working as freelancer' (2.5%) and 'business take-over' (2.9%) were ranked relatively low from the students future preferences. These help we to understand what underline the career choices after students finish their academic graduations, and the fact of that issues change and depend on the years and experience gained in the labour market. To support this proposition could be underline reasons like: easiness of starting in medium-sized company instead of a large one; possibility to have a variety of different tasks to learn the maximum in the beginning of career; high possibility to travel abroad, risk aversion and so on.

Students and recent-graduated students in their first professional opportunities must look for numerous characteristics depending on task or company. These kind of characteristics could be categorized in groups. Lautenschläger and Haasein (2011) categorized some characteristics in four different groups, independently on the graduation' area: selfrealization (working under one's own initiative, releasing one's own business/ product' ideas and having fun when dealing with opportunities and risks), self-determination (being one's own boss, self-deciding on working hours and place, "flexibility", continuation of family tradition), self-employment (starting a business, taking over a business and working as a freelancer) and Status orientation (the current situation in the labour market, higher income and prestige/ social status). These categories can support career choices and student motivations.

In the last paragraphs was mentioned some influenced characteristics in the beginning of the professional career, there are other authors, such as Hackman and Oldham (1980) that also investigated related facts but centred in function/task and mainly when people have already some career's experience.

With all the assumptions above we can derive that the decisions made when people are looking for his first jobs are based on characteristics/ dimensions, which have specific levels of importance in the moment of choosing one company/ task instead other, independently of graduation area.

#### 2.2. Organisational factors

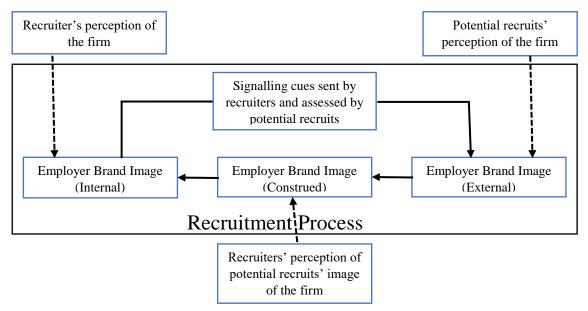
## 2.2.1. "Employer Brand Image"- Concept

According to Knox and Freeman (2006) one important variable for students and recentgraduated students when they are looking for their first job is employer brand image of the company especially during the recruitment process.

The expression "employer brand image" combines two different and complementary ideas being an external image of the company and a brand of the company. This external image could include a variety of dimensions that are contained inside the company. As a result of this, is the fact that normally we can associate just one word (characteristic) to the companies that we know, generally associated to their brand. Applying this expression in recruitment context we can split this expression and define first brand as "a multidimensional construct whereby managers augment products or services with values and [which] facilitates the process by which consumers confidently recognize and appreciate those values" (Chernatony and Dall'Olmo Riley, 1998 cit by Knox and Freeman, 2006: 697) and image as "(...) the outcome of a transaction whereby signals emitted by a marketing unit are received by a receptor and organized into a mental perception of the sending unit" (Stern et al, 2001 cit by Knox and Freeman, 2006: 697). So employer brand image will belong to organisational strategies, where are included marketing strategies, human resources strategies, financial strategies and so on. Employer brand image is explained as a mix of external image of the company from his consumers with the appearance that the internal workers try to transmit to the exterior. This tells us that there is no right or specific employer brand image of each company, this concept will depend always on exterior and internal goals defined. The employer brand image of each company will influence various types and targets of people, the ones that could be the future candidates, influencing also the choosing process of one company in detriment of other.

#### 2.2.2. "Employer Brand Image"- Model and influences on choices

Employer brand is one of the important factors that can influence the choice of the first job due to the fact that will impact the opinion and feedback of recent-graduated students and their intention to apply, in other words, the attractiveness of the company. Related with this fact there are also other components that can influence the company's attractiveness. Recruiters are also a high component that can influence employer brand image when talking about recruitment context, as was said by Balmer (1995, 2001 and 2003 cit by Knox and Freeman, 2006), they expose the firm's attributes and values during the recruitment process.



*Figure 1- Perceptions of Brand Image in the Recruitment Employer Process, (Knox and Freeman (2006: 700), adapted from Dukerich and Carter (2000)).* 

According to the model formulated from Knox and Freeman (2006), illustrated by the image above (fig. 1) it can be seen that the recruiters are one of the representative faces of the company, especially for the new/possible recruited (candidates). The recruiters are responsible to pass just the right information (what is supposed/ what they want to pass) to the exterior people, aiming to create a specific company's image.

On one hand the perception's firm from the recruiters will influence internal employer brand image and on the other hand the perception's firm from potential recruits will influence external employer brand image. Both together will construct one common employer brand image of the company that is also influenced by recruiters' perception of potential recruits' image of the firm.

To illustrate the model above could face the succeeding context: There is a candidate to a consultant company focused in recruitment and selection process/methods. The image that he has in his mind about this specific company is like a company focused in human resources, focused in details to choose the best candidate to the right task but also focused in training for their workers to give them the best methodologies to achieve the defined achievements (external employer brand image). On the other side recruiters want to transmit the idea that is a company focused totally in human resources distributed for several countries and continents with a lot of different options for their workers to grow professionally, focused also in frequent training and teamwork skills (internal employer brand image). Wholly the image of this company will be a global organization in terms of opportunities and localizations that promote frequent training and work in teams. In conclusion this entire image will be influenced by recruiters' perception of potential candidates' image of the firm, looking for specific characteristics in recruitment process, such as teamwork skills, interest in learning different things, curiosity to try always to find the best method or process to the specific task and available to some travel's work.

If the model above is considered an absolute truth, maybe these kind of influences will be differently understood by different kinds of students including the potential recruits.

Knox and Freeman (2006) measured employer brand by twenty sub-dimensions, like "Allows a lot of freedom to work on your own initiative"; "Employs people with whom you feel you will have things in common"; "Has a dynamic, forward-looking approach to their business"; "Has a friendly, informal culture", which the rest are detailed in annex and in instruments' section of methodology (annex A2). The authors referred was one of the basis to the research development of this masters.

These dimensions established from Knox and Freeman (2006) are used to measure the importance of Employer Brand's Variable in general and also specifically in recruitment process. Each dimension has a different level of importance depending on the person (his personality, culture and so on), which show us that each person is looking for different characteristics in their first jobs. Some of them are looking for prestigious company, others desire to learn different approaches in different roles and teams, some wants to have a regular training, some are looking for the opportunity to know different worlds and cultures having the chance to work and live abroad and so on. When it is said that employer brand is the image of each company assumed from society, it says that the dimensions above will also be considered by students to compare and decide what they want for their professional career and specifically for the beginning of their career.

Analysing the information above, emerged the first hypothesis:

RQ1: Which are the factors that influence the choice of the first jobs?

#### 2.3. Function factors

Talking about employer brand image (organisational characteristics) we notice that there are more factors that also can influence this specific choice, and the ones that are very important is function/ Task characteristics. There are lots of studies about this kind of influences, studied by different researchers, mainly by Hackman and Oldham (1980) and Morgeson and Freeman (2006). Work context in general (including *"Task characteristics"*, *"Knowledge characteristics"*, *"Social characteristics"*, *"Work context"*) were already analysed by Morgeson and Humphrey (2006), as a part of work/ job design, in their study named "The Work Design Questionnaire (WDQ): Developing and Validating a Comprehensive Measure for Assessing Job Design and the Nature of Work". To evaluate and take great conclusions about these four sub-dimensions (inside the main one Work context in general), each one was composed by three to five sub dimensions also composed by three to six example situations. A scheme was made (annex A1) to clarify the design made by the authors. The authors considered this study more complete and consistent than others made before.

#### 2.3.1. Job Characteristics Model (Hackman and Oldham, 1980)

Hackman and Oldham (1980) established five key characteristics that influence the satisfaction at work which are: skill variety, task identity, task significance, autonomy and feedback. Through three psychological states (experienced meaningfulness of the work, experienced responsibility for outcomes of the work and knowledge of the actual results of the work activities), these five core characteristics will lead to the following outcomes: growth and general job satisfaction, work effectiveness and internal work motivation. The relationship above, between these variables will affect he growth need strength, context of satisfaction and knowledge/ skills.

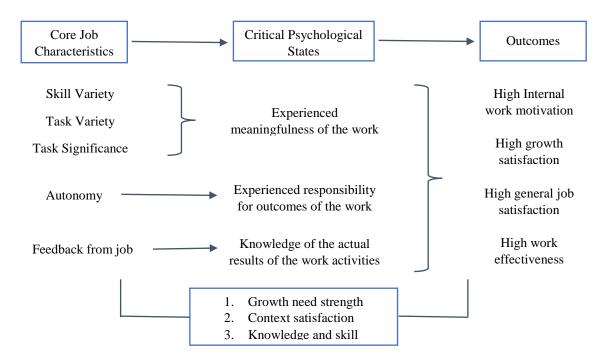


Figure 2- Job Characteristics Theory, (Hackman and Oldham (1980: 90)).

Detailing the core job characteristics (presented in fig. 2) skill variety was considered essential due to the fact that many jobs requires numerous activities and a diversity of developed skills is also needed, which will experience more meaningfulness in jobs that require several different skills/ abilities. In terms of task identity is understandable as a degree required to do a piece of work with a visible outcome. The more you are involved in the work project the more you will experience meaningfulness in a job. Task significance as a degree of influence in others people's lives, both internal and external to the organization. The more a worker improves his psychological and physical wellbeing more meaningfulness a worker will feel. Autonomy was defined as a feeling of freedom and independence in terms of a work plan and his determination (including the procedures). Having a strong level of autonomy at work, the respective outcomes will depend a lot of employees' effort, initiatives and decisions, at least more than if is more controlled from a manager or having a specific and straight job procedures. And the last core job characteristic considered crucial was feedback, in terms of knowledge of results. Feedback is a kind of additional, detailed, specific and clear information about the effectiveness of a specific employee participation in a work project (his performance). The more a worker receives this kind of feedback the more he will have an overall

knowledge of the effectiveness of his work and what he can do to improve his productivity.

About the three critical psychological states, experienced meaningfulness of the work was defined as a degree of intrinsically meaningful and value of a specific employee shown to an external person of the company from the manager/ jobholder. Relatively to experienced responsibility for the outcome of the work, was understood as a level of which the employee feels responsible for the specific results of a work project. Lastly about knowledge of results of the work activities was established as a level of how well performing are employees, in managers' perspective.

The last part of the model above mentions kinds of outcomes: growth and general job satisfaction, work effectiveness and internal work motivation, which were not always the same contained in the theory namely removing growth and general work satisfaction (absenteeism and turnover) and split work effectiveness (performance) into two, quality and quantity of work.

So according with Hackman and Oldham (1980) there are five core job characteristics (skill variety, task identity, task significance, autonomy and feedback) that through from the three critical psychological states (experienced meaningfulness of the work, experienced responsibility for outcomes of the work and knowledge of the actual results of the work activities), will lead to a specific outcomes (growth and general job satisfaction, work effectiveness and internal work motivation). With these relationships the authors established that the higher score on the five core job characteristics a employee has, generating well the three psychological states, the more he will achieve positive work outcomes, such as high internal work motivation, high growth satisfaction, high general job satisfaction and high work effectiveness (/high quality work performance). This inference above permitted to the authors to create the MPS-Motivating Potential Score, being an index that measure the impact between the variables studied, not taking into account as a major study object of this master thesis.

$$MPS = \left[\frac{\text{(Skill Variety + Task Identity + Task Significance)}}{3} \times \text{Autonomy} \times \text{Feedback}\right]$$

If some specific job has a high MPS, the job characteristic model predicts that motivation, performance and job satisfaction will be positively affected, reducing the negative outcomes, absenteeism and turnover.

# 2.3.2. Work Design Characteristics (Morgeson and Humphrey, 2006)

The model above was a base for the study about work design characteristics from Morgeson and Humphrey (2006).

The authors established five different characteristics: task, knowledge, Social characteristics and Work context in general.

Into Task characteristics the authors included the following aspects: autonomy (considering "work scheduling autonomy"; "decision-making autonomy"; "work methods autonomy"), task variety, task significance, task identity and feedback from job.

By the research was observed that Task characteristics are not related with cognitive ability oriented descriptors but it is positive related with satisfaction. The more a particular employee is satisfied with the Task characteristics of his job the more he will also be satisfied in general, which does not necessarily imply a cognitive ability oriented. It was also concluded that jobs in human life occupations will have higher levels of task significance than jobs in other occupations. Also jobs in professional occupations will have higher levels of Knowledge characteristics and autonomy than jobs in nonprofessional occupations.

To measure the impact of Knowledge characteristics they take into account the following aspects: job complexity, information processing, problem solving, skill variety and specialization.

Knowledge characteristics were also positively related with satisfaction and cognitive ability oriented descriptors. So the more a particular employee is satisfied with the Knowledge characteristics of his job the more he will also be satisfied in general, which also implies a cognitive ability oriented. Knowledge characteristics have also a positive relationship with training and compensation requirements. So the more satisfied you are with Knowledge characteristics of a specific job the more satisfied you will be receiving related training and compensation requirements (Morgeson and Humphrey, 2006).

In terms of Social characteristics the authors take into consideration social support, interdependence (considering "initiated interdependence" and "received interdependence"), interaction outside organization and feedback from others.

Into these sub variables just interaction outside organization was positively related with social and interpersonally oriented. It was also observed that social support could predict satisfaction beyond motivational work characteristics, which does not implies that it will be also associated with higher training or compensation requirements. So it is concluded that the more satisfied with social support you are the more satisfied you will be in general, which does not implies that if you receive higher training or more compensation requirements your general satisfaction will increase.

Finally about the Work context they contained ergonomics, physical demands, work conditions and equipment use.

Work context characteristics was related to the archival physical demands and work environment descriptors (which includes physical ability, performing physically and physical Work context).

This research was measured in an universe of five hundred and forty participants with forty eight on average age and 58% percent of men the satisfaction at work taken into account task, knowledge, social and work characteristics.

#### 2.4. Motivating factors for Information Technology area

If there are so many different characteristics that could influence people when they are looking for a new and also for the first job, so probably part of these kind of characteristics influence more some students prevenient by specific graduation areas. The influenced characteristics could depend by: personality culture, family habits, labour market, gender, interests and others, as could be shown in the following image.

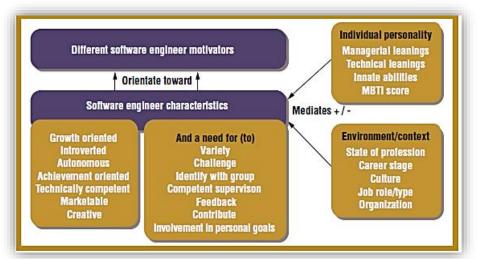


Figure 3- Motivating factors for developers, (Baddoo, Beecham, Hall, Robison, Sharp (2008: 92)).

According to specific studies from Hall, Sharp, Beecham, Baddoo and Robison, (2008) the personal characteristics of employees in informatics area are lead by their personality and the work environment, which orient software engineers toward responding to particular motivators. The motivation of kind of employees affects project productivity, software quality, and a project's overall success (fig. 3). The same study (Baddoo, et al, 2008) shown general motivators for employees in informatics area among which the most representative are: identification with the task (clear goals, personal interest, knowing a task's purpose and how it fits with the whole, job satisfaction; producing an identifiable piece of quality work), good management (senior management support, team-building, good communication), employee participation (involvement in company, working with others), career path (opportunity for advancement, promotion prospects, career planning), variety of work (making good use of skills, being stretched) and technically challenging work (work isn't mundane and is technically challenging). They also deduct that characteristics related with task/function (including variety and level of technical challenge of them), well company management/competent supervision, employee engaged company/ high contribute in developed projects and well defined career path will be more valued by the people that work in informatics area, which could lead to infer that happens the same when they are just students without professional experience.

From the literature review above could be notice that there are numerous researches about motivations factors in information technology area from different authors and applied in

various contexts (different countries, with or without professional experience). In contrary was not find the parallelism with the rest of other areas

Assuming the assumptions above could be concluded that other types of students, as an example: Socio-economic/ socio-humanistic students, will be influenced by different kind of characteristics that not the ones mentioned before.

Analysing the information above emerged the following research questions:

**RQ1:** Which are the factors that influence the choice of the first jobs?

**RQ2:** Which one prevails?

**RQ3:** Which are the determinant factors that influence the choice of the first jobs in Information and Technology area?

**RQ4:** Which are the determinant factors that influence the choice of the first jobs in socio-humanistic/ socio-economic area?

**RQ5:** Are there differences between "Information and Technology" area and "Socio-Humanistic/ Socio-Economic" area?

#### 3. Methodology

## 3.1. Problem

The main topic of this master thesis was included generally in Human Resources Management and the main question was centred in the choice of the first jobs opportunities in the beginning of the professional career.

Defining which kind of characteristics, organisational characteristics or task/ function characteristics, are more important in the selection process.

The first research question made was: "What are the factors that influence the choice of first job of the recent graduated students?" To answer this issue would be needed to collect data, in this specific case making a questionnaire. Afterwards we wish to make this research more complete and interesting, so was joined a contrast part, linking two distinct groups. The main interest was to compare different group of students and what they give higher importance when they are looking for their first jobs opportunities. Composed by the five research questions presented before, the whole central research question was: "What are the factors that influence the choice of first jobs of the recent graduated students in information technology area and socio-humanistic/ socio-economic area?"

From the research questions presented in literature review above there was the need to create the following hypotheses:

H1: The students and recent graduated students will attribute different levels of importance to organisational a function characteristics according to different studied areas, when they are looking for their first job opportunities.

H1a: The Work context will be more important for "socio-humanistic/ socioeconomic" area, when they are looking for their first jobs opportunities.

H1b: The Task characteristics in general will be more important for "sociohumanistic/ socio-economic" area, when they are looking for their first jobs opportunities.

H2: According to gender, the students and recent graduated students will attribute different levels of importance to organisational a function characteristics, when they are looking for their first jobs opportunities.

H3: The older students and recent graduated students become, the strongest level of importance they will attribute to organisational and function characteristics in job searching.

H4: The Organisational Characteristics will be more important for "socio-humanistic/ socio-economic" area, when they are looking for their first jobs opportunities.

H5: The Function Characteristics will be more important for "socio-humanistic/ socioeconomic" area, when they are looking for their first jobs opportunities.

#### 3.2. Method

To answer the research questions mentioned above a comparative study was made between students of the two different areas. As it was affirmed by Flick (2011) comparative studies is an observation of several cases identified also differences in particular aspects. In this case this is a comparative study due to the fact that the main objective of this study is not only to describe what kind of differences exists between two distinct groups, considering organisational and task/ function characteristics, to look for a first jobs but also compare them.

In order to describe and compare what kind of characteristics the students value more when they are looking for their first job some variables were establish.

Reto and Nunes (1999, p.28) assert that the causal method "(...)caracteriza-se por pretender identificar as causas ou razões para as diferenças de estados ou comportamentos verificadas entre grupos (pessoas, empresas ou outras entidades) e refere-se sempre a situações já existentes."

This specific research was considered a causal comparative study due to the fact that as it was mentioned above the main idea was to characterize the two different groups and compare them without an experimental manipulation. The used sample was natural, there was no a manipulated group in this study being not an experimental study, being a convenience sample (Flick, 2011).

The design of the research was composed by five big variables to analyse which are the most important when recent graduated students are looking for their first job. The chosen

variables were: "Employer Brand", "Task characteristics", "Knowledge characteristics", "Social characteristics" and "Work context".

# 3.3. Sample

As it was referred above, the main idea of this research was study which characteristics are more important for two specific group of students ("IT"- Information and Technology area and "SH/SE"- Socio-Humanistic/ Socio-Economic area) when they look for their first jobs opportunities. The respondents of two groups could be filled by bachelor and master students of chosen areas.

A questionnaire was made and passed in general to various students, as much was possible, independently of university, studied area, etc, to accumulate the highest number of possible answers, having a convenient sample as was referred before. This questionnaire was answered by two hundred and seventy eight people but just two hundred and seventeen filled all the questions, having around 21.94% of dropouts.

All the data was split mainly in three groups: "Information and Technology" area, "Socio-Humanistic/ Socio-Economic" and others, as could be observed in the next cross table. In "Information and Technology" was considered courses such as: Informatics, Telecommunications, Electronic, Informatics and Business Management, and Business Intelligence. In "Socio-Humanistic/ Socio-Economic" was considered courses such as: Management, Finance, Accounting, Economy, Marketing, Psychology, Human Resources, Social Service, History and Asiatic Studies. Finally in "others" group was considered courses like as: Anthropology, Farmer, Physiotherapy, Biology, Architecture and Chemistry Engineer.

	Area:	Frequency	Percent	Cumulative Percent
Valid	Socio-Humanistic/ Socio-Economic	110	50.69	50.69
	Information and Technology	94	43.32	94.01
	Others	13	5.99	100.00
	Total	217	100.00	

Table 1- Frequency of respondents in each group

In the table one we can observe that into two hundred and seventeen, one hundred and ten (50.69%) were part of "Socio-Humanistic/ Socio-Economic" area, nineteen and four (43.32%) part of "Information and Technology" and thirteen belonged to others group.

The "Others" group was eliminated of the sample due to the fact that was not a significant group. So the rest of the statistical treatment will only inside in two hundred and four answers.

So removing the others group the valid sample will contain two hundred and four answers, being 53.92% part of "Socio-Humanistic/ Socio-Economic" area, the majority, and 46.08% part of "Information and Technology" area.

So considering the final sample, with an N equal to two hundred and four, this next section will present a summary of sample's characterization. This summary is composed by six tables where is analysed the gender, age, current qualifications and situation, future intentions and university's frequencies answers.

10. Area:		Gender	Frequency	Percent	Cumulative Percent
Socio	Valid	Feminine	78	70.91	70.91
Humanistic		Masculine	32	29.09	100.00
		Total	110	100.00	
Informatics	Valid	Feminine	22	23.40	23.40
and		Masculine	72	76.60	100.00
Technology		Total	94	100.00	

The next table presents the relationship between course and sex.

Table 2- Gender by groups

The cross table two help us to notice that in the global sample, two hundred and four answers one hundred and four (50.98%) were masculine, the majority, and the rest, one hundred (49.02%) feminine.

In the one hundred women, seventy eight (70.91% of the one hundred and ten) were part of "Socio-Humanistic/ Socio-Economic" area and twenty two (23.40% of the one hundred and ten) part of "Information and Technology" area.

In terms of the one hundred and four men thirty two (29.09%) were part of "Socio-Humanistic/ Socio-Economic" area and seventy two (76.60%), the majority, part of "Information and Technology" area.

10. Area:	Age	Ν	Minimum	Maximum	Mean	Std. Deviation
Socio	12. Age:	110	19	47	23.25	3.92
Humanistic	Valid N (listwise)	110				
Informatics	12. Age:	94	19	40	23.77	3.41
and	Valid N (listwise)	0.4				
Technology		94				

Table 3- Age by groups

Analysing the third table is observed that the total average age of "Socio-Humanistic/ Socio-Economic" area is twenty three point twenty five with a standard deviation of three point ninety two. Comparing with the one of "Information and Technology" area the average age is twenty three point seventy seven with a standard deviation of three point forty one. The minimum age registered was nineteen for both areas and the maximum was forty and forty seven for "Socio-Humanistic/ Socio-Economic" area and "Information and Technology" respectively.

10. Area:		Current Qualifications	Frequency	Percent	Cumulative Percent
Socio	Valid	Frequenting bachelor	30	27.27	27.27
Humanistic		Completed bachelor	21	19.09	46.36
		Frequenting master	50	45.45	91.82
		Completed master	5	4.55	96.36
		Others	4	3.64	100.00
		Total	110	100.00	
Informatics	Valid	Frequenting bachelor	43	45.74	45.74
and		Completed bachelor	13	13.83	59.57
Technology		Frequenting master	30	31.91	91.49
		Completed master	6	6.38	97.87
		Others	2	2.13	100.00
		Total	94	100.00	

Table 4- Current Qualifications by groups

In the table above, is observed that in the global sample of two hundred and four answers seventy three (35.78%) were still frequenting the bachelor, which thirty (41.10%) were studying in "Socio-Humanistic/ Socio-Economic" area and forty three (58.90%) studying in "Information and Technology" area.

Still in the two hundred and four answers, twenty one (10.29%) had their bachelor finished in "Socio-Humanistic/ Socio-Economic" area and thirteen (6.37%) in "Information and Technology" area.

In terms of respondents that are frequenting master were eighty (39.22% of two hundred and four), more than frequenting bachelor. In this eighty, fifty (62.50%) was part of "Socio-Humanistic/ Socio-Economic" area and thirty (37.50%) of "Information and Technology" area.

Lastly there was eleven (5.39% of the two hundred and four) that had their master completed, which five (45.45%) in "Socio-Humanistic/ Socio-Economic" area and six (54.54%) in "Information and Technology" area.

10. Area:		Current Situation	Frequency	Percent	Cumulative Percent
Socio	Valid	Student	46	41.82	41.82
Humanistic		Employed	24	21.82	63.64
		Student-Worker	25	22.73	86.36
		Unemployed	3	2.73	89.09
		Looking for the first job	2	1.82	90.91
		Student and looking for the first job	10	9.09	100.00
		Total	110	100.00	
Informatics	Valid	Student	52	55.32	55.32
and		Employed	16	17.02	72.34
Technology		Student-Worker	14	14.89	87.23
		Looking for the first job	3	3.19	90.43
		Student and looking for the first job	9	9.57	100.00
		Total	94	100.00	

Table 5- Current Situation by groups

Analysing the fifth table 48.03% of the total sample were students, which 46.94% (forty six of the one ninety eight) were studying in "Socio-Humanistic/ Socio-Economic" area and 53.06% (fifty two) in "Information and Technology" area. There was forty (19.61% of the two hundred and four) employed respondent, which 60.00% (twenty four of forty) were part of "Socio-Humanistic/ Socio-Economic" area, 40.00% (sixteen of forty) were part of "Information and Technology" area and three (1.47% of the total valid sample) unemployed respondent, all belonging to "Socio-Humanistic/ Socio-Economic" group.

Still in the two hundred and four there were thirty nine (19.12%) student-worker, which 64.10% (twenty five of the thirty nine) were studying in "Socio-Humanistic/ Socio-Economic" area and 35.90% (fourteen) in "Information and Technology" area.

As a final points there was five people looking for the first job, which 40.00% (two) were part of "Socio-Humanistic/ Socio-Economic" and 60.00% (three) part of "Information and Technology" area. Also 9.31% of total sample (nineteen) students that are looking for the first job at the same time, which 52.63% (ten) were part of "Socio-Humanistic/ Socio-Economic" and 47.34% (nine) part of "Information and Technology" area.

10. Area:		Future Intentions	Frequency	Percent	Cumulative Percent
Socio	Valid	Ingress in labour market	77	70.00	70.00
Humanistic		Keep studying	18	16.36	86.36
		Create my own business	4	3.64	90.00
		Others	3	2.73	92.73
		Already in labour market	5	4.55	97.27
		Keep studying and ingress in labour market	3	2.73	100.00
		Total	110	100.00	
Informatics	Valid	Ingress in labour market	64	68.09	68.09
and		Keep studying	7	7.45	75.53
Technology		Create my own business	1	1.06	76.60
		Already in labour market	4	4.26	80.85
		Keep studying and ingress in labour market	18	19.15	100.00
		Total	94	100.00	

Table 6- Future Intention after finish academic qualification/ course by groups

The table above show us the relation between intentions after finished the academic qualification and area. The main deductions that could be taken are both groups "Socio-Humanistic/ Socio-Economic" and "Information and Technology" want to ingress in job market after finish the academic qualification with similar percentages, 54.61% (seventy seven in one hundred and forty one) and 45.39% (sixty four in one hundred and forty one) respectively. Students of "Socio-Humanistic/ Socio-Economic" also wants to keep studying, more than the students of "Information and Technology", with 72.00% (eighteen in twenty five) and 28.00% (seven in twenty five) respectively percentages. In contrast the ones that has a higher percentage in terms of keep studying and at the same time ingress in labour market are "Information and Technology" with 85.71% (eighteen in twenty one) instead of students of "Socio-Humanistic/ Socio-Economic" with 14.29% (three in twenty one)

In terms of respondents that opted for "create own business", "others group" (which include the ones that wish to do investigation or the ones that don't know already what they want to do) and the respondents that are already in labour market, their total percentages are too low comparing to other situations, 2.45% (five in the two hundred and four answers), 1.47% (three in the two hundred and four answers) and 4.41% respectively.

Some reasons that could be raised for these situations are: students of "Information and Technology" receive job offers earlier than students of "Socio-Humanistic/ Socio-Economic". Other reason could be: the course in "Information and Technology" is more practical than in "Socio-Humanistic/ Socio-Economic", so the students are more prepared to start working first, without master, though always need the master's level to be considered engineer.

10. Area:		University	Frequency	Percent	Cumulative Percent
Socio Humanistic	Valid	ISCTE-IUL	82	74.55	74.55
		Others	28	25.45	100.00
		Total	110	100.00	
Informatics and	Valid	ISCTE-IUL	77	81.91	81.91
Technology		Others	17	18.09	100.00
		Total	94	100.00	

Table 7- University by groups

To close the characterization sample section, from the table seven is observed that in terms of university 77.94% of the total sample (one hundred and fifty nine) were part of ISCTE-IUL, which 51.57% (eighty two of the one hundred and fifty nine) were part of "Socio-Humanistic/ Socio-Economic" and 48.43% (seventy seven) part of "Information and Technology" area.

There was 22.06% of the total (forty five) that belong to others universities, which 62.22% (twenty eight of the forty five) were part of "Socio-Humanistic/ Socio-Economic" area and 37.78% (seventeen) part of "Information and Technology" area.

## 3.4. Instruments

As was referred above was done a questionnaire to see what kind of characteristics (organisational characteristics or task/ function characteristics) are more valued by each

group of students. The questionnaire is composed by thirteen questions, some multiple choice, some single choice, some to be classified in a scale of importance and in the last part the socio-demographic questions.

The questionnaire was based in two different questionnaires already tested in different contexts. The first one done by Knox and Freeman (2006) about employer brand tested in the Cranfield School of Management university in United Kingdom where three specific firms are used to recruit (the firm, a media corporation and an investment bank) to measure external employer brand images of these specific firms inclusive their rating to job applications there. At the same time was also tested in a universe of one thousand one hundred and seventeen internal employees working part time for the firm by internal anonymous email to compare the brand image inside and outside the company.

The questionnaire lead by Knox and Freeman (2006) studied how to measure and managing employer brand, especially in terms of recruitment processes. They analysed twenty specific key attributes, such as: "Allows a lot of freedom to work on your own initiative", "Employs people with whom you feel you will have things in common", "Has a dynamic, forward-looking approach to their business", "Has a friendly, informal culture", and sixteen others detailed in annex A2. All of these twenty key attributes were related with employer brand in graduate recruitment, according to their valence and instrumentality in selecting firms for job applications in generally. All of the key attributes were valued in a bi-polar rating scale of importance with seven points, where one means very unimportant, four neither unimportant nor important and seven means very important.

The second one done by Morgeson and Humphrey (2006) - the Work Design Questionnaire (WQD)- about work characteristics, testing five hundred and forty employees with fifteen years of work experience independently of professional job (including management, business and finance, education, training, and library, health care practitioners and technical, and office and administrative support some others) to explore their work satisfaction.

Morgeson and Humphrey (2006) studied the importance of work design. They made a questionnaire to identify four big variables: *"Task characteristics"*, *"Knowledge characteristics"*, *"Social characteristics"*, *"Work context"*. Each big characteristic

contained between three to five variables also composed between three to six sub variables. Each sub variable describe situations related with the variable above. With all these subdivisions the questionnaire contain seventy seven elements to evaluate. In annex can be find a table that organize well all the dimensions, sub dimensions and situations (annex A1). The authors tested these seventy seven elements in different ways of factorization (4, 19, 21 and 24) and the one that was considered more adequate was with twenty one factors, grouped in four groups.

"Task characteristics are primarily concerned with how the work itself is accomplished and the range and nature of tasks associated with a particular job" (Morgeson and Humphrey, 2006 p. 1323). The authors include the following aspects: autonomy (considering "work scheduling autonomy"; "decision-making autonomy"; "work methods 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 p.1323). The authors taken into account the following aspects: job complexity, information processing, problem solving, skill variety and specialization.

In terms of Social characteristics the authors take into consideration social support, interdependence (considering "initiated interdependence" and "received interdependence"), interaction outside organization and feedback from others.

Finally about the Work context they contained ergonomics, physical demands, work conditions and equipment use.

In terms of psychometric characteristics of "*The WDQ is thus a mix of existing items* (17%), adapted items (33%), and new items (50%)" (Morgeson and Humphrey, 2006 p.1324). "The average reliability (following an r to z transformation) was .87, and only the ergonomics scale was below .70," which some have suggested is a minimum level of reliability needed for psychometric adequacy (Nunnally and Bernstein, 1994, cit by Morgeson and Humphrey, 2006 p.1326). The internal consistency and interrater agreement were both above 0.6, respectively between 0.64 to 0.95 and 0.68 to 0.92 and the interrater reliability was between to 0.01 to 0.58, which suggest that in general there are agreement on work characteristics (Morgeson and Humphrey, 2006).

As it was highlighted before, the authors considered this research most complete and more consistent than others. In fact the authors list seven reasons to confirm that: (1) "WDQ is the most comprehensive measure of work design currently available"; (2) "The numerous problems identified in existing measures have been corrected in the WDQ"; (3) "The internal consistency reliability of the WDQ scales is almost uniformly high (the ergonomic factor is the sole exception; average reliability across all the scales was .87). In fact, the reliability of the WDQ scales is much higher than the reliability of the most commonly used work design measure, the JDS"; (4) "Previous work design research has found inconsistent factor solutions when examining the dimensionality of work. Using CFA techniques (it is interesting to note that much of the work design research has used less rigorous EFA), we found excellent support for a 21-factor model"; (5) "Was found an evidence that the WDQ scales related meaningfully with independent job-based databases"; (6) "WDQ was able to identify expected differences in various occupations"; (7) "WDQ and the model that underlies Work Design Questionnaire (WDQ) it, opens new avenues for work design theory" (Morgeson and Freeman, 2006).

The final questionnaire of this master thesis was composed by the whole questionnaire used in research of Knox and Freeman (2006) and the guestionnaire contained in the research of Morgeson and Humphrey (2006) was reduced to four big variables ("Task characteristics", "Knowledge characteristics", "Social characteristics" and "Work *context*"), including their sub-variables of each one (being twenty one items). The main reason to use just these twenty one sub dimensions is justified with the factorization made from the authors. So the final questionnaire contains five big dimensions ("Employer Brand", "Task characteristics", "Knowledge characteristics", "Social characteristics" and "Work context") with forty one sub dimensions to value in an importance scale. The question made was adapt to the target, students and recent graduated students in the beginning of their career. About the scales of the two questionnaires, they were different. The one, used by Knox and Freeman (2006), was an importance scale (before any career's experience), with seven points where one means neither important and seven means very important. The other was a satisfaction scale (after some career's experience) used by Morgeson and Humphrey (2006). The one used by Knox and Freeman (2006) was maintained and the other used by Morgeson and Humphrey (2006) that measured their study in a scale of satisfaction with five points, where one means very unsatisfied and five means very satisfied was changed. This type of scale was changed to the same scale of the other instrument (Knox and Freeman, 2006) due to the fact that will be necessary to make some comparisons between them and with the two scales harmonized would be easier.

So the final questionnaire is composed by five sections, starting with a small introduction presented myself, the goals of the questionnaire and sharing contacts for any doubts. The second section is composed for three questions where is asked what kind of company the respondent wants to start his career in terms of nationality's company (multinational or national), in terms of possession (private, public or 3<sup>rd</sup> sector or own company) and in terms of dimension (micro, little, medium and large size). Afterwards were englobed the items of the both questionnaires mentioned before, presenting first the one from Knox and Freeman (2006) - "Measuring and Managing Employer Brand Image in the Service" and after the other from Morgeson and Humphrey (2006) - "The Work Design Questionnaire (WDQ): Developing and Validating a Comprehensive Measure for Assessing Job Design and the Nature of Work". The two questionnaires was evaluated in an importance scale with seven points where one means very unimportant, four neither unimportant nor important and seven very important. To include these two questionnaires two questions were made direct to the pretended target, which belongs to third and fourth sections. The fifth section is composed by one question about the importance's order of six different characteristics when the students and recent graduated students are looking for a new job. The questionnaire ends with a group (six section) of socio-demographic questions, included in last part of questionnaire (sixth section). This section was composed by seven questions respectively asking what is the actual situation of the respondent (student, employee, both, unemployed, looking for first job), the actual/ frequented university, curse and level of education, if the respondents wants to look for his first job, age and sex. Some of this last questions (namely tenth and eleventh questions) were made to be sure that the respondents belong to the supposed target, making sure that is the right or pretended sample (annex B).

#### 3.5. Procedure

As was mentioned before, the main idea of this research was to observe what are the main influenced characteristics for some specific groups of students when they are looking for their first job. To achieve this main goal it was needed to take into account some variables already tested. The chosen variables were based on studies related with the selection process of the first job and people with specific professional experience, which are grouped in two, employer brand and organisational characteristics (including task, knowledge, social and Work context characteristics).

The questionnaire was passed just in Portuguese language due to the fact that the objective was only to address the national context. All the articles that contain the questionnaires are in English, so it was needed to translate them into Portuguese language. The both questionnaires were translated, confronted and retroverted by three different ISCTE's students fluent in English in order to make a valid Portuguese translation of them. The final version of the launched questionnaire was a conversion of the three translations (Brislim, 1980).

The chosen software to build the questionnaire was "eSurvey Creator", due to the fact that this software is free available for some university students (including ISCTE's students) and has also the possibility to transfer the answers directly to SPSS.

Before launching the final questionnaire online it was made a pilot study in a small random circle of known people with some similarities of the wished sample to test the feasibility of the final questionnaire and to notice and correct some "invisible mistakes" for the person who build the questionnaire. In this first phase the whole questionnaire was answered by seven people, who was asked to take attention for two main aspects: the time needed to answer the questionnaire and report the difficulties or problems felt. The average time needed by this participants was five minutes and twenty nine seconds, despite the fact that the faster participant answered the questionnaire in three minutes and twenty three seconds and the slowest took ten minutes and fifty six seconds. In terms of difficulties/ problems and commentaries were between question two ("In terms of sector, which kind of company you wish like to start your career?") and sixth ("Order the following dimensions in an importance order that you attribute them when you are looking for a job."). The second question was changed his form, from single selection listed to multiple choice as well as the third one. In the fourth and fifth were removed the scale titles and in the sixth was changed the formulation of the question. The pilot study was very important mainly by the comments that was made to improve the questionnaire. "Pilot studies are also excellent for training inexperienced researchers, allowing them to make mistakes without fear of losing their job or failing the assignment. Logistical and financial estimates can be extrapolated from the pilot study, and the research question, and the project can be streamlined to reduce wastage of resources and time." (Shuttleworth, 2010 p.62).

The questionnaire was distributed mainly by online methods, due to the fact that it's easier to have a large amount of valid and complete answers. I started by searching some interesting groups in Facebook to post the final questionnaire. This search was centred on groups composed mainly by students or recent graduated students that could be also looking for their first job in studied area. After this search was found around eighteen groups, which thirteen were linked with ISCTE-IUL (Lisbon University Institute).

The final questionnaire was posted at the same time, at night of six of May (being near to the end of the academic year), in all eighteen online groups. Then I waited two weeks to test the strength of this method and after two weeks the level of answers were not linked to the thesis' objective. Generally the answers were composed around 90% of women and 95% of SH/SE area, having just 5% of IT area. After seeing this huge problem I started asking randomly and individually around two hundred ISCTE's students (that belonged to Facebook's group of informatics' students) to fill in the questionnaire, and this last method increased a lot the quality of obtained sample. At the same time, after two weeks I repeated the first method, posting the final questionnaire in all eighteen groups again. This method was repeated again, to get some more answers.

### 4. Results and Discussion

The following section will present the results of the questionnaire, already passed for two hundred and four people, making a statistical analysis in SPSS software. Afterwards some of the results will be compared with the results of others authors seeing if the outcomes, behaviours or preferences are similar. The statistical analysis is composed by three main parts taking into consideration first psychometrics' characteristics, then descriptive analysis (socio-demographic's characteristics) and lastly hypotheses' validation (or not).

As was referred before the third and fourth section of the questionnaire is composed by the evaluation in seven points of importance of the items from two different methods of Knox and Freeman (2006) and Morgeson and Humphrey (2006). To threat these answers was used the Principal Components Analysis (PCA) method. This was a starting point in order to be possible test the hypotheses created. The PCA model consist in a multivariate analysis method with a main objective of reducing and summarizing the data, in this specific case the evaluated influenced items in choice of the first job. This method allow to group specific information, creating an independent linear combinations, named principal components. In this specific case using a PCA method (two times) was possible to group forty one items (twenty from Knox and Freeman, 2006 and twenty one from Morgeson, F.P. and Humphrey, 2006) in two groups of five principal components.

There are three criteria (Kaiser criterion, criterion of accumulated percentage of variance by successive components and scree plot criterion) that should be considered in order to conclude how many principal components must be created. Before analyse the three methods we should take a look in communalities and rotation matrix table seeing if there is items with a value less than 0.5 of saturation. If there is we should repeat all the process of PCA method removing these items. This process must be done as many times as necessary until there is not values below 0.5 saturation. The results of the communalities tables should be combined with rotated matrix table making sure that also do not contain values below 0.5 of saturation. Kaiser Criterion tell us that should be selected as many components as many eigenvalues there are above one in "total initial eigenvalues" column of "total variance explained" table. From second method mentioned we must observe in the same table above ("total variance explained"), the column "cumulative % of initial eigenvalues" seeing how many lines shown a cumulative value above 70%, at least. Finally about last method, scree plot criterion, the conclusions about how many

components should be retain must be interpreted in the graphical representation of the eigenvalues for p components, observing which point the curve tend to be parallel to the axis X, corresponding to the maximum number of components to retain (Field, 2009).

Before starting by analysing the results of both PCA's methods, firstly was observed that the KMO value was 0.805 (annex C1) with a total variance explained of 66.148% (27.822% in the first component, 12.854% in the second, 10.433% in the third component, 8.388% in the fourth and 6.651% in the fifth component). The general  $\alpha$  was 0.807 and for the five principal components were respectively: 0.784, 0.731, 0.803, 0.523 and 0.493, as could be observed in the table eight. The last two  $\alpha$  were not good, but the decision was to proceed with same items, due to the fact that de items are related and were confirmed on the second time of replication of PCA method. After was examined the communalities table, which in the first time (with the items from Knox and Freeman, 2006) contained three items less than 0.5 of saturation, respectively, 4.5- "In the early years, offers the opportunity to move around the organization and work in different roles", 4.8- "Is a small organization", 4.16- "Offers variety in your daily work" and 4.20- "Uses your degree skills". Three of these four items registered also values below 0.5 in rotated matrix table. As was mentioned before there was the need to repeat the PCA method, now removing these specific four items. At this time both tables the communalities and the rotated matrix table do not contain values less than 0.5, which means that we can proceed for defining the dimensions. Then analysing the suggestion of how many components that should be taken in the first and second times was noticed that the results were confirmed, which means that there is consistence in each dimension (annex D1).

In terms of the items of the fourth section (which is composed by the twenty items of Morgeson and Humphrey, 2006) the results of the communalities were all above 0.5 of saturation, but analysing the rotated matrix table there is two items with values less than 0.5 of saturation, 5.17- "Receive feedback from the other people" and 5.4- "Task variety". Repeating the method excluding these two items the results of the first time were almost confirmed again, which means that the components are consistent (annex D2) and we can proceed to the components. The KMO value was 0.881 (annex C2) with a total variance explained of 67.234% (37.872% in the first component, 9.413% in the second, 7.436% in the third component, 6.933% in the fourth and 5.480% in the fifth component). As could be observed in the table nine the general  $\alpha$  was 0.904 and for the five principal

components were respectively: 0.837, 0.864, 0.794, 0.753 and 0.668, all considered a good  $\alpha$ .

For both times that were used the PCA method (with the twenty items from Knox and Freeman, 2006 and twenty one from Morgeson, F.P. and Humphrey, 2006), analysing the results, two of the three methods explained before point to five principal components. As was refrred before the general Kaiser-Meyer-Olkin values were considered good 0.805 (items from Knox and Freeman, 2006) and 0.881 (items from Morgeson, F.P. and Humphrey, 2006).

Interpreting the results in terms of the twenty items from Knox and Freeman (2006) and before proceed on with principal components and take any final decision in terms of aggregation of the items, was calculated, (as could be seen in annex C1) a Cronbach's Alpha for each dimension in order to observe if each aggregation of items is consistent and also at the same time observing the behaviour of the Cronbach's Alpha if one item is deleted (annex C1). Taking a look of these results was concluded that just in the third principal component there is an item that if is removed, the Cronbach's Alpha will be bit higher. Due to the fact that the value will not change too much (new value- 0.807) and is already high (0.803) the decision was to maintain the same items, not removing anyone. Seeing that the alphas are almost consistent I have proceed with the method, constructing the five dimensions. In order to be easily to understand the results and the suggestion of principal components from SPSS analysis, was build the next summary table.

Item	PC1	PC2	PC3	PC4	PC5
4.6. Invests heavily in training and development of its employees	.791				
4.7. Is a pure meritocracy	.744				
4.18. Really cares about their employees as individuals	.674				
4.13. Offers clear opportunities for long-term career progression	.621				
4.11. Offers a relatively stress-free working environment		.779			
4.4. Has a friendly, informal culture		.758			
4.19. Requires you to work standard working hours only		.725			
4.2. Employs people with whom you feel you will have things in common		.557			
4.15. Offers the opportunity to work and live abroad			.894		
4.14. Offers the opportunity for international travel			.809		
4.17. Provides you with an internationally diverse mix of colleagues			.784		
4.10. Offers a lot of scope for creativity in your work				.831	
4.1. Allows a lot of freedom to work on your own initiative				.795	
4.3. Has a dynamic, forward-looking approach to their business				.504	
4.9. Is widely regarded as a highly prestigious employer					.759
4.12. Offers a very high starting salary					.620
% of total variance explained			66.148		
% of total variance explained / PC	27.822	12.854	10.433	8.388	6.651
α			0.807		
a / PC	0.784	0.731	0.803	0.523	0.493

 Table 8- Principal Component Analysis (Items from Knox and Freeman, 2006)

The summary table above was adapted from the results of the SPSS analysis. Take into consideration the composition of each component saw in the table above, was use the "transform- compute variable by means" command constructing and naming finally the five components: Investment in career development, Business culture, Internationality, Creative environment and Status orientation.

Investment in career development included five items all related with individual investment in careers and their respective development performed by the company. The items included were: 4.6- "invests heavily in training and development of its employees", 4.7- "is a pure meritocracy", 4.18- "really cares about their employees as individuals", 4.13- "offers clear opportunities for long-term career progression".

Business culture contemplate the following items: 4.11- "offers a relatively stress-free working environment", 4.4- "has a friendly and informal culture", 4.19- "requires only the standard working hours" and 4.2- "employs people with whom I feel I will have things in common".

Internationality was composed by three items related with opportunities to lead with other country cultures by traveling, living abroad or also knowing different people from different countries with different cultures. The items were: 4.15- "offers the opportunity to work and live abroad", 4.14- "offers the opportunity for international travel" and 4.17- "provides you with an internationally diverse mix of colleagues".

Creative environment include the three following items: 4.10- "offers a lot of scope for creativity in your work", 4.1- "allows a lot of freedom to work on your own initiative" and 4.8- "is a small organization". These items are all about how we could demonstrate our individual potential in a business context.

Lastly the Status orientation component was created by grouping two items as 4.9- "is widely regarded as a highly prestigious employer" and 4.12- "offers a very high starting salary".

From the authors Knox and Freeman (2006) the principal components are not mentioned which lead us to point two different situations, one the author considered all the items in just one component, do not making small groups, or secondly was not found the principal component analysis from the author. As a last point there were three items from the SPSS analysis that were eliminated: 4.5- "in the first years offers the opportunity to move around the organization and work in different roles", 4.20- "uses your degree skills" and 4.16- "offers variety in your daily work". These three items were eliminated due to the fact that in the rotated component matrix registered values less than 0.05 of saturation).

In terms of twenty one items performed by Morgeson, F.P. and Humphrey (2006), the principal component analysis permitted to group the twenty one items in four groups. Before proceed on with principal components and take any final decision in terms of aggregation of the items, was calculated a Cronbach's Alpha for each dimension in order to observe the behaviour of the Cronbach's Alpha if one item is deleted (annex C2). Taking a look of these results was concluded that all Cronbach's Alpha will not be better/

higher if we delete one item. As before, there was built also a summary table with the principal results from SPSS analysis.

Item	PC1	PC2	PC3	PC4	PC5
5.8. A complex work	.725				
5.12. Specialization	.704				
5.10. Participate in problem resolution	.678				
5.11. Application of various skills	.675				
5.9. Functions that involves information processing	.641				
5.21. Frequent use of work tools	.581				
5.18. Great workplace conditions / Ergonomic		.832			
5.20. A great and secure work environment		.811			
5.19. Good physical and mental conditions for		.800			
development of the function		.000			
5.7. Receiving feedback from my work		.685			
5.15. The work of my colleagues is relevant to			.811		
my performance			.011		
5.14. A job that is relevant to the performance			.776		
of my colleagues					
5.13. Social support from co-workers			.731		
5.16. Interaction outsider the company			.525		
5.1. Autonomy in my work schedule				.796	
5.2. Autonomy in decision-making				.790	
5.3. Freedom in choice of the working methods/				.701	
tools				•/01	
5.5. Tasks that have an impact in lives of others					.818
5.6. Tasks that identifies me					.654
% of total variance explained			67.234		
% of total variance explained / PC	37.872	9.413	7.436	6.933	5.480
α			0.904		
α / PC	0.837	0.864	0.794	0.753	0.668

Table 9- Principal Component Analysis (Items from Morgeson and Humphrey, 2006)

Take into consideration the table nine the structure of each component and used also the same command above for construct and finally designation for the five components, were created the next dimensions: Knowledge characteristics, Work context, Social characteristics, Autonomy and Task characteristics.

In the SPSS analysis Knowledge characteristics were composed by five items all about how we use our knowledge in Work context and keep growing him. The included items were: 5.8- "a complex work", 5.12- "specialization", 5.10- "participate in problem resolution", 5.11- "application of various skills", 5.9- "functions that involves information processing", and 5.21- "frequent use of work tools".

In terms of Work context, this component contains four items which are 5.18- "great workplace conditions / ergonomic", 5.20- "a great and secure work environment", 5.19-

"good physical and mental conditions for development of the function" and 5.7-"receiving feedback from my work".

Social characteristics by SPSS analysis was composed by the following items: 5.15- "the work of my colleagues is relevant to my performance", 5.14- "a job that is relevant to the performance of my colleagues", 5.13- "social support from co-workers" and 5.16- "Interaction outsider the company".

Autonomy comprises all the three items related with different circumstances like: 5.1-"autonomy in my work schedule", 5.2- "autonomy in decision-making" and 5.3-"freedom in choice of the working methods/ tools".

Finally Task characteristics had included 5.5- "tasks that have impact in lives of others" and 5.6- "tasks that identifies me".

As a last close there were two items from the SPSS analysis that were removed from de analysis, due to the fact that in the rotated component matrix registered values less than 0.05 of saturation, 5.4- "task variety" and 5.17- "receive feedback from the other people".

These results were compared with the results from the authors Morgeson and Humphrey (2006) in the next table, being easy to see what are the little differences in terms of composition of the components from my SPSS analysis and also from author's analysis:

Principal	Component Analysis –	Morgeson and Humph	nrey (2006)
Morgeson and	Principal Component	Questionnaire	Principal Component
Humphrey's analysis	names	Analysis	names
5.8; 5.9; 5.10; 5.11;	Knowledge	5.8; 5.9; 5.10; 5.11;	Knowledge
5.12.	characteristics	5.12; <b>5.21</b> .	characteristics
5.18; 5.19; 5.20; <b>5.21</b> .	Work context	5.7; 5.18; 5.19; 5.20.	Work context
5.13; 5.14; 5.15; 5.16; <b>5.17</b> .	Social characteristics	5.13; 5.14; 5.15; 5.16.	Social characteristics
5.1; 5.2; 5.3; <b>5.4</b> ; 5.5; 5.6; <b>5.7</b> .	Task characteristics	5.1; 5.2; 5.3. 5.5; 5.6.	Autonomy Task characteristics

Table 10- Principal Component Analysis - Comparison

As is observed from the table ten, the results from the authors are significant similar, but they took four principal components and from the results of my questionnaire were taken five. In general the principal component are composed by the same items. There were just two items that do not belong to the same components, 5.7- "receive feedback of my work" and 5.21- "frequent use of work tools". As was referred above there were two items removed, 5.4- "task variety" and 5.17- "receive general feedback from other people". There are also one principal component from the authors that includes two principal components of the present questionnaire's analysis: "Task characteristics" (from Morgeson and Humphrey (2006)) similar to "Autonomy" + "Task characteristics" (from the present questionnaire's analysis).

After constructing all the dimensions and before testing the hypotheses was made some correlation tests to characterize the sample, being possible to compare these descriptive characteristics with others authors.

As was referred by Lautenschläger and Haasein, (2011) established as a high motivation factors cognitive and contextual factors. The questionnaire made just tested some of the cognitive factors (self realization, need for independence and autonomy, social recognition, learning/ gaining experience, need for personal development and some others referred above). As could be confirmed with the table eleven, most of the characteristics (four in six kind of influenced characteristics) has a high and similar level of importance (above seventy percent) when students have to choose a new job. For this sample the most relevant and important influenced factor that was consider "Investment in career development" and the less important was "Creative environment".

		Investment in career development	Creative environment	Status orientation	Knowledge characteristics	Social characteristics	Autonomy
		Mean	Mean	Mean	Mean	Mean	Mean
	Socio- Humanistic	6.11	4.32	4.85	5.14	5.06	5.15
10. Area:	Informatics and Technology	5.99	4.48	4.83	5.13	4.83	5.01
	Mean	6.05	4.40	4.84	5.14	4.95	5.08
	%	86.43%	62.86%	69.14%	73.36%	70.64%	72.57%

Table 11- Cognitive Characteristics by groups

The same authors, Lautenschläger and Haasein, (2011) had concluded that students would prefer to start his professional career in medium size companies, followed by large size

10. Area:		Dimension	Frequency	Percent	Cumulative Percent
Socio	Valid	Large size	35	31.82	31.82
Humanistic		Medium size	28	25.45	57.27
		Small size	10	9.09	66.36
		Micro size	1	.91	67.27
		Indifferent	36	32.73	100.00
		Total	110	100.00	
Informatics	Valid	Large size	29	30.85	30.85
and		Medium size	27	28.72	59.57
Technology		Small size	7	7.45	67.02
		Micro size	2	2.13	69.15
		Indifferent	29	30.85	100.00
		Total	94	100.00	

companies. This statement was also tested, but the results was a bit different as could be seen in the next table.

Table 12- Size dimensions preferred for the beginning of professional career by groups

From the table twelve, in the two hundred and four respondents most of them, sixty five corresponding to thirty one point eighty six percent, do not have a specific preference. Into this sixty five, thirty six (55.38% of sixty five) were part of socio-humanistic/ socioeconomic area, while twenty nine (44.61% of sixty five) part of information technology area. According to the responses of the rest participants, was verified that there is a higher preference for large size company, thirty one point thirty seven percent of the two hundred and four, which thirty five were part of socio-humanistic/ socio-economic area, while twenty nine part of information technology area. Then the second higher preference was for medium size company, twenty six point eighty two percent, corresponding to fifty five people, which twenty eight belong to socio-humanistic/ socio-economic area and twenty seven to information technology area. The rest of the respondents opted for small and micro size with a total responses of seventeen (8.33% of two hundred and four answers) and three (1.47%) of two hundred and four answers) respectively, having a lower representation. So when comparing the results of this questionnaire to Lautenschläger and Haasein, (2011) authors, the preferences are different, desiring first medium-sized firm followed by large-size companies and after small-size or different types of selfemployment. Even those aspects containing small differences, in terms of the percentages of them, they are considerably similar. Some further possibilities are put forward like all the respondents of my questionnaire are Portuguese, so perhaps the culture is high influenced factor when people are looking for a new job. Most of the respondents were part of the same university, which lead us to infer that a huge part were friends, so also friendships or other kind of important relationships (family, for example) will influence the students in their choices.

In terms of descriptive analysis there were made more two tables, connecting which kind of company the respondent would like to start his career in terms of nationality's company and possession by academic area, presented below.

10. Area:		Nationality	Frequency	Percent	Cumulative Percent
Socio	Valid	Multinational	48	43.64	43.64
Humanistic		Nacional	18	16.36	60.00
		Indifferent	44	40.00	100.00
		Total	110	100.00	
Informatics	Valid	Multinational	41	43.62	43.62
and		Nacional	14	14.89	58.51
Technology		Indifferent	39	41.49	100.00
		Total	94	100.00	

Table 13- Nationality preferences for the beginning of professional career by groups

From the table above we can observe that most of the respondents wish to start his professional career in multinational companies, eighty nine (43.63% of the two hundred and four), which forty eight (53.93% of the eighty nine) were part of part of socio-humanistic/ socio-economic area and forty one (46.07% of the eighty nine) part of information technology area. Later the most of the respondents choose for indifferent option, eighty three which represents 40.69% of the total two hundred and four. Inside these eighty three, forty four (53.01% of the eighty three) belong to socio-humanistic/ socio-economic area and thirty nine (46.99% of the eighty three) to information technology area. Lastly the option less preferred was national companies just with thirty two (15.69% people of the two hundred and four), which eighteen (56.25 of the thirty two) belong to socio-humanistic/ socio-economic area and four), which eighteen (43.75% of the thirty two) to information technology area.

Some reasons could be raised for these results: the huge crisis of joblessness which forces Portuguese people for going out of Portugal. Other reason could be new fancies that allow the national people for going out of Portugal looking for better opportunities with high salaries combined with different experiences such as know different cultures and new people, learn how to live alone, developing the English language and some others.

The table below presents the relation between possession's company (public, private and tertiary sector/ Solidary economy, Create my own business) by academic area (socio-economic and information technology area).

From the table below (table 14) could be observed that the preference in terms of possession's company the preference is for private sector with one hundred and nine (53.43%) of the two hundred and four, which sixty (55.05% of the one hundred and nine) belong to socio-economic area and forty nine (54.95% of the one hundred and nine) to information technology area. Then most of the respondents opted for the indifferent option, seventy eight (38.24%) of the two hundred and four, distributed equally for both academic areas (thirty nine for each one). After the next preference was for public sector twelve (5.88% of the two hundred and four), being lower than the others mentioned before. In these twelve, eight (66.67%) belong to socio-economic area and four (33.33%) to information technology area. The rest of the options, Tertiary Sector/ Solidary Economy and Create my own business do not have representation in this sample, registering total answers of just one person (0.49% of two hundred and four) and four people (1.96% of two hundred and four) respectively.

10. Area:		Possession	Frequency	Percent	Cumulative Percent
Socio	Valid	Public Sector	8	7.27	7.27
Humanistic		Private Sector	60	54.55	61.82
		Tertiary Sector/ Solidary Economy	1	.91	62.73
		Create my own business	2	1.82	64.55
		Indifferent	39	35.45	100.00
		Total	110	100.00	
Informatics	Valid	Public Sector	4	4.26	4.26
and		Private Sector	49	52.13	56.38
Technology		Create my own business	2	2.13	58.51
		Indifferent	39	41.49	100.00
		Total	94	100.00	

Table 14- Possession preferences for the beginning of professional career by groups

Highlighting the results presented in table fourteen, some reason could be elevated such as the offered salary, facility to enter in the company, difficulties and worries about creation own business, and some others.

In my survey there was a question, which the main objective were to order which kind of characteristics are more and less important, between six general characteristics (where one was the most important and six the less important, decreasing order) when the respondent is looking for a new job. The next table was adapted from the SPSS results about it:

		1		2		3		4		5		6	
CHARACTERISTICS	Σ	%	Σ	%	Σ	%	Σ	%	Σ	%	Σ	%	μ
Task characteristics	48	23.53%	37	18.14%	37	18.14%	35	17.16%	23	11.27%	24	11.76%	3.10
Social characteristics / Organisational Culture	24	11.76%	28	13.73%	28	13.73%	44	21.57%	49	24.02%	31	15.20%	3.78
Context Characteristics / Work Local	11	5.39%	23	11.27%	32	15.69%	45	22.06%	53	25.98%	40	19.61%	4.11
Career and personal development	81	39.71%	41	20.10%	33	16.18%	28	13.73%	7	3.43%	14	6.86%	2.42
Merit Recognition and remuneration	32	15.69%	58	28.43%	43	21.08%	26	12.75%	35	17.16%	10	4.90%	3.02
Organisational Reputation	8	3.92%	17	8.33%	31	15.20%	27	13.24%	37	18.14%	84	41.18%	4.57

Table 15- Characteristics Preferences ordered in a preference scale from one to six (1- the most important, 6- the less important)

From the table fifteen in the two hundred and four participants 23.53% of people considered that "Task characteristics" is the most important factor when they are looking for a new job, 18.14% of the respondents considered the same dimension being the second and third most important, 17.16% as the fourth most important, followed by 11.27% that had been considered the fifth important factor in job searching and finally 11.76% the less important.

In terms of "Social characteristics/ Organisational Culture", 11.76% of people considered as the most important factor 24.02% as the fifth ad 21.57% has being the fifth importance order.

"Context Characteristics/ Work Local" was considered as the most important dimension just for 5.39% of the two hundred and four participants, 25.98% considered the same characteristic as being the fifth most important and 19.61% as the less important.

Could be observed that 39.71% of the participants considered that when they are looking for the first jobs the most important dimension is "Career and Personal Development", 20.10% as the second most important dimension and 6.86% as the less important in general.

"Recognition of Merit and Remuneration" was considered as the most important dimension just for 15.69% of the two hundred and four participants, 28.43% as the second most important, 21.08% as the third and 4.90% as the less important.

Lastly in terms of "Organisational Reputation" just 3.92% of the participants considered as the most important factor, 18.14% as the fifth most important and 41.18% as the less important.

The results of the table above is complemented with the next one where is present the general mean of each characteristic always split by the two groups of academic areas. This table will help us to comprehend better which is the most important factor in job searching in an overall view.

	10. Area:	Ν	Mean	Std. Deviation	Std. Error Mean
Task	Socio-Humanistic	110	3.08	1.621	.155
characteristics	Information and Technology	94	3.12	1.747	.180
Social	Socio-Humanistic	110	3.50	1.618	.154
characteristics / Business culture	Information and Technology	94	4.11	1.520	.157
Context	Socio-Humanistic	110	4.05	1.570	.150
Characteristics/ Work Local	Information and Technology	94	4.18	1.328	.137
Career and	Socio-Humanistic	110	2.52	1.561	.149
Personal Development	Information and Technology	94	2.30	1.501	.155
Merit Recognition	Socio-Humanistic	110	3.22	1.492	.142
and Remuneration	Information and Technology	94	2.79	1.428	.147
Organisational	Socio-Humanistic	110	4.64	1.566	.149
Reputation	Information and Technology	94	4.49	1.501	.155

Table 16- General mean of characteristics by groups

Analysing the table sixteen, in general the average of the answers of the participants, could be observed that "Career and Personal Development" (with a general average of 2.41) was considered the most important factor in job searching, then "Merit Recognition and Remuneration" (with a general average of 3.01) was the second most important, followed by "Task characteristics" (with a general average of 3.10) and "Social characteristics/ Organisational Culture" (with a general average of 3.81). By general averages of whole the answers the fifth most important dimension in job searching was "Context Characteristics/ Work Local" (with a general average of 4.12) and finally the less average was registered in "Organisational Reputation" (with a general average of 4.57 of the two hundred and four people).

In terms of importance order by academic areas the order for preferences were significantly similar, following the general order presented before. For the respondents of socio-economic area the most important factor in job search was "Career and Personal Development" (with an average of 2.52), followed by "Task characteristics" (with an average of 3.08) and "Merit Recognition and Remuneration" (with an average of 3.22). The factor considered the fourth most important in job search was "Social characteristics/ Organisational Culture" (with an average of 3.50), followed by "Context Characteristics/

Work Local" (with an average of 4.05) and finally by "Organisational Reputation" (with an average of 4.64).

In terms of respondents that belong to information technology area, they demonstrated a high preference for "Career Personal Development" (with an average of 2.30), followed by "Merit Recognition and Remuneration" (with an average of 2.79) and "Task characteristics" (with an average of 3.12). "Social characteristics/ Organisational Culture" (with an average of 4.11) was considered the fourth important factor in job searching followed by "Context Characteristics/ Work Local" (with an average of 4.18) and lastly by "Organisational Reputation" (with an average of 4.49), being the less important factor when this specific sample are looking for a new job.

In conclusion for of the six characteristics were more valued by respondents that belong to socio-economic area and just two, "Merit Recognition and Remuneration" and "Organisational Reputation", were more valued by the ones of information technology area.

As was mentioned above the objective of this section will be compare all the data in order to take specific conclusions, testing and validate the hypotheses created.

There was made two independent-sample t-tests in order to observe how the two groups created before by qualifications area (Socio-humanistic/ Socio-economic and Information and technology) react to specific experimental conditions, such as area and sex, seeing if one strongly influence another. T-test is based on two assumptions: independent samples, both groups are incompatible, as a specific example of this research, the two groups of students by academic qualifications (SH/ SE and IT) and the second assumption is about the quantitative variable follows a normal distribution. One of the first goals analysing the results from t-test is check if the null hypotheses is rejected or not, in order to compare the means differences that would be expected between the means of the two populations. If the null hypotheses is rejected this means that there are differences in both group populations. In this specific case the objective was to reject the null hypotheses in order to confirm that both groups value differently the characteristics tested when both are looking for first job. This kind of conclusions are provide by standard deviation values, which tell how variable the differences between both samples can occur. With the

SPSS results could be observe the t-test value (size of the difference comparative to the variation in data), the degrees of freedom (which represents the number of final calculation of a statistic free value) in order to make a decision (reject or not the null hypotheses) and take a final conclusion (Field, 2009).

Afterwards there was conduct a Pearson (r) correlation test based on two assumptions: linearity- matters for model validity and Normality- small samples only, matters only for significance tests. From the results of SPSS analysis of this correlations tables is possible to see if the correlations are strongly significant, significant or not significant (Field, 2009).

Before test the hypotheses created was made a Pearson correlation test in order to observe the correlations between all the principal components, confirming that all they are influent in student's decisions. This correlation table help us to check if each group of five dimensions have higher correlations between. So the table contains all dimensions, firstly the ones adapted from Knox and Freeman (2006) and after the others from Morgeson and Humphrey (2006). As could be observed below the principal components were also correlated also with age, in order to verify, for example if the older the higher correlation with specific dimensions (positive correlation) or the contrary situation (negative correlation).

The results below in the table seventeen, show us that in fact in general the principal components are significant correlated. The first five have generally strong correlations between them, except "Business culture" with "Internationality" and "Status orientation" with "Creative environment". In terms of the second group of five dimensions, all they have a strong correlation between them. These facts just reconfirm us the strong results presented before about PCA method.

The table below (table 17) show the results commented above:

Variables	12	1	2	3	4	5	6	7	8	9	10
12. Age:											
1. Investment in career development	-0.1										
2. Business culture	-0	.364**									
3. Internationality	0.09	.186**	0.1								
4. Creative environment	.206**	.324**	.293**	.182**							
5. Status orientation	0.04	.401**	.333**	.280**	0.14						
6. Knowledge characteristics	0.13	.555**	.286**	.410**	.372**	.339**					
7. Work context	-0.1	.746**	.512**	0.13	.214**	.387**	.523**				
8. Social characteristics	-0.1	.456**	.346**	.306**	.214**	.300**	.549**	.446**			
9. Autonomy	.150*	.431**	.396**	.307**	.570**	.236**	.461**	.411**	.403**		
10. Task characteristics	0.05	.391**	.313**	0.11	.347**	.166*	.525**	.416**	.424**	.369**	

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

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

Table 17- Pearson Correlations between dimensions and age

The analysis of the table seventeen lead us to conclude that all they impact similarly the student's decisions, such as professional career and first job. If they are related now it make sense to test the following hypothesis:

H1: The students and recent graduated students will attribute different levels of importance to organisational a function characteristics according to different studied areas, when they are looking for their first job opportunities.

In order to validate the first hypothesis was made a T-test for independent samples. With the T-test done, was possible to observe if the students and recent graduated students value differently the characteristics tested (organisational and function characteristics) based on of academic graduation area. From the results in eighteenth table is shown that in general the level of importance gave to the characteristics tested is not so differently valued by groups of studied area. In terms of outcomes of level of significance (2-tailed) in t-test there was two dimensions: "Work context" and "Task characteristics" that was the only ones that had registered a p value less than 0.05 which lead us to conclude also that the importance level gave by two groups (Socio-Humanistic/ Socio-Economic and Information and Technology) is significantly different. The t-tests for independent samples for Work context were t(202)=2.399, p=0.017 and Task characteristics t(202)=3.039, p=0.003. Most of the t-tests values were positive, there was just two that were negative, "Creative environment" (t(202)=-1.188, p=0.236) and "Internationality" (t(202)=-0.860, p=0.391). This lead us to conclude that the group of "Information Technology" area will value more these two specific characteristics than the group of "Socio-Economic/ Socio-Humanistic" area. This fact do no mean that the level of importance gave by two groups is strongly different, just say that is different and valued more people from people of "Information Technology" area.

In conclusion we could say that the first hypothesis was validated when considered "Work context" and "Task characteristics" dimensions.

Observing the table below (table 18) is possible to verify the results mentioned above.

<b>.</b>	SH / SE			ſT	t	df	Sig. (2- tailed)
Dimensions	М	SD	М	SD			
Investment in career	6.11	0.609	5.99	0.868	1.179	163.144	.240
development Business culture							
	5.30	0.969	5.19	1.060	.748	202	.456
Internationality	4.22	1.3165	4.38	1.420	860	202	.391
Creative							
environment	4.32	0.907	4.48	0.986	-1.188	202	.236
Status orientation	4.85	1.104	4.83	1.130	.129	202	.898
Knowledge							
characteristics	5.14	0.757	5.13	0.979	.111	202	.912
Work context	6.28	0.680	6.02	0.897	2.399	202	.017
Social							
characteristics	5.06	1.008	4.83	1.076	1.601	202	.111
Autonomy	5.15	0.947	5.01	0.920	1.050	202	.295
Task characteristics	5.68	0.950	5.23	1.154	3.039	202	.003

Table 18- t-test for independent samples by groups of academic graduation areas

After analysing generally the results of table eighteen we are able to validate de following hypotheses:

H1a: The Work context will be more important for "socio-humanistic/ socioeconomic" area, when they are looking for their first jobs opportunities.

H1b: The Task characteristics in general will be more important for "sociohumanistic/ socio-economic" area, when they are looking for their first jobs opportunities.

For these both characteristics could be observed that the higher differences of importance level attributed by academic graduation areas was in terms of "Work context" and "Task characteristics", being considered a significantly difference. So in conclusion we could affirm that the hypotheses 1a and 1b were both validated

Due to the fact that the results of t-test above were not as expected, there was explored other relations, in order to verify if the importance level gave to organisational and function dimensions will depend of other kind of variables.

H2: According to gender, the students and recent graduated students will attribute different levels of importance to organisational a function characteristics, when they are looking for their first jobs opportunities.

	Fen	ninine	Mas	culine			Sig. (2
Dimensions	М	SD	М	SD	t	df	tailed)
Investment in career development	6.14	0.681	5.97	0.787	1.692	202	.092
Business culture	5.28	0.986	5.22	1.038	.363	202	.717
Internationality	4.30	1.333	4.29	1.399	.094	202	.925
Creative environment	4.38	0.892	4.40	0.998	155	202	.877
Status orientation	4.91	1.098	4.78	1.130	.808	202	.420
Knowledge characteristics	5.19	0.808	5.08	0.915	.948	202	.344
Work context	6.27	0.706	6.06	0.866	1.870	202	.063
Social characteristics	5.04	0.995	4.88	1.088	1.096	202	.275
Autonomy	5.11	0.862	5.06	1.004	1.097	201.507	.274
Task characteristics	5.62	0.954	5.34	1.158	1.904	202	.058

Table 19- t-test for independent samples by gender

Agreeing to the second hypothesis was done a second t-test considering the attributed level of importance to the dimensions by gender, as you can see in table nineteen.

The results in the nineteenth table show us that in general the level of importance gave to the characteristics tested is not so differently valued by gender. The level of significance (2-tailed) in t-test was always above 0.05 which lead us to conclude that they do not valued significantly different these specific characteristics. Still mention de outcomes of level of significance (2-tailed) in t-test there was two dimensions: "Investment in career development" (t(202)=1.692, p=0.092) and "Task characteristics" (t(202)=1.904, p=0.058) that had showed a p value less than 0.05 which lead us to settle that the importance level gave by gender (feminine and masculine) is different. All of the t-test values were positive, except "Creative environment" (environment t(202)=-0.155, p=0.877). This lead us to conclude that the masculine group will value more these two specific characteristics than the feminine group. As was referred above in the t-test before, this fact do no mean that the level of importance gave by two groups is strongly different, just say that is different and valued more masculine group. As a last point about this second t-test, could be observed that the higher difference of importance level attributed by gender is in terms of "Task characteristics", nevertheless the difference is not so

significantly different to be able to validate the hypothesis. So we could affirm that the second hypothesis was not validated.

The third hypothesis was also a result from the consideration of various explored situations. In this case, taking into consideration the statistical analysis made before there was not a strong correlation dimensions and other variables, do not being able to establish dependent variables, yet

H3: The older students and recent graduated students become, the strongest level of importance they will attribute to organisational and function characteristics in job searching.

In order to be possible to test the hypothesis above was necessary to do a Pearson correlation test between age variable and dimensions. This correlation test was presented before with the PCA method in seventh table. Analysing the results of table 17 could be we observed that the correlations between age variable and each dimension is so diverse. There was listed four dimensions (Business culture, Investment in career development, Work context and Social characteristics) that have a negative correlation with age variable, which means that the older you get the less importance you give to these four characteristics in job searching. There was also enumerated four dimensions (Knowledge characteristics, Internationality, Task characteristics and Status orientation), which means that the older you get the higher importance you give to these specific four characteristics. Afterwards from the table 17 we could raise the rest two characteristics (Creative environment and Autonomy), the ones that has higher correlations with age variable. In conclusion the older you are the higher importance you give to autonomy (in terms of scheduling, decision making and choice of the work tools) in your workplace, being an important dimension in job searching. Also the older you become the strongly importance you give to a Creative environment in your organisation, dynamic space where you are allowed to work on your own imitative. This last dimension had the strongest correlation  $(p = 0.206^{**})$  with age variable.

After get these results the third hypothesis we could affirm that the third hypothesis was confirmed when considering Creative environment and Autonomy in work place, in the moment of job searching. As was referred before, the results obtained were not as expected. In general the results do not confirm outcomes of the chosen authors in literature review. Due to the fact that the results were diverged, there were conducted another two post hoc tests in order to observe if there are differences between organisational and function characteristics by groups of academic graduation areas.

H4: The Organisational Characteristics will be more important for "socio-humanistic/ socio-economic" area, when they are looking for their first jobs opportunities.

	SH / SE		IT				Sig. (2-
Dimension	М	SD	М	SD	t	df	tailed)
Organisational Characteristics	5.17	0.596	5.14	0.697	.338	202	.735

Table 20- Post-hoc analysis: Organisational Characteristics by groups of academic graduation areas

From the twentieth table the level of importance gave to the organisational characteristics is not so differently valued by groups of academic graduations area. The level of significance (2-tailed) in t-test was above 0.05 which lead us to conclude that the students and recent graduated students from both areas do not valued significantly different organisational characteristics. The t-tests for independent samples for organisational characteristics were t(202)=0.338, p=0.735. Analysing the means, presented in the table above we could confirm that both groups do not value differently organisational characteristics, but in fact the people from socio-humanistic/ socio-economic area value more these kind of characteristics than people from information technology area. So we could affirm that the fourth hypothesis was validated.

H5: The Function Characteristics will be more important for "socio-humanistic/ socioeconomic" area, when they are looking for their first jobs opportunities.

D: .	SH / SE		IT				Sig. (2-
Dimension	М	SD	М	SD	t	df	tailed)
Function Characteristics	5.45	0.624	5.24	0.793	2.015	175.432	.045

Table 21- Post-hoc analysis: Function Characteristics by groups of academic graduation areas

Analysing the twenty-first table was demonstrated a p value less than 0.05 which leading us to conclude that the importance level gave to function characteristics by both groups is significantly different. The t-tests for independent samples for function characteristics were t(175.432)=2.015, p=0.045. Afterwards analysing the means, presented in the table twenty one we could set that both groups do not value differently function characteristics, but in fact the people from socio-humanistic/ socio-economic area value more these kind of characteristics than people from information technology area. So we could affirm that the fifth hypothesis was also validated.

#### 5. Conclusion and Limitations

As a recap the main goal of the research was to highlight which are the determinant factors that influence people when they are looking for a first jobs, especially focusing in students and recent graduated students. There was also a second main goal to complement a bit more the study conducted, the comparison of two specific groups, seeing which are the main similarities, differences, preferences and wishes. In order to achieve it, the sample were split in "Information and Technology", "Socio-Humanistic/ Socio-Economic" area and "Others" groups (notwithstanding this last group were excluded due to the fact that had no statistical representation). This additional feature had been related with the lack of knowledge about the detailed issues inside the major topic allowed to the interest in developing this topic. As was referred before, there are already studies about it, but in different perspectives and based on different contexts, somewhat centred in "information technology" area, but not making the parallelism with other areas.

After defining the aim of the study and remembering the central question "Which are the determinant factors that influence the choice of first jobs of the students and recent graduated students: Information technology area vs socio-humanistic and economic area" following paragraphs will try to attend to the answers of the central question, complemented with sub-questions. These were essential to conduct the empirical research and to answer the main one.

Considering the first sub-questions "Which are the factors that influence the choice of the first jobs?" and the conduction of the literature review highlighted specific five determinant characteristics on the choice of first jobs. These one were provided by two different studies, one from Knox and Freeman (2006) and the other from Morgeson and Humphrey (2006). Some statistical tests (Pearson correlation, PCA method and t-tests for independent samples) had confirmed that the characteristics presented from these authors are really influent in job searching, also in this sample. Analysing the statistical results had emerged the ten following dimensions: "Investment in career development", "Business culture", "Internationality", "Creative environment", "Status orientation", "Knowledge characteristics", "Work context", "Social characteristics", "Autonomy" and "Task characteristics" and the last five were considered "Function Characteristics". Generally the organisational and function characteristics have strong correlations between them.

After defined and tested which kind of characteristics really impacts students and recent graduated students in the moment of job searching, was clear to identify which ones prevails and also which is more valued for specific groups. Supporting this had emerged the first hypothesis, which lead us to identify if there are differences in terms of how students and recent graduated students from socio-humanistic/ socio-economic and information technology area values organisational and function characteristics. With the t-tests conducted was possible to affirm that the higher differences were in Work context and Task characteristics dimensions. This lead us to validate the first hypothesis and his aligns. Prevenient to the first hypothesis there was highlighted that people from socio-humanistic/ socio-economic area value more both dimensions emphasised before, than people from information technology area. Afterwards was possible to answer to the second sub-question "Which one prevails?" emphasizes which ones has a strongly influence in job search.

From the literature review there were idealised some possible results. Due to the fact that the obtained results were not as expected, there was conducted other statistical tests, in order to observe what kind of variables (gender and age), organisational and function dimensions depend, in job searching, conducting to the second and third hypotheses.

Gender and age variable were explored in terms of mean differences and correlations between dimensions. Gender variable do not revealed high mean differences in terms how the ten dimensions are valued. In contrary when analysing the correlations between age and dimensions there were settle interesting relations. Despite the fact that there is just one strong correlation (the older you get the higher importance you give to Creative environment in job searching), there were more five positive correlations, more than half of the ten dimensions. Autonomy, Knowledge and Task characteristics, Status orientation and Internationality were the ones with a positive correlation with age variable.

As a last point was explored how students and recent graduated students value organisational and function characteristics in general. The twenty (from Knox and Freeman, 2006) and twenty one (Morgeson and Humphrey, 2006) items were joined in just one big dimension, organisational and function characteristics respectively. These last statistical tests will support the third and fourth sub-questions.

According to the third sub-question "Which are the determinant factors that influence the choice of the first jobs in Information and Technology area?" were settle the fourth hypothesis, which was validated. People from socio-humanistic/ socio-economic area attribute higher levels of importance in the moment of job searching than people from information technology area, nevertheless the means were not so significantly different.

Regarding the fourth sub-question "Which are the determinant factors that influence the choice of the first jobs in socio-humanistic/ socio-economic area?" related with the fifth hypothesis, there was possible to achieve a similar result. People from "socio-humanistic/ socio-economic" area also value more function characteristics.

Lastly considering the fifth sub-question "Are there differences between "Information and Technology" area and "Socio-Humanistic/ Socio-Economic" area?" we could affirm that yes, there are differences between these two groups, not strong statistically differences but there are. Other variables such as gender do not impact differently job searching, but in contrary age variable impacts differently.

To justify the conclusions taken we could raise specific limitations that could skewing the results of the valid sample of this study. As a first limitation, from the seventh table we could confirm that the majority of the respondents belong to the same university, ISCTE-IUL, which could skewing analysis containing answers less varied. As a second limitation the study do not include international students, being considered just a national study. This do no permit to generalize the research in an international context. Also the valid sample could be considered a bit small, nevertheless is statistically representative (two hundred and four is higher than five times the number of items tested). According to these limitations we can list some future recommendations and further researches. For recommendations would be interesting to reply this study including students and recent graduated students from diverse nationalities and different universities cross country and also outside. Nevertheless this research is a great source to future studies about the topic, thus the value of this research would be interesting for academic and organisational contexts.

# 6. References

Arthur, M.B. and Rousseau, D.M. 1996. The boundaryless career: A new employment principle for a new organisational era. *Oxford University Press*, New York, NY, 9 (1): 313.

Briscoe, J. P., Hall, D. T. 2006. The interplay of boundaryless and protean careers: Combinations and implications. *Journal of Vocational Behaviour*, 69: 4-18.

Briscoe, J. P., Hall, D. T., DeMuth, R. L. F. 2006. Protean and boundaryless careers: An empirical exploration. *Journal of Vocational Behaviour*, 69: 30-47.

Ferreira, A., Martinez L., Nunes, F., Duarte, H. 2015. *Gestão de recursos humanos para gestores* (1<sup>st</sup> edition). Lisboa: Editora RH, Lda.

Field, A. 2009. *Discovering statistics using spss* (3<sup>rd</sup> edition). Sage Publications.

Flick, U. 2011. Introducing Research Methodology: A beginner's guide to doing a research project. *Sage Publications* (Book Review), 296

Greenhaus, J.H., Callanan, G.A. and DiRenzo, M. A. 2008. Boundaryless perspective on careers, Inside Barling, J. and Cooper, C.L. The SAGE Handbook of Organisational Behavior: Volume One: Micro Approaches, UK: *Sage Publications*, 11 (2)

Hall, T., Sharp, H., Beecham, S., Baddoo, N., & Robinson, H. (2008). What do we know about developer motivation? *IEEE Software*, 25(4): 92–94.

Hall, D. T. 2004. The protean career: A quarter-century journey. *Journal of Vocational Behaviour*, 65: 1-13.

Kale, E. and Özer, S. 2012. Versatile and unlimited employees' career attitudes: A survey of service industries, Eskişehir Osmangazi University. *Journal of Business Administration*, 7(2): 173-196.

Knox, S. & Freeman, C. 2006. Measuring and managing employer brand image in the service industry. *Journal of Marketing Management*, 22(7-8): 695–716.

Lautenschlager, A. and Haase, H. 2011. Career choice motivations of university students, department of business administration, University of Applied Sciences Jena. *International Journal of Business Administration*, 2 (1): 1923-4015.

Lor, P. 2011. Methodology in comparative studies: International and Comparative Librarianship, Chapter 4 draft. Available at: https://pjlor.files.wordpress.com/2010/06/chapter-4-draft-2011-04-20.pdf

Morgeson, F.P. & Humphrey, S.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*, 91 (6): 1321–1339.

Morgeson, F.P. & Humphrey, S.E., 2007. Integrating motivational, social and contextual work design features: Meta-analytic summary and theoretical extension of the work design literature. *Journal of Applied Psychology*, 92 (5): 1332–1356.

Nunes, F. & Reto, L. 1999. Métodos como estratégia pesquisa- Problemas tipo numa investigação. *Revista Portuguesa de Gestão*, 8 (4): 66-83.

Rampl, L. V. 2014. How to become an employer of first choice: Transforming employer brand associations into employer first-choice brands. *Journal of Marketing Management*, 30(13-14): 1486–1504.

Schein, E. H. 1971. The individual, the organization, and the career: A conceptual scheme. *Journal of Applied Behavioral Science*, 7: 401-26.

Schein, E. H. 1978. Career dynamics: Matching individual and organisational needs. *Reading Mass, Adison Wesley Pub. Co*, 18.

Shuttlewoth M. 14<sup>th</sup> July, 2010. How to write a research paper. Retrieved Apr 23, 2016 from Explorable.com: https://explorable.com/pilot-study

Sullivan, S. E. 199. The changing nature of careers: A review and research agenda", Journal of Management, 25 (3): 457-484.

## 7. Annexes

### A. Instruments

A1. "The Work Design Questionnaire (WDQ): Developing and Validating a Comprehensive Measure for Assessing Job Design and the Nature of work", Morgeson and Humphrey (2006)

Dimension	Sub-dimension		Item	Original Scale	Author
Task characteristics	Autonomy	Work Scheduling Autonomy Decision- Making Autonomy Work Methods Autonomy	<ol> <li>The job allows me to make my own decisions about how to schedule my work;</li> <li>The job allows me to decide on the order in which things are done on the job;</li> <li>The job allows me to plan how I do my work.</li> <li>The job gives me a chance to use my personal initiative or judgment in carrying out the work;</li> <li>The job allows me to make a lot of decisions on my own;</li> <li>The job provides me with significant autonomy in making decisions.</li> <li>The job allows me to make decisions about what methods I use to complete my work;</li> <li>The job gives me considerable opportunity for independence and freedom in how I do the work;</li> <li>The job allows me to decide on my own how to go about doing my work.</li> </ol>	Satisfaction scale: 1- Very unsatisfied, 5- Very satisfied	Morgeson and Humphrey (2006)- The Work Design Questionnaire (WDQ)
	Task Variety	<ol> <li>The job in</li> <li>The job r</li> </ol>	nvolves a great deal of task variety; nvolves doing a number of different things; equires the performance of a wide range of tasks; nvolves performing a variety of tasks.		

	Task Significance	<ol> <li>The results of my work are likely to significantly affect the lives of other people;</li> <li>The job itself is very significant and important in the broader scheme of things;</li> <li>The job has a large impact on people outside the organization;</li> <li>The work performed on the job has a significant impact on people outside the organization.</li> </ol>		
	Work context	<ol> <li>The job involves completing a piece of work that has an obvious beginning and end;</li> <li>The job is arranged so that I can do an entire piece of work from beginning to end;</li> <li>The job provides me the chance to completely finish the pieces of work I begin;</li> <li>The job allows me to complete work I start.</li> </ol>		
	Feedback From Job	<ol> <li>The work activities themselves provide direct and clear information about the effectiveness (e.g., quality and quantity) of my job performance;</li> <li>The job itself provides feedback on my performance;</li> <li>The job itself provides me with information about my performance.</li> </ol>	Satisfaction scale:	Morgeson and Humphrey (2006)- The Work Design Questionnaire (WDQ):
	Job Complexity	<ol> <li>The job requires that I only do one task or activity at a time (reverse scored);</li> <li>The tasks on the job are simple and uncomplicated (reverse scored);</li> <li>The job comprises relatively uncomplicated tasks (reverse scored);</li> <li>The job involves performing relatively simple tasks (reverse scored).</li> </ol>	<ol> <li>Very unsatisfied,</li> <li>5- Very satisfied</li> </ol>	
Knowledge	Information Processing	<ol> <li>The job requires me to monitor a great deal of information;</li> <li>The job requires that I engage in a large amount of thinking;</li> <li>The job requires me to keep track of more than one thing at a time;</li> <li>The job requires me to analyze a lot of information.</li> </ol>		
	Problem Solving	<ol> <li>The job involves solving problems that have no obvious correct answer;</li> <li>The job requires me to be creative;</li> <li>The job often involves dealing with problems that I have not met before;</li> <li>The job requires unique ideas or solutions to problems.</li> </ol>		
	Skill Variety	1. The job requires a variety of skills;		

		work; <b>3</b> . The job re	equires me to utilize a variety of different skills in order to complete the quires me to use a number of complex or high-level skills; quires the use of a number of skills.		
	Specialization	<ol> <li>The tools, in terms of</li> <li>The job re</li> </ol>	highly specialized in terms of purpose, tasks, or activities; procedures, materials, and so forth used on this job are highly specialized f purpose; quires very specialized knowledge and skills; quires a depth of knowledge and expertise.		
	Social Support	<ol> <li>I have the</li> <li>I have the</li> <li>My supervision</li> <li>People I was</li> </ol>	opportunity to develop close friendships in my job; chance in my job to get to know other people; opportunity to meet with others in my work; visor is concerned about the welfare of the people that work for him/her; vork with take a personal interest in me; vork with are friendly.	Satisfaction scale: 1- Very unsatisfied, 5- Very satisfied	Morgeson and Humphrey (2006)- The Work Design Questionnaire (WDQ):
Social characteristics	Interdependence	Initiated Interdependence Received Interdependence	<ol> <li>The job requires me to accomplish my job before others complete their job;</li> <li>Other jobs depend directly on my job;</li> <li>Unless my job gets done, other jobs cannot be completed.</li> <li>The job activities are greatly affected by the work of other people;</li> <li>The job depends on the work of many different people for its completion;</li> <li>My job cannot be done unless others do their work.</li> </ol>		

	Interaction Outside Organization	<ol> <li>The job requires spending a great deal of time with people outside my organization;</li> <li>The job involves interaction with people who are not members of my organization;</li> <li>On the job, I frequently communicate with people who do not work for the same organization as I do;</li> <li>The job involves a great deal of interaction with people outside my organization.</li> </ol>		
	Feedback From Others	<ol> <li>I receive a great deal of information from my manager and coworkers about my job performance;</li> <li>Other people in the organization, such as managers and coworkers, provide information about the effectiveness (e.g., quality and quantity) of my job performance;</li> <li>I receive feedback on my performance from other people in my organization (such as my manager or coworkers).</li> </ol>		
	Ergonomics	<ol> <li>The seating arrangements on the job are adequate (e.g., ample opportunities to sit, comfortable chairs, good postural support);</li> <li>The work place allows for all size differences between people in terms of clearance, reach, eye height, leg room, etc;</li> <li>The job involves excessive reaching (reverse scored).</li> </ol>	Satisfaction scale: 1- Very unsatisfied, 5- Very satisfied	Morgeson and Humphrey (2006)- The Work Design Questionnaire (WDQ):
	Physical Demands	<ol> <li>1. The job requires a great deal of muscular endurance;</li> <li>2. The job requires a great deal of muscular strength;</li> <li>3. The job requires a lot of physical effort.</li> </ol>		Questionnane (11 DQ).
Work context	Work conditions	<ol> <li>The work place is free from excessive noise;</li> <li>The climate at the work place is comfortable in terms of temperature and humidity;</li> <li>The job has a low risk of accident;</li> <li>The job takes place in an environment free from health hazards (e.g., chemicals, fumes, etc.);</li> <li>The job occurs in a clean environment.</li> </ol>		
	Equipment Use	<ol> <li>The job involves the use of a variety of different equipment;</li> <li>The job involves the use of complex equipment or technology;</li> <li>A lot of time was required to learn the equipment used on the job.</li> </ol>		

### A2. "Measuring and Managing Employer Brand Image", Knox and Freeman (2006)

Employer Brand Image	<ol> <li>"Allows a lot of freedom to work on your own initiative";</li> <li>"Employs people with whom you feel you will have things in common";</li> <li>"Has a dynamic, forward-looking approach to their business";</li> <li>"Has a friendly, informal culture";</li> <li>"In the early years, offers the opportunity to move around the organization and work in different roles";</li> <li>"Invests heavily in training and development of its employees";</li> <li>"Is a pure meritocracy";</li> <li>"Is a small organization";</li> <li>"Is widely regarded as a highly prestigious employer";</li> <li>"Offers a lot of scope for creativity in your work";</li> <li>"Offers a relatively stress-free working environment";</li> <li>"Offers a very high starting salary";</li> <li>"Offers the opportunity for international travel";</li> <li>"Offers the opportunity to work and live abroad";</li> <li>"Offers variety in your daily work";</li> <li>"Provides you with an internationally diverse mix of colleagues";</li> <li>"Really cares about their employees as individuals";</li> <li>"Requires you to work standard working hours only";</li> <li>"Uses your degree skills".</li> </ol>	Bi-polar rating scale of importance: 1- Very unimportant, 4- Neither unimportant nor important and 7- Very important.	Knox and Freeman (2006)- "Measuring and Managing Employer Brand Image"
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B. Determinats in Job Searching, for students and recent-graduated students

## ISCTE 🕸 Business School Instituto Universitário de Lisboa

## Determinantes da procura de emprego por estudantes e recém-graduados

#### Página 1

Este questionário enquadra-se numa investigação no âmbito de uma tese de Mestrado em Gestão de Recursos Humanos, realizada no ISCTE-Instituto Universitário de Lisboa. Os resultados obtidos serão utilizados apenas para fins académicos. Não existem respostas certas ou erradas. Apenas solicitamos que responda de forma sincera às questões colocadas. Garantimos o anonimato e confidencialidade.

Qualquer dúvida, deverá contactar: mmpaa1@iscte-iul.pt Agradecemos a sua colaboração.

#### Página 2

1. (	Que tipo	de empresa	gostaria para o	início da sua	carreira?
------	----------	------------	-----------------	---------------	-----------

Multinacional

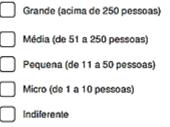
Nacional

) Indiferente

2. Em termos de sector, que tipo de empresa gostaria para o início da sua carreira?\*

Sector público
Sector privado
Terceiro sector/ Economia solidária
Criação do próprio negócio
Indiferente
Outro:

3. Em termos de dimensão, que tipo de empresa gostaria para o início da sua carreira? \*



Questionnaire

#### Página 3

#### 4. "Na procura de um emprego, para mim, é importante que a organização..." \*

Classifique numa escala de importância (1- nada importante, 7- muito importante) os seguintes itens aquando da procura de um emprego:

	1	2	3	4	5	6	7
4.1. Me dê liberdade para trabalhar sob a minha própria iniciativa 4.2. Empregue	0	0	0	0	0	0	0
pessoas com quem eu sinta que vou ter aspetos em comum	0	0	0	0	$\bigcirc$	0	$\bigcirc$
4.3. Tenha uma abordagem dinâmica e orientada para o futuro do seu negócio	0	$\bigcirc$	0	$\bigcirc$	0	0	$\bigcirc$
4.4. Tenha uma cultura informal e amigável	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	0
4.5. Nos primeiros anos, me ofereça a oportunidade de mobilidade interna, trabalhando em diferentes funções	$\bigcirc$	0	0	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$
4.6. Invista na formação e no desenvolvimento dos seus funcionários	0	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$
4.7. Reconheca o mérito individual	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	O )
4.8. Seja de pequena dimensão	$\bigcirc$						
4.9. Seja considerada um empregador de elevado prestígio	0	0	0	0	0	0	0
4.10. Me dê espaço para usar criatividade no trabalho	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	0	0	$\bigcirc$
4.11. Tenha um ambiente de trabalho relativamente livre de stress	0	0	0	0	0	0	$\bigcirc$ )

4.12. Ofereça um salário inicial elevado	$\bigcirc$						
4.13. Ofereça oportunidades de progressão de carreira a longo prazo	0	0	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	0
4.14. Possibilite viagens internacionais	$\bigcirc$						
4.15. Possibilite trabalhar e viver no estrangeiro	$\bigcirc$						
4.16. Possibilite variedade de tarefas e conteúdos no meu trabalho diário	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	0	$\bigcirc$	0
4.17. Possibilite a oportunidade de lidar com colegas de diferentes nacionalidades	0	0	$\bigcirc$	$\bigcirc$	0	$\bigcirc$	0
4.18. Se preocupe efectivamente com os seus funcionários enquanto indivíduos	0	0	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	0
4.19. Exija que trabalhe apenas o horário diário normal	$\bigcirc$						
4.20. Possibilite o uso das capacidades resultantes da minha formação académica	0	0	0	0	0	0	0

#### Página 4

5. "Na escolha de um emprego, para mim, é importante que a organização me possibilite..." \*

Classifique numa escala de importância (1- nada importante, 7- muito importante) os seguintes itens aquando da procura de um emprego:

	1	2	3	4	5	6	7
5.1. Autonomia no meu horário de trabalho	$\bigcirc$						
5.2. Autonomia na tomada de decisão	$\bigcirc$						
5.3. Autonomia de escolha dos meus métodos de trabalho	$\bigcirc$						

5.4. Variedade de tarefas	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	0
5.5. Tarefas que tenham impacto na vida de outras pessoas	$\bigcirc$	0	0	0	0	0	$\bigcirc$
5.6. Tarefas com que me identifique	$\bigcirc$						
5.7 Receber feedback do meu trabalho	$\bigcirc$						
5.8. Um trabalho complexo	$\bigcirc$						
5.9. Funções que envolvam processamento de informação	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	0	$\bigcirc$
5.10. A participação na resolução de problemas	$\bigcirc$						
5.11. Aplicação de competências variadas	$\bigcirc$						
5.12. Especialização	$\bigcirc$						
5.13. Apoio social por parte dos colegas de trabalho	$\bigcirc$	0	0	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$
5.14. Um trabalho que seja relevante para o desempenho dos meus colegas	0	0	0	0	0	0	0
5.15. Que o trabalho dos meus colegas seja relevante para o meu desempenho	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	0	$\bigcirc$	0
5.16. Interação fora da empresa	$\bigcirc$						
5.17. Receber feedback de outras pessoas	$\bigcirc$						
5.18. Boas condições do local de trabalho / Ergonomia	0	0	0	$\bigcirc$	0	$\bigcirc$	$\bigcirc$
5.19 Boas condições físicas e mentais para o desenvolvimento da função	0	0	0	0	0	0	0

5.20. Um ambiente de trabalho seguro e agradável	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	0	0	$\bigcirc$
5.21. Uso frequente de ferramentas de trabalho	0	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	0

#### Página 5

6. Ordene as dimensões que a seguir se apresentam, segundo a ordem de importância que lhes atribui na procura de emprego. \*

Assinale sucessivamente cada uma das suas escolhas. Os itens vão-se organizando automaticamente pela ordem indicada. Pode optar apenas por arrastar.

(1- A mais importante e 6 - A menos importante)

ŧ	•	Características da tarefa
÷	-	Características sociais / Cultura da empresa

- Características do contexto/ Local de trabalho
- Carreira e desenvolvimento pessoal
- Reconhecimento de mérito e remuneração
- Reputação da organização

#### Página 6

#### 7. Qual a sua situação atual? \*

Estudante
Empregado(a)
Trabalhador(a) estudante
Desempregado(a)
À procura do primeiro emprego
Outro(a) / Nenhuma das anteriores:

#### 8. Universidade: \*

9. Habilitações atuais: *
C Licenciatura completa
Frequência de licenciatura
Mestrado completo
Frequência de mestrado
Outra:
10. Curso: *
11. Finalizada a formação académica/ curso a minha intenção é?: *
Ingressar no mercado de trabalho
Continuar a estudar
Criar o meu próprio negócio
Outra:
12. Idade: *
13. Sexo: *
Feminino
Masculino

» Redirection to final page of eSurvey Creator

## C. Principal Components Analysis

C1. Principal Components Analysis for items of Knox and Freeman, 2006

KMO and Bartlett's Test					
Kaiser-Meyer-Olkin Measure of Sampling Adequacy. ,805					
Bartlett's Test of Sphericity	Approx. Chi-Square	1328,001			
	df	190			
	Sig.	,000			

PC4.1

<b>Reliability Statistics</b>			
Cronbach's	N of		
Alpha	Items		
,784	5		

Item-Total Statistics				
	Scale Mean	Scale	Corrected	Cronbach's
	if Item	Variance if	Item-Total	Alpha if Item
	Deleted	Item Deleted	Correlation	Deleted
4.6. Invista na	24,10	9,261	,604	,730
formação e no				
desenvolvimento dos				
seus funcionários				
4.7. Reconheça o	24,05	9,214	,636	,721
mérito individual				
4.13. Ofereça	24,18	9,400	,513	,759
oportunidades de				
progressão de carreira a				
longo prazo				
4.18. Se preocupe	24,13	9,363	,543	,749
efectivamente com os				
seus funcionários				
enquanto indivíduos				

PC4.2

<b>Reliability Statistics</b>			
Cronbach's N of			
Alpha	Items		
,731	4		

Item-Total Statistics				
	Scale Mean	Scale	Corrected	Cronbach's
	if Item	Variance if	Item-Total	Alpha if Item
	Deleted	Item Deleted	Correlation	Deleted
4.2. Empregue pessoas	15,88	10,817	,441	,715
com quem eu sinta que				
vou ter aspetos em				
comum				
4.4. Tenha uma cultura	15,40	10,182	,576	,643
informal e amigável				
4.11. Tenha um	15,59	9,681	,585	,633
ambiente de trabalho				
relativamente livre de				
stress				
4.19. Exija que trabalhe	16,11	9,381	,499	,689
apenas o horário diário				
normal				

PC4.3

<b>Reliability Statistics</b>			
Cronbach's N of			
Alpha	Items		
,803	3		

Item-Total Statistics					
	Scale Mean	Scale	Corrected	Cronbach's	
	if Item	Variance if	Item-Total	Alpha if Item	
	Deleted	Item Deleted	Correlation	Deleted	
4.14. Possibilite	8,25	8,275	,640	,739	
viagens internacionais					
4.15. Possibilite	8,99	6,941	,748	,618	
trabalhar e viver no					
estrangeiro					
4.17. Possibilite a	8,53	9,314	,571	,807	
oportunidade de lidar					
com colegas de					
diferentes					
nacionalidades					

PC4.4

<b>Reliability Statistics</b>			
Cronbach's N of			
Alpha	Items		
,693	3		

Item-Total Statistics					
	Scale Mean	Scale	Corrected	Cronbach's	
	if Item	Variance if	Item-Total	Alpha if Item	
	Deleted	Item Deleted	Correlation	Deleted	
4.1. Me dê liberdade	10,95	3,894	,512	,597	
para trabalhar sob a					
minha própria iniciativa					
4.3. Tenha uma	10,20	4,592	,433	,690	
abordagem dinâmica e					
orientada para o futuro					
do seu negócio					
4.10. Me dê espaço	10,58	3,683	,588	,494	
para usar criatividade					
no trabalho					

## PC4.5

<b>Reliability Statistics</b>			
Cronbach's N of			
Alpha	Items		
,493	2		

Item-Total Statistics				
	Scale Mean	Scale	Corrected	Cronbach's
	if Item	Variance if	Item-Total	Alpha if Item
	Deleted	Item Deleted	Correlation	Deleted
4.9. Seja considerada	4,88	1,694	,329	
um empregador de				
elevado prestígio				
4.12. Ofereça um	4,80	2,040	,329	
salário inicial elevado				

C2. Principal Components Analysis for items of Morgeson and Humphrey, 2006

KMO and Bartlett's Test				
Kaiser-Meyer-Olkin M	,881			
Adequacy.	Adequacy.			
Bartlett's Test of	2159,889			
Sphericity	df	210		
	Sig.	,000		

## PC5.1

<b>Reliability Statistics</b>			
Cronbach's	N of		
Alpha	Items		
,837	6		

Item-Total Statistics				
	Scale Mean	Scale	Corrected	Cronbach's
	if Item	Variance if	Item-Total	Alpha if Item
	Deleted	Item Deleted	Correlation	Deleted
5.8. Um trabalho	26,07	19,178	,619	,809
complexo				
5.9. Funções que	26,09	18,922	,569	,821
envolvam				
processamento de				
informação				
5.10. A participação na	25,30	19,147	,684	,797
resolução de problemas				
5.11. Aplicação de	25,24	19,642	,689	,798
competências variadas				
5.12. Especialização	25,78	19,224	,571	,820
5.21. Uso frequente de	25,51	19,581	,571	,819
ferramentas de trabalho				

PC5.2

<b>Reliability Statistics</b>				
Cronbach's	N of			
Alpha	Items			
,864	4			

Item-Total Statistics							
	Scale Mean Scale		Corrected	Cronbach's			
	if Item	Variance if	Item-Total	Alpha if Item			
	Deleted	Item Deleted	Correlation	Deleted			
5.7 Receber feedback	18,48	6,408	,626	,860			
do meu trabalho							
5.18. Boas condições	18,63	5,358	,783	,797			
do local de trabalho /							
Ergonomia							
5.19 Boas condições	18,50	5,906	,733	,818			
físicas e mentais para o							
desenvolvimento da							
função							
5.20. Um ambiente de	18,33	6,223	,718	,826			
trabalho seguro e							
agradável							

PC5.3

<b>Reliability Statistics</b>				
Cronbach's	N of			
Alpha	Items			
,794	4			

Item-Total Statistics							
	Scale Mean	Scale	Corrected	Cronbach's			
	if Item	Variance if	Item-Total	Alpha if Item			
	Deleted	Item Deleted	Correlation	Deleted			
5.13. Apoio social por parte dos colegas de trabalho	14,64	10,715	,575	,758			
5.14. Um trabalho que seja relevante para o desempenho dos meus colegas	14,87	10,053	,720	,687			
5.15. Que o trabalho dos meus colegas seja relevante para o meu desempenho	15,15	9,821	,693	,698			
5.16. Interação fora da empresa	14,81	11,335	,452	,819			

PC5.4

<b>Reliability Statistics</b>				
Cronbach's N of				
Alpha	Items			
,753	3			

Item-Total Statistics						
	Scale Mean Scale		Corrected	Cronbach's		
	if Item	Variance if	Item-Total	Alpha if Item		
	Deleted	Item Deleted	Correlation	Deleted		
5.1. Autonomia no meu	10,27	3,321	,599	,664		
horário de trabalho						
5.2. Autonomia na	10,21	4,079	,636	,617		
tomada de decisão						
5.3. Autonomia de	10,03	4,383	,532	,724		
escolha dos meus						
métodos de trabalho						

## PC5.5

<b>Reliability Statistics</b>				
Cronbach's	N of			
Alpha	Items			
,668	2			

Item-Total Statistics						
	Scale Mean	Scale	Corrected	Cronbach's		
	if Item	Variance if	Item-Total	Alpha if Item		
	Deleted Item De		Correlation	Deleted		
5.5. Tarefas que tenham	5,77	1,289	,507			
impacto na vida de						
outras pessoas						
5.6. Tarefas com que	5,18	1,762	,507			
me identifique						

### D. Pearson Correlations Analysis

# D1. Pearson Correlations Analysis for dimensions from Knox and Freeman, 2006

		Investment in career development	Status orientation	Knowledge characteristics	Work context	Social characteristics
Investment in career	Pearson Correlation	1	,401**	,555**	,746**	,456**
development	Sig. (2- tailed)		0	0	0	0
	N	204	204	204	204	204
Status orientation	Pearson Correlation	,401**	1	,339**	,387**	,300**
	Sig. (2- tailed)	0		0	0	0
	N	204	204	204	204	204
Knowledge characteristics	Pearson Correlation	,555**	,339**	1	,523**	,549**
	Sig. (2- tailed)	0	0		0	0
	N	204	204	204	204	204
Work context	Pearson Correlation	,746**	,387**	,523**	1	,446**
	Sig. (2- tailed)	0	0	0		0
	Ν	204	204	204	204	204
Social characteristics	Pearson Correlation	,456**	,300**	,549**	,446**	1
	Sig. (2- tailed)	0	0	0	0	
	N	204	204	204	204	204

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

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

		Autonomy	Task characteristics	Business culture	Internationality	Creative environment
Autonomy	Pearson Correlation	1	,369**	,396**	,307**	,570**
	Sig. (2- tailed)		0	0	0	0
	N	204	204	204	204	204
Task characteristics	Pearson Correlation	,369**	1	,313**	0,107	,347**
	Sig. (2- tailed)	0		0	0,128	0
	N	204	204	204	204	204
Business culture	Pearson Correlation	,396**	,313**	1	0,1	,293**
	Sig. (2- tailed)	0	0		0,155	0
	N	204	204	204	204	204
Internationality	Pearson Correlation	,307**	0,107	0,1	1	,182**
	Sig. (2- tailed)	0	0,128	0,155		0,009
	N	204	204	204	204	204
Creative environment	Pearson Correlation	,570**	,347**	,293**	,182**	1
	Sig. (2- tailed)	0	0	0	0,009	
	N	204	204	204	204	204

# D2. Pearson Correlations Analysis for dimensions from Morgeson and Humphrey, 2006

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

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