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STUDY ON THE EFFECTS OF WORK ENVIRONMENT ON EMPLOYEES'  
PRODUCTIVITY

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## ABSTRACT

The working environment is affecting the productivity of employees. Research has shown annually increasing loss on productivity due to health strains caused by work environmental factors. These factors are psychosocial and organizational related, with stress and poor management being the core of the issue. This study aims to determine how the working environment can be managed to be effective by using motivational and leadership factors to increase the productivity of organizations.

Building on previous research and work done, it is questioned: What factors are included in an effective working environment? What is the impact of employees on productivity? These are the main questions that are aimed to be answered through the study, and in this context, the working environment will be understood as the physical place where the work is performed and that has social and psychological aspects conforming it, also called organizational climate.

Based on a review of the literature on working environment and motivation theories, an online survey was conducted to employees, targeting their main preferences while working and restating their needs pyramid distribution to be able to found a pattern on them.

Analysis of the responses, literature review and previous studies were carried out to answer the previous questions and objectives stated to prove or refute the veracity of the hypotheses and that working environment indeed affects productivity.

*Keywords: management, work environment, employees, productivity and leadership.*

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## **1. INTRODUCTION**

Globalization has brought within high chances of development for all countries around the globe but also carries with the demands that this interconnection has brought within the competitiveness among professionals, timelines and high ranges of stress, depression, sleep deprivation and irritation overall. The market instability has influenced on the detriments of this psychological aspects in nowadays working for the population because of the uncertainty of the labor continuity and the lack of acknowledgment with companies just being centered on numbers, meaning productivity overall.

The alarming high rates of sick leave because of work stress and depression are greatly damaging the economy and productivity, as stated in the Annual statistics given by Great Britain for the past year, (Health and safety executive, 2018) encouraging organizations to rethink the perspective where this new working force generation goal settings are aiming, and to find a balance between work and lifestyle. Bringing a better environment will boost both employers and employee's productivity and will promote open communication between the parts, enhancing motivation bi-directionally.

Working environment encloses the management at the enterprise, where it depends mainly on the seniors to lead their teams and employees with the help of leadership abilities obtained from coaching and the understanding of the human mind, by following the motivation line where the efficiency and efficacy will be the final goal. Therefore, the classification of the types of environments is key when thinking of an action plan that will naturally follow up the needs of the organization and the fulfillment of the workers' desire for acknowledgment.

Working environment entitles from the ethic and values of the organization to the quality and efficiency of the employee's work. Recognizing each type and inner culture of the company is essential to realize nowadays population reality and psychological side effects that the amount of pressure and short timing for deadlines causes onto the productivity, engagement and overall performance of the workers. Renowned magazines such as Forbes realize about the detrimental consequences of the working environment on the employee's mentality and behavior. (John Hall, Forbes, 2014)

## **1.1 Problem Statement**

The high rates of illnesses caused by job strains are leading to significant losses on productivity annually. Mental health issues are detrimental to the employees' chances of developing positively in an organization. Motivation is a critical fuel for better performance, and for diminishing the labor stress and depression rates. Otherwise, not only employees but also companies will confront the side effects that a poor working environment create.

## **1.2 Objectives**

This research and overall objective aim to appraise the effective factors of the working environment that can contrast and increase productivity on employees, making possible to manage and avoid further company losses.

For achieving the aim of the study, specific objectives were stated:

- To illustrate the importance of leadership and coaching in managers.
- To explain the psychological effects of motivation on workers.
- To measure through a survey the workplace key role and conditions for better employee performance.

## **1.3 Questions**

What factors are included in an effective working environment? What is the impact of employees on productivity?

## **1.4 Hypothesis**

The work environment affects productivity in companies.

The working environment is expected to determine an employee' productivity.

The effects of the working environment are required to be psychologically based and quantitatively measurable.

Companies can to manage their human resources for greater performance and development.

## 1.5 Justification

In the 21<sup>st</sup> century with all the technological development going on, it seems that enterprises are forgetting that human resources cannot be programmed. It takes a lot of work and commitment to build teamwork, to train an employee and to make a positive work environment. Working environment encloses much more than the organizational climate and fellowship between co-workers. There is also a psychosocial factor that is not being taken as seriously as it should.

There are statistics from all over the world that are proving that “more than eight in 10 employed Americans said they are stressed out on the job amid heavier workloads and low pay” (Interactive, 2013) clarifying only the need for senior management of taking action on the matter, to promote a qualified environment, better work opportunities and equally distributed workload.

Working organizations from Nordic countries, UK countries, USA and others as well shows the massive impact that stress is causing on organizations, being the psychological strains the main detriment to productivity. High percentages of medical leave due to these factors are proving the fact that when not meeting expectations, workplace can be detrimental for their mental health.

Stress occupies the first place as a health threat with a 70% from a universe of 1.039 representatives (Armstrong, 2016). The alarming number of workers that need to take sick leave under psychological circumstances is only increasing in the following years, and this not only causes problems to the individual, but the team, peers and overall normal function of their organizations.

As a result of productivity being damaged to the point where “incur healthcare costs twice as high than for other employees. All told, the consequences of stress-related illnesses, from depression to heart disease, costs businesses an estimated \$200 to \$300 billion a year in lost productivity”. (Health Advocate, 2009, p. 3)

## **1.6 Theoretical framework**

This framework was divided into two main sections, the literature review and the working environment subdivisions and concepts. In the literature review section, different authors and erudite definitions and theories on the matter were displayed and connected to the investigation to shape the core and direction that the research was aiming. The concept subdivisions for the working environment were the psychosocial working environment or PWE and the organizational and workplace environment or OWE. In the PWE section, mental health concepts and illnesses were addressed and defined to frame the research and clarified the approach of stress and depressions with working factors. Finally, OWE concepts were centered on management and leadership theories and it is used and repercussion on productivity or work efficiency.

## **1.7 Methodological framework**

The research was descriptive with non-probability sampling, with a gathered of data through time. To gather the information, it was used a mixed method, such as qualitative and quantitative, interpretative and evaluative. The quantitative method used were surveys, for measuring, ranking and categorizing the information, identifying patterns and making generalizations, as number and graphs. The qualitative approach was used in case studies and literature review.

The tools used to gather the information were through surveys, questionnaires of secondary data collection, books used for the literature review, essays for previous researches on the same field, and observations gathered on the internship period.

Primary data was collected through a survey; memo taking notes and observation, statistics and graphs were made with this information gathered.

Secondary data was collected mainly on electronic sources, online, such as statistics, questionnaires, another thesis, and essays and graphs.

## 1. CHAPTER I: BACKGROUND OF THE INTERNSHIP OR WORK

The internship was carried out at the Mercomex S.A Logistics Operation center, for Nestlé Chile, between the periods of March 2017 and May of the same year. During this period, she developed as an Operator and Logistic Back up in the area of maritime exportations.

The tasks were to do the information entry and typing functions in the company's internal system, the creation of vessel maritime folders prior the arrival at the country with all the necessary documents for their exportation. Among the required documents are the packing list, invoice, and certificate of origin, to do the request to SOFOFA of phytosanitary certificate and correction of Bill of Ladings (BL) to the corresponding shipping company.

Administrative tasks were also required in the case of late corrections established by shipping companies or delays in cargo in the logistics process, in which they were used as a way of transport from warehouses to ports by trucks of the subcontracted fleet, or also called primary transport. The administrative tasks consisted on clarification of the documents that were outside of the timeline; those required a customer service approach to the clients to fix the exportation documents as soon as possible to prevent from delays on timelines stated by the shipping companies.

A constant synergy with the Department of Accounting and Finance and the import team, in charges of ships and maritime operations delays, allowed the full professional and human development of all workers. There were instances of daily, weekly and monthly feedback by department, in conjunction with work with KPIs<sup>1</sup> by the area of development divided and delegated to each worker, making an even better teamwork and collective environment by being presented on weakly meetings and analyzed in conjunction with managers.

Nestlé being and international company and Mercomex, being a national company, displayed a tight relationship from the strong links between their manager's coaching and leadership abilities and efforts. So, at the eyes of the customer it was just one organization as a whole, and not a contractor and subcontractor.

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<sup>1</sup> Key performance Indicator

## **2. CHAPTER II: THEORETICAL FRAMEWORK**

### **Literature Review**

Regarding the initial question of this study: What is the relationship between the Working Environment and productivity? There are recent studies that have focused on how to increase productivity in companies while other studies have focused on the working environment and how it affects employees, but few researchers have taken into account that both are linked and that some factors from the working environment affects productivity directly.

A study was conducted on working environment and leadership; the connection was made on how to create a healthy working environment with leadership. In this published study the variables taken into account were the health awareness, workload, control, rewarding, the community, fairness and values at the organization. (Bianca Winkler, 2016)

Another case study was previously conducted, where they linked the long working hours with depressive symptoms with the aim of quantifying the relation between long working hours and the onset of depressive symptoms with an impressive outcome of 95% confidence interval (CI) between long working hours and the onset of depressive symptoms, with significant evidence of heterogeneity. (Virtanen, Jokela, & Madsen, 2018)

A last case study was collected from the Topic Centre on Research, Work and Health of the European Agency for Safety and Health at Work, where it is study the link between a good working environment and the productivity. For a better understanding of positive effects of a good working environment it was needed a support of the implementation of effective health and safety policy at the organization. This one would complement the set of rules and regulations with a significant parameter that is directly linked to the intrinsic motivation of employees at the company. (Yavuz Tansoy Yıldırım, 2018).

After reviewing many case studies and choosing these three to show the connection between working environment and productivity it can be inferred that in the first case it was linked successfully leadership with a better and positive working environment. The second case ratify the

data collected for the research where working hours affect negatively the employees development, causing in this case, mental health issues. The third and last case shown is it a more accurate version of the link between the two variables: working environment and productivity, these two indeed can be manage for positive effects with health and safety as key factors.

Case studies were collected to mainly showcase the different points of view of previous researches done on the topic and field, and to answer the initial question of the connection between working environment and productivity, and it was possible to acknowledge three main factors to develop: leadership, health and motivation.

## **2.1. Working Environment (WE)**

According to the business dictionary, the working environment defines as the “location where a task is completed. When pertaining to a place of employment, the work environment involves the physical geographical location as well as the immediate surroundings of the workplace, such as a construction site or office building.” (Business Dictionary, 2019)

Furthermore, it is implied that the companies “understood that by building a good working environment, they were indirectly showing their employees that they were contributing to the effective working of the business, while increasing overall productivity”. (50minutes.com, 2017, p. 2)

As a result, “If fewer people have to take sick leave as a result of bad work environments, this will contribute to increasing the work force” (Lars Foldspang, 2014, p. 7). Therefore, the working environment, for illustrative purposes, will be divided into a psychosocial working environment and a physical-organizational.

### **2.1.1. Psychosocial Working Environment (PWE)**

Psychological working environment “is a term for that part of the working environment which has to do with the nature and content of the work, the organization of the work, and the social relations and conditions under which the work is performed.” (Tom Hansen, 2015, p. 15)

A healthy psychological and social environment promotes happiness at work, finds imperative to ensure job satisfaction and the wellbeing of employees at the workplace.

There are obligations and rights of the employer towards their employees, requirements “for avoiding the psychosocial strain, relating to violence, solitary work, as well as bullying and other inappropriate behaviors”. (Tom Hansen, 2015, p. 30)

An important psychological aspect when looking for a job is the sense of belonging and value that work stability gave to an employee. This aspect has been greatly affected by nowadays market volatility and lack of long lasting contracts, to be replaceable and disposable detriment the self-esteem of an individual and the motivation at work. This trend “can be glimpsed in the disproportionate growth of jobs that are temporary, that offer highly uncertain or limited working hours, or that apportion of work on a project basis, offering contracts of limited duration”. (Vallas, 2017, p. 12)

Employees’ motivation is directly proportional to work commitments, the level of engagement and job motivation can be intrinsic or extrinsic, meaning the factors that influence the employee can be internal (from themselves) or external (from the surroundings). The intrinsic factors are the personal aspects that are important to the individual development and performance, while on the other hand the external factors focus on the outcome of a task or activity. These factors can be modified in a positive and effective way and so it is important to highlight the different motivational theories. The motivation theories will serve as a guideline to manage the intrinsic and extrinsic factors of the organization and enhancing the employees’ performance.

#### **2.1.1.1. Work environment motivation: Motivation Theories**

Motivational theories are needed to find out what drives employees to perform in a certain way and to work towards a previously settled goal. A range of erudite was displayed from the most used and effective theories over time.

##### Maslow’s Need Hierarchy Theory

Human motivation can be explained into five basic needs; the physiological, safety and protection, love and social belonging, esteem and finally self-actualization needs are piled from bottom to top of the pyramid.



“Once a person has met his deficiency needs, he can turn his attention to self-actualization; however, only a small minority of people are able to self-actualize because self-actualization requires uncommon qualities such as honesty, independence, awareness, objectivity, creativity, and originality.” (Neel Burton, 2017)

Abraham Maslow, being a psychologist, found that the fourth need of esteem or so-called *Ego* is met when the recognition, power and prestige of the human being are fulfilled.

“Without meeting the needs of each step, one cannot climb to another step. Only successful and motivated people can reach self-actualization which, whether conscious of it or not, is every human being’s goal.” (Aldana, 2019)

Maslow pyramid of need theory recognizes the employees needs, since once they are fulfilled workers are motivated to do a better performance at work and so, produce more.

#### Herzberg’s Two Factor theory

To influence motivation in the organization, there are satisfaction and dissatisfaction factors, classified as motivators and hygiene. The first one encourages employees to work harder, and absence of the second one will cause unmotivated workers. Herzberg’s stated that “in the motivation to work and in all subsequent studies, achievement or quality performance has been the most frequent factor leading to job satisfaction”. (Frederick Herzberg, 2017, p. 14). Job satisfaction can be achieved when getting rid of the dissatisfaction hygiene factors that include the salary, company policies, job security, and status of the worker into the organization, fringe benefits and working conditions. To make this possible, the organization as a whole needs to provide a respectful and supportive organizational climate, effective supervision or management and job stability. Herzberg theory keyword to the contribution of the study is job satisfaction, for an effective working environment.

#### McClelland’s Needs Theory

Also called the Learned Needs Theory, it identifies three basic motivations needs, which are power, affiliation and achievement. Daniel McClelland differed from other theories because he

thought “motivation is inculcated in children through the stories and role models presented to them as things admired in their society. As adults, they seek to emulate the heroes and values of their childhood lessons”. (Barbara B. Moran, 2018, p. 318).

For those who seek power, they will aim for high-level positions in the company, to be influencers on motivating others and like to have control over situations. Achievement on the other hand differs from power because high achievers will take moderate risks to get what they want, immediate feedbacks is needed while doing their work and to completed successfully, finally accomplishing their goals is more satisfying than the monetary reward.

The need of affiliation comes from the idea of society, as stated in his book “The Achieving Society”, McClelland found that people needed to be loved, avoid pain and fear rejection.

Power itself is a motivator, but not a factor of the working environment, ambition is a good fuel for achievement but power thirst can cause management to struggle when having unsatisfied employees, since power seekers needs to be managed and contained.

McClelland contribution was the three basic motivators: power, affiliation and achievement, when in that order and measured employees can achieve a great performance and sense of belonging.

### McGregor's Participation Theory

In his book “The human side of enterprise”, McGregor explained that there were two styles of management, an authoritarian style or so-called Theory X and the participative Theory Y.

The first one takes a more pessimistic view of their people and believes that their workers dislike their work, avoid responsibility and have to be controlled or supervised continually. Employees lack ambition and need to be rewarded to stay motivated.

Theory Y contrastively proposes an optimistic, positive opinion of people. It bases on involving workers in the decision-making, believing in their own initiative and self-motivation, accepts responsibility and solves problems on their own. Douglas McGregor theories “were speedily introduced into companies because they promised growth and increased efficiency”. (Stoyan Stoyanov, 2017)

McGregor contribution to the study is the understatement that self-motivation is a trigger to efficiency. Theory X and Y relies on two extreme opposite poles of assuming and generalizing workers being either self-motivated or unmotivated, but the reasons for this motivation or the employee wellbeing are not taken into account. This theory lacks realism to put it into practice in today's companies, since there exist a wide range of employees' types and if X or Y, that is mainly for lack of a positive and effective management.

### Ouchi and Urwick's Theory Z

Theory Z was formed by Ouchi in his book "Theory Z: How American Companies Can Meet the Japanese Challenge". It is basically a Japanese management style that has four basic principles:

1. A strong bond between the organization and the employees.
2. It needs the employee participation and involvement.
3. Doesn't have a formal organizational structure.
4. It's based on the human beings (resources) development.

This theory results in "increased productivity, it puts an emphasis on the well-being of the employees both at work and outside of work, it encourages steady employment, and it leads to high employee satisfaction and morale" (Heldman, 2015)

Ouchi with the theory Z or Japanese management theory introduces the human resources as the most valuable asset of the organization. The contribution is the change in the way employers motivated their employees, now motivation became a factor of efficiency and not only money.

### Argyris' motivation theory

This theory it is based in the growth and development of a human being from immaturity to maturity and how the organization helps the employee to evolve from one to the other.

The phases that the human go through the years are:

1. They moved from passive infants to active mature humans.
2. Develop from dependency to independent human beings.

3. Their behavior changes from immature to mature beings.

For Chris Argyris, in order to make individuals grow mature, he proposes a “gradual shift from the existing pyramidal organization structure to a humanistic system; from existing management system to the more flexible and participative management”. (Ebrary, 2019)

Argyris motivation theory biggest contribution was growth, the growth of the employees from being passive workers to be independent and mature active human beings that contribute to the organization development.

#### Vroom's expectancy theory

The expectancy theory of work, explain motivation under two principles, psychology and economics. It is based on the mental process than a person undergoes when making choices, this applied to work will create a chain situation, starting from effort, then performance and finally reward, therefore this will be explain as the employee believes that with effort, there will be a good performance that will lead them to a reward.

According to Vroom, motivation is a product or outcome of three variables:

1. “Valence as how much of reward a person wants.
2. Expectancy or the person's estimate of the probability that his efforts will result into successful performance.
3. Instrumentality, the person's estimate that performance will result into rewards”. (Rudani, 2013)

Vroom expectancy theory brought the final outcome of the effort, and it is to be rewarded, this being the motivator factor that will lead them to a better performance.

#### Porter and Lawler's expectancy theory

This expectancy theory came as an improvement of the previous Vroom's theory, since the first one was not taking into account the relationship between employee performance and job satisfaction.

Porter and Lawler “stated that job satisfaction is generated when an employee receives rewards for his or her performance. These rewards can be intrinsic or extrinsic. An employee’s degree of satisfaction will be proportionate to the amount of rewards”. (Borkowski, 2016, p. 150)

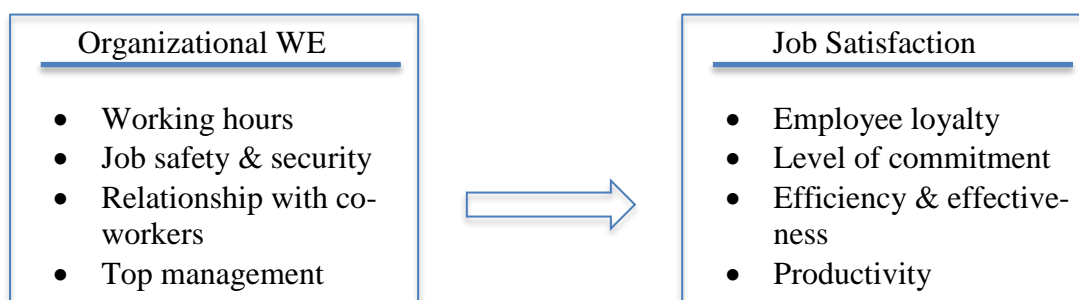
This last theory can explain the current situation on human resources management, better payments, bonuses, incentives and recognitions (as for example the employee of the month) are an example of how motivation through rewarding can be much more effective than a list of needs covered up.

### 2.1.2. Organizational and workplace Environment (OWE)

The working culture and physical workplace are the ones that can cause the most stressful adjustments when getting a new job. Trying to analyze the communicational patterns at the organization, the hierarchy structure, how the dress code is and so on.

The desk area requires being attentive to a poor layout, crowded places, illumination and to have everything that can be required for the performance of the employee.

“Different factors within the working environment such as wages, working hours, autonomy given to employees, organizational structure and communication between employees & management may affect job satisfaction” (Abdul Raziq, 2015, p. 718)



**Figure 1** Conceptual model of Working Environment and Job Satisfaction

### **2.1.2.1. Work environment management: Types of Management**

Work environment management (WEM) is crucial for reaching positive outcomes for the company, and its workers. In this process the company managers have a central role for several reasons. One is the obligation (...) to implement necessary actions for developing a safe and healthy work environment, and to manage this process (...). Another reason is the managers' power to influence the thoughts and actions of those around them by setting priorities considered valuable. (Karlsson, 2008, pp. 1-2)

An effective manager "use their power to energize and empower those around them. They do not dominate or intimidate. Instead, they generate energy and enthusiasm among subordinates for working effectively. They delegate". (Pinder, 2014, p. 147)

Management therefore, will be understand as the act of creating and mantaining the working environment,where the members of the organization work together and achieve objectives with efficiency.

#### Scientific Management

##### a) Frederick Taylor

As the father of scientific management, he proposed a productivity based theory, that emphasizes efficiency overall. Workers needed to be trained to standardised their tasks and maximize the production.

In his theory of management, Taylor described four principles (Richardson, 2015, pp. 13-14):

1. Develop a science for each element of a man's work that replaces the old rule-of thumb method.
2. Scientifically select and then train, teach and develop the workman, although in the past he chose his own work and trained himself as best as he could.
3. Heartly cooperate with the men so as to ensure that all the work is done in accordance of the principles of the science that has been developed.

4. There is almost an equal division of the work and the responsibility between management and workmen.

Since the productivity loss is the main problem to be solved in the study, maximizing the production is key, which is the approach and contribution of Taylor's scientific management theory.

b) Henry L. Gantt

Being associated to Frederick Taylor, Henry was also part of the scientific management thinking, but with an industrial efficient timing approach.

Gantt "developed a task and bonus system of wage payment and measurement instruments to provide an insight into workers efficiency and productivity". (Mark von Rosing, 2015, p. 13)

In his book "Organizing for Work", there were explained two principles for his chart:

1. Measure activities by the amount of time needed to complete them.
2. The space on the chart can be used to represent the amount of activity that should have been done in that time.

For Gantt, timing was the key factor, it is an indicator of productivity, but it is necessary to measure it to prevent people from working too hard and ceasing to be productive due to exhaustion.

### Administrative Management

Henri Fayol

He divided general activities for industrial enterprises into six: technical, commercial, financial, security, accounting and managerial. This way the principles would be helpful and be applied for every business of every field.

Functions were based on the relationship or interaction between personnel and its management. Therefore, "Fayol describes a managerial function that anticipate actions (planning), structures the company (organizing), transmits orders (commanding), ensures the coherence of actions (coordinating) and verifies the results (verifying)". (Guthrie, 2015, p. 1)

Fayol's functions theory was transcendental and even until this day the main four functions of planning, organizing, commanding and coordinating are lectured in administration courses because of its effectiveness in management of employees.

### Bureaucratic Management

Max Weber

This type of management made a distinction between authority and power. There are three types of power: traditional, charismatic and bureaucratic or legal power.

Organizations were based on a hierarchical structure, with a clear division of labors, a separation of the owner's personal and organizational assets, an accurate record keeping, promotions based on qualifications and performance and consistent regulations.

“The traditional bureaucratic structure is characterized by hierarchy, a strict definition of duties and precise definition of command and communication chains, is no more apt to manage internal and external complexity.” (Pierfranco Malizia, 2017, p. 10)

Weber contributions were the separation of meaning between authority and power. Power is the capacity to influence other's conduct, while authority is the right to command others by a certain position given. Power therefore, is used in a personal aspect and authority in a professional field.

### Behavioral Management

Elton Mayo

It is based on the increase on productivity by psychological stimulus and social factors, money and working conditions. To improve satisfaction on employees, it was necessary to change environmental factors like lighting, temperature and break time.

For Mayo, “first-hand study was essential for a proper understanding of worker behavior: they also led him to conclude that the key to the human situation in industry was to be found in discovering the conditions of effective teamwork”. (Smith J. H., 2014, p. 24)



Mayo's contribution was to found that to improve satisfaction at work it was necessary to understand certain behavioral factors of employees and to modify the workplace environment to increase productivity.

### Human Resources Management

David Ulrich

The principles to Ulrich model are to create a unified structure that delivers value, to define a clear distinction or role for the Human Resources department, to create a competitive edge for the company and finally to be able to measure how a company has performed according to expectancy or metrics.

It is really important to have a strong HR infrastructure and to possess the talented and skilled personnel. Nowadays "companies under financial pressure tend to invest in physical capital at the expense of human capital – even though the latter may well generate more value. This kind of pressure can lead to poor decisions: for instance, to initiate a round of layoffs solely to garner short-term cost savings." (Brian E. Becker, 2015, p. 11)

Ulrich contribute to the management by stating the importance of the human capital, to value their capable employees and to avoid burning them out because of financial strains of the organization. Human resources should always be the most valuable assets of a company.

#### **2.1.2.2. Work environment leadership: Leadership Theories**

"Leaders, whatever their title, are key to the success of any organization or system. This is not because the leader has all the answers or all the control, but rather because the leader's impact and influence on others will help determine the culture of the organization and the performance of the employees". (Leni Wildflower, 2011, p. 143)

Leadership therefore, is the ability to lead people, in this case workers, and is understand as the social influence that will create the right working environment for employees to develop.

Management it is not the same as leadership, not all the managers are leaders and not all leaders are in management positions. They can be born with the natural ability of empathy or they can be

taught how to motivate their coworkers with teamwork and sense of belonging, increasing their overall work and task performance.

### The Great man (Thomas Carlyle)

This theory is based on the extraordinary leaders that were part of history, on the belief of the “Born Leader”, as the capacity of leadership was inborn, means that this man had some special traits or characteristics that made him a natural leader.

To be an effective one, there was needed inspiration, intelligence, responsibility and other aspects that were gifted. Stogdill on the other hand, “proposed that the making of a successful leader is not determined by some particular traits, but, rather, the trait possessed must be relevant to the situation in which a leader finds him or herself”. (Harrison, 2017, p. 19)

The Great man theory stated the principle of natural born leaders with special traits that are capable to successfully lead people (employees) in an organization. The contribution of this theory is that even if there are natural leadership characteristics in some man, not all of them are effective ones, since there were other important aspects to take into account and it depends on the situation and work environment of each company the type of leader needed.

### Trait theory

According to this leadership theory, “individuals are born with the innate qualities which are unique which make them leaders. Such innate characteristics differs leaders from the other common individuals. These characteristics can be anything physical or mental abilities like high intelligence and IQ.” (Mg, 2015, p. 4)

Therefore, identifying the different personality traits and characteristics that are linked to a successful leadership is key. Successful leaders have interests, abilities and personality traits that are different from those less effective ones.

These traits can be summed up as:

1. Intelligence and action-oriented judgment.
2. Eagerness to accept responsibility.

3. Task competence.
4. Understanding of their followers and their needs.
5. People skills.
6. A need for achievement (achievement drive).

The trait theory might seem similar to the great man theory, but it differs in an important factor that was not pointed out in the previous one, the personality traits. These are the base of the theory and the contribution of the study, personality might differ depending of field of development and what it is expected from those leaders, but each one are connected to successful leadership through competence, skills and intelligence.

### Behavioral theory

This theory starts as an opposite to the Great Man theory, stating that anyone can be made a leader, is just needed to teach the behavioral responses to any given situation, the specific behavior of a leader. It doesn't seek inborn traits or capabilities.

“Dissatisfaction with the traits theory led to behavioral theories. They focused on what leaders did to actuate results, as the causal agent in influencing followers, but did not explicitly reject a reciprocal relationship.” (Joan Marques, 2018, p. 140)

There are two types of behavior:

1. Those who showed concern for people

Are in line with a behavior like encouraging, observing, listening, coaching and mentoring.

2. Those who are mainly concerned with production

Have an initiating, organizing, clarifying and information gathering type of behavior.

Behavioral theory is based on the fact that leaders can also be made and molded into effective ones through teaching them behavioral responses and doing observation of the work environment. This study contributes to the previous studies by dividing behavior into two types that provides the leaders with the information to proceed to lead the employees' development and effective performance.

### Situational Theory

“What situational leadership adds is consideration of how the context shapes followers’ needs, which are framed as a function of their development. Follower development, in turn, dictates the leader style that should be employed to maximize leadership outcomes.” (Dugan, 2017, p. 126)

The most effective leaders are those that are able to adapt their style to the situation, to be able to weight the many variables in their workplace and choose the one that fits the circumstances.

Hersey-Blanchard situational leadership style is based under two main aspects, leadership style and level of maturity, under the principle that every individual situation requires a different leadership style and contingency thinking. There is not a single leadership style to be considered for all situations and each case requires a different approach, adapting the leadership to each task and people.

The contribution of this theory is the understanding of the importance of the context where the leader is performing, the company environment, to take into account the specific situation and the needs of the employee for leading them in the right direction.

### Charismatic Theory

This theory is based on the ability to charm and persuade people that charismatic leaders are born with. They are very skilled communicators, verbally eloquent and communicate on a deep emotional level.

In contrast to the situational leaders or “Made leaders”, this theory is centered on the personality and actions of the leaders, and not the process or the structure. They have a clear vision in business or politics and the ability to engage with a large audience, also often try to make the status quo better.

“The charismatic leader’s innovation rests on their ability to scavenge from pre-existing myths, legends, heroes and ideologies to construct a charismatic image and narrative whose pertinence is reliant upon recognition by followers in a context often already characterized by crisis.” (Ingram, 2016, p. 34)

An example of charismatic leaders would be Martin Luther King Jr. and Mother Teresa, meaning people who reach and audience through feelings and emotion appeal, and are able to lead them on a difficult situation, making their image charismatic and caring.

The contribution of this theory and leadership style is the fact that people can be when appealing to their need of emotional side and being lead through communicational skills of a charismatic leader.

### Transactional leadership (Managerial)

Max Weber first described the transactional style of leadership in 1947 and then by Bernard Bass in 1981. The managers most often use this style. It focuses on the basic management process of controlling, organizing, and short-term planning. The famous examples of leaders who have used transactional technique include McCarthy and de Gaulle. (Juneja, 2015)

This one will be a fit for self-motivated, structured kind of people, that values order and dislike innovative-creative organizations. As a leader, they will get engaged into projects that require rules and regulations that focus on results.

Usually transactional leaders will be a formal authority that occupies positions of responsibility and uses a reward-punishment system to motivate their followers.

Transactional leadership consists of three factors:

1. Contingent reward: praising when the outcomes and requires are met.
2. Management-by-exception active: the leader is monitoring, watching and taking corrective actions.
3. Management-by-exception passive: when standards are not met, the leader intervenes, but just after it happened.

Therefore, transactional leadership is a reactive type, meaning the actions are taken after a certain situation occurred. As a contribution, this theory shows the different kinds of working environment and the need of having diverse approaches to each one. Not all companies are innovative, freestyle and millennial climate, but a more traditional style requires a traditional leadership.

### Transformational leadership

It focuses on transforming organizations into the leader's vision. This vision is to seek motivate and inspire workers, influencing rather than directing others by developing personal relationships with followers and raising the levels of motivation and morality.

This leadership approach high levels of standards and ethics, so the follower's sense of pride and self-respect is met with a good performance at work.

“Transformational leadership motivates individuals to work together to change organizations to create sustainable productivity. Transformational leaders look at where the organization should be heading and determine how to handle internal and external change and employee needs to reach that goal.” (Joshua Gichaba Manduku, 2017, p. 4)

This type of leadership is strongly bonded to the motivational theories; through motivation employees are inspired to do a better performance, to be efficient and upgrade productivity. They are led with their sense of pride and belonging and not with financial or monetary reward; inner basic emotional needs are fulfilled to do a better job.

### The Laissez-faire leadership (LF)

Also called Delegative leadership, it has the lowest level of subordinate and organizational performance with a not so effective approach. Translated from French it means “hands-off” alluding to the independent nature of this theory. Where leaders avoid responsibility, delays decisions and are not interest in the follower's needs or development. Often absent of work meetings and other daily obligations.

A good aspect of this leadership style would be that LF leaders delegate to their subordinate, giving them the opportunity and empowerment, they often seek. Some of the most popular brands nowadays work with this kind of leaders that gives their creative and innovation team the space for taking action and doing choices for themselves. An example of a LF leader will be Steve Jobs.

Kurt Lewin, an early contributor to the study of social psychology, is often credited as the developer of the laissez faire leadership concept. He was a pioneer in doing some research on organizational psychology and group dynamics. These days, human resource experts still use Lewin's research to manage and assess workplace productivity. (Chris, 2015)

### **3. CHAPTER III: METHODOLOGICAL FRAMEWORK**

As previously stated on the literature review, a research question was made to frame the concepts and definitions on data the study aimed to collect. This question is a separate matter on the thesis and objectives raised at the beginning of the study, since it was purely made to narrow the universe of possible answers to a specific topic: What is the relationship between the working environment and productivity?

The approach of this study was an applied research, meaning to solve a practical problem by developing new ways or techniques and not building a new one from scratch. The work environment was already a topic of importance for organizations before this study was done, it was the direction of the knowledge that was applied into a different perspective and it was mixed with another topic, such as productivity.

This research was exploratory, since it was an under-researched problem and topic. From previously done case studies displayed on the literature review it can be appreciate the type of research was conducted on an explanatory, repetitive matter: productivity loss and mental health for overworked employees, but little research had been done to linking the two concepts and problems on a cause-consequence relationship.

Lastly it can be implied that the research type was deductive theory, since previous research on the topics by separate was already displayed and done quite before this study took place. It was just a matter of connecting the right factors and develop a hypothesis on the topic.

To find the answers to the questions stated at the beginning of this study, it was needed to use a type of research of mixed methods since there was a descriptive but also numeric approach for getting the data needed.

To gather the information, qualitative and quantitative aspects were considered not to only be able to interpret but also evaluate the data. When working on studies of the social behavior sciences it has to be considered the complexity of working with human subjects in an experimental way, also there has to be a mixed approach, as stated before, of a qualitative and quantitative background. Online survey and observations were some of the activities that were part of the data collecting, also statistics and graphics were made of the obtained data for further analysis.

This study is a practical research because it issues the efficiency in organizations, to find improvement and is centered on the specific field of Human Resources (HHRR).

Some important considerations of the research and data interpretation, when stating the right way of displaying information in an objective way, was the probability sampling, meaning that information was processed as received and not further generalizations or probable inner meaning were concluded without consistent data backing.

The sources for data collection were primarily and secondarily obtained by books, e-books, articles, surveys and questionnaires of online sites. The second type of data was collected through documentary evidence, literature review as also pre-existing data of entities that are created for the solely purpose of data gathering but with a much wider extension and objective public to release information as statistics. Most of the time statistics were carried out by governmental organizations (with or without profits) that illustrated the national and international population about nowadays paradigms, problems and real amount of people involve in the process of data collection.

For collecting the primary data, a survey was held about the effects of working environment and the motivational forces that moves employees nowadays. Conducted on 2019, this data gathered was able to be collected with the research collaborators, with a number of participation of 58 employees.

The approach all throughout the study has been to illustrate on an underrated problem that is globally hitting workers, not just a local perspective but a rather collective one with different points of view of organizations, ethnics, cultures and organizational behaviors, also ethic and values of all countries on the different level of development they have.



This data therefore, was collected with the intention of objectively reach all population on a problem that is happening in every organization around the world equally. Some of the countries took a step further in time and had already started to make changes on their labor laws for the good of their people's better life quality. Meanwhile, this study aimed to enlighten employees' minds on how to upgrade their performance by being effective, not overworked.

### **Qualitative data gathered**

Case studies displayed and the literature review are the basis of the qualitative data collected, opinions were needed to be gathered from different perspectives and previous researches on the matter. Many papers were reviewed to elaborate the study and to give a strong core to the research done (as it can be seen on references and bibliography), as a mixed method framework, qualitative data was contrasted and supported by quantitative data displayed on the results section. Topics such as the effect of working hours on health, working environment and productivity, and psychosocial environmental factors were study in depth and backed up on the literature review and theoretical framework. Definitions and semantic were used to clarified conceptual misunderstandings and the meaning direction of the study.

The specific objectives were to illustrate the importance of leadership and coaching in managers, and in the theoretical framework and literature review the importance of leadership was largely exposed from polymaths about all different kinds of leaders. Coaching, on the other hand was not linked to leadership and productivity necessarily, it was not developed as an idea and got discarded after no previous research exposes about the bounding with leadership. It can be read though that it was never the final purpose of the study to propose or force one kind of leadership as the best or the one organizations should have; on the contrary, different styles exists for every different human being and adjust to the type of company and the needs of this one. The ultimate goal was to illustrate as the specific objective stated, not to compare or be proven by quantitative data.

The second specific objective was to explain the psychological effects of acknowledgement on workers. This one was first addressed on the theoretical framework, as motivation, each theory explained in the point of view of the psychologist of how motivation works on human mind. Every

theorist perception from motivation triggers and needs differed from one another, showing the upgrade of each previous theory through time being complemented or refuted. It is needed indeed to point out that the effects of acknowledgement was always meant to be motivation oriented only, other edges of acknowledgement were discarded at the beginning of the research, since it doesn't affect productivity necessarily.

The last objective was to recognize the physical workplace key role for employee's performance, as a part of the working environment, physical workplace role was firstly explained at the literature review, and further explained on the methodological data obtained from the OECD and showed on appendix 2. Also, a study will be addressed on the importance on lighting key role on reducing job strains by a large amount on the results item. The physical workplace role was indeed recognized by two organizations and employees. As a limitation of this part of the research were on the lack of further detailed review on the physical workplace since just lighting was acknowledging as a better performance indicator.

### **Quantitative data gathered**

Now proceeding to critical thinking, the broad objective of the research was to appraise the factors of working environment that affects productivity on employees; this statement was indeed answered and backed up sufficiently in the results section, where stress and sick leave were reviewed and secondary data provided showed the direct effect on productivity. The factors were appraised and the relation between these ones and productivity was clarified and statistically provided. So, the first and broad objective was supported with the research and findings.

Primary and secondary data displayed statistics and answers obtained by employees themselves to national, international and independent organizations supported the theses. The survey held in 2019, which consisted of 10 questions appraised all the factors previously stated, leadership, management, physical workplace and stress caused by work related performance. Sources from the UK were the most clarifying on the current effect of work environment on productivity.

## **Limitations of the research**

The target audiences that can be reached through questionnaires, online surveys, and interviewed employees with primary data collection tools cannot be compared to the extent that data collected by professional organizations can approach. The primary collection of the data was limited by the target audience reached out, which can cause generalization of a bigger scale in such a spare amount of people. Therefore, quantitative secondary data was necessary and collected from different countries, specialists and surveys held by National or independent researchers who have certified information and are back up with nonprofit organizations and displayed as secondary data for backup. This way the amount of target audience expanded significantly from not only being held outside the country, but the different civilizations have their own standards when talking of working hours, commuting timing and workforce. Hence, it was not wise to hold a general study with a specific, limited national reality.

One of the biggest limitations of this methodological framework was the non-actualized data and the lack of research done to get together the working environment and productivity. Also from the ones found, it was imperative to discern from the quality, trustful sources from the ones lacking important parts of the information review, such as the author, date of the data offered and the universe of people that were interviewed, to be able to make statistics, numeric data from it.

Even if tried to get to know better the human mind, it has a limit of understanding for a non-medical specialist. The questions and overall research were made from the point of view of a problem that needs to be solved and reach out, not to prove or refute biological, chemical or ways of treatments for mental health illnesses. All the information stated above was back up with specialist data, researchers and scientists, there wasn't invented data or conclusions made out of numbers. Mental illnesses should not be taken lightly and it needs to be more acknowledgment, awareness, and spread of objective information about them. A much-needed disclaimer in case of specialists getting to read this study is that the approach was to objectively share the collected information and bounding it to a Human Resource-Management point of view, where the social experience of work could affect when in a positive or negative environment.

From a cause-consequence point of view, the work environment can be divided into psychosocial and physical conditions; these ones if rightfully taken care of, unleash the wellbeing of the human beings at their jobs and finally to productivity. The ultimate purpose of all the review done was to link the working environment to productivity, it was made into a quantitative and qualitative overview and the data collected was primary and secondary, from surveys, questionnaires, statistics and literature reviews.

#### **4. CHAPTER IV: RESULTS**

##### **Introduction to results**

The research was made under a mix of two methods, qualitative and quantitative, that in the previous chapter, data was displayed and showed raw for an objective further analysis.

The main questions of the research and answers that methodology centered were what is the relationship between the working environment and productivity?

The thesis questions were what factors are included in an effective working environment? What is the impact of employees on productivity?

The objectives of the study were: to appraise the factors of the working environment that affect productivity on employees, making possible to manage them and avoiding further losses. As the specific objectives were: to illustrate the importance of leadership and coaching in managers, to explain the psychological effects of motivation on workers and finally to recognize the key role of the physical workplace conditions for better employee performance.

##### **Secondary data review and analysis**

The first source of secondary collected information was from the annual statistics made by the Health and Safety executive (HSE) organization, of Great Britain, published on 2018. The focus was on work related stress, depression and anxiety, the Labor Force Survey has a universe of 1.358.000 workers that had illnesses caused or made worse by work in the last 12 months. As for depression, stress or anxiety, between the year 2017 and 2018, it was reported that a total of 595.000 employees, as the first and highest illness caused or worsened by work. In percentages

that would be almost 44% of the work force, meaning the main reason for medical leave and absence. Appendix 4 shows health and safety at work indicators, where and idea can be form on the aspects to have in mind when managing employees. The HSE stated that 1 into 4 people in the UK has a mental health problem, however it doesn't necessarily implied that where caused by work, but it can aggravate it. (Health and safety executive (HSE), 2018)

Work-related mental health conditions (also known as psychological injuries) have become a major concern in Australian workplaces also, due to the negative impact on individual employees, and the costs associated with the long periods away from work that are typical of these claims. Each year 7,200 Australians are compensated for work-related mental health conditions, equating to around 6% of workers' compensation claims, and approximately \$543 million is paid in workers' compensation for work-related mental health conditions. (Safe work Australia, 2018)

The Organization for Economic Co-operation and Development (OECD) made some calculations on 2010 about the European countries, a survey based on working conditions, as it can be seen in the appendix 1. Workers were tested on severe, moderate or no mental disorders, and the results were that employees with severe mental health issues were having their jobs threats, didn't receive the respect and recognition they deserve and were having job strains. Out of 21 European countries, Denmark was not the worst in terms of working conditions; the average was above the other ones, 12% on the workers were having severe mental health issues. (OECD, 2013, p. 56)

In 2011, DAMVAD, a Denmark expert group, analyzed the physical workplace key role, and gave a list of indicators that affects the performance and its part of the working environment. The appendix 2, attached in the annexes section, shows the physical conditions indicators that are needed to be taking care of at the workplace, such as lighting, the motion repetition and even temperature, all those can cause job strains if not taking into account. A study held on 2018 by Cornell University Professor Alan Hedge shares that natural lighting is the best medicine at the office, elaborating it further; it proves that the optimal amount of daylight reduces the eyestrain and headaches by an impressive amount of 84% on workers. (Hedge, 2018)

On the psychosocial side of the analysis, demands at the workplace are listed as shown in appendix 3, also held by the DAMVAD. Working at a high speed, the large amounts of workload and high

cognitive demands can cause illnesses such as high blood pressure, stress and even family problems due to poor health conditions. A survey held on 2017, 60% of the employees said that the pressure at work has only increased in the last 5 years, one third of workers said that the workload where excessive and a 22% where having trouble balancing personal and work life. (Picincu, 2019)

On appendix 5, it can be seen an overall model for company practice, work wellbeing and productivity, also from the source DAMVAD. In the scheme it separate the physical and psychosocial working conditions as it was done and explained at the literature review on the theoretical framework as working environments variables; this two lead to the wellbeing of the employee at the workplace, having as an output the productivity.

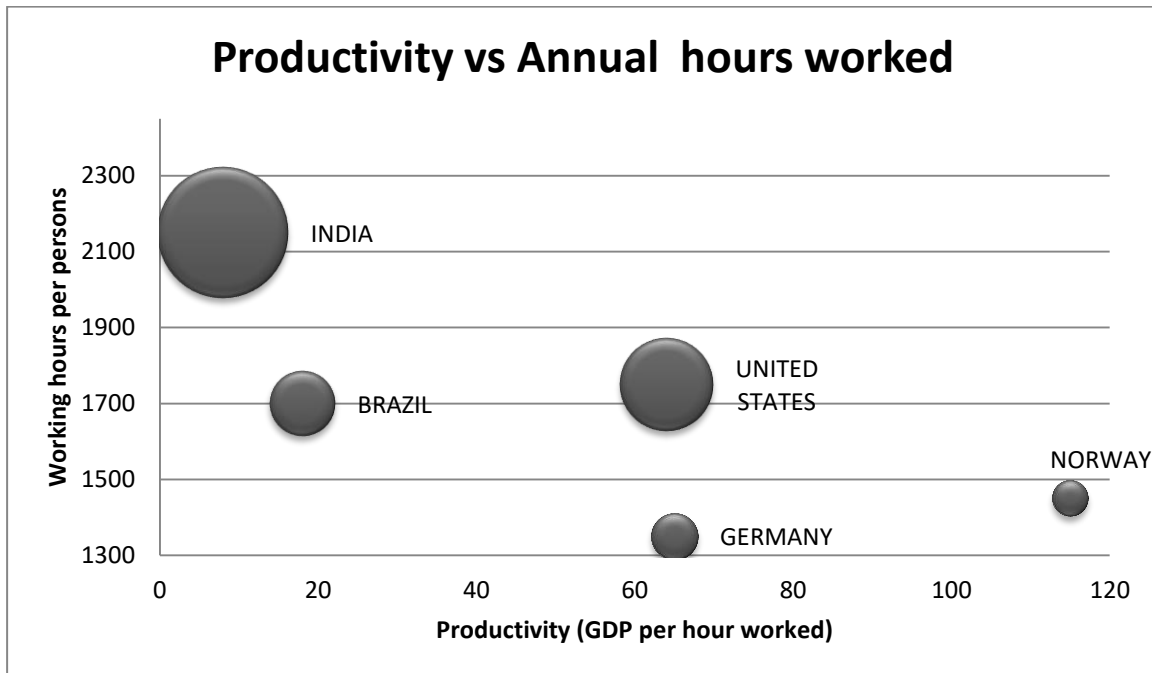
The Office for National Statistics estimated that in the UK, the output per hour was 15.9% points below the other G7 advanced economies. The Government planned to increase productivity, despite these results, being questioned how aware is the society on the impact that sickness absence has on productivity and why is not being linked to mental health caused by job strains. In this article it was also explained the leadership key role, and how is essential to embedding health within the organization. Management and managers, leadership and leaders are the role models at the workplace. (Christine Hancock, 2018)

Between 2010 and 2015, productivity growth was a disappointing 0.2% a year, far below its long-term average of 2.4% from 1970 to 2007. The most recent body to try and address this issue is Centre for Cities, which suggests that the focus should be on boosting skills in the regions. (Eastlake, 2018)

Another important data gathered was the effects of working hours on employees' performance at work, from Washington Center for Equitable Growth, where it stated that Americans are working longer hours than most European countries and Asian countries like Japan, with an average of 50 hours per week. In the first place, the study defines overwork as more than 40 hours a week, with nearly 30% of management and legal workers working 45 hours or more per week, followed by 20% of those working in the farming, fishing and forestry industries. (Heather Boushey, 2016)

On the other hand, European countries lead the way with Germany having less than 1.400 worked hours a year, followed up by Norway, the Netherlands and France with a little over 1.400 annual

hours. The figure 2 shows a brief comparison between some countries from different sides of the globe.



*Figure N°2 Productivity and working hours, Source of OWD, 2014.*

### Primary data review and analysis

Primary data was made, written, organized and held from a period of time of two years. The beginning was at the internship on 2017, with an observation method and memo notes taking, realizing the importance of a quality good work environment. The whole experience was already explained, detailed on chapter I, background of the internship work. As a way of summarizing, it can be explained that long working and commuting hours, early risings, low payment and load of work, ended up being the motivation to overcome this research study.

Data creation and collection was gathered through an online survey held from the period of time of three months, June to August 2019. This questionnaire was composed of 10 questions, it reached out an audience of 58 employees and the place of creation was SurveyMonkey and published on

SurveyCircle, both sites specialized on surveys around the world, the first one made the design of the survey and analyzed the result, the second one spread it and share it worldwide.

As shown in appendix 6, the survey has a total of 10 questions. The questions mainly consisted of personal points of view, thoughts on the matter and personal development expectations. Much reading and data gathering was needed to get to formulate these questions, thinking on the motivation as a psychological fuel for a better performance, and to prove or refute the already stated thesis and literature review.

The survey was held worldwide, getting responses from all over the world as the online survey site it's held worldwide. The results gathered as secondary data, will also be analyzed with tables, graphics and statistics made from the collection of information.

Question N°1: What are the factors that influence your motivation at work?

As gathered from question number one, there were four different factors that influenced the motivation at work for the participants to choose from. The results were mostly salary, with 43 votes on that option, translating to 37.72%. Work environment came second with 38 votes and 33.33%.

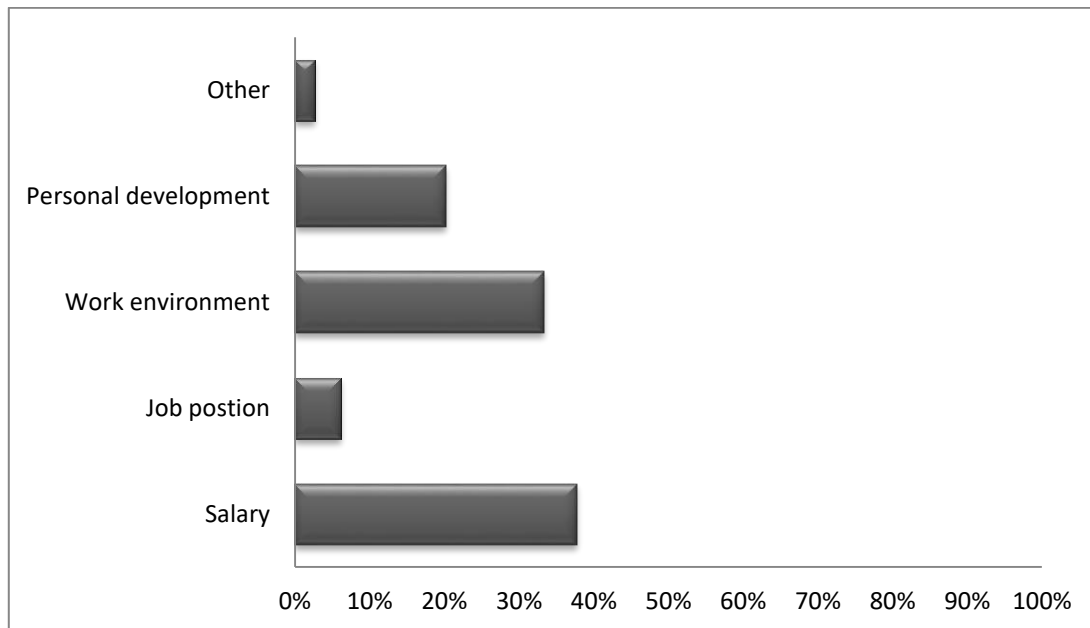
Multiple choices	Number of votes	Percentages (%)
Salary	43	37.72%
Job position	7	6.14%
Work environment	38	33.33%
Personal development	23	20.18%
Other (please specify)	3	2.63%
<b>Total</b>	<b>114</b>	<b>100.00%</b>

**Table 1** Survey Monkey Results, Question 1, 2019

As a disclaimer, while making and shaping the answers to get the information needed, salary was always the leading choice, but since this factor it is not part of the research and does not directly affect work environment, it was discarded, but needed to be stated as a motivational factor.



Work environment was indeed connected to the motivation at work and performance; the main object of this question was to target the importance of work environment on employees as a motivational factor. The goal was met and the majority of the participants chose work environment as an important factor of their work development.



**Table 1.1** Survey Monkey Results, Question 1, 2019

Question N°2: Does the work environment influence your performance at work?

From the second question (questionnaire displayed on appendix 6), the workers agreed on the fact that working environment was affecting their performance at work, with 43 votes and 74.14%. On the other hand, for 7 participants it depended on stress levels with 18.97%.

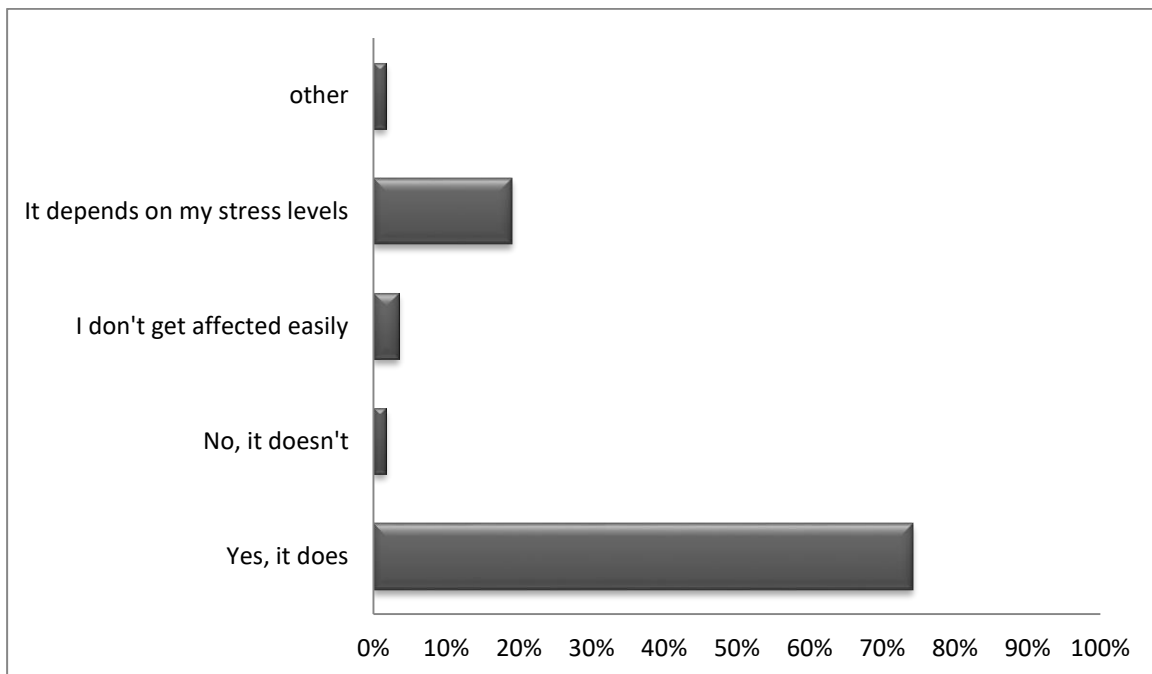
Options	Number of votes	Percentages (%)
Yes, it does	43	74.14%
No, it doesn't	1	1.72%
I don't get affected easily	2	3.45%
It depends on my stress levels	11	18.97%
Other	1	1.72%
<b>Total</b>	<b>58</b>	<b>100.00%</b>

**Table 2** Survey Monkey Results, Question 2, 2019

This question was a follow up to the previous one, since it was already weighted the important role of work environment it could be assumed that this question was the continuing point. As the main objective of research was to appraise the factors of the working environment that affect productivity on employees, on the first place was important to position work environment as a broad concept, to be continued with the factors of it on the next questions.

Stress as an important factor of a negative working environment, it was needed to be weighted its role on the participants, as expected it came on the second place, meaning that this information backed up the already stated aspects. With the support of the secondary data already displayed, the role of stress in the production loss was represented in quantitative, recent made study, contributing for further investigations on the field.

Performance of the employees at work being disturbed by not inner but external factors, organizational factors to be more specific, solidifies the argument of working environment being divided into two edges: psychosocial and organizational.



**Table 2.1** Survey Monkey Results, Question 2, 2019

Question N°3: What is your current employment situation?

To get a solid background to the statement of working hours affecting the employees' performance, it was asked on question number 3 to the participants their weekly working hours. The majority of the participants were on the schedule of 45 hours per week, with 24 votes and 41.38% of the employees. In second place, another important factor was shown as job instability, with 15 votes traducing to 25.86% of the participants being currently jobless.

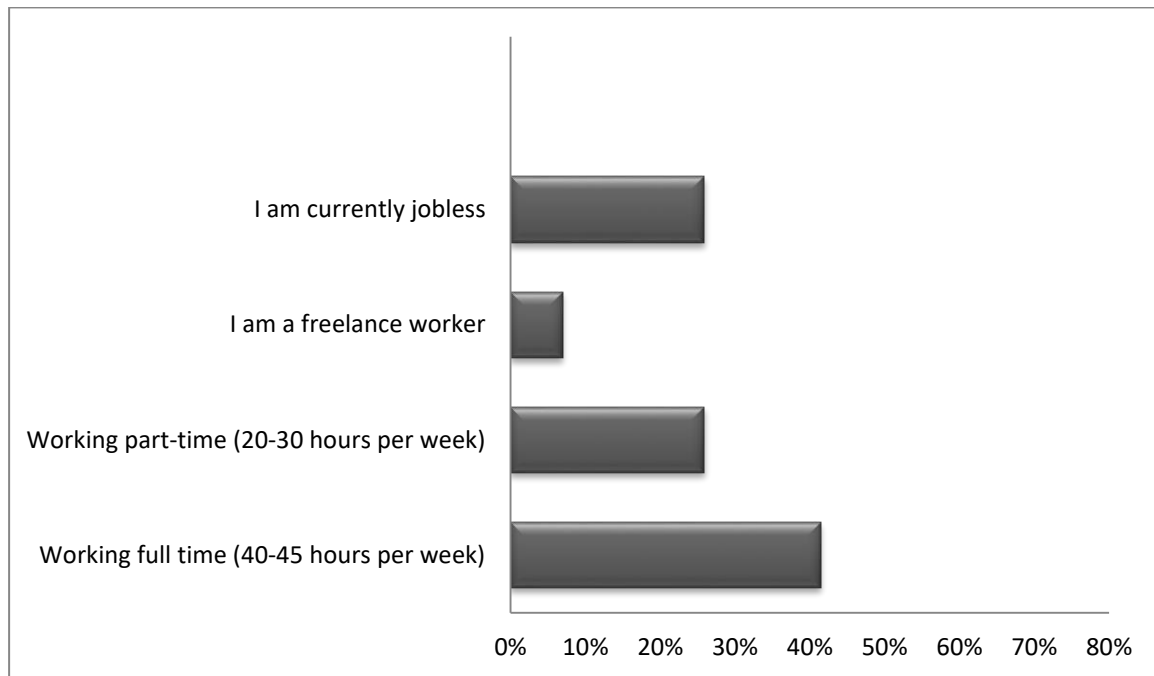
A recent study on European countries showed that working 6 hours a day or less than 30 hours a week decreases the chances to get health issues. From 30% of the average of 40 to 45 working hours to 19% when working 30 hours. The data shows that the Dutch employees, famous for having the best work-life balance of all OECD countries, have the shortest workday, clocking in for an average of just 30.3 weekly hours. Denmark and Norway also have relatively short work-day, with staff working 32.9 and 33.8 hours respectively on a week. (Smith R. , 2018)

Options	Number of votes	Percentages (%)
Working full time (40-45 hours per week)	24	41.38%
Working part-time (20-30 hours per week)	15	25.86%
I am a freelance worker	4	6.90%
I am currently jobless	15	25.86%
<b>Total</b>	<b>58</b>	<b>100.00%</b>

**Table 3** Survey Monkey Results, Question 3, 2019

It was not part of the problem statement and objectives presented at the beginning of the study, but it was reached out through the secondary data and literature review that working hours does effect on productivity of employees. So with that in mind, it was made the third question, merging answers from another survey question, it was conjectured that almost 30% of the participants were unemployed at the moment of the survey was held, and the level of medical leave was low, meaning that stress level arise when having a full time workday. This conjecture was backed up with statistics on methodology from European countries already displayed at the beginning of this question.

Therefore, the amount of working hours was a key point into the study and that was why it was necessary to be put into a question of the survey. All factors, internal or external from the organization that has a direct effect on productivity were part of the research done. The problem with working hours is that every country has their own labor laws and besides stating the problem and the solution, it's a matter of time only to make changes, and cannot be reach as an environmental factor to be resolved just by managers.



**Table 3.1** Survey Monkey Results, Question 3, 2019

Question N°4: Is the physical workplace important to your development or performance?

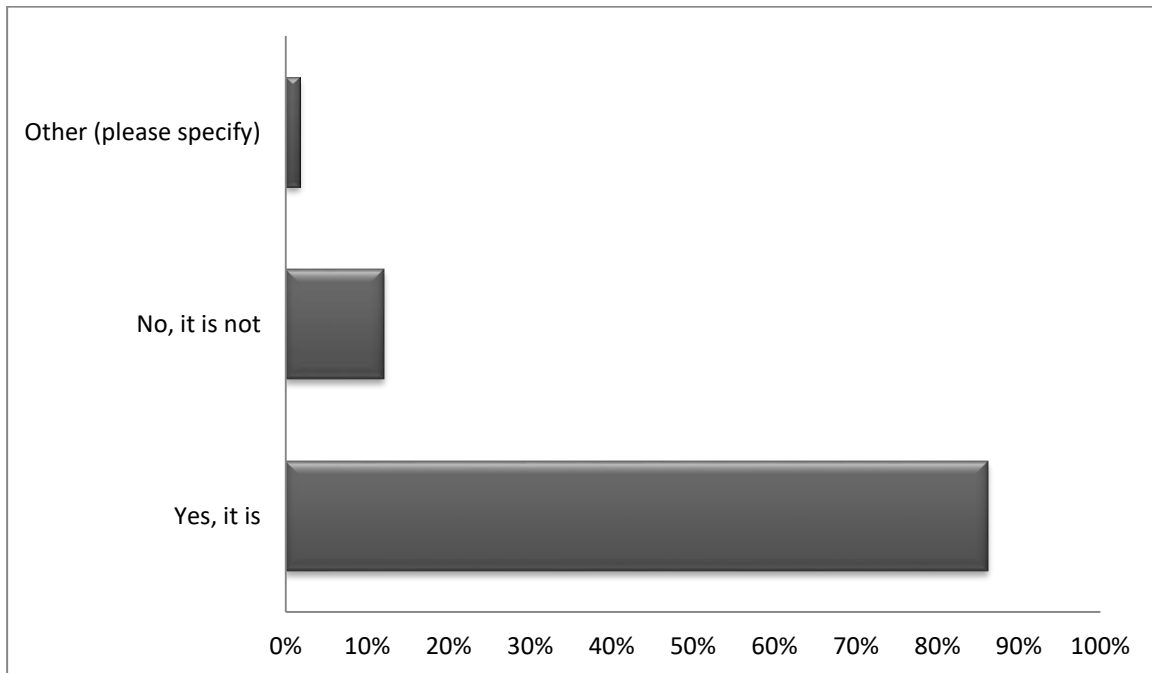
From the objectives stated at the beginning of the study, the physical workplace key role was put to test on question number four. With 50 votes and the 86.21% of the participants' concentration, the answer was positive, meaning for employees the workplace does play an important role when developing on a task that requires office work. This area ignites their sense of pride and belonging, making the connection with motivation, an indicator that will end up on a better performance.

Options	Number of votes	Percentages (%)
Yes, it is	50	86.21%
No, it is not	7	12.07%
Other	1	1.72%
<b>Total</b>	<b>58</b>	<b>100.00%</b>

**Table 4** Survey Monkey Results, Question 4, 2019

As it can be seen from the graph, the importance of the physical workplace is imminent, near to the 90%, 50 participants voted that it is indeed important. Before doing the survey, it was unclear if employees gave to the office the importance that was needed or if there were other variables of the equation, but it was clarified with the majority of the votes for that option.

The physical workplace it is not just the desk area where the employee performs their tasks, it encloses the quality, space, warmth and even the smell of it. All this together with the social environment and the employer's treatment towards their human resources triggers the domino effect that will create better employees, more motivated and committed to their company.



**Table 4.1** Survey Monkey Results, Question 4, 2019

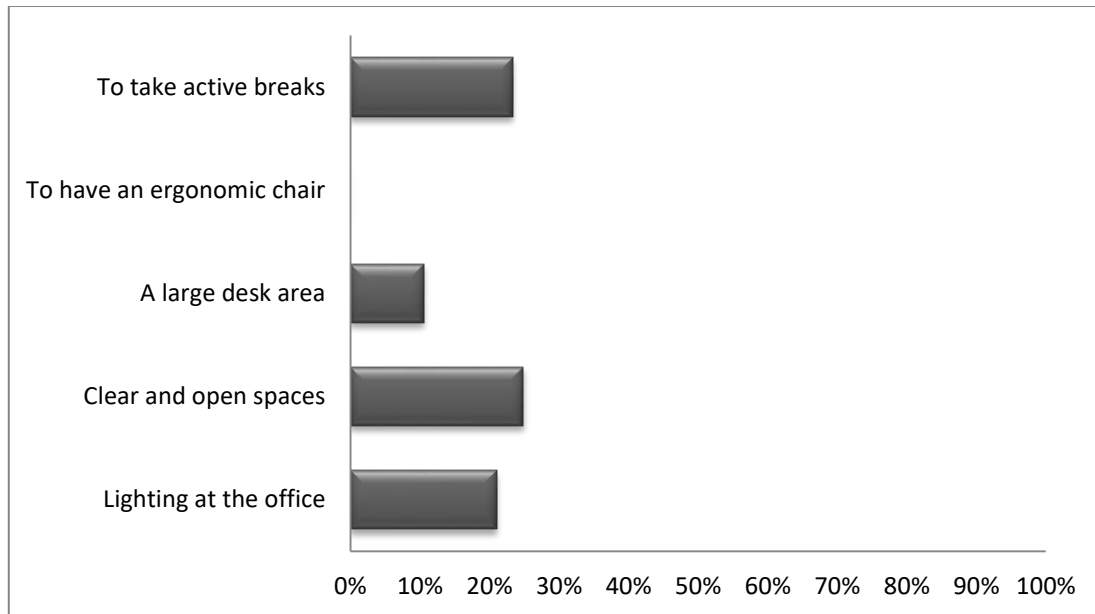
Question N°5: Which of these workplace indicators are important to you?

Following the same context of the physical workplace, question number 5 topic was indicators (see appendix 2). From the aspects of the workplace, the ones that are important to the employees are, in the first place: to have clear and open spaces, with 33 of the votes and 24.81%. In second place, to take active breaks with an amount of 31 votes and 23.31%. Just a few votes below, an amount of 28 votes were casted to the lighting at the office, and finally to the ergonomic chair option there were 27 votes, with 20.30%. A total of 133 votes were collected from this multiple choices question.

Multiple choices	Number of votes	Percentages (%)
Lighting at the office	28	21.05%
Clear and open spaces	33	24.81%
A large desk area	14	10.53%
To have an ergonomic chair	27	20.30%
To take active breaks	31	23.31%
<b>Total</b>	<b>133</b>	<b>100.00%</b>

**Table 5** Survey Monkey Results, Question 5, 2019

Following up with the physical workplace, an essential part of the organization, a quality place with open spaces and good lighting are the ideal of the working area. As previously stated on secondary data review, accurate lighting can reduce significantly the stress at work by relieving headaches and eyestrain. This research it's going to be helpful for future organization's setup, or restructuration, thinking of having place adequate for job performance. Windows allow natural sunlight and Vitamin D into an office, which are essential to contributing to a good mood. Similarly, windows allow an employee to look out and envision a new idea, which enhances creativity in the office. A clean work environment without much clutter allows employees to focus on their goals. Lastly, an open work environment that is not closed off by cubicles fosters group communication and helps build relationships between employees. (Peliccio, 2015)



**Table 5.1** Survey Monkey Results, Question 5, 2019

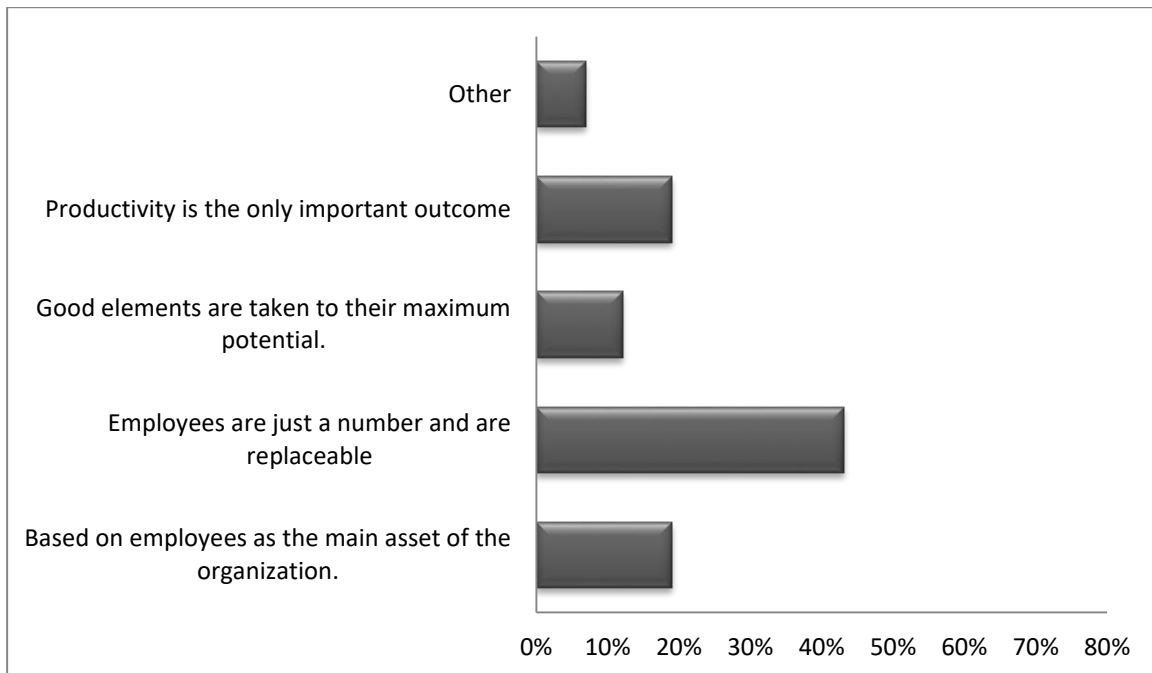
Question N°6: At your current (or former) job, how was the administration of the human resources?

The administration of human resources was the base for making question number 6, were participants voted on their current jobs type of employees' management. Second option was the most voted with 25 participants and 43.10%, as the employees are just a number and are replaceable for their employers.

Options	Number of votes	Percentages (%)
Based on employees as the main asset of the organization.	11	18.97%
Employees are just a number and are replaceable	25	43.10%
Good elements are taken to their maximum potential.	7	12.07%
Productivity is the only important outcome	11	18.97%
Other	4	6.89%
<b>Total</b>	<b>58</b>	<b>100.00%</b>

**Table 6** Survey Monkey Results, Question 6, 2019

These results came as a surprise, since the ultimate goal of employers should be to keep their employees motivated and loyal. The fact that 25 out of 58 of the respondents have that impression of their previous works explains a lot of the lack poor performance of today's workers. Besides being overworked and the constant pressure of actualization for upgrading their knowledge, now there has to be added another variable: job instability.



**Table 6.1** Survey Monkey Results, Question 6, 2019

Question N°7: Which of these concepts fits your idea of leadership?

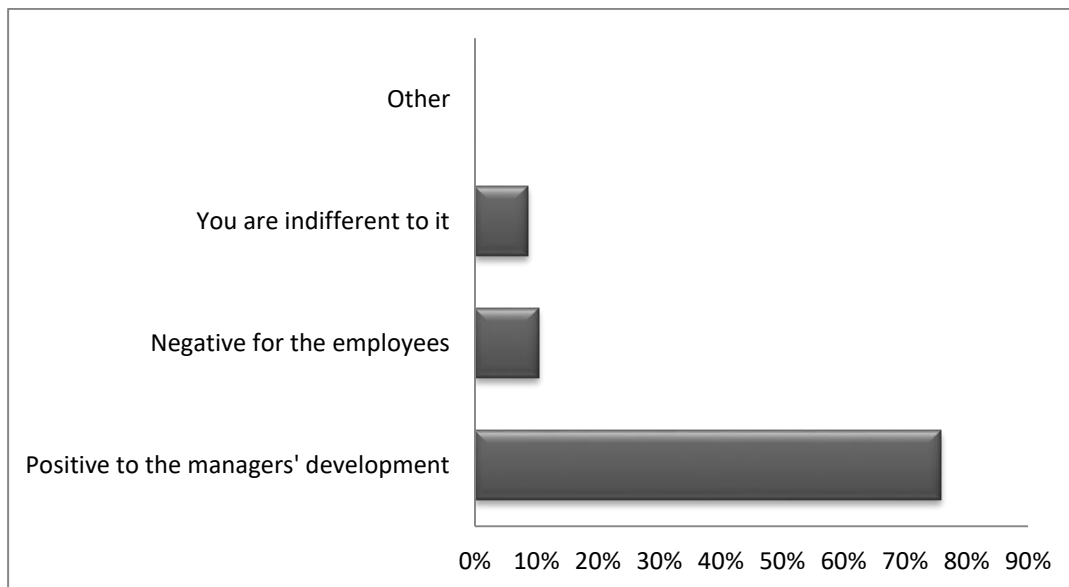
From the positive effects from the working environment, leadership was one of the factors that boost productivity. Therefore, question number 7 was made to state the real place that leadership has on their jobs. With 44 of the votes, employees believe that leadership is positive to the manager's development at the organization, with 75.86% of the votes.



Options	Number of votes	Percentages (%)
Positive to the managers' development	44	75.86%
Negative for the employees	6	10.35%
You are indifferent to it	5	8.62%
Other	3	5.17%
<b>Total</b>	<b>58</b>	<b>100.00%</b>

**Table 7** Survey Monkey Results, Question 7, 2019

Leadership being defined and categorized on types according to leaders' necessities, employees' differences and organization approaches were the main reason to make this question to the participants. Do they think that leadership is positive or negative to managers? And as in the table and the graph made stated, it is positive. Some employees have this vision of the managers in a distant, asymmetrical interaction, where they look unreachable and with a tough image, but the real thing is that managers should be leaders too. Leaders are not always managers, but they give the humanity to the highest positions or top managers for being normalized to a point of respect always, but also equality. The larger the power distance, the hardest it is to build a positive working environment.



**Table 7.1** Survey Monkey Results, Question 7, 2019

Question N°8: In your opinion, what things should a company do for its employees?

Management and leadership are some of the influential factors on an effective working environment, on question number 8, the organization musts were chosen by the participants. On the second place, training their manager in leadership and coaching option obtained 33 votes, 42.31% of the employees think this is the most important thing companies should do. On the first place, following just by one vote, with 43.59%, they think that training courses for strengthening links with coworkers is the most important.

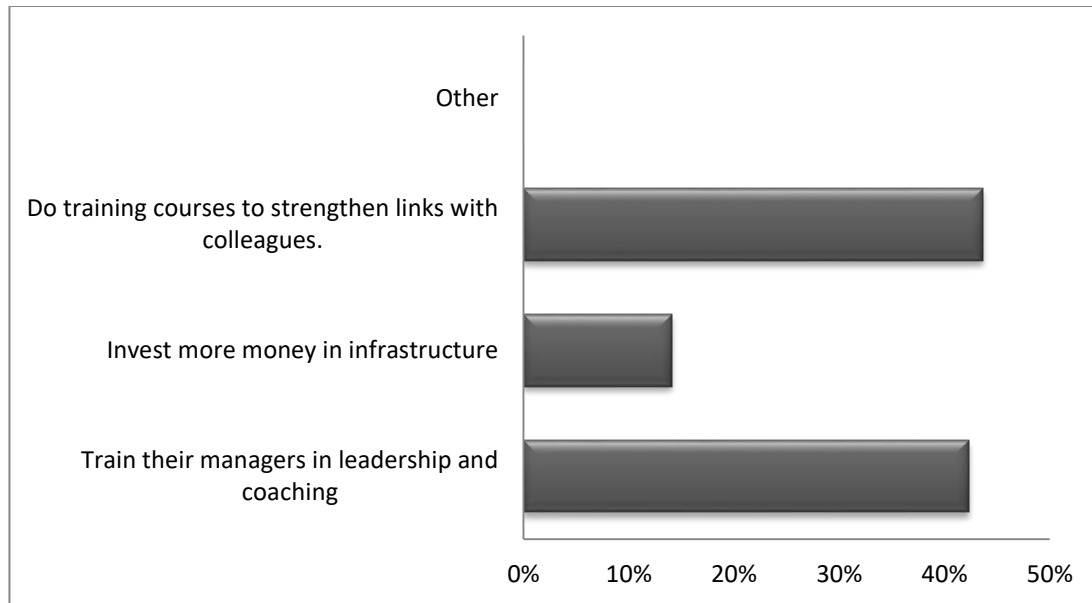
<b>Multiple choices</b>	<b>Number of votes</b>	<b>Percentages (%)</b>
Train their managers in leadership and coaching	33	42.31%
Invest more money in infrastructure	11	14.10%
Do training courses to strengthen links with colleagues.	34	43.59%
Other	0	0.00%
<b>Total</b>	<b>78</b>	<b>100.00%</b>

**Table 8** Survey Monkey Results, Question 8, 2019

Most of the times, employers, owners, CEO's and top management make weekly or monthly meetings to discuss about their employees' performance and statistics on the company's growth, but do they ask their workers what it is important to them? With this reasoning this question was made, expecting to get the answer from the employees' perspective.

Some of the most important aspects from employees from their employers are the interaction and feedback between the parts, hence the relevance of training courses and bond creation between colleagues. Strong in knowledge and benevolent to their peers it is the ideal image from employees of their leaders and managers.

Throughout the years, employees' desires and demands have evolved, and it can be challenging for companies to keep up. Years ago, the most important factor of motivation at work it was the paycheck at the end of the month. When it comes to attracting and retaining talent, employers need to understand what employees really want from a company. (Kohll, 2018)



**Table 8.1** Survey Monkey Results, Question 8, 2019

Question N°9: Have you had medical licenses for work-related illnesses this year?

In the survey, question number 9 obtained for the first option, 9 votes with 15.52% had taken a sick leave for work related stress illnesses on 2019, being the minority of the participants. A 74.14% of the votes were for employees who haven't take a medical license this year, with 43 of the votes.

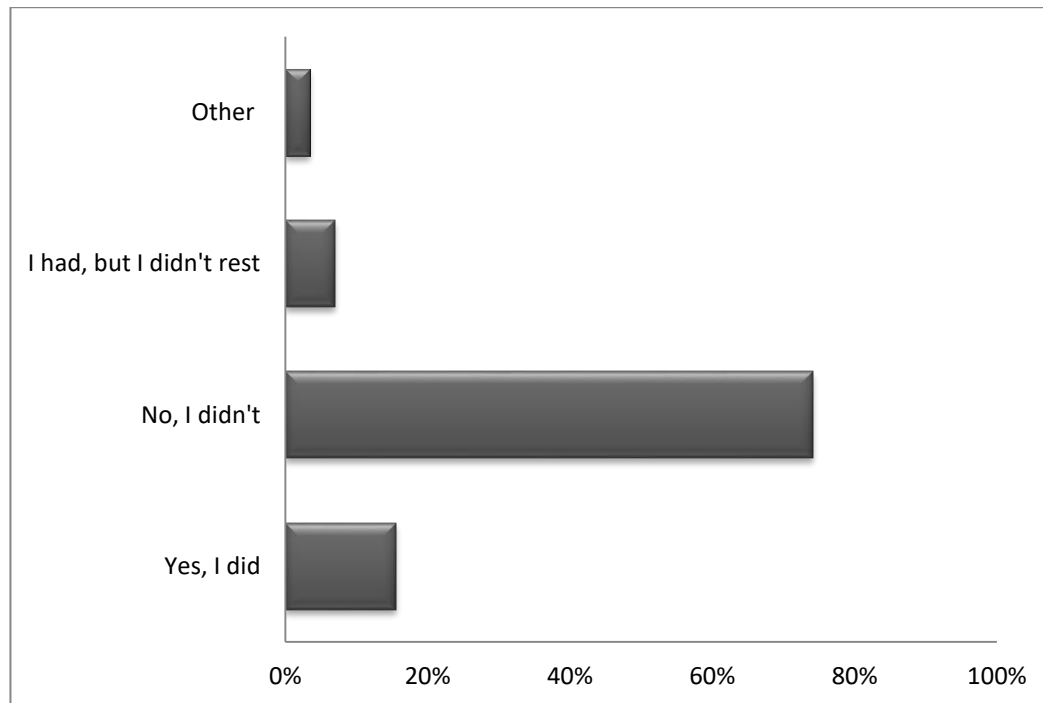
Options	Number of votes	Percentages (%)
Yes, I did	9	15.52%
No, I didn't	43	74.14%
I had, but I didn't rest	4	6.89%
Other	2	3.45%
<b>Total</b>	<b>58</b>	<b>100.00%</b>

**Table 9** Survey Monkey Results, Question 9, 2019

Sick leave is a big problem in production companies; they lose massive amounts annually because of this as shown before in lost productivity. A statistic from PwC (Pricewaterhouse Coopers) shows that from around the world, the UK is leading with an average of 9.1 days of sick leave a

year, in contrast to the US that has almost half with 4.9 days off annually. Asia-pacific countries are the counterparts with the least loss days with 2.2 a year. (Barnato, 2013)

After this statistic held on 2013, the number of sick days taken by British workers has fallen to the lowest on record according to official figures, as experts warn that many employees are coming into work when ill because they are fearful for their jobs.



**Table 9.1** Survey Monkey Results, Question 9, 2019

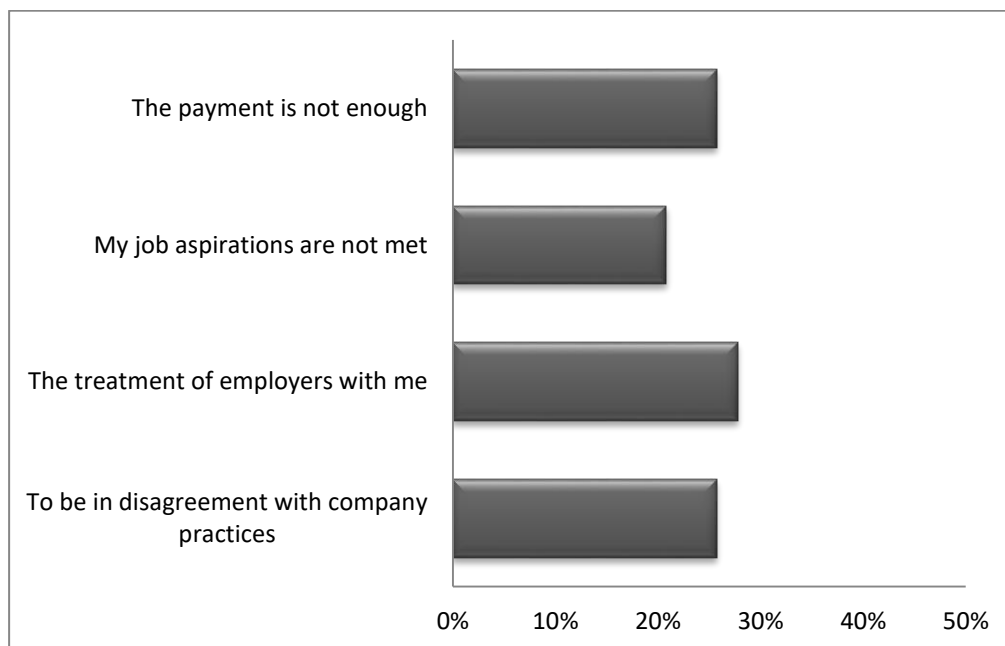
Question N°10: For you, which ones are the most important reasons to leave a job?

The last question was made to understand the reasons for employees leaving their works, the kind of behavior or practices that they would not let pass on an organization. The first and second option were the leading voted choices, with 25.74% and 27.73%, being to be in disagreement with company practices and the treatment of employers with the employee.

Multiple choices	Number of votes	Percentages (%)
To be in disagreement with company practices	26	25.74%
The treatment of employers with me	28	27.73%
My job aspirations are not met	21	20.79%
The payment is not enough	26	25.74%
<b>Total</b>	<b>101</b>	<b>100.00%</b>

**Table 10** Survey Monkey Results, Question 10, 2019

Job stability is one of the factors to be considered when looking for a job, and one of the most important variables to weight when deciding to change or leave a job position. On the best scenario labor changes will always be for an upgrade of position or payment, or professional development. Sadly, that is not always the case, and workers (as previously collected from the survey) mistreated or overworked their employees for not knowing how to positively reaching to them.



**Table 10.1** Survey Monkey Results, Question 10, 2019

## 5. CONCLUSION AND DISCUSSION

What factors are included in an effective working environment? What is the impact of employees on productivity? These were the questions stated at the beginning of the study, the hypotheses were if the work environment affects productivity in companies, the working environment is expected to determine an employee' productivity, the effects of the working environment are required to be psychologically based and quantitatively measurable and if companies are able to manage their human resources for greater performance and development.

The hypothesis section was sustained under several arguments; the first one and most important was that work environment affects productivity in companies. This one was proven to an extent, even though there is a direct effect from work environment on employees' productivity, it is definitely not the only reason why a company can have loss on productivity. Not all the lower production is human related, it can also be a delay caused by external factors. In the results section it was explained the effects on productivity that work environment can have on organizations in different companies, the study was reached on a global work perspective, and it doesn't treat any further implications or edges on companies' losses, since it is not about accountability results but on the contrary, to give a solution to the human factor involved in the process and do better with management practices.

The working environment is expected to determine an employee' productivity, this sentence is more accurate, since it is expected to determine, it is not totally implying the whole responsibility from the working environment, but stating that is one factor that affects productivity. On further review, it was supported the determination of working environment on employees' productivity. This hypothesis was more accurate, since stated that certain factors can affect employees' performance, and not the whole productivity of the enterprise. Blaming working environment for the development of the human resource it is not the ultimate goal of the study, and either it is a managerial matter; the aim was to appoint that a better management could improve productivity.

The effects are required to be psychologically based and quantitatively measurable. This thesis was partly refuted, since not all the effects are psychological but rather most of them are, like

stress and depression, but there are also body health non related to mental health issues like physical workplace comfort and safety. About the quantitative measures, they provided a lot of information and clarification on the study, statistics mainly, but motivation just to name one cannot be measured in numbers, for example when an employee feels motivated will be more productive, that is its already stated, but it cannot be measured, learned and replicated on a different human being, the human mind it's a complex universe. There isn't a recipe for motivating employees, just variables that can be alternatively used for boosting it; it cannot be created but it can be manage and uplift for better performance.

Motivation is the main factor displayed through the study and research, as seen in the theoretical framework there exist a wide amount of theories made by erudite since there was memory. What has change is the approach to motivation and how to trigger it, to know that first there needs to be and understanding of an ever changing society, todays population might not have the same needs or pyramid of needs that Maslow proposed decades ago and also might not be the ones for future generations. Previously, workers focused their job satisfaction by the amount of money they were paid, nowadays of course the salary is an important factor (if not the most important), but other variables have been added to the equation, like work environment, desk area, employers treatment, interpersonal relationships with colleagues and so on, just to name a few.

If work environment does affect the productivity, companies could be able to manage their human resource for a greater performance and development. This statement was indeed answered, it does affect productivity, not solely, but it does (economy, funding, raw material and machinery or equipment, and so on can affect too). Human resources also can be managed, as stated in the theoretical review; management theories are the bases of an organization, the understanding of this factor are the way to increase companies' productivity. Behavioral and human resources management, the last two types of management displayed on the theoretical framework by Mayo and Ulrich, addressed the working conditions key role on to improve employees satisfaction and as a result to increase their productivity. As a result better outcomes from employees will satisfied their employers creating this synergy between work environment and productivity.

On the other hand, the performance of employees and the organization development it is a much complex conglomerate of variables, just by proving the effect on one over the other, doesn't mean the fountain of youth for enterprises has been found.

Leadership is another factor that combined with management can increase employees' motivation. Leaders are the new managers and some of the most renowned companies like Apple, Microsoft or Google have adopted innovative-creative approaches for new employees' generations. Millennial are the current working generation, and being born in a technological replaceable society have been exposed to all kind of information and knowledge from all sides and corners of the world. Steve Jobs promotes the type of leadership called Laissez Faire, in an era of social networks and aesthetic lives, the workers needs have taken a total different direction, the need of acceptance and social approval have never been this high into importance. Therefore, in a well-informed, knowledgeable, superficial society, money and job position have taken the lead when looking for a job, a decreasing working hours for personal time and lives development is an important fact to take into account when creating new job positions and recruiting possible new employees.

The greatest contribution that this study aimed to do was to spread awareness on job strains nowadays. All along the study there can be found phrases with alarming statistics on how population's mental illnesses are increasing to a fast pace and are the biggest reason for sick leave at work. As stated before, the UK it is the leading country on the highest rates of medical leave, increasing productivity loss to thousands of dollars a year and so it is the case in most European countries. Thinking of developed countries, some would expect to found more hopeful results, mostly when coming from a country in the path of development, but truth being said, the level of development of the country just count as another indicator for annual productivity, numbers obtained after exhaustive investigations and information gathered, but here it is a human resources study, numbers are used for a better explanation of the current situation, but cannot gave you the golden formula. Employees can be managed, not commanded but leaded and motivated, to do a better performance at work, which is why this study took place to begin with.

The primary data made through the survey is now a new source of research and data added to the work environment effects on productivity. Other people would have access to it, thanks to the Internet, and those would be able to make their own conclusion and further research into forming



an opinion. This is the endless chain of data creation and why it is so important to create new, quality data, renovation of thoughts, beliefs and spread it to the world. The survey held on Survey Circle, an international website to database for worldwide surveys of all types works in an impressive rewarded formula, each survey completed gave you points so your survey goes up on the ranking and more people have an easy access to it, this way it creates a chain of help and information gathering for all researches equally.

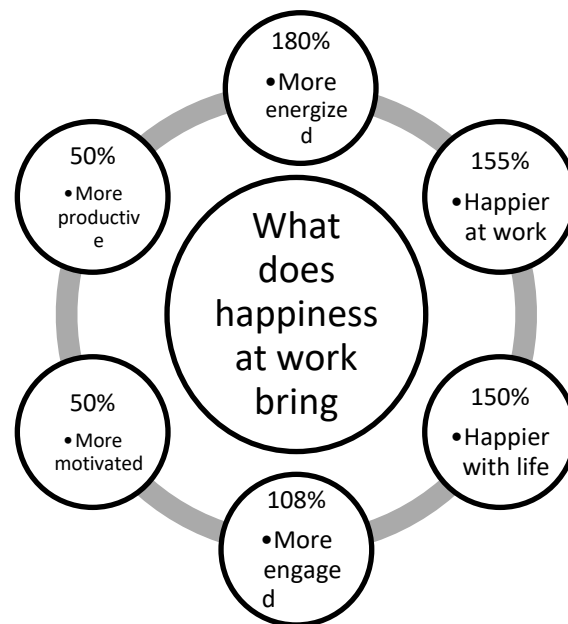
From Survey Monkey, the website were easy and beginner's friendly surveys can be made, there was obtained results from the study alongside graphs and content tables created automatically and for free. The findings were already displayed on tables 1 to 10 on the results section from primary data. The most relevant finding was that on the national responses, which were 41 out of 58, Chileans workers did not take sick leave, independent of why they got sick or if it was work-related or not, they did not take the rest even after been given a medical leave with rest recommended by their specialists. This can start an open discussion of the reasons, but the most coherent for our perspective was the job instability in our country, employees do not feel like they can properly rest without fearing a dismissal notice when returning to their respective jobs. This is a fact that also should be targeted and further analyzed in depth on a separate research since health should always be put first, it is by all means our biggest wealth.

As a result of the study, it can be inferred that when productivity increases, working hours decreased, Asian countries as the exception, the more developed the countries, fewer hours of work are needed, and that is because of efficiency. Consecutively fewer working hours make less stressed employees and gave them more personal time, happy workers should be the ultimate purpose of every organization and can be reached through a positive work culture that promotes collaboration or teamwork, inspire their employees to be more creative and innovative.

The benefits from a positive working environment are employees' satisfaction, a place where employees are happy, healthy and motivated and feel that they are rewarded and valued. People spend a large part of their lives at work; hence, it is understandable that it plays such a vital role in the choosing or staying at job. When employees feel more positive and find themselves in a good workplace, they are more challenged and motivated to do better. (Lawson, 2012)

Happy employees need to be the real focus of an organization and managers. Indispensable employees are efficient and effective at their jobs. Efficient employees are quick to completion and not wasteful of resources, including management time. Effective employees do their jobs at high quality. (Ceniza-Levine, 2015)

As it can be seen in figure 3, the various aspects of a positive work environment can be quantified thanks to the happy employees and how they behaved on certain situations. The ultimate purpose of every organization should start and end with their employees, human resources or whatever noun they would want to address their workers, but the result is the same: happy workers, are more effective and perform their tasks productively.



**Figure 3** Steps on how to create a happy work environment, Source Pryce-Jones, 2010.

All the findings and refutations of this study were weighted and objectively shared, further researches and approaches need to be done by other disciplines to show other sides of knowledge and specialties like the mental health illnesses caused by work, that is why these illnesses were just named and acknowledge but not widely explained, since it is a field out of our purpose of the study and formational judgment. There is a lack of knowledge, and limitations on understanding to the field of biology, anatomy and the complex human mind.

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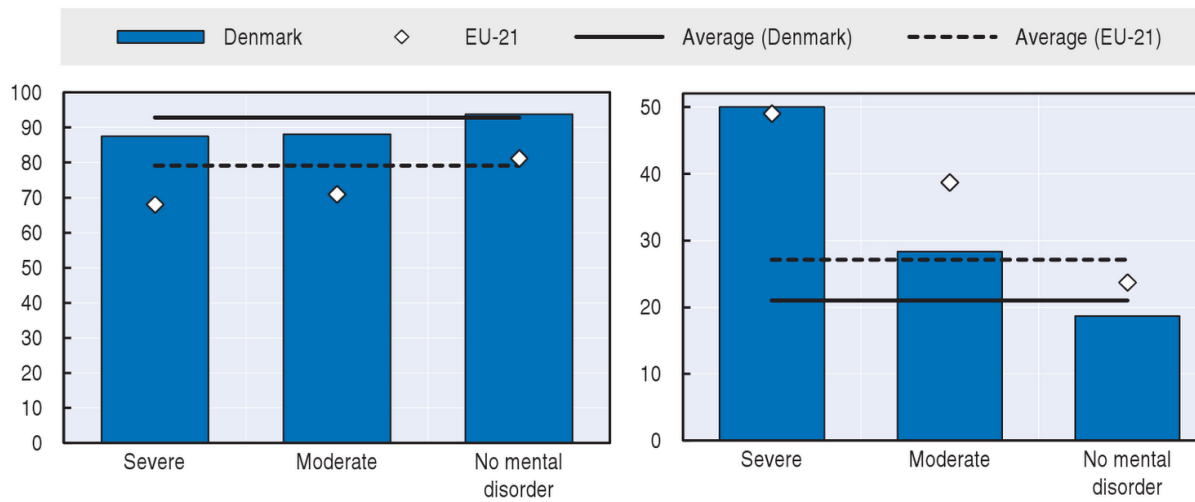
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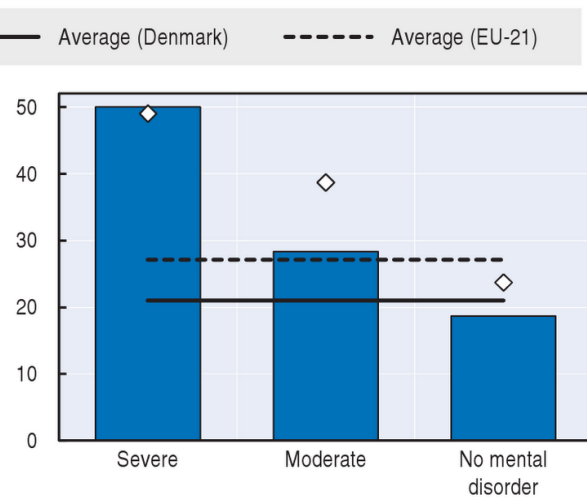
## ANNEXES

### Appendix 1

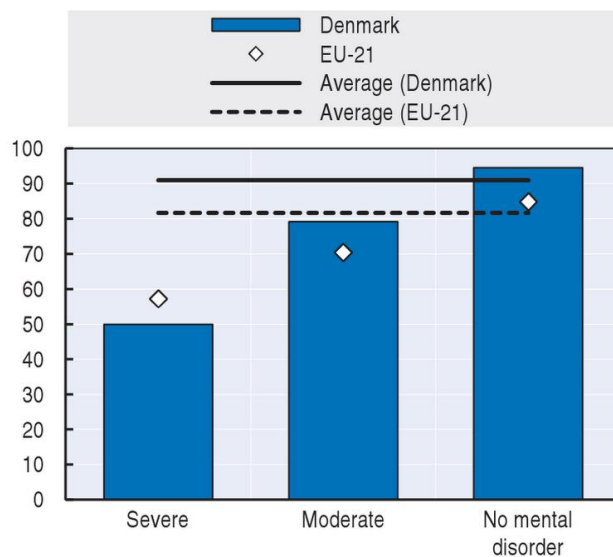
**Panel A. Percentage of people with job adequately reflecting skills**



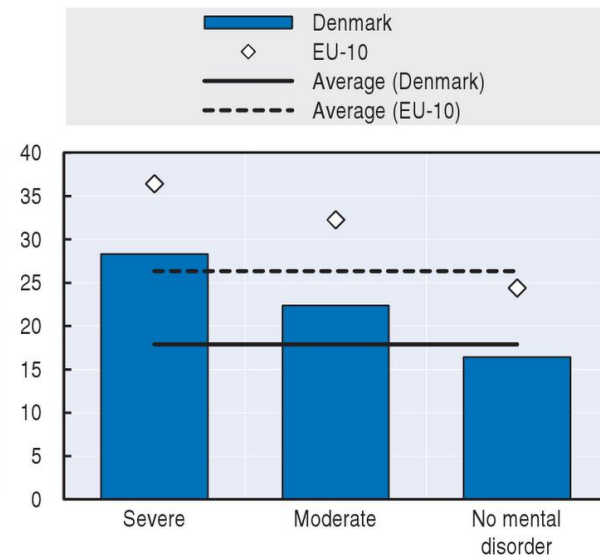
**Panel B. Percentage of people with job security under threat**



**Panel C. Percentage of people receiving at work the deserved respect and recognition**



**Panel D. Percentage of people reporting job strain**



## Appendix 2

### Indicators included in the working environment index

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#### Indicator

##### Physical conditions

Light  
Noise  
Temperature  
High repetition of motion  
Work involves simultaneous lifting and sub-optimal movement/positioning  
Work involves static load on muscles

##### Exposure

Production or use of certain chemicals  
Exposure to smoke, dust, fumes (skin contact/breathing/eye contact)  
Production using technical equipment and machinery  
Work includes risk of falling from heights  
Work includes traffic risk

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Source: DAMVAD and expert group, 2011.

## Appendix 3

### Indicators included in the psychosocial working environment index

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#### Indicator

##### Influence

Freedom to decide one's own work tasks  
Framework allowing deliverance of the same quality as desired by oneself  
Freedom to organise the day, including breaks

##### Demands

Work at high speed  
Large work load  
High cognitive demands

##### Work-reward balance and leadership

Clarity of expectations in work  
Trust and respect from leadership  
Predictability of work  
Work-reward balance

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Source: DAMVAD and expert group, 2011.



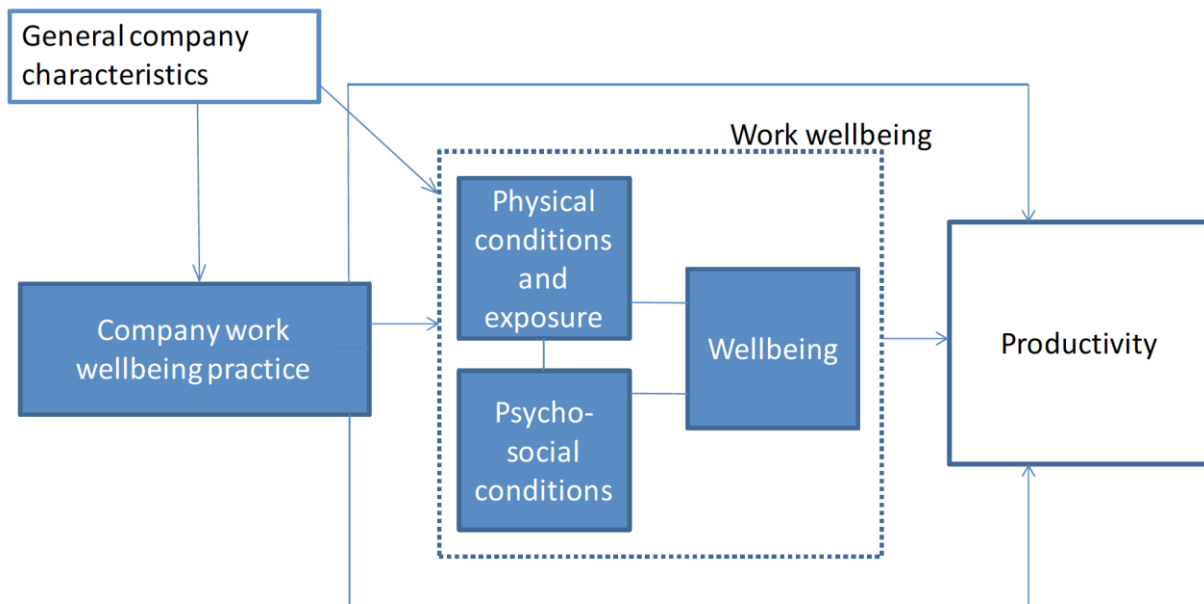
## Appendix 4

### Indicators included in the wellbeing index

Indicator	
<b>Health</b>	
Annual number of work-related diagnoses	
Annual number reporting sick or ill	
Long-term sickness	
Mortality rate	
Average retirement age	
Number of recipients of benefits due to being unfit for work	
Stress	
Depression	
<b>Safety</b>	
Work-related injuries	
Self-reported work-related health problems	
Work-related deaths	

Source: DAMVAD and expert group, 2011.

## Appendix 5



Source: DAMVAD and expert group, 2011.

## Appendix 6

1. What are the factors that influence your motivation at work?

- ☐ Salary
- ☐ Job position
- ☐ Work environment
- ☐ Personal development
- ☐ Other (please specify)

2. Does the work environment influence your performance at work?

- ☐ Yes, it does
- ☐ No, it doesn't
- ☐ I don't get affected easily
- ☐ It depends on my stress levels
- ☐ Other (please specify)

3. What is your current employment situation?

- ☐ Working Full time (40-45 hours per week)
- ☐ I am a freelance worker
- ☐ I am currently jobless

4. Is your physical workplace important to you?

- ☐ Yes, it is
- ☐ No, it is not
- ☐ Other (please specify)

5. Which of these workplace factors are important to you?

- |   |   |
|---|---|
| <input type="checkbox"/> Lighting at the office | <input type="checkbox"/> To have an ergonomic chair |
| <input type="checkbox"/> Clear and open spaces  | <input type="checkbox"/> To take active breaks      |
| <input type="checkbox"/> A large desk area      |   |

6. At your current (or former) job, how was the administration of the human resources?

- ☐ Based on employees as the main asset of the organization.
- ☐ Employees are just a number and are replaceable
- ☐ Good elements are taken to their maximum potential.
- ☐ Productivity is the only important outcome
- ☐ Other (please specify)

7. Which of these concepts fits your idea of leadership?

- ☐ Positive to the managers' development
- ☐ Negative for the employees
- ☐ You are indifferent to it
- ☐ Other (please specify)

8. In your opinion, what must an organization do?

- ☐ Train their managers in leadership and coaching
- ☐ Invest more money in infrastructure
- ☐ Do training courses to strengthen links with colleagues.
- ☐ Other (please specify)

9. Have you had medical licenses for work-related illnesses this year?

- ☐ Yes, I did
- ☐ No, I didn't
- ☐ I had, but I didn't rest
- ☐ Other (please specify)

10. For you, which ones are the most important reasons to leave a job?

- ☐ To be in disagreement with company practices
- ☐ The treatment of employers with me
- ☐ My job aspirations are not met
- ☐ The payment is not enough