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The effect of individual work and teamwork on stress, commitment and motivation: the role of generations

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Abstract

The aim of this research is to evaluate the effect of working individually or integrated in a team on stress, commitment and motivation. Moreover, it also addresses the idea of Generations as a moderator variable between the previous relationship. Data was collected from 179 respondents using a questionnaire. Results of the main effect analysis showed that the relationship between the type of work and the variables stress, motivation and commitment was not significant, which is in line with the theoretical concepts from previous literature where a direct effect is not supported. As for the moderation effect, the results were also non-significant, showing that Generations do not play any interaction on the variables under research.

The non-significance of the results might be explained by the non-linearity in terms of how individuals react to teamwork and individual work, with everyone responding in a different way, being hard to predict human beings' behavior when facing both situations. Furthermore, experience bias should also be considered, with individuals taking their perception as being the objective truth, relying on past experiences to form an opinion.

This study adds to the existing literature by supporting the theoretical concepts with empirical findings, as well as introducing the moderation effect of Generations, which even though not supported, creates a baseline for further research.

Title: The effect of individual work and teamwork on stress, commitment and motivation: the role of generations

Author: Vasco Silva

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Sumário Executivo

O objetivo deste estudo é avaliar o efeito do trabalho individual ou integrado numa equipa sobre o stress, o empenho e a motivação. Além disso, também enquadra o conceito de Gerações como uma variável moderadora entre as relações anteriores. Os dados foram recolhidos de 179 inquiridos por meio de um questionário. Os resultados da análise do efeito principal mostram que a relação entre o tipo de trabalho e as variáveis stress, motivação e empenho não é significativa, estando de acordo com os conceitos teóricos da literatura anterior na qual um efeito direto não é suportado. Quanto ao efeito da moderação, os resultados também não foram significativos, mostrando que as Gerações não desempenham qualquer interação sobre as variáveis em análise.

A não significância dos resultados pode ser explicada pela não linearidade na reação dos indivíduos ao trabalho em equipa e ao trabalho individual, sendo difícil prever o comportamento dos seres humanos quando confrontados com ambas as situações. Deve também ser considerada a parcialidade das experiências, com os indivíduos a adotarem a sua perceção como sendo a verdade objetiva, baseando-se em experiências passadas para formar uma opinião.

Este estudo reforça a literatura existente, suportando os conceitos teóricos com dados empíricos, assim como introduzindo o efeito da moderação das Gerações que, embora não sustentado, cria uma base para próximos estudos.

Título: O efeito do trabalho individual e do trabalho em equipa no stress, empenho e motivação: o efeito das gerações

Autor: Vasco Silva

Palavras-chave: Trabalho em Equipa, Trabalho Individual, Stress, Empenho, Motivação, Gerações

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1. Introduction

Individuals are group-living rational animals by nature, a concept that has evolved throughout their existence and manifested in the simplest activities performed: one was supposed to be capable to gather more resources such as food and water, as well as achieving goals like protection, by living and socializing with others in a group context (Cottrell and Neuberg, 2005). In fact, “interpersonal relationships are the foundation and theme of human life” and “most human behavior takes place in the context of the individual's relationships with others” (Reis, Collins and Berscheid, 2000).

But individuals are also born with a tendency to worry about themselves and their self-interests, with behaviors being motivated by their own interests at an automatic and sometimes unconscious level. The evaluation of this equilibrium - the idea that individuals are moved by both self-interest and by others-orientation - is a topic that social scientists and philosophers have analyzed for many centuries (Dreu and Nauta, 2009).

In fact, committing at the social level has its risks as one may be physically or psychologically harmed by the attitudes of other. The benefits of groups go beyond the mere presence of two or more individuals, as it is the effective coordination between them that results in a well-functioning collectivity or not (Cottrell and Neuberg, 2005).

And when bringing this to the organizational level, the different views and perspectives are immense, with the analysis of benefits and costs both at the individual level – individual performance, preferences and reactions – and at the collective level – interpersonal relationships and team performance.

“Teams are pervasive in today’s world, and rightfully so as we need them” (Salas, Shuffler, Thayer, Bedwell and Lazarra, 2015) but do most individuals prefer that or react the same way when having to work integrated in a team or individually?

“Humans do not respond to the same stimuli in the same way across relationship contexts; indeed, the meaning of stimuli to the individual may change dramatically with changes in relationship context” (Reis, Collins and Berscheid, 2000). This is in line with the idea of the individual differences, which has been an object of study since Charles Darwin identified individualities between and within species (Buss and Greiling, 1999).

Artists, for example, might want to be acknowledged for their individual performance and would not feel as committed or motivated with their work if they had to be integrated in a team. On the other hand, many would argue that having the support of a team in the development of different activities reduces things like stress.

Do people react the same way when having to work integrated in team or individually? While there are some theoretical conceptions on the topic giving contrary views, mainly related to the individual differences previously addressed, to the social exchange theory, to the collective identity or even self-determination theory, the literature still lacks empirical research regarding the existence of a direct impact of the type of work on human reactions like stress, affective commitment and motivation.

Following this, the main research question of this study is:

RQ1: Do teamwork and individual work have a direct effect on motivation, affective commitment and stress?

Another topic that has been under analysis is the generational differences in the workplace. The different generations: Veterans, Baby Boomers, Generation X and Generation Y have their own unique characteristics and work values that influence the way they behave in an organization (Heyns and Kerr, 2018).

Because Generation Y is still somewhat new in the work environment, there is still limited research when comparing its preferences to other generations. As a result, this study aims to understand how the relationship between the type of work and stress, affective commitment and motivation may vary across generations.

Following this, the study poses a second research question:

RQ1: How does the impact of teamwork and individual work on motivation, affective commitment and stress vary across Generations X and Y?

To achieve the purpose of answering these two research questions, this dissertation starts by understanding the theoretical concepts of individual work and teamwork, following by evaluating their impact on motivation, commitment and stress, as well as the generational impact on this relationship. To support any hypothesis defined, a validation is performed through empirical methods, whose methodology is explained and results presented. To finalize, there is a discussion on the obtained results and their implication on previous literature, as well as a critical view on limitations and further research.

2. Literature Review

2.1. Individual Work and Teamwork: Assessing both ways of working and its specifics

2.1.1. Individual Work: An autonomy perspective

Individual work excludes from the teamwork principles, the “interdependent components of performance required to effectively coordinate the performance of multiple individuals” (Salas, Cooke and Rosen, 2008).

The self-determination theory, developed by Deci and Ryan, proposes that individuals have basic psychological needs for autonomy, competence, and relatedness, whose satisfaction facilitates a person’s enjoyment of tasks and a self-regulation of behaviors.

Even though there is not extensive research addressing specifically the topic of individual work, contrarily to teamwork, the idea of autonomy has been an object of study by many authors, which is when individuals can freely choose to pursue an activity (Gagné, 2003). Deci and Ryan, exploring on the need of autonomy, found that employees with a high autonomy orientation have a higher need satisfaction at work, which then increases their performance and well-being (Gagné, 2003).

As for the impact of working individually in a series of reactions, research has shown that the amount of organizational support affects affective and normative commitment (Aubé, Rousseau and Morin, 2007), whether it is positively or negatively, as well as work satisfaction (Gagné, 2003). Other studies evaluate that the pressure related to having more job duties, being more autonomous, may lead individuals to experience greater levels of stress related to their roles (Stamper and Johlke, 2003).

2.1.2. Teamwork: definition

Contrarily to individual work, there has been an increasing interest in the research around the topic of teams and their functioning, which resulted in an endless amount of literature attempting to explain teamwork and the conditions around it (Salas, Shuffler, Thayer, Bedwell and Lazarra, 2015).

According to Salas, Burke and Cannon-Bowers (2000), teamwork is a multidimensional construct that is dynamic, difficulting the process of studying it. Moreover, there is confusion and a lack of clarity as to the components that comprise it.

In an attempt to clear the idea about what teamwork is, as well as coming up with a definition, the cited authors came up with seven emerging teamwork principles, addressing the characteristics of them: (1) “teamwork is characterized by a set of flexible and adaptive behaviors, cognitions and attitudes”; (2) “teamwork requires that members monitor each others' behaviors and action and feel free to provide and accept feedback based on monitoring behavior”; (3) “teamwork is characterized by members being willing and able to back fellow members up during operations”; (4) “teamwork involves clear and concise communication”; (5) “teamwork requires coordination of collective interdependent action”; (6) “teamwork requires leadership that enables the direction, planning, distribution, and co-ordination of activities”; (7) “teamwork is influenced by the context and the task requirements”.

Marks, Mathieu and Zaccaro (2001) further explore the principles above, by adding a new definition of the team processes construct “as members' interdependent acts that convert inputs to outcomes through cognitive, verbal, and behavioral activities directed towards organizing taskwork to achieve collective goals”.

Summing up, team members need to coordinate their actions, with every member playing an important role for the collective action. As a result, the success of teams is dependent on the way team members interact to accomplish the work (Costa, Passos and Bakker, 2014).

2.1.3. Teamwork: critical variables for performance

Assessed a definition of what teamwork is, this research turns to understand the variables which are critical for the performance of a team and how teamwork impacts them.

There are two factors which many researchers have been able to identify: work structure, regarding the collective aspect of teamwork, and team composition, which addresses the individual characteristics of the members of a team (Salas, Cooke and Rosen, 2008).

Salas, Shuffler, Thayer, Bedwell and Lazarra (2015), identify 6 “core processes” related to the first factor as a “guiding heuristic by which individuals, teams, organizations, and other collaborating entities can determine what is needed when they face situations involving teamwork”. These, followed by the definition provided by the authors, are: (1) cooperation, “the motivational drivers of teamwork (attitudes, beliefs and feelings)”, (2) conflict, “the perceived incompatibilities in the interests, beliefs, or views held by one or more team members”, (3) coordination, “the enactment of behavioral and cognitive mechanisms necessary to perform a task and transform team resources into outcomes”, (4) communication, “a reciprocal process of team member’s sending and receiving information that forms and re-

forms a team's attitudes, behaviors, and cognitions", (5) coaching, "the enactment of leadership behaviors to establish goals and set direction that leads to the successful accomplishment of these goals and (6) cognition, "a shared understanding among team members that is developed as a result of team member interactions including knowledge of roles and responsibilities; team mission objectives and norms; and familiarity with teammate knowledge, skills and abilities".

But for the relevance and purpose of this research, the individual factors are the ones which require more attention. People have different personalities, which ends up affecting their actions when inserted in a team (Beersma, Hollenbeck, Humphrey, Moon, Conlon and Ilgen, 2003). Salas, Shuffler, Thayer, Bedwell and Lazarra (2015) also manage to address this individual impact on their studies, identifying composition as one "influencing condition" of teamwork, and describing it as "the individual factors relevant to team performance; what constitutes a good team member; what is the best configuration of team member knowledge, skills, and attitudes; and what role diversity plays in team effectiveness".

Related to the attitudes, individuals may not exert as much effort and motivation when inserted in a team as when they work alone (Liden, Wayne, Jaworski and Bennet, 2004). The same happens with work engagement, with individuals being highly influenced by teamwork (al Mehrzi and Singh, 2016).

Introduced the idea that working in a team versus individually may have an impact on motivation, commitment and stress, this research turns to understand the characterization of these.

2.2. Motivation, Commitment and Stress

2.2.1. Work Motivation: definition

Work motivation is a topic under constant analysis, with innumerable authors providing different perspectives on the topic (Kanfer, 1992). Acar (2014) states a definition by Latham and Pinder (2005) in which work motivation is a "set of energetic forces that originate both within as well as beyond an individual's being, to initiate work-related behavior and to determine its form, direction, intensity, and duration".

After the conclusions provided by Vroom's expectancy–valence theory of motivation, Porter and Lawler (1968) further explored his ideas, providing a model of intrinsic and extrinsic work motivation.

Years later, Ryan and Deci (2000) came up with the self-determination theory, previously addressed, which is one of the most acknowledged theories of motivation. This distinguishes itself from more conventional theories because it not only went further on the cognitive evaluation theory to include extrinsic motivation, like Porter and Lawler did years before, but also makes a distinction between autonomous and controlled motivation, which does not focus on the level of motivation but rather on the relative strength of controlled versus autonomous motivation one experiences. To simplify, self-determination theory does not just focus on motivation as internally or externally driven but differentiates between subtypes of motivation that are subject to a constant process of internalization (Heyns and Kerr, 2018).

2.2.1.1. Drivers of Work Motivation

Understood the division between internal and external motivation provided by different authors, it matters to analyze them. On one hand, intrinsic motivation, which was previously addressed as the “internal incentives”, relates to people doing an activity because they find it interesting and get spontaneous satisfaction from the activity on its own. Extrinsic motivation, on the other hand, requires an “instrumentality between the activity and some separable consequences such as tangible or verbal rewards, so satisfaction comes not from the activity itself but rather from the extrinsic consequences to which the activity leads” (Gagné and Deci, 2005). Simplifying, extrinsic motivation relates to the existence of an outside encouragement or reward earned from performing a task rather than actual pleasure of the task (Acar, 2014). Even though intrinsic motivation exists within individuals, it is also present in the relation between individuals and activities. Individuals are intrinsically motivated for some activities and not for others, and there is not a task by which everyone is intrinsically motivated. Because intrinsic motivation is based on the relation between a person and a task, some authors have defined intrinsic motivation in terms of “the task being interesting while others have defined it in terms of the satisfactions a person gains from intrinsically motivated task engagement” (Ryan and Deci, 2000).

Building on this, intrinsically motivated behaviors are connected to the basic human need for being competent and self-determining, aligned with the self-determination theory. Individuals

need to feel like causal agents, feeling competent and effective, making them engage in a variety of activities towards that (Deci, Nezlek and Sheinman, 1981).

The type of reward, whether it is internal or external, makes the distinction between both kinds of motivation. This reward distinction creates an assumption of incompatibility. It implies that intrinsic and extrinsic reasons are independent and that no relation is possible. However, research and experiences suggest the opposite thesis: “a positive, additive relationship between intrinsic and extrinsic rewards is the rule, not the exception” (Covington and Müller, 2001).

2.2.2. Work Commitment: Definition

For Somers and Birnbaum (1998), committed employees can be characterized by being loyal and productive members of organizations who identify with organizational goals and values, which then influences different outcomes like employee retention, job performance, attendance, work quantity, work quality and personal sacrifice on behalf of the organization.

Work commitment has been researched by as vast number researchers, with most agreeing on the fact that it is a complex concept which can be deconstructed in various dimensions such as job commitment, organizational commitment, occupational commitment, commitment to the union, commitment to the work group and work involvement (Hackett, Lapierre and Hausdorf, 2001).

While job commitment can be defined as “a psychological absorption in work activities” (Somers and Birnbaum, 1998) and mostly dependent on how much a job can satisfy one’s present needs (Carmeli and Freund, 2004), organizational commitment can be described as “the relative strength of an individual’s identification and involvement with a particular organization” (Mowday, Steers and Porter, 1979).

Even though all dimensions are considered important, researchers have mostly focused on the analysis of organizational commitment and job commitment, while for the purpose of this research, only the first is relevant as studies show that having or not organizational support affects organizational commitment (Aubé, Rousseau and Morin, 2007). Job commitment is not considered as it has a day-to-day perspective, being different throughout the innumerable events in the workplace. As a result, these should not cause an employee to seriously reevaluate his attachment to the organization as whole (Mowday, Steers and Porter, 1979).

Related to the organizational commitment, some researchers consider it to comprise two distinct, but related, concepts: attitudinal and behavioral commitment (Iverson and Buttigieg, 1999). Attitudinal commitment is an emotional attachment to a certain organization which implies the acceptance of its values (Somers and Birnbaum, 1998), consequently leading to an identification and involvement with it (Iverson and Buttigieg, 1999). Behavioral commitment, on the other hand, represents the perceived value of one's investments in an organization and their effect on opportunities for exit (Somers and Birnbaum, 1998).

Meyers and Allen thought the concepts of attitudinal and behavioral commitment to be confused and developed alternative scales for affective and continuance commitment, as well as a third scale designed to measure normative commitment (Iverson and Buttigieg, 1999). Even though the idea behind the definitions ends up being similar to the attitudinal and behavioral commitments, they defined affective commitment as “the employee’s attachment to and identification with an organization”, normative commitment as “the moral obligation to continue working for the organization” and continuance commitment as “the degree to which employees stay with an organization because the costs of leaving are too high” (Aubé, Rousseau and Morin, 2007).

2.2.3. Work Stress: Definition

According to Ganster and Rosen (2013), studying on previous definition, stress can be viewed as (1) “a feature of the external environment that acts on an individual”, (2) “the individual’s responses (psychological, physiological, and behavioral) to environmental demands, threats, and challenges”, or (3) the interaction of both.

The choice of one perspective over another has, in most cases, been determined by the research questions to be answered. For instance, medical researchers interested in studying the physiological outcomes of stress look at the individual as the base of analysis and focus on personal characteristics such as age and personality. In contrast, researchers with an organizational perspective usually ignore individual differences, concentrating on organization-based sources of stress like job content and the quality of supervision. Alternatively, the mixed approach focuses on both individual differences and environmental factors (Parker and DeCotiis, 1983).

Regarding work/job stress and in line with the analysis of the nature of social stress, many work situations or conditions are seen as potentially stressful. These can give rise to perceived job

stress, which is a perception that environmental demands exceed the abilities of the individual or that the opportunities leave the needs of one unmet. To simplify, there is a perceived lack of fit between an individual and the environment. Consequently, these perceptions of exhaustive workload or lack of support, may cause negative feeling towards work as whole, which later impacts the overall job satisfaction and ultimately, physical and/or mental health (LaRocco, House and French, 1980).

2.3. Teamwork and Individual Work: Drivers of Motivation, Commitment and Stress

As stated before, individuals may not exert as much effort and motivation when inserted in a team as when they work alone, which has serious implications for organizations which are dependent on the group performance to be functional (Liden, Wayne, Jaworski and Bennet, 2004).

Painters, for example, would be less motivated to create masterpieces if they weren't acknowledged for their individual effort; or athletes, who always have their mind on the individual rewards and statistics despite their commitment to the team (Williams, Harkins and Latané, 1981).

The assumption based on a social identity approach to motivation, on the other hand, defines situations that induce individuals to identify as parts of a collective, in which they are more likely to be concerned and motivated with the development of a collective identity, directing efforts to a positive team performance (Ellemers, Gilder and Haslam, 2004). In other words, there are internal incentives when individuals personally value the performance of the collective (Shepperd, 1993). In the situations described, individuals may exert more effort and motivation working inserted in a team.

Participation in groups or not has, in fact, a powerful influence on motivation (Steers, Mowday and Shapiro, 2004), whether it is positive or negative, which then influences performance, as discussed. However, in its essence, this implies that the motivation to achieve a collective performance derives mostly from individual concerns and motives. In other words, the common view is that people tend to behave in ways that seem to be rewarding from an individual point of view, without the adaptation to collective concerns or goals (Ellemers, Gilder and Haslam, 2004).

As it seems, more than the type of work itself, which may have a limited or even no direct impact on motivation, it's the characteristics of each individual that define their motivation when working integrated in a team or individually.

As for commitment, previous studies have shown that the level of organizational support is positively related to the affective commitment to the organization (Kooij, Jansen, Dijkers and Lange, 2010).

For instance, when working individually, the organizational support is lower, which may lead individuals to feel neglected or even abandoned by their employer, leading to a reduction in their level of affective commitment. On the other hand, a low level of work autonomy coupled with a high level of organizational support, consistent with the idea of teamwork, may lead individuals to perceive the organization in a positive way, which may increase their level of affective commitment (Aubé, Rousseau and Morin, 2007).

Blau's (1964) social exchange theory can also help to explain this effect of the organization support on commitment. In his utilitarian view of human exchange, the development and maintenance of relationships are based on an exchange of resources between individuals who are interacting with one another. For the effect, behaviors related to organizational support such as tangible help end up creating a positive image of the organization and a sense of gratitude, ultimately increasing the level of affective commitment (Aubé, Rousseau and Morin, 2007).

Regarding stress, and as discussed before, some studies evaluate that the pressure related to undertaking more job duties may lead individuals to experience greater levels of stress related to their work roles. (Stamper and Johlke, 2003). Other studies evaluate that being more autonomous and responsible for the work performed is not necessarily negative in terms of stress as other research has shown evidence linking the level of job autonomy with the incidence of negative stress-related outcomes: a high job autonomy will lead to a reduction in job stress because it might give individuals the idea of control over the outcomes of their work (Saragih, 2011).

On the interpersonal relations aspect, a way to reduce the impact of role stress is by increasing social support as seen before. In the work environment, social support has been commonly operationalized as the support or aid granted by coworkers and/or supervisors (Stamper and Johlke, 2003), a support with which an individual cannot count as much if working individually. On the other hand, counterproductive work behaviors such as aggression,

interpersonal conflict, sabotage, and theft, which exist at the team level, are seen as stressors (Fox, Specter and Miles, 2001).

Research does not seem to have a direct and common answer to the impact of teamwork and individual work on stress, but rather an approach based on variables like workload, job importance, autonomy and social support, with all of them seem to act differently depending on the characteristics of the individual and/or situations in which occur, being in line with the previous idea that stress can be viewed as a mix of the external impact and the response from the individuals.

It can then be concluded that teamwork and individual work does not seem to directly affect motivation, commitment and stress, but its rather the characteristics of each individual that define different responses to the variables.

In their studies, Ruth Kanfer and Phillip L. Ackerman use life-span and adult development theories to understand and evaluate the implications of age on work motivation. Even though aging is mostly associated to a reduction in cognitive and intellectual capabilities, these authors disagree and conclude it is oversimplistic. For them, aging is much more complex, in which the reduction in cognitive abilities is accompanied by the growth in other intellectual abilities, reorganization goals, and changing personality traits (Steers, Mowday and Shapiro, 2004).

The different generations: Veterans, Baby Boomers, Generation X and Generation Y have their own unique characteristics and work values (Heyns and Kerr, 2018) that may influence the impact of teamwork and individual work on motivation, stress and commitment.

2.4. Generations

2.4.1. Definition and Notion of Generations

For Wong, Gardiner, Lang and Coulon (2008), and based on an initial definition by Kupperschmidt (2000), a generation can be defined as an “identifiable group, which shares years of birth and hence significant life events at critical stages of development”. In general, even though researchers differ slightly in the time frames of birth that define the different generations, most agree in the existence of four generations of employees: Veterans, born between 1925 and 1944, Baby Boomers, born between 1945 and 1964, Generation X, born

between 1965 and 1981, and Generation Y, born between 1982 and 2000 (Wong, Gardiner, Lang and Coulon, 2008).

A generational group includes those who share historical or social life experiences, with the effects of them being relatively stable over their lives, and making a distinction from one generation to another (Smola and Sutton, 2002). These shared experiences such as industrialization, fundamental changes, cataclysmic event and tragedies differentiate one generation from another as they have a relevant effect on the attitudes, beliefs, values and expectations of each generational group (Becton, Walker and Jones-Farmer, 2014). Also, according to Jurkievicz and Brown (1998), each generation is likely to develop distinct preferences or traits that distinguish their vision towards work and what they expect from it. According to Lyons and Kuron (2014) most research concerning generational differences in the workplace is based on the cohort perspective, which assumes that the differences in the influences during individual's formation across the generations should be manifested in psychological and behavioral differences.

For the purpose of this research, it then matters to understand the specifics of each Generation.

2.4.2. Generation X

As highlighted before, Generation X individuals were born between 1965 and 1981, having grown up with financial, family, and societal insecurity, rapid change, great diversity and a lack of solid traditions (Smola and Sutton, 2002). Due to the stated difficulties, these individuals are usually seen as cynical and pessimistic. Many see this generation as being comfortable with change and diversity, but not very loyal when it comes to companies and organizations as they are more independent and self-sufficient when compared to individuals from previous generations (Wong, Gardiner, Lang and Coulon, 2008). This ends up leading to likelihood of leaving an employer for more challenging work, a higher salary, or better benefits (Becton, Walker and Jones-Farmer, 2014). Moreover, they have an individualistic orientation, relying much on themselves (Acar, 2014).

2.4.3. Generation Y

Being born between 1982 and 2000, Generation Y individuals were the first generation born into the technological world (Bencsik, Juhász and Horváth-Csikós, 2016). They are more racially and ethnically diverse than the previous generations, which makes them value diversity and change. The common idea about this generation includes being distrustful of organizations,

similar to Generation Y individuals, having a strong desire for meaningful work, prioritizing learning throughout their lives, and viewing family as the base to happiness. Moreover, research has shown that they value leisure more than other generations and work harder than Generation X (Becton, Walker and Jones-Farmer, 2014).

They also have their unique vision about their future positions at the workplaces. It is important for them to work where they want and do what they enjoy, following the idea of meaningful work. Generation Y is seen as multitasking, being able to perform several activities at the same time, and for them, success, career and money are considered a priority. Also, the need of free-time and relaxation is a must for them (Bencsik, Juhász and Horváth-Csikós, 2016). Compared to Generation X, they value teamwork and diversity in the composition of teams (Acar, 2014).

2.5. Teamwork vs Individual Work: Impact on Motivation, Affective Commitment and Stress with Generation as a Moderator

A common idea in is that younger generations have less of a preference for teamwork when compared to older generations, even though there is not much theoretical justification for it apart from the individual differences hypothesis (Lyons and Kuron, 2014). Two cross-sectional studies of municipal workers in the U.S.A. (Jurkiewicz, 2000; Jurkiewicz & Brown,1998) found no differences in the importance of teamwork between Baby Boomers and Generation X individuals. Sirias, Karp, and Brotherton (2007) examined the teamwork dimensions of individualism–collectivism in a cross-sectional study of U.S. workers and found that Generation X individuals were more competitive, self-reliant and had a greater preference for working alone than Baby Boomers. Similarly, Yrle, Hartman, and Payne’s (2005) cross-sectional study of U.S. workers found that Baby Boomers were more comfortable working with others and preferred teamwork more than Generation X individuals did.

As in comparing other generations, research does not give evidence of studies to have examined the teamwork preferences or behaviors of other, younger or older generations, such as Generation Y (Lyons and Kuron, 2014)

Following the previous information, Generation X individuals are perceived as having an individualistic orientation and relying on themselves in terms of work behavior while Generation Y individuals are seen as team players, favoring diversity in the workplace.

In terms of independence, Generation X individuals, as described before, are more independent and self-sufficient than the ones from previous generations, leading to a lack of affective commitment towards their employers.

Generation Y individuals, on the other hand, are team players, believing in the success of common efforts. This, connected with the importance of working where they want and to do what they enjoy (Bencsik, Juhász and Horváth-Csikós, 2016), seems to give evidence that they will be more affectively committed to an organization if working inserted in a team.

While Generation Y individuals are open and respect diversity, embracing cooperation and share of knowledge, Generation X individuals only turn to their teams for self-interest or if forced (Bencsik, Juhász and Horváth-Csikós, 2016). This, complemented by their desire for independence and the value given to positive work relationships (Beutell and Wittig-Berman, 2008), might bring them more stress if allocated to work integrated in a team against their natural will and, therefore, to embrace in relationships that might turn problematic.

Following this, one can assume the characteristics and interests of each generation will impact the motivation, commitment and stress when working in teams vs individually:

H1: Generation Y individuals exert higher motivation working inserted in a team when compared to Generation X individuals

H2: Generation Y individuals feel more affectively committed to an organization working inserted in a team when compared to Generation X individuals

H3: Generation Y individuals feel less stressed when working inserted in a team when compared to Generation X individuals

3. Methodology

3.1. Research Design

The main objective of the study was to analyze how working individually or integrated in a team affects aspects such as stress, affective commitment and motivation, as well as understanding the moderator effect of generations in this relationship. Therefore, it was

essential to develop two aspects: the characteristics of both ways of working – individual work and teamwork – and how to evaluate the levels of stress, affective commitment and motivation. To achieve the purpose of the research, an online questionnaire was built and distributed through Prolific, a platform specialized in the matter, where the participant pool is profiled and of a high quality from the United States and the United Kingdom. Moreover, it allows not only to collect a higher number of responses in a short time as well as filtering the respondents according to more than a hundred demographic screeners, which was valuable as the study aimed to target Generation X and Y individuals.

The survey was conducted in English both because it is the language of the research and to adapt to the English-speaking respondents.

If the option had been the distribution through social media channels such as Facebook and LinkedIn, the sample would not be as diverse and totally independent of the author's network, with some bias related to socio-economical levels and age groups, where a balance between the samples size of generations would be difficult to achieve.

Additionally, the study could had been performed through focus groups or individual interviews. However, both the lack of resources available and the shorter number of responses would not allow to have a significant sample to a question that applies to a large number of individuals. At the same time, the individual characteristics of the respondents would probably surpass the effects of teamwork and individual work on the variables under analysis, which can be mitigated with a larger online sample that is not establishing physical connections as it would in focus groups (Phellas, Bloch and Seale, 2011).

3.2. Questionnaire

The questionnaire developed (Appendix 1) is divided in three different sections with the first one – scenarios presentation – being the basis for the rest.

In this first section, respondents are presented one of two scenarios, as these are completely randomized, with an evenly count, in order to guarantee a balanced sample: one in which they imagine themselves working individually and another in which they imagine themselves working integrated in a team.

As for the objective, this section makes the respondents develop an idea and personal interests/feelings about that specific way of working with the intent to understand how it might affect their stress, affective commitment and motivation.

Both scenarios were developed based on the literature review about the characteristics of each way of working. For instance, individual work's scenario was presented to the respondents as: "Imagine yourself working individually. You are only dependent on yourself, controlling alone the development and outcomes of your tasks. Additionally, you don't have the supposed support you would have if you were working integrated in a team. On the other hand, you are not affected by other people's interruptions or low-quality work, and your efforts are recognized individually".

This compiles some of the characteristics analyzed and usually attributed to individual work: more autonomy, less social support, more control over one's own tasks, the absence of interpersonal relations and the recognition of one's work individually.

Teamwork's scenario, on the other hand, was presented to the respondents as: "Imagine yourself working integrated in a team. You have people from different backgrounds and ages who have their own personal characteristics which may or may not influence the work produced as well as your relationship with them. You all work together in the different tasks assigned, sharing your knowledge, and discussing the findings on a team basis. Moreover, your work is recognized collectively".

It also addresses the characteristics of this way of working, referring the diversity of individuals that constitute a team and the impact it has on the relations between team members, as well as the culture of sharing and working together in the different tasks.

The second section can be considered the most important as it comprises the measurement of stress, affective commitment and motivation.

Stress was assessed using six items from the 15-item Stress-in-General Scale developed by Stanton et al. (2001). This scale of general job stress allows to measure different aspects of stress, being widely applicable rather than restricted to specific stressors (Fuller, Stanton, Fisher, Spitzmüller, Russel and Smith, 2003), and is considered to be suitable for investigating relations with other constructs of a general nature (Stanton, Balzer, Smith, Parra and Ironson, 2011).

Three of the selected items were worded negatively: "I don't feel relaxed", "I don't feel calm", "I don't feel comfortable" and other three were worded positively: "I feel pushed", "I feel

pressured” and “I feel irritated”. Wording the first three items negatively made the process of analyzing the results easier, as these are associated with positive aspects of stress and negatively correlated with it.

Even though the original scale used a response scale of 0 = “no”, 1 = “?” and 3 = “yes”, this study used a 7-point Likert-type response scale instead of the 3-point scale to provide a greater range of variability and avoid clusters of scores both at the high and low end of the scale.

A combination of a small set of items (six), considering that the initial Stress-in-General Scale had fifteen, and a 3-point rating scale would have restricted the range of responses and biased the results. Said so, all items were scored on a 7-point Likert scale to evaluate the level of agreement with the items previously addressed from 1 (totally disagree) to 7 (totally agree).

To assess affective organizational commitment, this study used a measure based on a scale developed by Allen and Meyer (1990). The original scale was composed by eight items, having been further revised by Meyer, Allen and Smith’s (1993) and reduced to six so that it could be internationally replicated.

This scale has shown a reliability of 0.82 in previous studies conducted in French-speaking environments (Vandenberghe, Bentein, Stinglhamber, 2004), being above the recommended level of 0.6/0.7.

All six items were worded positively: “This organization has a great deal of personal meaning for me”, “I really feel a sense of belonging to my organization”, “I am proud to belong to this organization”, “I feel emotionally attached to my organization”, “I really feel as if my organization problems are my own” and “I feel like part of the family at my organization”.

In terms of the scoring, as in stress, all items were scored on a 7-point Likert scale to evaluate the level of agreement with the items previously addressed from 1 (totally disagree) to 7 (totally agree).

Finally, to understand how teamwork and individual work affect motivation, this study turned only to intrinsic motivation as it matters to research how the working type affects the pleasure and satisfaction inherent to it, not focusing on the external factors that influence motivation. For this purpose, intrinsic motivation was measured using a 5-item intrinsic work-motivation scale composed by descriptive adjectives commonly used to assess intrinsic work motivation that Kuvaas (2006) introduced and Kuvaas and Dysvik (2009) further developed (Kuvaas, Buch, Weibel, Dysvik and Nerstad, 2017).

All items were worded positively: “The tasks that I do at work are themselves representing a driving power in my job”, “The tasks that I do at work are enjoyable”, “My job is meaningful”, “My job is very exciting” and “My job is so interesting that it is a motivation in itself”.

In terms of the scoring, just like in the previous cases, all items were scored on a 7-point Likert scale to evaluate the level of agreement with the items previously addressed from 1 (totally disagree) to 7 (totally agree).

The last section, finally, measured some demographic characteristics such as gender, age and education with the objective of characterizing the participants and to put the conclusions of the study under the correct demographic target.

3.3. Procedure

The survey was elaborated using Qualtrics and then distributed through Prolific as mentioned before. After gathering all data, SPSS was used for all the statistical analysis.

Among all adjustments, the highlight goes to the creation of the independent variable “Teamwork” as a dummy variable where 0 = “Individual Work” and 1 = “Teamwork”, and the three dependent variables “Stress in General”, “Commitment in General” and “Motivation in General” corresponding to the mean values of the respective scales previously mentioned. The analysis performed were the descriptive statistics, the reliability analysis, linear regressions to test the research question and hypothesis, and One-Way ANOVA tests to evaluate the significance of the models developed.

3.4. Sample

The survey was accessed by 189 people, with 179 completions, corresponding to a response rate of around 95%. As this questionnaire was distributed online, all fields were marked as mandatory, leaving no space for missing data and the need to clear the dataset.

Out of the 179 respondents, 78 belong to Generation X, with ages comprised between 21 and 39 years old, 100 belong to Generation Y, with ages comprised between 40 and 56 years old, and only one belonged to the Baby Boomers Generation. These represent, respectively, 43.6%, 55.9% and 0.6% of the sample. These results were already expected as the sample was filtered in Prolific to target Generation X and Generation Y, facilitating the process of data collection.

In terms of the gender, 94 of the respondents identified as Male, corresponding to 52.5% of the respondents, while 83 identified as Female, representing 46.4% of the sample. Moreover, 2 respondents identified as Non-binary/Third gender, representing the 1.1% of the sample left.

Finally, regarding the level of education, the majority of the respondents (68.7%) have a higher education degree, with 82 holding a Bachelor’s degree, 37 holding a Master’s degree and 4 holding a Doctorate’s Degree.

4. Analysis of Results

4.1. Reliability Test

Prior to diving deeper in the analysis of the results, it is of the most importance to evaluate if these are reliable by checking the internal consistency. One of the most acknowledged and widely accepted measures for such is the Cronbach Alpha. According to Gliem and Gliem (2003), it is important to assess the Cronbach’s Alpha coefficients of all Likert-type scales used, being generally accepted by researchers that, to be considered reliable, a scale should have an alpha above 0.7 (Taber, 2018).

Following this, a reliability test was performed for the variables Stress in General, Motivation in General and Commitment in General. These composed variables were computed to include all the items of the respective scale addressed before, corresponding to an average value of all the items belonging to it as it can be observed in Table 1.

As all values fall above the 0.7 generally accepted minimum, the three scales are considered to be reliable and can be used for the purpose of this research.

Table 1 - Reliability Test

Variable	Scale Items	Cronbach’s Alpha
Stress in General	6-item Stress Scale	.887
Motivation in General	5-item Intrinsic Motivation Scale	.905
Commitment in General	6-item Affective Commitment Scale	.948

4.2. Descriptive Analysis

Concerning the combined data of both scenarios, Individual Work and Teamwork, as it is showed on Table 2, Stress in General had an average value of 2.8771 out of 7, revealing that

overall people did not feel stressed when presented any of the scenarios. The dimension with the highest mean value was Motivation in General, with 4.9140 followed by Commitment in General with 4.4311. These values give the idea that, overall, people felt both motivated and committed when presented both types of work scenarios.

Table 2 - Descriptive Statistics for the aggregated data (Individual Work vs Teamwork)

	N	Mean	Std. Deviation
Stress in General	179	2.8771	1.28023
Motivation in General	179	4.9140	1.17252
Commitment in General	179	4.4311	1.44928

When analyzing the responses only from the Individual Work scenario, Table 3 reveals that Stress in General had a mean value of 2.7663, while Motivation in General remained as the variable with the highest mean value, being 5.0171. Commitment in General presents, in this scenario, a mean value of 4.3424.

Table 3 - Descriptive Statistics for the Individual Work scenario

	N	Mean	Std. Deviation
Stress in General	92	2.7663	1.20769
Motivation in General	92	5.0174	1.14626
Commitment in General	92	4.3424	1.53338

For the Teamwork scenario, and as it can be seen on Table 4, Stress in General scored a mean value of 2.9943, which is higher than the value scored in the Individual Work scenario, although with little difference. Regarding Motivation in General, it scored a mean value of 4.8046, which is about 0.2 lower than the value scored in the previous scenario. Commitment in General scored a mean value of 4.5249, which is about 0.2 points higher the value scored for the Individual Work scenario.

Overall, the differences between both scenarios are residual, giving indications to prove the point previously addressed that the type of work - Individual Work vs Teamwork – does not have a direct influence on stress, motivation and affective commitment. However, a clear view of the matter will later be reached by means of a Regression Analysis.

Table 4 - Descriptive Statistics for the Teamwork scenario

	N	Mean	Std. Deviation
Stress in General	87	2.9943	1.34981
Motivation in General	87	4.8046	1.19650
Commitment in General	87	4.5249	1.35723

As the purpose of this research also involves de understanding of the moderation effect of Generations on the relationship between the type of work and the variables in analysis, a Descriptive Analysis was performed, and can be seen on Tables 5 and 6, to evaluate the differences between Generations X and Y in their responses to each scenario.

In the Individual Work scenario, the differences in the means when comparing both Generations are residual, giving evidence that the impact of Individual Work on Stress, Commitment and Motivation is not affected by the Generations.

Table 5 - Descriptive Statistics for the Generations responses on the Individual Work scenario

		Commitment in General	Stress in General	Motivation in General
GEN Y	Mean	4.3455	2.8862	5.0146
	N	41	41	41
	Std. Deviation	1.55474	1.34445	1.17166
GEN X	Mean	4.3400	2.6733	5,0240
	N	50	50	50
	Std. Deviation	1.54705	1.10038	1,14830

In the Teamwork scenario, on the other hand, the differences in the means are more expressive. For instance, Generation Y scored a mean of 4.1982 for Commitment in General while Generation X scored a mean of 4.7667, giving evidence that these last may be more committed working integrated in teams when compared to Generation Y. For Stress in General, Generation Y scored 3.4234 while Generation Y scored 2.6767, which may be interpreted as Generation Y being more stressed working integrated in teams when compared to Generation X. For Motivation in General, Generation Y scored 4.5892 while Generation X scored a mean value of 4.9640 which, even though only slightly, gives an idea that Generation X feels more motivated working integrated in teams compared to Generation Y. However, these primary conclusions can only be validated by means of linear regressions or other tests that confirm the significance of the models.

Table 6 - Descriptive Statistics for the Generations responses on the Teamwork scenario

		Commitment in General	Stress in General	Motivation in General
GEN Y	Mean	4.1982	3.4234	4.5892
	N	37	37	37
	Std. Deviation	1.24959	1.28656	1.17940
GEN X	Mean	4.7667	2.6767	4.9640
	N	50	50	50
	Std. Deviation	1.39484	1.31897	1.19570

4.3. Research Question and Hypothesis Testing

Revisiting the Research Question:

RQ1: Do Teamwork and Individual Work have a direct effect on motivation, affective commitment and stress?

Even though it has already been theoretically assessed that Teamwork and Individual Work do not seem to have a direct impact on motivation, affective commitment and stress, it is still valuable to understand it by means of linear regressions.

To evaluate it, three linear regressions were performed, followed by their analysis, where the dependent variables were Motivation in General, Commitment in General and Stress in General, while the independent variable was Teamwork for the three models, previously computed as a dummy variable where 0 is Individual Work and 1 is Teamwork.

As for the 3 hypothesis developed:

H1: Generation Y individuals exert higher motivation working inserted in a team when compared to Generation X individuals

H2: Generation Y individuals feel more affectively committed to an organization working inserted in a team when compared to Generation X individuals

H3: Generation Y individuals feel less stressed when working inserted in a team when compared to Generation X individuals

To test the 3 hypothesis, a linear regression analysis based on the previous ones for RQ1 was conducted, including two extra independent variables: Generation (dummy variable) and the interaction term – GEN*Teamwork - which was the product of Teamwork and Generation as a dummy variable.

A moderator can be understood as “a qualitative (sex, race, class) or quantitative (level of reward) variable that affects the direction and/or strength of the relation between an IV/ Predictor variable and a DV/Criterion variable (the variable being predicted)” and “the causal

relation between two variables changes as a function of the moderator variable” (Baron and Kenny, 1986).

The first step was checking the model significance by testing the null-hypothesis H_0 : *all betas (predictors) are equal to zero*, using the ANOVA test.

For the purpose of this study, it is relevant to highlight that p-values between 0.00 and 0.1 were acceptable and so, for every statistical test performed, if the p-value was below 0.1 the data was considered to be statistically significant.

As presented in Appendix 2, when using Stress in General as dependent variable, the ANOVA p-value was above the maximum defined of 0.1 (p-value = 0.235) and so, H_0 could not be rejected. This means that the independent variable (Teamwork) did not explain the dependent variable and, therefore, the model was not significant. The R-square was 0.008 meaning that only 0.8% of the variance of Stress in General was explained by Teamwork.

When considering Motivation in General as dependent variable, the results were similar, with the ANOVA p-value being 0.226 and, therefore, H_0 could also not be rejected for this case. Just like before, the independent variable (Teamwork) did not explain the dependent variable and the model was not significant. The R-square was, again, 0.008 meaning that only 0.8% of the variance of Motivation in General was explained by Teamwork.

Finally, when assuming Commitment in General as dependent variable, the results were even more unfavorable as the ANOVA p-value was 0.401 and, once more, H_0 could not be rejected. The R-square, in this case, settled at 0.004 meaning that 0.4% of the variance of Commitment in General was explained by Teamwork.

The results become even more clear when looking at Table 7, which presents the coefficients and the p-values of the three regressions computed. As there was only one independent variable (Teamwork) in each regression, the p-values were the same as the ones previously analyzed.

Regarding the coefficients, when computing the different linear regressions with Stress in General, Motivation in General and Commitment in General as dependent variables, the standardized betas for Teamwork are $B = 0.089$, $B = -0.091$ and $B = 0.063$, respectively.

The insignificance is easily explained by the residual values of the coefficients, showing that the type of work is not a predictor of the dependent variables and therefore, once more, supporting the idea that working individually or inserted in a team does not seem to impact stress, affective commitment and motivation.

Table 7 - Regression Analysis

Regression with Dependent Variable:	Constant	Standardized Beta (Teamwork)	SIG
Stress in General	2.766	0.089	0.235
Motivation in General	5.017	-0.091	0.226
Commitment in General	4.342	0.063	0.401

As for the 3 hypothesis developed, is Generation a moderator between Teamwork and Stress in General, Motivation in General and Commitment in General?

To evaluate that, and as stated before, another 3 linear regressions were computed, which included two extra independent variables – Generation, which was used as a dummy variable (0 – Generation X; 1 – Generation Y), and the interaction term between Generation and Teamwork.

As it can be seen on Table 8, none of the interaction terms for H1, H2 and H3 are significant and therefore the hypothesis should be rejected.

Yet, it is worth to highlight that, when comparing to the analysis of the main effects previously performed, the p-values of the interaction terms are much lower, with some of them almost within the 0.1 limit for them to be statistically significant.

Table 8 - Regression Analysis for Moderation

	Stress in General		Motivation in General		Commitment in General	
	Std Beta	SIG	Std Beta	SIG	Std Beta	SIG
(Constant)	2.877	< 0.001	5.024	< 0.001	4.345	< 0.001
Teamwork	0.214	0.052	-0.186	0.097	-0.051	0.648
Generation	-0.079	0.418	-0.005	0.959	-0.002	0.985
Generation*Teamwork	-0.195	0.125	0.148	0.251	0.178	0.168

5. Discussion and Conclusions

This research intended to address two main questions related to the way people work – individually or integrated in a team.

The first was to understand how working individually or in a team affects stress, affective commitment and motivation, empirically building on the theoretical concepts that seem to have no clear view on whether the way people work directly affects or not the variables considered. The second question consisted of analyzing if Generations could be a moderator in the relationship between the type of work and the three variables, introducing a new topic to the

literature by expanding the current view of how the common traits of the different Generations may have a role in the way individuals work and how they react to it.

To achieve this purpose, this research based itself on the construction of two scenarios – one for Individual Work and another for Teamwork – and complemented it with a set of questions which were dependent on the evaluation and choice of reliable scales to measure stress, affective commitment and motivation. With a sample of 179 individuals, this study supported its arguments on Descriptive Statistics, Linear Regressions and ANOVA tests.

The results of this study showed to be in line with the theoretical concepts, revealing that the type of work cannot be directly associated with stress, affective commitment and motivation. From the beginning, by analyzing the means, there was already a certainty about this, which was later confirmed by the non-significance of the Linear Regression models elaborated and the ANOVA tests conducted.

As stated before, research does not seem to have a direct and common answer to the impact of teamwork and individual work on the variables but rather an approach based on the characteristics of the individual and/or situations in which occur, which define how one behaves and responds to the type of work.

Williams, Harkins and Latané (1981), for instance, give the examples of artists and athletes who want to be acknowledged for their individual capabilities even when working towards a collective goal, which is in line with Ellemers, Gilder and Haslam (2004) social identity approach, where they defend that people will work towards a collective goal if they identify with the collective and personally value the performance of the team as a whole.

So, what about all the different perspectives from individuals who do not evaluate the benefits of working individually or in a team the same way, as well as its effect on their motivations, commitment and stress?

Of course, working in a team may give an idea of organizational support (Aubé, Rousseau and Morin, 2007) but there is also the risk of existing counterproductive behaviors such as aggression, conflict, sabotage or theft (Fox, Specter and Miles, 2001). Each individual will then evaluate this equilibrium and, consequently, respond differently to it.

Research on self-construal, self-determination theory, and individualism–collectivism, usually assume that “people view themselves either as independent and autonomous individuals or as

interdependent with others”, since individuals have differences in the strength of their self-concern and their other-orientation (Dreu and Nauta, 2009).

There is no linearity in terms of how individuals react to teamwork and individual work, with everyone reacting in a different way, being hard to predict human beings’ behavior when facing both situations.

Regarding the Generations and their role as a moderator between the type of work and stress, affective commitment and motivation, it was not possible to validate the hypothesis developed. However, and as previously said, the p-value of the moderation term in the three regressions was better when compared to the analysis of the main effects.

Some studies had previously found no differences in the importance of teamwork between Baby Boomers and Generation X individuals, although the evidence to support or refute this idea is still limited (Lyons and Kuron, 2014). Therefore, this research based itself on the individual differences of Generations X and Y to understand if their common and general interests within each one, would influence the relationship between the type of work and the variables in questions. The results were not significant which followed the same conclusions as previous studies between other Generations.

6. Limitations and Further Research

Even though most of the empirical results are in line with the theoretical concepts, there are a few limitations in this research that should be analyzed.

Related to the sample (179 individuals), it was relatively small when compared to the population in study, leading to a lack of representativeness and therefore a possibility that the conclusions are not according to the reality. Even though the procedure for further research should pass by increasing the sample size, it would also be prudent to narrow the population in analysis. For instance, this study only evaluates individuals from Generation X and Generation Y from the United Kingdom and the United States, extrapolating the results for every individual no matter the geography. Further studies should limit the population to a certain industry or personal trait, as well as evaluating the work characteristics of the geography where the study takes place, which will allow a better representativity from the sample and more accurate conclusions.

This study also gives an acceptable base in terms of variables and their scales, having these been proven to be reliable and replicated in further research. Still, there is margin for improvement with the possibility to increase the number of items in each one to have a wider range of responses.

Finally, further studies could find a different method to collect the data. Presenting different scenarios without any context given, may bias the results as people do not have access to all information. For instance, creating written scenarios for teamwork and individual work will eventually restrict the characteristics of each due to their complexity and innumerable factors they contain. Moreover, individual's answers may also be influenced by their past or current experiences when answering the survey, which will vary across all the sample and result in inaccurate results. Further research could opt for focus groups where specific activities are to be performed individually and in groups so that it is possible to remove the bias from lack of information and past experiences, restricting the analysis to its exact moment.

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8. Appendix

8.1. Appendix 1 – Questionnaire



Hello! Thank you very much for participating in my study!

As part of my Master Thesis, I would like to explore how **working integrated in a team vs individually influences stress, commitment and motivation in Generations X and Y.**

It will only take about **2 minutes** and the participation is **completely anonymous.**



Please read carefully the following scenario:

Imagine yourself working individually. You are only dependent on yourself, controlling alone the development and outcomes of your tasks. Additionally, you don't have the supposed support you would have if you were working integrated in a team. On the other hand, you are not affected by other people's interruptions or low-quality work, and your efforts are recognized individually.



Please read carefully the following scenario:

Imagine yourself working integrated in a team. You have people from different backgrounds and ages who have their own personal characteristics which may or may not influence the work produced as well as your relationship with them. You all work together in the different tasks assigned, sharing your knowledge, and discussing the findings on a team basis. Moreover, your work is recognized collectively.



Please select your level of agreement with the following statements:

	1 (Totally Disagree)	2	3	4	5	6	7 (Totally Agree)
I don't feel relaxed	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I don't feel calm	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I don't feel comfortable	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I feel pushed	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I feel pressured	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I feel irritated	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Please select your level of agreement with the following statements:

	1 (Totally Disagree)	2	3	4	5	6	7 (Totally Agree)
The tasks that I do at work are themselves representing a driving power in my job	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The tasks that I do at work are enjoyable	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My job is meaningful	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My job is very exciting	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My job is so interesting that it is a motivation in itself	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Please select your level of agreement with the following statements:

	1 (Totally Disagree)	2	3	4	5	6	7 (Totally Agree)
This organization has a great deal of personal meaning for me	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I really feel a sense of "belonging" to my organization	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am proud to belong to this organization	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I feel emotionally attached to my organization	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I really feel as if my organization problems are my own	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I feel like "part of the family" at my organization	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Generation

21-39

40-56

57-76

Gender

Male

Female

Non-binary / third gender

Prefer not to say

Education

Less than High School

High school graduate

Bachelor's Degree

Master's Degree

Doctorate

Other/Professional degree

8.2. Appendix 2 – Fit of the Regression Models

Regression with Dependent Variable:	R2	ANOVA F	ANOVA SIG
Stress in General	0.008	1.421	0.235
Motivation in General	0.008	1.477	0.226
Commitment in General	0.004	0.708	0.401