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Master's Dissertation

*«Crisis Management and Leadership: An approach to covid-19
crisis management by the EU institutions»*

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«Acknowledgments or Dedication»

Abstract

The Covid-19 pandemic has brought significant changes to the way organizations and businesses around the world are run and managed. Due to the pandemic, several private and public sector organizations have been forced to change the way they operate and implement significant changes in the way they manage their human resources. The way leadership is exercised plays an important role in managing these changes. The purpose of the thesis was to investigate the correlation between leadership style and organizational changes in EU institutions during the Covid-19 health crisis. In order to investigate the relationship between leadership style and organizational changes, a quantitative research was carried out using an electronic questionnaire that was distributed to employees in EU institutions through the Google Forms platform. In total, 49 (53.1% men and 46.9% women) workers in EU institutions with an average age of 35.1 years participated in the survey. The findings of the diplomatic work showed that to a greater extent leaders in EU institutions used transformational and transactional leadership strategies during the COVID-19 pandemic. Additionally, the findings of the thesis showed that employees in the EU institutions have a fairly high level of work performance and high level of organizational commitment and well-being during the COVID-19 health crisis. In addition, the employees in EU institutions seemed to be relatively ready to face the changes while they recognized that in the EU institutions there was an effective plan for the crisis management. An important finding of the thesis is that transformational leadership is the one associated with better crisis management, with better employee well-being and with higher levels of performance and organizational commitment. Based on the findings of the thesis, it is necessary to carry out more studies on the impact that leadership can have on the effective management of a crisis in private and public sector organizations.

Keywords

Crisis management, Leadership, crisis adjustment, Covid-19

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Chapter 1. Introduction

The first chapter of the thesis presents the introduction to the topic of the thesis, the theoretical foundation of the topic, the research purpose, the proposed research methodology and the significance of the thesis.

1.1 Theoretical Background

On January 9, 2020, China's health authorities announced that a new strain of coronavirus (2019nCoV) was responsible for the flurry of respiratory infections in the provincial city of Wuhan. The COVID-19 pandemic had serious consequences both in Greece and worldwide (Shi et al., 2020). Beyond its spread and the efforts to deal with its consequences in the human body, it was an unprecedented experience for the modern world, which has changed dramatically since the last time a similar pandemic appeared. The consequences of the pandemic were, and still are, multifaceted and uncharted and affected every manifestation of modern socio-economic life (Butterick & Charlwood, 2021). At the same time, almost all social, cultural and sporting events were canceled or took place online, while the overall impact on the tourism sector as well as trade has not yet been definitively assessed. In short, the global economic system due to the COVID-19 pandemic has faced and continues to face, unprecedented uncertainty. Also, there is considerable disagreement among experts both as to the overall extent of the pandemic and its long-term effects, the duration and the qualitative characteristics of the economic recovery that appeared from mid-2021 (Przytuła et al., 2020).

The sustainability, performance and effectiveness of organizations is based on their resources and capabilities for a short and long-term plan. Administrative and leadership skills are elements of the resources and capabilities of said entities, with the human resources, with which an organization is staffed to contribute decisively to their orderly and smooth operation, based on their skills, capabilities, and attitudes. The importance of these factors is considered decisive in times of crisis, the management of which requires drastic and immediate decision-making, based on predetermined strategic planning and planning. The best test for a leader is a period of crisis, as such situations can quickly expose his strengths to function effectively, but at the same time his weaknesses (Kapucu & Üstün, 2018).

In an increasingly demanding, complex, and competitive economic environment, timely response to crisis situations, emergencies and disasters remains a critical issue. Leadership must be characterized by elements of foresight, and direct communication both with the employees of an

organization and with the competent scientific and government bodies with which it will probably collaborate to deal with corresponding situations (Park& Chung, 2021). Both early diagnosis and the assessment of dangerous situations have their role in preparation, strategy planning and immediate response, elements which are decisive for crisis management. Management and leadership are required to be characterized by such elements and tools, which will help to deal with difficult situations (Witton et al., 2019). Delays and wrong choices are capable of causing irreversible and negative effects in a crisis. The ability to perceive early, make decisions at a fast pace, assess, and prioritize priorities, based on a strategic plan, teamwork and appropriate and effective communication to achieve the goal, are basic elements for a successful crisis response. The reformation of usual processes and the creation of innovative new methods and actions are key points in a period of crisis (Gerontogiannis, 2019).

Leadership and crisis are intertwined in that both concepts are complementary in nature and no one can deny that one of the vital roles and challenges of a leader during a crisis is to bring the situation to normal despite the negative influences that exist during the crisis. The response of an effective leader is crucial to the continuity of an organization's performance, especially during a period of crisis, and one of the main roles of an effective leader is to be able to respond to crisis threats (Obeidat et al., 2020). On the other hand, although the negative effects of the crisis, there are some positive effects of the crisis when properly managed, as it can be an opportunity for staff training, acquiring skills and gaining different experiences. The crisis offers organizational opportunities change and development, and it is an opportunity to reform structures in the organization and set long-term policies and rules (Kane et al., 2021).

1.2 Research Aim

The purpose of this thesis is to explore the role of leadership in EU institutions during the health crisis caused by the Covid-19 pandemic. Initially, the effectiveness of leadership in the EU institutions during the Covid-19 health crisis will be recorded. According to the literature, the health crisis related to the Covid-19 pandemic affected the functioning of organizations and the ways of managing human resources (Balasubramanian & Fernandes, 2022). Today's leadership goals have become more complex as alongside financial plans and projections for a challenging future, the leader sets strategies focused on employee safety, mental health and mental clarity (Dale Oen et al., 2022). Evaluating the effectiveness of leadership in such a period is important, as the effectiveness of leadership is directly linked to the smooth functioning of organizations and their effectiveness (Dirani et al., 2020; Koekemoer et al., 2021; Stoller, 2020).

The second objective of the thesis is to highlight which leadership styles (transformational, transactional, or passive) were used more during the period of the Covid-19 pandemic and to what extent the leadership style is related to the effectiveness of managing the Covid-19 health crisis. Research conducted over the past three years has shown that the use of transformational leadership in the workplace is associated with more effective crisis management (Ansell et al., 2021; Butterick & Charlwood, 2021; Unur et al., 2022).

The third objective of the thesis is to investigate the correlation between leadership style and employee well-being in the EU institutions during the Covid-19 health crisis. The literature shows that during both crises and periods of calm, the leadership style chosen by managers/supervisors affects employee well-being (McCombs & Williams, 2021). In times of health crisis, a leader with high levels of empathy who simultaneously provides a vision and motivation to employees has been shown to be able to achieve higher levels of employee's wellbeing (Mikušová & Horváthová, 2019; Stoker et al., 2021; Unur et al., 2021; Witton et al., 2019). The next objective of the thesis is to investigate the correlation between leadership style and the work performance of employees in the EU institutions during the Covid-19 health crisis. The impact of leadership on employee performance has been demonstrated by several studies during the Covid-19 pandemic (Hu et al., 2022; Koekemoer et al., 2021; Meiryani, Nelviana et al., 2022; Yücel, 2021). Research shows that charismatic leaders can influence their employees, inspire them and win their trust and respect. The concept of a charismatic leader is associated with a climate of acceptance and support. A leader who possesses charisma is more likely to influence his subordinates than one who does not possess it in his totality of attributes (Mujeeb et al., 2021; Park & Chung, 2021). More generally, research shows that transformational leadership is the leadership style that contributes the most to job performance. The transformational leader motivates the subordinate to do more than originally expected by articulating a vision, providing an appropriate role model, fostering acceptance of group goals, expressing high performance expectations, providing individualized support and intellectual encouragement (Sarros & Santora, 2011; Siangchokyoo et al., 2020; Yücel, 2021).

An important dimension of human resource management is their organizational commitment. Organizational commitment operationally involves employees' loyalty to the organization, their willingness to go the extra mile for their organization, the level and value of the goal in relation to the organization, and their desire to maintain cooperation (Islam et al., 2021; Jankelová et al., 2021; Mujeeb et al., 2021). During a crisis, leadership has been shown to influence the organizational commitment levels of employees (Obeidat & Thani, 2020; Stoller, 2020). Based on these, another goal of the thesis is to investigate the correlation between leadership style and the level of organizational commitment of employees in the EU institutions during the Covid-19 health crisis.

Finally, the aim of the thesis is to investigate the correlation between leadership style and organizational changes in EU institutions during the Covid-19 health crisis. The advent of COVID19 brought about changes in every area of human life, affecting work among others. Significant changes were identified in the way organizations operate, but also in the employees themselves, while problems that previously did not concern employers came to light (Islam et al., 2021). Due to the restrictive measures taken by governments and public health organizations to contain the deadly virus, the majority of workers have been working from home, leveraging technology for remote communication and collaboration (Maak et al., 2021). In this context, leadership has an important role, as it can influence the receptivity of employees to changes (Saleem et al., 2022). The research questions of this thesis are (1) which leadership style did EU institutional leaders adopt most during the Covid-19 health crisis? (2) how effective was leadership in EU institutions during the Covid-19 health crisis? (3) is there a significant correlation between leadership styles with effectiveness and organizational change in EU institutional during the Covid-19 health crisis? (4) is there a significant correlation between leadership styles with performance, well-being, and organizational commitment of employees in EU institutional during the Covid-19 health crisis?

1.3 Significance of Thesis

We have undoubtedly entered a new era. The COVID-19 pandemic has changed the world in ways and to an extent that we cannot yet begin to comprehend. The economy, politics, international relations and governance at all levels seem to be changing radically. In our deeply interconnected world, where poor sanitation in a fresh produce market in China can bring the world to a standstill within months, global governance undoubtedly requires a comprehensive overhaul to prevent the next pandemic. Critical international institutions such as the World Health Organization and the United Nations will need to be renewed, strengthened, and upgraded. Leadership cannot be "à la carte" and global cooperation in the face of global existential crises cannot be selective (Fener & Cevik, 2015).

The significance of this thesis is that tries to capture the role and influence of leadership in European institutions, emphasizing their important contribution to planning, prevention, response and ultimately crisis management. Critical and emergency situations result in the creation of panic, agitation, fear and discomfort, emotions that can lead to unpredictable actions with usually unexpected developments. Based on the characteristics of the leadership that is ultimately chosen and how it is applied, organizations can overcome the extraordinary situations they are called to

face, with the optimal outcome ultimately placing them in a better position and situation than the pre-existing one.

1.4 Methodology

Quantitative and qualitative research were conducted to investigate the research questions. Initially, qualitative research was conducted using semi-structured interviews with 2 experts regarding the research topic and the variables to be investigated. For the completion of this research, all the prescribed procedures of quantitative research were followed, such as the use of the literature to define the questions, the collection of data using scales containing specific questions with a defined measurable range of answers and the analysis of data with scientific statistical methods (Bryman & Bell, 2011). The choice of quantitative research was reinforced by the research questions, which explore measurable data. Quantitative data processing was done with a combined selection of overview and correlation research. Survey research is used to generate quantitative data by collecting data at a specific point in time in order to capture and describe the nature of conditions that exist or to identify and explore relationships between data (Bryman & Bell, 2011). Finally, correlational research examines the relationships between two or more variables, with the aim of identifying whether and to what extent one variable influences the other, enabling the researcher to predict an outcome (Saunders et al., 2015). Then, based on their comments, a quantitative survey was conducted on a sample of 49 employees in EU Institutions. The quantitative research was carried out using an appropriate questionnaire that assess the variables obtained from the qualitative research.

Chapter 2. Literature review

The results of the literature review are presented in the second chapter of the thesis. First, the review findings on crisis management and corresponding theories are presented (section 2.1), then crisis management models (section 2.2), definitions of leadership and leadership theories (section 2.3) and the most important leadership style (section 2.4) are presented. Finally, in section 2.5 the findings of the review on the role of leadership in times of crisis and the role of leadership in the period of Covid-19 are discussed.

2.1 Crisis Management Definition and Theories

2.1.1 Crisis Definition

In the literature, various definitions of the term "crisis" co-exist as they refer to various scientific fields. More generally, it is not easy to provide a single definition for the concept of crisis. However, some are listed below, as an attempt to give a complete picture of the content of this concept. The definition of crisis in the Dictionary of Modern Greek refers to «the culmination of a difficult evolutionary course with the worsening of all negative phenomena, on the overcoming of which depends on the return to the normal state». Pearson and Clair (1998) state that a crisis can be characterized as an event with a low probability, but with high effects, which endangers the viability of the organization or society, characterized as unclear about the cause, the effects, the way dealing with it and from the need to make immediate decisions. Lang et al. (2020) defines a crisis as a turning point that can bring about either better or worse outcomes. The dual meaning of the crisis, as well as the potentially dual outcome of its outcome, make its management complex. According to Skinner and Mersham (2002), a crisis is an unstable or difficult period or situation, the results of which will create a difference in the improvement or deterioration of the affairs of an entity. Shaluf et al. (2003), states that crises are characterized by their serious effects, the low probability of their occurrence and their simultaneous framing by uncertainty, accompanied by a reduction in time, disruption of normal activities and eventual destruction of the organization's reputation.

2.1.2 Crisis Type

In terms of the typology of crises, the scholars based on their scientific field have created a series of categories of crises which can be differentiated according to: the field of crisis (economic, political, etc.), the causes (such as for example natural phenomena or man-made actions), the ability to predict, the environment in which crisis appear (i.e. if they are inside the organization or outside it, endogenous or exogenous), the extent of the effects of the occurrence of crises (local or regional) (Gerontogiannis, 2019; Pearson, & Mitroff, 1993). Given these elements, judgments can be classified into the following categories (Crandall et al., 2013):

1. Depending on the sector they affect:

- ✦ Economic crises: directly related to the collapse of the economic system, market decline, mismatch between supply and demand of products, strikes, etc.
- ✦ Political crises: include political scandals, failure to form generally accepted governments
- ✦ Human resources: due to lack of specialized and properly trained workforce, occupational accidents, intentional disasters

- ✦ Crime crises: caused by criminal acts such as terrorism, kidnapping, violence
- ✦ Personal crises: concern how to interact in interpersonal relationships, for example divorce, death, change of residence

2. Regarding the generative causes, the judgments are distinguished into:

- ✦ Anthropogenic crises: are the crises caused by phenomena caused by man, directly or indirectly, by suggestion or by negligence and by his actions or omissions
- ✦ Natural disaster crises: natural disasters are the disasters caused by various natural phenomena, such as earthquakes, floods, storms, volcanoes, etc.
- ✦ Crises from non-purely natural disasters: there are some phenomena that take the form of natural phenomena (e.g., meteorological phenomena) which occur indirectly from various human actions and which when manifested cause disasters and corresponding crises. Some of them are, the greenhouse effect, acid rain, the ozone hole, earthquakes due to nuclear tests. etc.

3. Regarding their predictability, crises can be distinguished into:

- ✦ Predictable crises: usually long-term crises, i.e., those that take place over long periods of time and can in some cases even be planned, are considered predictable crises.
- ✦ Unpredictable crises: most crises are unpredictable and take place in short periods of time. Many of them are repeated with the same or related causes.

2.1.3 Crisis Stages

The pre-crisis stage: The precursor or warning stage of a crisis is the one during which all those signals that herald the coming of the crisis appear. In this stage, all the warning signs of the provocation phenomenon or the generative cause are included, while the preparation of the crisis takes place (Gerontogiannis, 2019). At the same time, it is the stage in which the warning signs of the adverse consequences of the phenomenon and the size of the crisis appear and the stage in which measures can be taken to avoid it. At this stage, the role of disseminating information within the organization is important for the timely and correct handling of crisis management. Effective communication is a major challenge for those who will be called upon to manage the crisis, and both insufficient information and information overload are important factors that determine the success of crisis management. Information is based on the collection, analysis, and interpretation of data. Having the right information, in the right place, in the right format and sufficient (in terms of quality and completeness) facilitates the decision-making process in crisis management. But the stage where the information should be processed is the preliminary stage as it is the one in which the crisis can be avoided (Roberts & Ottens, 2005). In order to be able to perceive the signs of a

crisis, it presupposes that the organization will already have a crisis management culture in place. Crisis management plan should be renewed annually and regardless of whether a crisis has occurred, and verification exercises should take place within the organization to check the response plan (Tokakis, Polychroniou, & Boustras, 2019).

Crisis stage: The crisis stage begins with a triggering event and includes the recognition of the crisis as well as its containment. An organization may not be aware that it is already in a crisis until such time as the management team or the leader of the organization (or together) assess that the event taking place is a crisis. If it has not been possible to deal with the crisis at the primary stage, then at this point the full development of the crisis takes place. It could be characterized as a phenomenon that lurks and appears suddenly. At this point secondary effects or later crises are likely to occur, which in turn will amplify the intensity of the phenomenon. The evaluation of the information and its transformation into useful information is the responsibility of the crisis management team. This information should be analyzed in order to lead to the appropriate decisions that the management of the organization will be asked to take. Both (1) the internal communication from which the information about the crisis is derived and (2) the external communication with which the reputation of the organization is protected, are crucial to effectively manage and limit the impact of a crisis (Tokakis, Polychroniou, & Boustras, 2019).

The post-crisis stage: This stage involves two processes: recovery and learning. In the recovery process, the crisis is over, and the organism is functioning in its normal state. In the learning stage, the organization redefines the crisis management plan it already had and improves the ways to prevent and avoid a crisis similar to the one that occurred (Gerontogiannis, 2019). This stage is just as important as the others and highlights the skills of the management team as well as the leader of the organization. In this stage management team should bring the organization back to normality and at the same time create a positive climate by taking advantage of the knowledge they gained from the crisis. It should be clarified that depending on the capacity of the respective organization, the crisis management team may consist of a group of executives of the organization or even external partners without the participation of the management of the organization (Mikušová & Horváthová, 2019).



Figure 1. Crisis Stage Diagram (Source: Tokakis, Polychroniou, & Boustras, 2019)

2.1.4 Crisis Management

The contemporary debate on crisis management focuses on professional knowledge and expertise. Since the last decades of the twentieth century, a wealth of scientific material began to be produced to deal with crises, due to technological developments and the potential risks arising from them (Bundy et al., 2006). The modern model of crisis management derives from previous successful management experiences and highlights the value of cooperation for the successful outcome of the proceedings. Difficult conditions due to emotional loading, time pressure and incomplete information create a scene of panic, to which the response must be given with calmness and professionalism (Balasubramanian & Fernandes, 2022). Gerontogiannis (2019) distinguish the ability to deal with crises into individual and institutional. Individual capacity concerns individuals and personal strategies, while institutional capacity concerns society in general.

Kashanf Darling (1998) in an attempt to describe the phases of dealing with a crisis ends up, through a synthesis of various opinions, in five stages. The stage of prevention, mitigation, response, recovery, and resilience. In the first stage, prevention is synonymous with the preparedness that an organization must be in, regarding dealing with a crisis. The second stage is identified with the effort to prevent the crisis or minimize its consequences. In the third stage, the attempt is made to intervene in the crisis and the prescribed procedures are applied. In the fourth stage, the reconstruction of the organization and its return to normality is sought. In the last stage, through the investigation of the events and their effects, learning is elicited, and judgment is utilized, in order to yield the maximum benefit for the organization.

2.2 Crisis Management Models

Literature recognizes two management models: preventive and reactive models. The preventive, on the basis of which the executives of the organization take all the necessary actions in a timely manner in order to avoid adverse effects (Schwarzer & Luszczynska, 2008). However, it involves a significant risk, in terms of the allocation of human and financial resources to deal with the crisis. Improper crisis management, without emphasizing the warning messages or preventive actions can cause disastrous consequences for an organization (Jaques, 2010). Improper crisis management, without emphasizing the warning messages or preventive actions can cause disastrous consequences for an organization.

A multitude of general models for crisis management appear in the contemporary literature. Fink (1986) connecting the stages of the crisis with its management and paralleling the crisis with illness, formulated a model of crisis management according to the life cycle that goes through four stages. The first is the stage of the first symptoms of the crisis. In the second stage of the acute phase, the crisis escalates, while in the third stage the critical situation is prolonged. Finally, in the fourth stage the crisis is resolved. Gabriel (2003) describe the 'PPRR' model which unfolds into three levels of intervention. At the primary level, prevention and preparation are sought, at the secondary level, measures are taken to minimize the consequences of the crisis, and at the tertiary level, long-term monitoring, and assistance to the victims of the crisis is provided. The criticism received by the above model is linked to its inability to adapt to emergency situations (Figure 2).

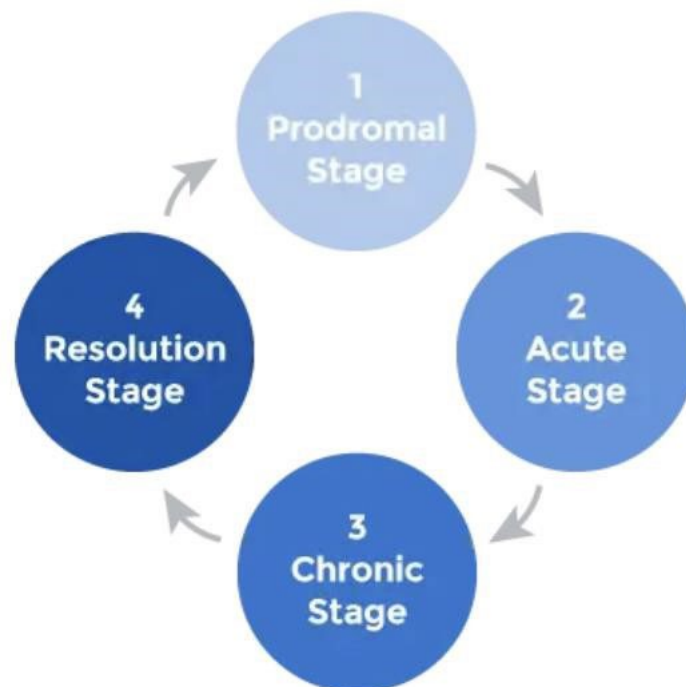


Figure 2. Fink's Crisis Model (Source: Fink, 1986)

Cronstedt (2002), Calloway and Keen (1996), Vašíčková (2020) present the three most important crisis management models: NOVA, BASIC Ph Model and PREPaRE. The primary goal of the NOVA (National Organization for Victim Assistance) crisis intervention model is to provide direct counseling services and short-term follow-up. Based on Maslow's Hierarchy of Human Needs model, the NOVA model seeks to meet basic human needs (biological, emotional, psychological, and spiritual).

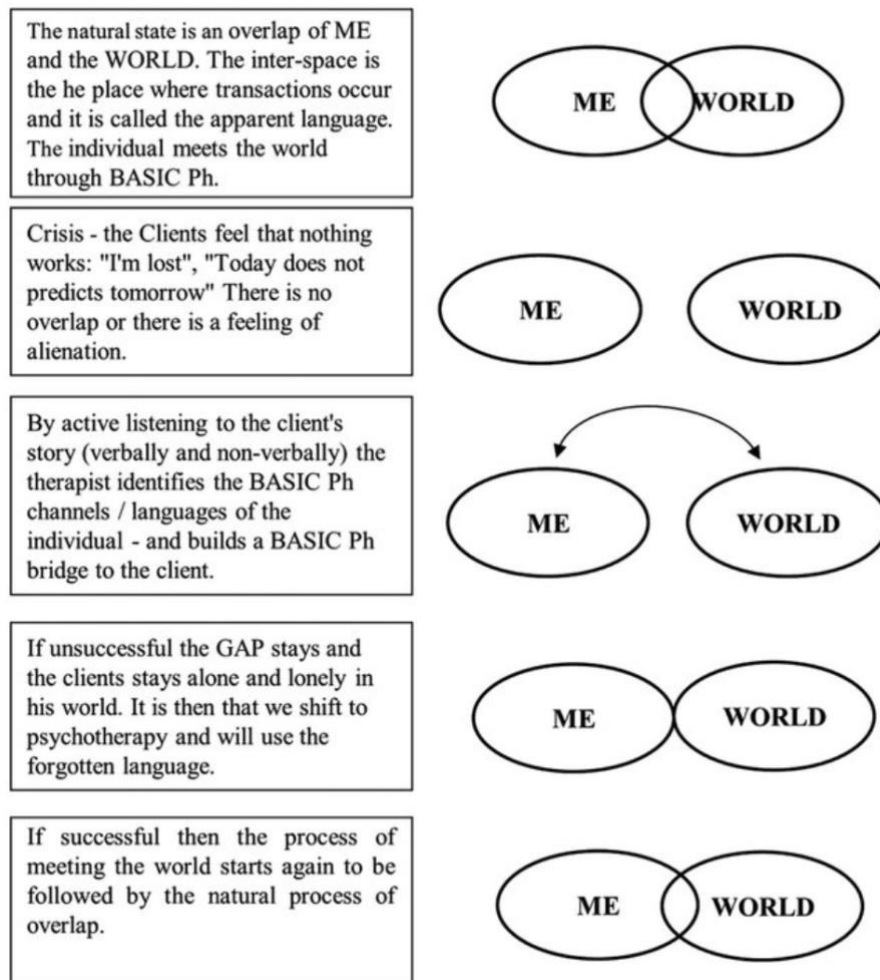


Figure 3. BASIC Ph Model Crisis Model (Source: Calloway & Keen,1996)

Roberts (2015) emphasizes the action of NOVA in the first 72 hours after the crisis event (Figure 4). The BASIC Ph model is based on different psycholinguistic protocols, which are applied by a specialist, to understand the way a person deals with a traumatic event and apply the appropriate treatment (Figure 3). Finally, the PREPaRE model unfolds in four axes: crisis, detection, repair, assessment, and recovery (Figure 5).

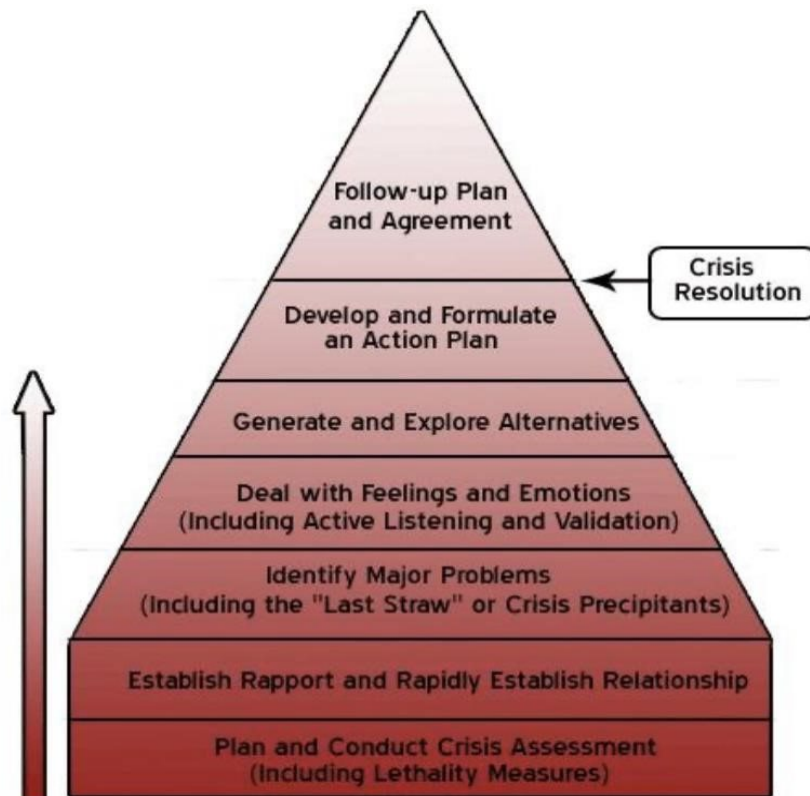


Figure 4. NOVA Crisis Model (Source:Roberts, 2015)

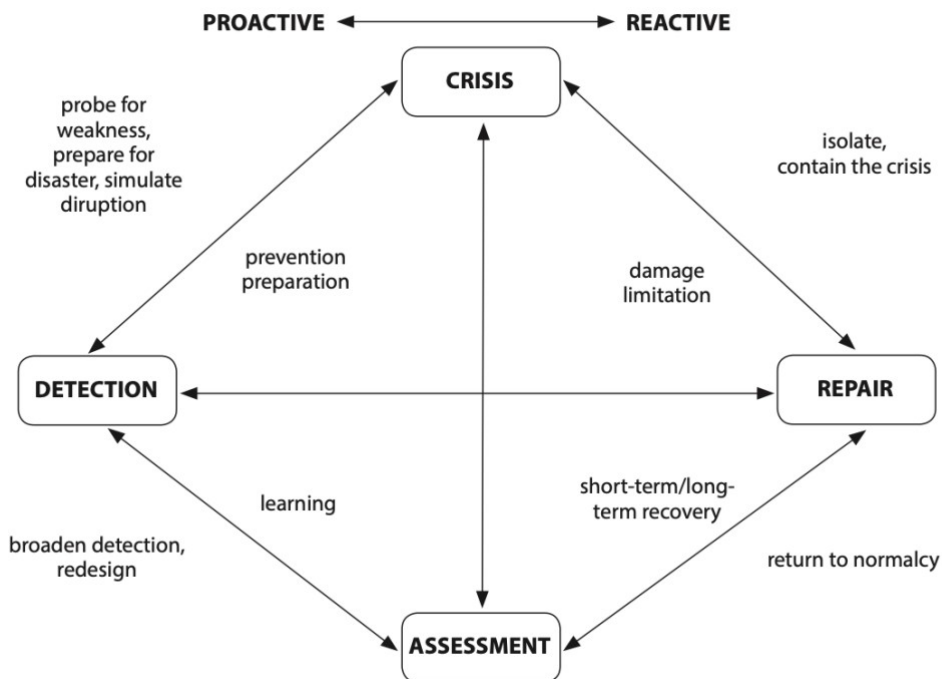


Figure 5. PREPaRE Crisis Model (Source:Vašíčková, 2020)

Throughout the management, a key role is played by the executives who will man the crisis management team or teams that the management of the organization will set up. Four elements must govern the action of crisis management teams, the 4Rs according to international literature (Roberts, 2015):

1. Reduction
2. Readiness
3. Response
4. Recovery

In short, crisis management teams are called upon to reduce the effects of the crisis through appropriate handling and preparation, to ensure the smooth running of the business and the organization during and after the end of the crisis (Gerontogiannis, 2019).

2.3 Leadership Definition and Leadership Theories

2.3.1. Leadership Definition

Leadership manages the set of skills, attributes, and quality characteristics of an individual or a group of individuals more or less successfully. The leader either holds an administrative position or emerges due to extraordinary circumstances, demonstrating in practice his techniques and administrative abilities, so that others follow the leader and trust him (Hogan, R., & Kaiser, 2005). Of course, the identification of leadership with management in organizations should not be misleading. After all, a person exercising management does not necessarily mean an increased leadership ability, but first of all, this happens because of the position in the organization's hierarchy. The appropriate leader needs both managerial and distinctive abilities to be judged, within an organization, appropriate and successful (Northouse, 2016). Leadership lies precisely in influencing the attitudes, behaviors and perceptions of a group of individuals who place themselves under the leader in order to achieve jointly defined goals, based on a common mission and an inspiring vision. According to Cohen (1990), in fact, the leader can direct a group of people to complete a task, without necessarily knowing in advance the feasibility and importance of doing it. The ability of the leader lies precisely in persuading or inducing individuals to follow him with devotion and to be, at the same time, available to offer and work for him as well (Northouse, 2016). Also, the competent leader should ensure seamless and functional communication among his subordinates, inspire confidence, motivate, guide, control, reward. Moreover, it should exercise disciplinary measures and rationally manage the human resources of the organization, always with respect to the particular values and expectations of the employees (Stoller, 2020).

2.3.2. Leadership Theories

Efforts to clarify, codify and understand leadership provide fertile ground for the formulation of theories, the most important of which are:

The Great Man Theory: which is based on the genetic approach, in the sense that leaders are not made, but born (House, 1977). Many studies expressed their disagreement with this view, stating that "leaders are not born, but formed during their productive life." Characteristic features of the leader based on this theory are the high level of intelligence, rhetorical skills, imposing appearance, determination, the effort to create impressions. The approach is considered outdated although there are still many supporters of it (Stoller, 2020).

The theory of personality traits of the leader (trait theory) (Costa & McCrae, 1998): It isolates those characteristics that distinguish the leader from the rest of the organization's executives, which are:

- ✦ Activity
- ✦ The intention to lead others
- ✦ Taking initiative
- ✦ Intelligence
- ✦ Confidence in his abilities
- ✦ The knowledge of the subject of the work ✦ Honesty and integrity.

The behavioral theory, or otherwise the behavioral approach: according to which there are two types of leadership: democratic leadership and autocratic leadership. Democratic leadership is employee-oriented, with a focus on interpersonal relationships. Authoritarian leadership focuses on production and a strict hierarchical structure, while emphasizing the technical rather than the human side of work, according to a Michigan study (Yukl, 1971). The main contribution of behavioral approaches to leadership is to define two broad domains of leadership behaviors: task-oriented leaders and person-oriented leaders (Hunt & Fedynich, 2019). Task orientation emphasizes the performance of subordinates' tasks, the organizational aspects of work without paying much attention to the people performing those tasks. Orientation towards people places the greatest emphasis on human resources and their needs, and an emotional bond with the business is sought. The research conducted in the context of behaviorism shows several similarities with that of individual characteristics (Northouse, 2016).

2.4 Leadership Styles

2.4.1. Transformational Leadership

Leadership is considered successful when it has the ability to retain as well as expand its support members. Burns (1978) gives leadership two forms, "transformational" and "transactional". In the case of transformational leadership, there is agreement between leader and supporters, cohesion, they act at a high moral level, with the aim of achieving their common goal. Leaders change the

behavior of their team, enhance individual effort, and guided by their values, override their personal gain to fulfill their common goals. Leaders are seen as an ideal of influence and are role models for gaining trust in an organization's staff. They expect their subordinates, in matters of management, to bypass old practices and proceed with reforms. Transformational leaders following the factors "inspirational motivation", "ideal influence" and "spiritual stimuli" (Avolio & Bass, 2004). They also inspire a vision and undertake to convey it to their supporters. It works to motivate them to rise to higher levels of existence, with priority being given to the realization and satisfaction of their goals (Siangchokyoo et al., 2020).

Leaders who follow the transformational leadership motivate and inspire subordinates both to achieve significant results and, in the process, to develop their own leadership skills. This will be achieved by empowering the followers and by differentiating the goals according to the personal abilities and needs of the followers (Rafferty & Griffin, 2004). Transformational leadership focuses on changing the mindset and re-adapting techniques of both leaders and those they manage, with a focus on inquiry. In addition, it promotes the beneficial use for the organization or business of new or hitherto unexplored capabilities and skills (Hay, 2006).

2.4.2. Transactional Leadership

In transactional leadership, the leader-supporter collaboration is based on the exchange of information for the success of their goals, without an ultimate goal being the connecting link between them. Transactional leadership includes "executive leadership" that contributes to providing the necessary means in times of crisis and the completion of specifically chosen goals. Trying to balance conflicting goals, incentives, obligations and interests, the lack of time in relation to the inability of leaders to oversee ideological and political resources that do not belong to the system, make the task of executive leaders difficult (Avolio & Bass, 2004).

Transactional leadership focuses on the exchanges that occur between leaders and their followers. These exchanges enable leaders to achieve performance goals, complete required tasks, maintain the current organizational status, motivate followers through contractual agreement, direct them toward achieving set goals, emphasize extrinsic rewards, avoid unnecessary risks and focus on improving organizational efficiency. In turn, transactional leadership allows followers to pursue self-interest, minimize workplace stress, and focus on clear organizational goals such as increased quality, customer service, reduced costs, and increased output (Sarros & Santora, 2001).

2.4.3. Passive Leadership

The passive leadership style represents a lack of leadership and is considered the most ineffective. The passive leader according to Avolio and Bass (2004) avoids getting involved in basic

management and organizational issues, does not intervene, does not direct his followers, does not set goals to be achieved and responds to situations and problems more as a reaction to them rather than in a way systematic. In passive leadership, a leader intervenes when a problem has already arisen or when it has become chronic, trying to correct it. It avoids making decisions, taking action to prevent problematic situations, clarifying expectations, and finally achieving the goals of the educational organization (Northouse, 2016). In this type of leadership, the leader avoids getting involved or making decisions, is absent when needed, does not take responsibility, does not use his authority, and makes no effort to satisfy the needs of employees (Avolio & Bass, 2004).

2.5 Leadership in Time of Crisis

Crisis management includes the actions of senior executives in times of emergencies involving natural-technological disasters, biological hazards, terrorist acts, as well as humanitarian, international and economic crises. Crisis management requires systematic decision-making, combined with the composition of the necessary composition of individuals, which will be called upon to implement these decisions, to achieve positive results in the shortest possible time (Chen & Sriphon, 2021).

In most cases of organizational crises, management is not prepared to manage the crisis, with the result that its mismanagement has negative long-term consequences for the organization's profitability, reputation, market position and HRM systems (Fener & Cevik, 2015). Although most executives are aware of the negative consequences associated with organizational crisis, their formal education and work experiences are not aimed at preparing them for crisis management. Behaviors such as logic, change management, risk-taking and enhancing organizational flexibility during a crisis take a backseat as priority is given to managing some seemingly more pressing issues, which are related to communication and public relations (Dirani et al., 2020).

Since crises occur regularly in the life of organizations, several researchers have attempted to create conceptual models and making frameworks to help leaders and institutions think about effective leadership during crisis events (Ansell et al., 2021). Boin, Kuipers, & Overdijk (2013) created one of the most comprehensive crisis leadership frameworks. They point out that crisis episodes instantly reveal "winners" and "losers." In terms of leadership, they formulated nine executive tasks that accompany successful crisis management. Initial tasks include early recognition of crisis, making sense of uncertainty and making critical decisions, avoiding frivolity, vertical and horizontal coordination within the organization and between organizations, and coupling and decoupling systems as required. Other critical tasks include strong communication, helping others participate in creating meaning for others, and finally reflecting and learning from

judgment and accountability for what worked and what didn't. Boin et al. (2013) point out that a leader's overall goal should be to increase organizational resilience before, during, and after a crisis. Each of these executive tasks has been researched in the scientific literature, but as noted by Boin et al. (2013), one of the most consistent elements of crisis leadership appears to be conditions of uncertainty.

2.5.1. Leadership in Time of Covid-19

During a crisis, challenges arise quickly and both information and known solutions can be scarce. During the early days of the COVID-19 pandemic, some of the key challenges for leaders were the unique nature of the crisis (i.e., most organizations have not experienced a pandemic), the rapid timeline for crisis response, and the uncertainty that hinders getting effective responses (Meiryani et al., 2022; Yücel, 2021). Unfortunately for many managers in the early months of the pandemic, policy makers (and often the managers above these leaders in the organizational hierarchy) did not have an accurate picture of what was happening, nor did they share what they knew with others in ways that allowed them to effectively face challenges (Mujeeb et al. 2021).

Another important finding about crisis leadership is that what constitutes effective leadership often changes during a crisis (Islam et al., 2021). As circumstances change and new needs emerge, leaders must be flexible and adaptive. During the early months of the COVID-19 pandemic, for example, most managers proceeded through several key phases of response (McCombs & Williams, 2021).

From the experience and literature to date in the field of crisis response and management, it is concluded that most crises initially appear as simple issues within the organization. Timely interventions and their proper management are proven in the literature to have led to their prevention, while in other cases, such a detrimental and harmful impact has occurred that the effects were no longer possible to mitigate (Dale Oenet al., 2022). The reliability of business planning is largely determined by the prediction and response to crisis (Stoker et al., 2021). In order for a leader to be considered successful in crisis management in an organization, it is important to be able to conduct preventive crisis plans (Jankelová et al., 2021). One of the first steps in performing such an audit is to talk and communicate with many different people within the organization who work in different departments. In this way, it can gather different perspectives and perceptions of the events that could have played out in dealing with a potential crisis (Hu et al., 2022; Unur et al., 2022).

Dealing with risks, through the above procedures, is validated with a business culture of "immediate response" and with the adoption of the term "risk" in the design of preventive crisis controls in the way of operation and strategy of the organization, as well as in the capabilities of

the management executives (Koekemoer et al., 2021; Urick et al., 2021). To make a risk management successful, it requires the composition of administrative systems with elements of flexibility and the use of modern technologies, combined with the support of applied mathematical models that connect them to real circumstances (Saleem et al., 2022). At the same time, it is a strategic choice to use executives with special qualifications and abilities, properly trained, who are able to organize risk management teams, to coordinate team members and to successfully initially analyze the factors that create the problem and subsequently in taking effective measures to deal with it (Maak et al., 2021). No single member of an organization can possess all the necessary elements to deal with a crisis (Oen et al., 2022).

Leadership during a crisis requires leaders who are required to have a complex set of skills, not limited to effective communication, always aiming to lead an organization from the various phases of the crisis to a successful recovery (Ali & Anwar, 2021). Having ensured the existence of corresponding capabilities, the probability of resilience of an organization in the post-crisis era is greatly enhanced. Crisis leadership requires an integration of skills, abilities, and attributes that enable a leader to plan, react, and learn from crisis events. In its most ambitious form, crisis leadership is concerned with handling a crisis in such a way that the organization is in a better position after the crisis than it was before it (Balasubramanian & Fernandes, 2022).

Chapter 3. Methodology

In this chapter, the research methodology as well as the purpose and research questions are listed. More specifically, the demographic data of the sample, the research tools used as well as the sampling and data processing process are presented.

3.1 Population and Sample

The studied population consisted of workers in European institutions. The sampling method used was convenience sampling, which involves selecting the nearest and most convenient people as respondents (Saunders et al., 2015). In convenience sampling, the distribution of the questionnaires is based on the easy access of the researcher. As a result of the researcher's inability to attend school units due to work, the questionnaire was sent via e-mail to acquaintances working in European institutions who in turn distributed questionnaires either to their colleagues or to other acquaintances working in similar organizations. Although the above sampling methods are very widespread, they are not the appropriate methods for selecting a representative sample. However,

due to time constraints, it was not possible to use more appropriate sampling methods (Bryman & Bell, 2011). The questionnaires were distributed between October and November 2022.

3.2 Data Collection Tool

The data was collected using a self-report questionnaire. The survey questionnaire consisted of five question sections. The first section was intended to record the demographic and work characteristics of the sample.

The second section used the Multifactor Leadership Questionnaire scale) and more specifically the MLQ-Form 5x of Avolio & Bass (2004). The MLQ is available in two forms, one form concerns the self-assessment of leaders, and the second form concerns the assessment of leadership behavior by employees. In the present research, the second format was used, and the questionnaires were completed by the employees of the EU institutions. The creators of the questionnaire state that it measures the full range of leadership styles (full range leadership FRL):

a) transformational, b) transactional, c) and passive/avoidant. The questionnaire enables the measurement of three more basic dimensions related to leadership outcomes, where they are: a) the greatest effort, b) the effectiveness of the leader and c) satisfaction with the leadership. The questionnaire focuses on the behaviors and characteristics of leaders, which are evaluated by their colleagues, regardless of the level of hierarchy they are in relation to the evaluated leader. It includes 36 questions which measure the 9 dimensions of leadership style, 4 questions for each dimension, 3 questions measure "Greater Effort", 4 questions "Effectiveness" and 2 questions "Satisfaction with Leadership". The participants rate their direct supervisor with five points Likert scale from "Not at all" (1) to "Almost Always" (5), depending on the degree to which the evaluated leader manifests the specific behaviors and characteristics of leadership styles.

In the third part, participants were asked to answer questions about how the COVID-19 crisis was managed in their workplace. In total the participants answered 13 questions on a scale from 1=Strongly Disagree to 5=Strongly agree. From the 13 questions, four dimensions of crisis management are evaluated: (1) learning, (2) restoration of activities, (3) containment of damages and (4) preparedness and prevention. The questions were drawn from the research of Obeidat and Thani (2020).

In the fourth part, participants were asked to answer questions about whether they accept changes in their workplace due to COVID-19. In total the participants answered 16 questions on a scale from 1=Strongly Disagree to 5=Strongly agree. From the 16 questions, five dimensions of

organizational changes are evaluated: (1) attitude toward change, (2) information about change, (3) participation, (4) attitude of top management toward change and (5) cognitive readiness for change. The questions were drawn from the surveys of Sinval et al. (2021) and Bouckenoghe et al. (2009)

In the fifth part the participants were asked to answer questions about their level of organizational commitment, their performance, and their well-being. In total the participants answered 18 questions on a scale from 1=Strongly Disagree to 5=Strongly agree. From the 18 questions, three dimensions are evaluated: (1) organizational commitment, (2) performance and (3) well-being. The questions were drawn from the surveys of Mowday et al. (1979), Pradhan and Jena (2016) and Pradhan, and Hati (2019).

3.3 Validity and Reliability Issues

The reliability and validity of a research can be ensured by how reliable and valid the data collected is and by extension how reliable and valid the research tool used is (Bryman & Bell, 2011). In the research carried out, reliability was ensured by observing, as much as possible, the most ethical and ethical rules during data collection. More specifically, the teachers who participated were informed about the objectives of the research and informed about the anonymity of their participation. The anonymity of participation apart from the ethical part according to Saunders et al. (2015) ensures that the participants answer the questions they are asked impartially thus producing more reliable data. Additionally, the reliability of the research was assessed by Cronbach's α reliability coefficient, which showed that the questionnaire used showed a high degree of internal consistency reliability (Leadership scale: $\alpha=0.926$, Well-being, performance, and commitment scale: $\alpha=0.911$, Crisis Management: $\alpha=0.802$, Organizational change scale: $\alpha=0.892$). The validity of the research was ensured based on the degree of internal validity of the questionnaire used. The internal validity of the questionnaire refers to the fact that the dimensions and questions of the questionnaire cover the different dimensions of the concepts being investigated (Bryman & Bell, 2011). The internal validity of the questionnaire results from the fact that the questions used in each of its units are directly related to the research questions and their wording was derived from corresponding research questions from the literature and similar research.

3.4 Statistical Analysis Methodology

Data analysis was performed in statistical processing and data analysis software. The software chosen in this thesis was SPSS. The analysis of the collected data was based on two types of analysis, descriptive analysis, and inductive analysis. Descriptive analysis was performed using the following descriptive measures: frequency (n), percentage (%), Mean Value (MT) and Standard Deviation (SD). Inductive analysis was based on the following inductive statistical methods: t-test, one-way ANOVA, Pearson's correlation coefficient, and linear regression. All analyzes were performed at a significance level of $\alpha=0.05$ (null hypothesis rejected if p-value of test is less than $\alpha=0.05$, minimum level of significance).

3.5 Research Ethics

According to many researchers, those conducting human research must be aware of the ethical principles and more specific ethical rules governing their subject matter. In particular, any research involving humans must be conducted in accordance with the fundamental bioethical principles: the autonomy of persons, the benefit, the non-damage and the justice (Bryman & Bell, 2011). Respect for human dignity and the associated principle the core of bioethical principles are reflected in guidelines, international conventions and declarations (such as UNESCO's Universal Declaration on Bioethics and Human Rights, Oviedo Convention, UNESCO Declaration on the Human Genome) as well as the national legislative texts including the Constitution of Greece (Andorno, 2007). The researchers are bound by the universally recognized principles of respect for fundamental freedoms and rights of personality, equality, protection of public health and protection of the participation (Bryman & Bell, 2011). For those reasons, participation was anonymous and at the same time voluntary. In addition, the participants were informed about the purpose of the research, the time they should spend to complete the questionnaire and that they could withdraw from the research at any stage they wished if they regretted it.

Chapter 4. Results

4.1 Demographics

A total of 49 employees from EU institutions participated in the survey. Of all the participants, 53.1% (n=26) were men and 69.4% (n=34) held a master's degree. Furthermore, the 2% (n=1) of the sample stated that they are secondary school graduates, 16.3% (n=8) stated that they hold a university degree and 12.2% (n=6) stated that they hold a PhD.

Additionally, a significant percentage of the sample was single (n=22, 44.9%) while 26.5% (n=13) were married and 20.4% (n=10) chose the "other" option. The results regarding the income of employees from EU institutions who participated in the survey showed that 61.2% (n=30) have a monthly income of more than 3000 euros. A smaller proportion of the sample reported having an income up to 1000 euro (n=2, 4.1%), between 1001 and 2000 euro (n=11, 22.4%) and between 2001 and 3000 euro (n=6, 12.2%).

Additionally, 32.7% (n=16) had work experience up to 5 years and 44.9% (n=22) had work experience between 6 and 15 years while 22.5% (n=11) had work experience over 16 years. Also, 75.5% (n=37) of the sample had a permanent job and 24.4% (n=12) of the sample had a nonpermanent job. In addition, regarding the nationality of the participants, it was found that 100% (n=49) were European citizens. Finally, of the 49 employees, 63.3% (n=31) reported that their supervisor is male and 36.7% (n=18) reported that their supervisor is female (Table 1).

Table 1. Sample Demographics

			%	n
Gender	Male	26	53.1%	
	Female	23	46.9%	
Educational level	Secondary education	1	2.0%	
	Bachelor's degree	8	16.3%	
	Master	34	69.4%	
	PhD	6	12.2%	
Marital status	Single	22	44.9%	
	Married	13	26.5%	
	Divorced	4	8.2%	
	Other	10	20.4%	

Monthly income	0-1000	2	4.1%
	1001-2000	11	22.4%
	2001-3000	6	12.2%
	3001+	30	61.2%
Years of work experience	Up to 5	16	32.7%
	6-15	22	44.9%
	16-20	4	8.2%
	21+	7	14.3%
Occupational status	permanent job	37	75.5%
	non-permanent job	12	24.4%
Nationality	European citizens	49	100.0%
Supervisor Gender	Male	31	63.3%
	Female	18	36.7%

The mean age of the research sample was 35.1 (SD=7.9) years. Employees from EU institutions between the ages of 25 and 55 participated in the survey (Figure 6).

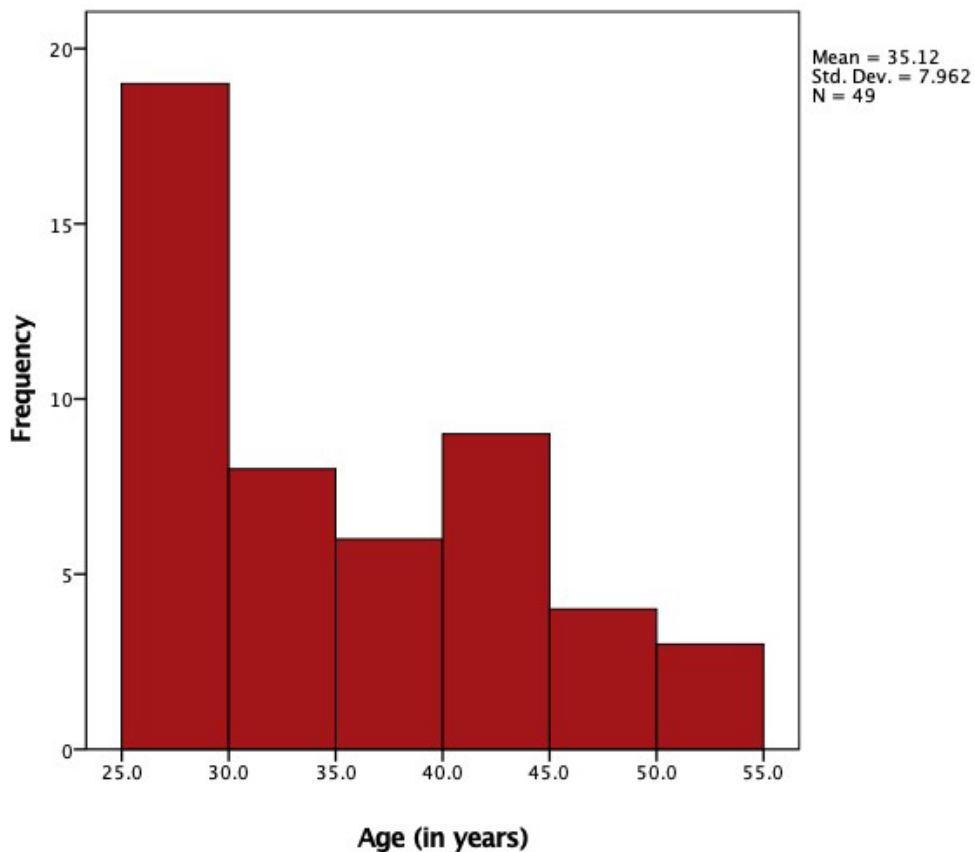


Figure 6. Age distribution

4.2 Reliability Analysis

The reliability of the questionnaire used in the research was assessed through Cronbach's α reliability coefficient. Cronbach's α reliability coefficient assesses the internal consistency of the sample's responses, and a value above 0.7 is an indication of a high degree of reliability of a dimension of the questionnaire. The detailed reliability analysis findings for the dimensions of the survey questionnaire are given in Table 2. The analysis revealed a high level of reliability for all sections/dimensions of the survey questionnaire (Cronbach's reliability coefficient above 0.8).

Table 2. Reliability analysis: Cronbach's α coefficient

Dimensions	Items	Cronbach's α
Leadership		
Transformational	20	0.911
Transactional	8	0.867
Passive	8	0.892
Extra Effort	3	0.899
Effectiveness	4	0.913
Satisfaction	2	0.885
Well-being, performance, and commitment		
Well-being	7	0.903
Organizational Commitment	6	0.856
Performance	5	0.893
Crisis Management		
Learning	4	0.765
Restoration of activities	2	0.782
Containment of damages	2	0.749
Preparedness and prevention	4	0.802
Organizational Change		
Attitude toward change	2	0.883
Information about change	3	0.896
Participation	3	0.799
Attitude of top management toward change	2	0.796
Cognitive readiness for change	3	0.817

4.3 Leadership Style Preferred by EU Institutional Leaders During the Covid-19 Health Crisis.

The next section presents the analytical results regarding the leadership style that was applied to a greater extent by EU institutional leaders during the Covid-19 health crisis, according to the opinion of the employees in EU institutional. Results are given as mean and standard deviation. The mean value shows us how often the corresponding behavior is adopted by the leaders in EU institutional. Values between 1 and 2.5 are an indication that the corresponding behavior is adopted rarely, values between 2.5 and 3.5 are an indication that the corresponding behavior is adopted sometimes (to a moderate extent) and values between 3.5 and 5 are an indication that the corresponding behavior is adopted often/ very often.

Table 3 shows that EU institutional employees recognized that relatively often their supervisor during the Covid-19 pandemic applied leadership strategies associated with idealized influence - attributes (M=3.8, SD=0.8), idealized influence - behavior (M =3.6, SD=0.7), inspirational motivation (M=3.9, SD=0.7), intellectual stimulation (M=3.7, SD=0.7) and individual consideration (M=3.4, SD=0.7). Overall, EU institutional employees recognized that relatively often their supervisor applied transformational leadership strategies during the Covid19 pandemic (M=3.7, SD=0.6).

Table 3. Results for the degree of adoption of transformational leadership behaviors by EU institutional leaders

	M	SD
Idealized influence - attributes	3.8	0.8
Idealized influence – behaviour	3.6	0.7
Inspirational motivation	3.9	0.7
Intellectual stimulation	3.7	0.7
Individual consideration	3.4	0.7
Transformational	3.7	0.6

M=Mean, SD=Standard Deviation, Variables Range: 1 to 5

Results in Table 4 indicate that EU institutional employees recognized that relatively often their supervisor during the Covid-19 pandemic applied leadership strategies associated with contingent reward (M=3.8, SD=0.8) while more rarely adopting strategies associated with management by exception-active (M=3.0, SD=0.7). Overall, EU institutional employees recognized that relatively

often their supervisor applied transactional leadership strategies during the Covid-19 pandemic (M=3.4, SD=0.5).

Table 4. Results for the degree of adoption of transactional leadership behaviors by EU institutional leaders

	M	SD
Contingent reward	3.8	0.7
Management by Exception-Active	3.0	0.7
Transactional	3.4	0.5

M=Mean, SD=Standard Deviation, Variables Range: 1 to 5

Results in Table 5 indicate that EU institutional employees recognized that rarely their supervisor during the Covid-19 pandemic applied leadership strategies associated with management by exception-passive (M=2.7, SD=0.7) and Laissez-Faire (M=2.0, SD=0.7). Overall, EU institutional employees recognized that rarely their supervisor applied passive leadership strategies during the Covid-19 pandemic (M=2.4, SD=0.6).

Table 5. Results for the degree of adoption of passive leadership behaviors by EU institutional leaders

	M	SD
Management by Exception-Passive	2.7	0.7
Laissez-Faire	2.0	0.7
Passive	2.4	0.6

M=Mean, SD=Standard Deviation, Variables Range: 1 to 5

Figure 7 shows the results for the frequency of adoption of the three leadership styles in EU institutional during the Covid-19 pandemic. The results showed that mainly in EU institutional during the Covid-19 pandemic transformational and transactional leadership strategies were applied while passive leadership strategies were rarely used.

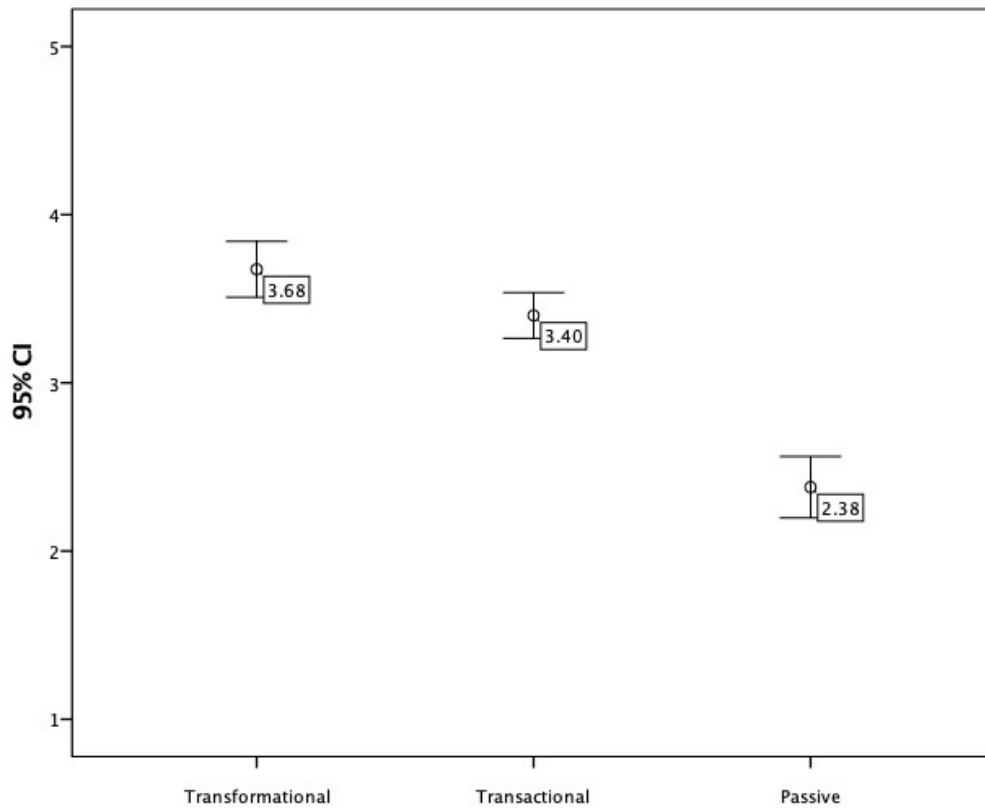


Figure 7. Mean and 95% confidence interval for the degree of adoption of each leadership style by EU institutional leaders

4.4 Effectiveness of Leadership in the EU Institutions During the Covid-19 Health Crisis

The results about effectiveness of leadership in the EU institutions during the Covid-19 health crisis are given as mean and standard deviation. The mean value shows us how often the leadership in EU institutional is effectiveness. Values between 1 and 2.5 are an indication that leadership is rarely effective, values between 2.5 and 3.5 are an indication that leadership is sometimes (moderately) effective, and values between 3.5 and 5 are an indication that leadership is often/very effective often.

The results given in Table 6 show that the employees in the EU institutions during the Covid-19 health crisis recognize that the leadership pushed them to try harder to fulfill their duties (M=3.7, SD=0.9) and recognized that leadership was quite effective (M=3.8, SD=0.8). Similarly, employees in the EU institutions during the Covid-19 health crisis recognize that they are satisfied with the leadership (M=3.7, SD=0.9).

Table 6. Results about leadership outcome in the EU institutions during the Covid-19 health crisis

	M	SD
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Extra effort	3.7	0.9
Effectiveness	3.8	0.8
Satisfaction	3.7	0.9

M=Mean, SD=Standard Deviation, Variables Range: 1 to 5

4.5 Employees' Well-Being, Performance and Organizational Commitment During the Covid-19 Health Crisis

The results about employees' well-being, performance and organizational commitment during the Covid-19 health crisis are given as mean and standard deviation. The mean value shows us the level of employees' well-being, performance, and organizational commitment. Values between 1 and 2.5 are an indication that employees have a low level of well-being, performance and organizational commitment, values between 2.5 and 3.5 are an indication that employees have a moderate level of well-being, performance and organizational commitment, and values between 3.5 and 5 are an indication that employees have a high level of well-being, performance, and organizational commitment.

The results given in Table 7 indicate that the employees in the EU institutions during the Covid-19 health crisis have a fairly high level of work performance (M=4.2, SD=0.6) and reported that they have a high level of organizational commitment (M=3.9, SD =0.6). In addition, employees in the EU institutions recognized that they have high levels of well-being during the Covid-19 health crisis (M=4.1, SD=0.6).

Table 7. Results about employees' well-being, performance, and organizational commitment in the EU institutions during the Covid-19 health crisis

	M	SD
Organizational commitment	3.9	0.6
Performance	4.2	0.6
Well-being	4.1	0.6

M=Mean, SD=Standard Deviation, Variables Range: 1 to 5

4.5 Readiness for Organizational Changes and Crisis Management in EU Institutions During the Covid-19 Health Crisis

The next section of questions was intended to record the opinions of the employees in the EU institutions regarding whether they and the organizations were ready to face the changes during the Covid-19 health crisis and whether the EU institutions responded effectively to the management of the crisis. The results are given as mean and standard deviation. The mean value shows us the level of readiness for organizational changes and the level of crisis management in EU institutions during the Covid-19 health crisis. Values between 1 and 2.5 are an indication that readiness for organizational changes and crisis management are inappropriate, values between 2.5 and 3.5 are an indication that organizational changes and crisis management are at acceptable levels (moderate), and values between 3.5 and 5 are an indication that organizational changes and crisis management are at a sufficient/very high level.

The results presented in Table 8 show that the employees recognize that in the EU institutions there was a sufficient level of learning for the management of the Covid-19 health crisis (M=3.6, SD=0.7) and the activities were restored to a satisfactory level by applying correct and effective management methods (M=3.7, SD=0.7). In addition, the employees recognize that in the EU institutions there was an effective plan for the containment of possible damages (m=3.7, SD=0.6) and they recognize that there was a satisfactory level of preparedness and prevention for the management of the Covid-19 health crisis (M=3.6, SD=0.7).

Table 8. Results about crisis management in EU institutions during the Covid-19 health crisis

	M	SD
Learning	3.6	0.7
Restoration of activities	3.7	0.7
Containment of damages	3.7	0.6
Preparedness and prevention	3.6	0.7

M=Mean, SD=Standard Deviation, Variables Range: 1 to 5

The results presented in Table 9 indicate that the employees recognize that in the EU institutions they have a neutral attitude towards changes during the COVID-19 pandemic (M=3.3, SD=0.8). Additionally, the results show that in the EU institutions there was a satisfactory level of information about the changes (M=3.6, SD=0.7) while there was also a positive attitude from the

senior management about the changes (M=3.5, SD=0.8). On the contrary, employees recognized that they moderately participated in the change process (M=3.3, SD=0.7) and generally there was a moderate level of cognitive readiness for change (M=3.2, SD=0.7).

Table 9. Results about readiness for organizational changes in EU institutions during the Covid-19 health crisis

	M	SD
Attitude toward change	3.3	0.8
Information about change	3.6	0.7
Participation	3.3	0.7
Attitude of top management toward change	3.5	0.8
Cognitive readiness for change	3.2	0.7

M=Mean, SD=Standard Deviation, Variables Range: 1 to 5

4.6 Correlation Between Leadership Style and the Effectiveness of Managing the Covid-19 Health Crisis

The correlation between leadership style and the effectiveness of managing the Covid-19 health crisis was checked with Pearson's correlation coefficient. The coefficient takes values between -1 and 1. The sign of the coefficient indicates the type of correlation (negative or positive, respectively). If the absolute value of the coefficient takes values between 0 and 0.4 it is an indication that the correlation is of low intensity, if the absolute value of the coefficient takes values between 0.4 and 0.6 it is an indication that the correlation is of moderate intensity and if the absolute value of the coefficient takes values above 0.6 is an indication that the correlation is of high intensity.

The results of the analysis, given in Table 10, show that transformational leadership during the COVID-19 health crisis was positively related to motivating employees to try harder ($r=0.838$, $p<0.01$), positively related to the level leadership effectiveness ($r=0.759$, $p<0.01$) and with the level of employee satisfaction with leadership ($r=0.713$, $p<0.01$). Accordingly, analyzes show that transactional leadership during the COVID-19 health crisis was positively related to motivating employees to try harder ($r=0.316$, $p<0.05$), positively related to the level of leadership effectiveness ($r=0.355$, $p<0.05$) and with the level of employee satisfaction with leadership ($r=0.569$, $p<0.01$). Finally, passive leadership was negatively related to motivating employees to try harder ($r=-0.304$, $p<0.05$).

Table 10. Correlation analysis between leadership style and the effectiveness of managing the Covid-19 health crisis

	Transformational	Transactional	Passive	Extra effort	Effectiveness	Satisfaction
Transformational	1	0.516**	-0.278	0.838**	0.759**	0.713**
Transactional		1.000	0.091	0.316*	0.355*	0.560**
Passive			1.000	-0.304*	-0.209	-0.092
Extra effort				1.000	0.813**	0.765**
Effectiveness					1.000	0.867**
Satisfaction						1.000

** Correlation is significant at the 0.01 level

* Correlation is significant at the 0.05 level

Then the linear regression method was applied in order to highlight those leadership styles that are important in predicting the effectiveness of managing the Covid-19 health crisis. The values of the regression coefficients (b) show the type of relationship between the leadership style and the dimensions of effectiveness. If the regression coefficient is positive, a positive effect of the leadership style on the corresponding dimension of effectiveness results. On the contrary, if the coefficient of the regression is negative, a negative effect of the leadership style on the corresponding dimension of effectiveness results. In addition, the coefficient of determination R^2 was recorded. This coefficient showing the percentage of the dependent variable explained by leadership styles.

In Table 11 are presented the findings of the linear regression in order to examine whether leadership styles significantly explain the level of employee motivation to try harder during the COVID-19 health crisis. The analysis showed that leadership styles explain 72.2% of employees' motivation to try harder. Of the three leadership styles, a significant predictive factor of motivating employees to try harder was transformational leadership ($b=1.445$, $t=9.080$, $p<0.01$).

Table 11. Regression analysis using as dependent variable the extra effort and as independent variables the leadership styles

	Unstandardized		Standardized		t	p
	Coefficients		Coefficients			
	B	Std. Error	Beta			
(Constant)	-.453	.666			-.680	.500
Transformational	1.445	.159	.902		9.080	.000

Transactional	-.285	.187	-.146	-1.520	.136
Passive	-.059	.124	-.040	-.474	.638

$R^2=0.722$, $F(3,45)=38.909$, $p<0.01$

In Table 12 are presented the findings of the linear regression to examine whether leadership styles significantly explain the level of leadership effectiveness the COVID-19 health crisis. The analysis showed that leadership styles explain 57.8% of leadership effectiveness. Of the three leadership styles, a significant predictive factor of leadership effectiveness was transformational leadership ($b=1.130$, $t=6.475$, $p<0.01$).

Table 12. Regression analysis using as dependent variable the effectiveness of leadership and as independent variables the leadership styles

	Unstandardized		Standardized	t	p
	Coefficients		Coefficients		
	B	Std. Error	Beta		
(Constant)	-.042	.730		-.058	.954
Transformational	1.130	.174	.792	6.475	.000
Transactional	-.097	.205	-.055	-.470	.641
Passive	.021	.136	.016	.156	.877

$R^2=0.578$, $F(3,45)=20.536$, $p<0.01$

Finally, in Table 13 are presented the findings of the linear regression to examine whether leadership styles significantly explain the level of employees' satisfaction with leadership in the COVID-19 health crisis. The analysis showed that leadership styles explain 56.2% of employees' satisfaction with leadership. Of the three leadership styles, a significant predictive factor of employees' satisfaction with leadership were transformational ($b=0.937$, $t=4.825$, $p<0.01$) and transactional ($b=0.466$, $t=2.037$, $p=0.048$) leadership.

Table 13. Regression analysis using as dependent variable the satisfaction with leadership and as independent variables the leadership styles

	Unstandardized		Standardized	t	p
	Coefficients		Coefficients		
	B	Std. Error	Beta		

(Constant)	-1.502	.813		-1.849	.071
Transformational	.937	.194	.602	4.825	.000
Transactional	.466	.229	.245	2.037	.048
Passive	.075	.152	.053	.497	.622

$R^2=0.562$, $F(3,45)=19.208$, $p<0.01$

4.7 Correlation Between Leadership Style and Employees' Well-Being in the EU Institutions During the Covid-19 Health Crisis

The correlation between leadership style and employees' well-being in the EU institutions during the Covid-19 health crisis was checked with Pearson's correlation coefficient.

The results of the analysis, given in Table 14, show that transformational ($r=0.653$, $p<0.01$) and transactional ($r=0.532$, $p<0.01$) leadership during the COVID-19 health crisis was positively related to employees' well-being. On the contrary, passive leadership does not seem to be significantly related to employees' well-being during the COVID-19 health crisis ($r=-0.017$, $p>0.05$).

Table 14. Correlation analysis between leadership style and employees' well-being in the EU institutions during the Covid-19 health crisis

	Employees' well-being
Transformational	0.653**
Transactional	0.532**
Passive	-0.017

** Correlation is significant at the 0.01 level

Then the linear regression method was applied to highlight those leadership styles that are important in predicting the employees' well-being. In Table 15 are presented the findings of the linear regression in order to examine whether leadership styles significantly explain the level of employees' well-being during the COVID-19 health crisis. The analysis showed that leadership styles explain 49.1% of employees' well-being. Of the three leadership styles, a significant predictive factor of employees' well-being was transformational leadership ($b=0.589$, $t=4.241$, $p<0.01$).

Table 15. Regression analysis using as dependent variable the employees' well-being and as independent variables the leadership styles

	Unstandardized		Standardized	t	p
	Coefficients		Coefficients		
	B	Std. Error	Beta		
(Constant)	.658	.581		1.132	.263
Transformational	.589	.139	.570	4.241	.000
Transactional	.286	.164	.227	1.748	.087
Passive	.114	.109	.121	1.047	.301

$R^2=0.491$, $F(3,45)=14.450$, $p<0.01$

4.8 Correlation Between Leadership Style and Employees' Work Performance in the EU Institutions During the Covid19 Health Crisis

The correlation between leadership style and employees' work performance in the EU institutions during the Covid-19 health crisis was investigated with Pearson's correlation coefficient.

The results of the analysis indicate that transformational leadership during the COVID-19 health crisis was positively related to employees' performance during the COVID-19 health crisis ($r=0.495$, $p<0.01$). Moreover, passive leadership during the COVID-19 health crisis was negatively related to employees' performance during the COVID-19 health crisis ($r=-0.351$, $p<0.01$). On the contrary, transactional ($r=0.239$, $p>0.05$) does not seem to be significantly related to employees' performance during the COVID-19 health crisis ($r=0.239$, $p>0.05$) (Table 16)

Table 16. Correlation analysis between leadership style and employees' work performance in the EU institutions during the Covid-19 health crisis

	Employees' performance
Transformational	0.495**
Transactional	0.239
Passive	-0.351**

** Correlation is significant at the 0.01 level

Then the linear regression method was applied in order to highlight those leadership styles that are important in predicting the employees' work performance. In Table 17 are presented the findings of the linear regression to examine whether leadership styles significantly explain the level of employees' performance during the COVID-19 health crisis. The analysis showed that leadership styles explain 29.6% of employees' well- performance. Of the three leadership styles, a significant predictive factor of employees' performance was transformational leadership ($b=0.385$, $t=2.512$, $p=0.016$).

Table 17. Regression analysis using as dependent variable the employees' work performance and as independent variables the leadership styles

	Unstandardized		Standardized		t	p
	Coefficients		Coefficients			
	B	Std. Error	Beta			
(Constant)	3.063	.640			4.783	.000
Transformational	.385	.153	.397		2.515	.016
Transactional	.066	.180	.056		.368	.715
Passive	-.216	.120	-.245		-1.807	.077

$R^2=0.296$, $F(3,45)=6.306$, $p<0.01$

4.9 Correlation Between Leadership Style and employees' Organizational Commitment in the EU Institutions During the Covid-19 Health Crisis

The correlation between leadership style and employees' organizational commitment in the EU institutions during the Covid-19 health crisis was investigated with Pearson's correlation coefficient. The results of the analysis, given in Table 18, show that transformational and transactional leadership during the COVID-19 health crisis was positively related to employees' organizational commitment ($r=0.430$, $p<0.01$). On the contrary, transactional ($r=0.190$, $p>0.05$) and passive leadership ($r=-0.142$, $p>0.05$) not seem to be significantly related to employees' organizational commitment during the COVID-19 health crisis.

Table 18. Correlation analysis between leadership style and employees' organizational commitment in the EU institutions during the Covid-19 health crisis

	organizational commitment
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Transformational	0.430**
Transactional	0.190
Passive	-0.142

** Correlation is significant at the 0.01 level

Then, the linear regression method was applied in order to highlight those leadership styles that are important in predicting the employees' organizational commitment. In Table 19 are presented the findings of the linear regression to examine whether leadership styles significantly explain the level of employees' organizational commitment during the COVID-19 health crisis. The analysis showed that leadership styles explain 18.7% of employees' organizational commitment. Of the three leadership styles, a significant predictive factor of employees' organizational commitment was transformational leadership ($b=0.434$, $t=2.632$, $p=0.012$).

Table 19. Regression analysis using as dependent variable employees' organizational commitment and as independent variables the leadership styles

	Unstandardized		Standardized	t	p
	Coefficients		Coefficients		
	B	Std. Error	Beta		
(Constant)	2.486	.691		3.600	.001
Transformational	.434	.165	.447	2.632	.012
Transactional	-.047	.194	-.039	-.240	.811
Passive	-.012	.129	-.014	-.094	.925

$R^2=0.187$, $F(3,45)=3.447$, $p=0.024$

4.10 Correlation Between Leadership Style, Crisis Management and Organizational Changes in EU Institutions During the Covid-19 Health Crisis

The correlation between leadership style, crisis management and organizational changes in EU institutions during the Covid-19 health crisis was investigated with Pearson's correlation coefficient. The results of the analysis, given in Table 20, show that transformational leadership during the COVID-19 health crisis was positively related with effective plan for the containment

of possible damages ($r=0.317$, $p<0.05$) and level of preparedness and prevention for the management of the Covid-19 health crisis ($r=0.326$, $p<0.05$). Also, transactional leadership during the COVID-19 health crisis was positively related with level of preparedness and prevention for the management of the Covid-19 health crisis ($r=0.300$, $p<0.05$). Finally, passive leadership is not significantly related to crisis management in the EU institutions during the COVID-19 health crisis.

Table 20. Correlation analysis between leadership style and crisis management in the EU institutions during the Covid-19 health crisis

	Learning	Restoration of activities	Containment of damages	Preparedness and prevention
Transformational	0.252	0.226	0.317*	0.326*
Transactional	0.159	0.163	0.185	0.300*
Passive	-0.155	-0.001	-0.114	0.007

** Correlation is significant at the 0.01 level

In Table 21 are presented the findings of the linear regression to examine whether leadership styles significantly explain the level of learning for the management of the Covid-19 health crisis. The analysis showed that leadership styles explain 7.5% of learning for the management of the Covid19 health crisis. Of the three leadership styles, none of them were predictive factor of learning.

Table 21. Regression analysis using as dependent variable EU institutions learning and as independent variables the leadership styles

	Unstandardized		Standardized	t	p
	Coefficients		Coefficients		
	B	Std. Error	Beta		
(Constant)	2.785	.864		3.224	.002
Transformational	.209	.206	.183	1.011	.317
Transactional	.104	.243	.075	.427	.672
Passive	-.115	.162	-.111	-.710	.481

$R^2=0.075$, $F(3,45)=1.219$, $p=0.314$

In Table 22 are presented the findings of the linear regression to examine whether leadership styles significantly explain the level of restoration activities in EU institutions. The analysis showed that

leadership styles explain 5.7% of restoration activities in EU institutions during Covid-19 health crisis. Of the three leadership styles, none of them were predictive factor of restoration activities.

Table 22. Regression analysis using as dependent variable restoration activities in EU institutions and as independent variables the leadership styles

	Unstandardized		Standardized	t	p
	Coefficients		Coefficients		
	B	Std. Error	Beta		
(Constant)	2.480	.866		2.865	.006
Transformational	.246	.207	.218	1.192	.240
Transactional	.063	.244	.045	.257	.798
Passive	.057	.162	.055	.351	.727

$R^2=0.057$, $F(3,45)=0.900$, $p=0.449$

In Table 23 are presented the findings of the linear regression in order to examine whether leadership styles significantly explain the level of containment of damages in EU institutions. The analysis showed that leadership styles explain 10.2% of containment of damages in EU institutions during Covid-19 health crisis. Of the three leadership styles, none of them were predictive factor of containment of damages.

Table 23. Regression analysis using as dependent variable containment of damages in EU institutions and as independent variables the leadership styles

	Unstandardized		Standardized	t	p
	Coefficients		Coefficients		
	B	Std. Error	Beta		
(Constant)	2.617	.740		3.535	.001
Transformational	.282	.177	.285	1.595	.118
Transactional	.050	.208	.042	.242	.810
Passive	-.035	.138	-.039	-.254	.801

$R^2=0.102$, $F(3,45)=1.710$, $p=0.178$

In Table 24 are presented the findings of the linear regression in order to examine whether leadership styles significantly explain the level of preparedness and prevention in EU institutions during Covid-19 health crisis. The analysis showed that leadership styles explain 13.4% of

preparedness and prevention in EU institutions during Covid-19 health crisis. Of the three leadership styles, none of them were predictive factor of preparedness and prevention.

Table 24. Regression analysis using as dependent variable preparedness and prevention of EU institutions and as independent variables the leadership styles

	Unstandardized		Standardized		t	p
	Coefficients		Coefficients			
	B	Std. Error	Beta			
(Constant)	1.500	.870			1.725	.091
Transformational	.311	.208	.262		1.497	.141
Transactional	.230	.245	.159		.938	.353
Passive	.071	.163	.065		.435	.666

$R^2=0.134$, $F(3,45)=2.312$, $p=0.089$

The results of the analysis indicate that transformational leadership during the COVID-19 health crisis was positively related with level of information about the changes ($r=0.682$, $p<0.01$), positive attitude from the top management about the changes ($r=0.515$, $p<0.01$) and level of cognitive readiness for change ($r=0.358$, $p<0.01$). Also, transactional leadership during the COVID-19 health crisis was positively related with level of information about the changes ($r=0.458$, $p<0.01$), participation of employees in change proves ($r=0.481$, $p<0.01$) and positive attitude from the top management about the changes ($r=0.531$, $p<0.01$). Finally, passive leadership is not significantly related to organizational changes in the EU institutions during the COVID-19 health crisis (Table 25)

Table 25. Correlation analysis between leadership style and organizational changes in the EU institutions during the Covid-19 health crisis

	Attitude toward change	Information about change	Participation	Attitude of top management toward change	Cognitive readiness for change
Transformational	0.123	0.682**	0.277	0.515**	0.358**
Transactional	0.040	0.458**	0.481**	0.531**	0.182
Passive	-0.180	-0.118	0.140	-0.194	-0.262

** Correlation is significant at the 0.01 level

In Table 26 are presented the findings of the linear regression in order to examine whether leadership styles significantly explain the employees' attitude toward changes during Covid-19 health crisis. The analysis showed that leadership styles explain 3.9% of employees' attitude toward changes during Covid-19 health crisis. Of the three leadership styles, none of them were predictive factor of employees' attitude toward changes.

Table 26. Regression analysis using as dependent variable employees' attitude toward change and as independent variables the leadership styles

	Unstandardized		Standardized	t	p
	Coefficients		Coefficients		
	B	Std. Error	Beta		
(Constant)	3.381	1.101		3.072	.004
Transformational	.096	.263	.067	.365	.717
Transactional	.034	.310	.020	.111	.912
Passive	-.212	.206	-.163	-1.030	.309

$R^2=0.039$, $F(3,45)=0.602$, $p=0.617$

In Table 27 are presented the findings of the linear regression to examine whether leadership styles significantly explain the information about change in EU institutions. The analysis showed that leadership styles explain 48.2% of information about change in EU institutions. Of the three leadership styles, a significant predictive factor of information about change in EU institutions was transformational leadership ($b=0.809$, $t=4.625$, $p<0.01$).

Table 27. Regression analysis using as dependent variable information about change in EU institutions and as independent variables the leadership styles

	Unstandardized		Standardized	t	p
	Coefficients		Coefficients		
	B	Std. Error	Beta		
(Constant)	-.236	.732		-.322	.749
Transformational	.809	.175	.627	4.625	.000
Transactional	.205	.206	.130	.998	.324
Passive	.052	.137	.044	.380	.706

$R^2=0.482$, $F(3,45)=13.951$, $p=0.0000$

In Table 28 are presented the findings of the linear regression in order to examine whether leadership styles significantly explain the employees' participation in changes. The analysis showed that leadership styles explain 24.6% of employees' participation in changes. Of the three leadership styles, a significant predictive factor of employees' participation in changes was transactional leadership ($b=0.598$, $t=2.658$, $p=0.011$).

Table 28. Regression analysis using as dependent variable employees' participation in changes and as independent variables the leadership styles

	Unstandardized		Standardized	t	p
	Coefficients		Coefficients		
	B	Std. Error	Beta		
(Constant)	.529	.800		.661	.512
Transformational	.113	.191	.097	.593	.556
Transactional	.598	.225	.419	2.658	.011
Passive	.138	.149	.129	.920	.363

$R^2=0.246$, $F(3,45)=4.907$, $p<0.01$

In Table 29 are presented the findings of the linear regression in order to examine whether leadership styles significantly explain attitude of top management toward change. The analysis showed that leadership styles explain 38.2% of attitude of top management toward change. Of the three leadership styles, a significant predictive factor of attitude of top management toward change was transactional leadership ($b=0.722$, $t=2.882$, $p<0.01$).

Table 29. Regression analysis using as dependent variable attitude of top management toward change and as independent variables the leadership styles

	Unstandardized		Standardized	t	p
	Coefficients		Coefficients		
	B	Std. Error	Beta		
(Constant)	.181	.891		.203	.840
Transformational	.372	.213	.259	1.749	.087
Transactional	.722	.251	.411	2.882	.006
Passive	-.208	.166	-.159	-1.251	.217

$R^2=0.382$, $F(3,45)=9.290$, $p<0.01$

Finally, in Table 30 are presented the findings of the linear regression in order to examine whether leadership styles significantly explain cognitive readiness for change in EU institutions. The analysis showed that leadership styles explain 43.5% of cognitive readiness for change in EU institutions. Of the three leadership styles, a significant predictive factor of cognitive readiness for change in EU institutions was transformational ($b=0.440$, $t=2.299$, $p=0.026$) and passive ($b=-0.385$, $t=-2.517$, $p=0.014$) leadership.

Table 30. Regression analysis using as dependent variable cognitive readiness for change in EU institutions and as independent variables the leadership styles

	Unstandardized		Standardized	t	p
	Coefficients		Coefficients		
	B	Std. Error	Beta		
(Constant)	.955	.800		1.194	.239
Transformational	.440	.191	.390	2.299	.026
Transactional	-.073	.225	-.053	-.324	.747
Passive	-.385	.150	.375	-2.571	.014

$R^2=0.435$, $F(3,45)=3.496$, $p=0.023$

Chapter 5. Discussion

In this section an attempt is made to evaluate the findings of the research and correlate them with the findings of other studies recorded during the literature review and the literature of the theoretical part. From the thematic analysis that preceded, answers to our research questions emerged that confirm the findings of other studies and extend the findings, highlighting new elements.

Initially, the purpose of the thesis was to investigate which leadership style was dominant in the EU institutions during the Covid-19 health crisis and to record the level of effectiveness of leadership in the EU institutions during the Covid-19 health crisis. The results confirmed that in EU institutional during the Covid-19 pandemic, the transformational and transactional leadership styles were dominant (Islam et al., 2021). In addition, it was confirmed that leadership was quite effective, contributed to employees' satisfaction with how various situations were handled, and contributed to employees' desire to try harder (Dale Oenet et al., 2022; Hu et al., 2022; Unur et al., 2022). The findings confirmed the findings of related research that have shown that of the three leadership styles, a significant predictive factor of motivating employees to try harder is transformational leadership (Meiryani et al., 2022; Yücel, 2021). Similarly, the findings confirmed findings of related research that have shown that of the three leadership styles, significant predictive factors of employees' satisfaction with leadership is transformational and transactional leadership (Ali & Anwar, 2021). Finally, the findings confirmed the findings of related researches that have shown that of the three leadership styles, a significant predictive factor of leadership effectiveness is transformational leadership (Siangchokyoo et al., 2020; Yücel, 2021).

Moreover, an objective of the thesis was to investigate the correlation between leadership style and employee well-being and employees' performance in the EU institutions during the Covid-19 health crisis. The results confirmed that transformational and transactional leadership are positively related to employees' well-being during the COVID-19 health crisis (McCombs & Williams, 2021; Mikušová & Horváthová, 2019; Stoker et al., 2021; Unur et al., 2021; Witton et al., 2019). In addition, the findings confirmed that transformational leadership during the COVID19 health crisis is positively related to employees' performance during the COVID-19 health crisis (Sarros & Santora, 2011; Siangchokyoo et al., 2020; Yücel, 2021).

Furthermore, an objective of the thesis was to investigate the correlation between leadership style and employee organizational commitment in the EU institutions during the Covid19 health crisis. The findings confirmed that transformational leadership during the COVID-19 health crisis is

positively related to employees' organizational commitment (Islam et al., 2021; Jankelová et al., 2021; Mujeeb et al., 2021; Obeidat & Thani, 2020; Stoller, 2020)

The last objective of the thesis was to investigate the correlation between leadership style and organizational changes in EU institutions during the Covid-19 health crisis. The results confirmed that transformational leadership is a factor positively related with effective plan for the containment of possible damages and level of preparedness and prevention for the management of the Covid-19 health crisis (Balasubramanian & Fernandes, 2022; Dirani et al., 2020; Koekemoer et al., 2021; Stoller, 2020). Moreover, transformational leadership during the COVID-19 health crisis is positively related with level of information about the changes, positive attitude from the top management about the changes and level of cognitive readiness for change (Islam et al., 2021; Maak et al., 2021; Saleem et al., 2022).

Chapter 6. Conclusion

6.1 Conclusion

The purpose of this thesis was to investigate the role of leadership with crisis management in the organizations of the European Union. The first research question of the thesis was (1) which leadership style did EU institutional leaders adopt most during the Covid-19 health crisis? The results of the research regarding the first research question showed that in EU institutional during the Covid-19 pandemic, the leadership styles most frequently used by supervisors/managers were transformational and transactional leadership. In contrast, passive style of leadership was used to a much lesser extent. These findings show that predominantly in EU institutional during the Covid19 pandemic supervisors/managers tried to encourage and inspire people to innovate - contributing to the growth and success of the business. They focus on building a strong sense of organization culture, ownership, and autonomy at work. Transformational leadership describes the process through which the leader motivates subordinates to achieve team/community goals by utilizing charisma, motivation, intellectual activation, and personalized interest. Additionally, in EU institutional during the Covid-19 pandemic supervisors/managers tried to motivate subordinates to achieve results by creating expectations, setting goals, and providing recognition and rewards for completing their projects. Mutual benefits are exchanged between leaders and followers against a backdrop of contingent rewards and 'penalties' that shape cooperation and trust. The second research question of the thesis was (2) how effective was leadership in EU institutions during the Covid-19 health crisis? The results of the research on the second research question showed that the supervisors/managers in EU institutions during the Covid-19 pandemic exercised a quite effective leadership style as to a significant extent they managed to motivate employees to try harder. Furthermore, the way in which the supervisors/managers in EU institutional during the Covid-19 pandemic applied leadership was effective and this was acknowledged by the employees. Furthermore, employees in the EU institutions, during the Covid19 health crisis, was satisfied with the leadership in their workplace.

The third research question of the thesis was (3) is there a significant correlation between leadership styles with effectiveness of managing the Covid-19 health crisis and effective organizational change in EU institutional during the Covid-19 health crisis? The results of the research on the third research question showed that transformational and transactional leadership during the COVID-19 health crisis was positively related to motivating employees to try harder. Also, transformational, and transactional leadership positively related to the level leadership

effectiveness and positively related with the level of employee satisfaction with leadership. Furthermore, transformational leadership during the COVID-19 health crisis was positively related with effective plan for the containment of possible damage. Also, transformational leadership during the COVID-19 health crisis was positively related to the level of preparedness and prevention for the management of the Covid-19 health crisis

The fourth research question of the thesis was (4) is there a significant correlation between leadership styles with performance, well-being and organizational commitment of employees in EU institutional during the Covid-19 health crisis? The results of the research showed that transformational leadership during the COVID-19 health crisis was positively related to employees' performance and employees' organizational commitment. Also, transformational, and transactional leadership positively related to employees' well-being.

The results of the thesis show that transformational leadership in the organizations of the European Union can contribute to the effectiveness of crisis management (increases employee satisfaction, helps employees exert more effort, and contributes to effective management of employees and conditions). In addition, the use of transformational leadership in EU organizations in times of crisis can contribute to employees' well-being, performance, and organizational commitment. Finally, the findings showed that the use of transformational leadership in the organizations of the European Union in times of crisis can positively influence the way crises are managed and helps to more effectively implement and accept the organizational changes that may occur in such a period.

The findings of the thesis indicate that transactional leadership in the organizations of the European Union can contribute to the effectiveness of crisis management (increases employee satisfaction, helps employees exert more effort, and contributes to effective management of employees and conditions). In addition, the use of transactional leadership in EU organizations can contribute to employees' well-being and organizational commitment (but not employee performance) in periods of crisis. Moreover, findings showed that the use of transactional leadership in the organizations of the European Union in times of crisis can positively influence the way crises are managed and helps to more effectively implement and accept the organizational changes that may occur in such a period.

Finally, regarding passive leadership, it emerged that its use in times of crisis can lead to lower employee motivation for greater effort and lower work performance. The findings showed that passive leadership does not negatively affect the way crises are managed and the implementation and acceptance of possible organizational changes that need to be made.

6.2 Limitations

The present research presents some limitations, which should be mentioned to raise concerns and be considered in future research. First of all, the way of selecting the sample through the convenience sampling entails the risk that the sample is not representative of the studied population and that generalizations cannot be made (Saunders et al., 2009). Also, a self-report questionnaire was used, in order for employees to evaluate the leadership style of their manager/supervisor, submitting their personal opinions that cannot be completely impartial, as they are also influenced by the personal relationships they may have developed with the manager or supervisor in the organization in which they serve. It would be useful in future research if managers/supervisors also fill in the Multifactor Leadership Questionnaire and more specifically in the form concerning the self-assessment of leaders to see if the results between leader self-assessment and employees' assessment for leadership style coincide. Finally, the analysis of the data was done with simple statistical methods and not with more complex analyses where multilevel correlations could be made (one such technically could be the analysis of Structural Equations using other software such as SMART-PLS 4).

6.3 Practical Implications

The findings of the thesis provide useful evidence on how leaders in the European Union institution can enhance the effectiveness of crisis management in the future. The results showed that the use of transformational leadership strategies combined with transactional leadership strategies can lead to better crisis management. Furthermore, the use of transformational leadership strategies combined with transactional leadership strategies positively influence the acceptance of organizational changes (arising as a result of a crisis) by employees. From the present study, valuable conclusions emerged regarding the relationship between leadership style and crisis management in European Union organizations. The results, however, cannot be considered representative, due to the limited sample, and it would be good to conduct a larger-scale survey of employees and managers/supervisors working in European Union organizations, to capture in a more reliable way the relationships between leadership styles and effective crisis management. Furthermore, in future research, it would be useful to adopt a multi-method approach, i.e., the combination of quantitative and qualitative methodological approaches, in order to make the interpretation of the multi-dimensional character of leadership in the European Union organizations more effective. It would also be extremely useful to carry out comparative research between organizations with different fields of work or between countries, so that the results can

be compared. This would allow more reliable results to be produced where they could be used by those responsible for managing a crisis.

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Appendix A: Questionnaire

The purpose of this survey is to explore the role of leadership in EU institutions during the health crisis caused by the Covid-19 pandemic. More specifically, the objectives of the work will be: (1) to record the leadership style preferred by EU institutional leaders during the Covid19 health crisis, (2) to document the effectiveness of leadership in the EU institutions during the Covid-19 health crisis, (3) to investigate the correlation between leadership style and the effectiveness of managing the Covid-19 health crisis and employees' well-being, work performance, organizational commitment and organizational changes. The research is carried out as part of the completion of the diploma thesis entitled «Crisis management and leadership how did EU institutions handle and adjust to the crisis of pandemic covid-19». The average duration of completing the questionnaire is 20 minutes and participation is anonymous.

If you want to be informed about the results, you can fill in your email here:

.....

Those who fill in your email, the results will be communicated to you after the completion of the survey.

Thank you for participating in the survey.
Section A.

1. **Gender:** Male Female Other

2. **Age (in years):**

3. **Please note the highest degree you have obtained:**

- Primary education
- Secondary education
- Degree in Technical College
- Bachelor's degree
- Master
- PhD

4. **Marital status:**

Single

Married

Divorced

Other

5. Monthly income:

0-1000

1001-2000

2001-3000

3001+

6. Years of work experience:

Up to 5

6-15

16-20

21+

7. Occupational status:

permanent job

non-permanent job

other

8. Nationality: European citizens Other

9. Supervisor Gender: Male Female

Section B.

How often does the manager of the organization manifest the following behaviors (1 = not at all, 2 = rare, 3 = sometimes, 4 = many times, 5 = almost always)		1	2	3	4	5
1	It helps me in return for my efforts					
2	It reviews previous data to check its accuracy and validity					
3	He does not intervene until the problems become very serious					
4	He focuses his attention on mistakes, exceptions and deviations from the established ones					
5	Avoid getting involved when important issues arise					
6	Refers to his / her own important values and beliefs					

7	He is absent when they need him / her					
8	Seeks different views when dealing with problems					
9	He speaks with optimism about the future					
10	It makes me proud to work with him / her					
11	It clearly states who is responsible for achieving specific goals					
12	He waits for things to get worse to intervene					
13	He speaks enthusiastically about the goals that need to be achieved					
14	Emphasizes the importance of a strong sense of purpose					
15	He spends a lot of time guiding his subordinates					
16	It informs its subordinates about the results they will expect to see when the set goals are achieved.					
17	He is an ardent supporter of the view: "if it is not damaged do not change it"					
18	Puts the good of the team above his / her personal interest					
19	He treats me more as a separate person than as an ordinary member of the team					
20	It follows the tactic that problems must be made years before action is taken					
21	It works in ways that earn my respect					
22	Focuses his / her attention exclusively on dealing with mistakes, complaints and failures					
23	He thinks about the ethical and moral consequences of decisions					
24	It records every mistake that is made					
25	Demonstrates a sense of strength and self-confidence					
26	It clearly states a fascinating vision for the future					
27	It draws my attention to the failures of achieving the goals					
28	He avoids making decisions					
29	He considers me as a person with different needs, abilities and ambitions					
30	It encourages me to look at problems from many different angles					
31	It helps me develop my potential					
32	It suggests new ways in which we can seek the completion of a project					
33	Delays in responding to urgent matters					
34	It emphasizes the importance of having a collective sense of mission					
35	He expresses satisfaction when I meet his expectations					
36	Expresses the belief that the goals will be achieved					
37	Responds effectively to the needs associated with my job					
38	Uses satisfactory methods of motivation and vision creation					
39	It motivates me to do more than I would expect					
40	It effectively represents me to my superiors					
41	We cooperate in a satisfactory way					
42	It increases / intensifies my desire for success					
43	Meets the requirements of the organization effectively					

44	It increases my desire to try harder						
45	Leads a team that is effective						

Section C.

Answer how much you agree with each of the statements on a scale: 1 = strongly disagree, 2 = disagree, 3 = Neither agree or Disagree, 4 = agree, 5 = strongly agree	1	2	3	4	5
1. Covid crisis information and handling methods are documented and preserved in ways that allow them to be recovered when needed					
2. The organization's management adopts preventive measures to prevent the occurrence or recurrence of the covid crisis					
3. The organization's management generalizes the lessons learned					
4. from the covid crisis after its completion					
5. The organization's management is working on analyzing the results and the measures taken in dealing with crises after its completion					

6. The organization's management allocates the necessary requirements to resume the activity during and after the covid crisis					
7. The Organization's management determines specific and clear duties for each employee when the covid crisis occurs					
8. The Organization's management provides the requirements needed to deal with the covid crisis					
9. The Company has a strategic reserve of other materials and supplies to contain the covid crisis					
10. The Organization's management shall form a team of people with experience to manage the covid crisis when it occurs					
11. The Organization's management is working on preparing pre- solutions (scenarios) to face the expected covid crisis					
12. The Organization's management provides adequate training programs for employees to deal with the covid crisis					

13. The Organization's management provides all data and information related to the covid crisis to those concerned parties					
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Section D.

Answer how much you agree with each of the statements on a scale: 1 = strongly disagree, 2 = disagree, 3 = Neither agree or Disagree, 4 = agree, 5 = strongly agree	1	2	3	4	5
1. I am looking forward to the implementation of changes in my work role.					

2. I am quite reluctant to consider changing the way I now do my work.					
3. I am regularly informed on how the change is goin					
4. Information provided on change is clear.					
5. Management team keeps all departments informed					
6. about its decisions					
7. Changes are always discussed with all people concerned					
8. Those who implement change, have no say in developing the					
9. proposals.					

10. Management team is actively involved with the changes					
11. Our department's senior managers pay sufficient attention to the personal consequences that the changes could have for their staff members.					
12. Our department's senior managers coach us very well about implementing change.					
13. Most change projects that are supposed to solve problems 14. around here will not do much good.					
15. The change will simplify work					
16. The change will improve work					

Section E.

Answer how much you agree with each of the statements on a scale: 1 = strongly disagree, 2 = disagree, 3 = Neither agree or Disagree, 4 = agree, 5 = strongly agree	1	2	3	4	5
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1. I am willing to put in a great deal of effort beyond that normally expected in order to help this organization be successful.					
2. I talk up this organization to my friends as a great company to work for.					
3. I feel very little loyalty to this organization.					
4. I am proud to tell others that I am part of this organization.					
5. I really care about the fate of this organization.					
6. For me this is the best of all possible organization for which to work.					
7. I use to maintain high standard of work.					
8. I am very passionate about my work					
9. I use to complete my assignments on time.					
10. I used to extend help to my co-workers when asked or needed.					
11. I communicate effectively with my colleagues for problem solving and decision making.					
12. I am an important part of my team and organization.					
13. I am quite satisfied with my job					

14. I used to maintain a balance between work and home life					
15. My work offers challenges to advance my skills					
16. Mostly I feel happy					
17. I feel good about myself					
18. My life is mostly sorrowful					

Word Count 14337