Rethinking the Adaptive Leadership model through the Italian Adaptive Leadership Behavior Questionnaire

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A thesis submitted in partial fulfilment of the requirements of the University of Sunderland for the degree of Doctor of Philosophy

February 2023

ABSTRACT

Since Heifetz designed the adaptive leadership framework in 1994, the academic literature has benefitted from many publications about it. Most of these are qualitative research studies focusing on specific adaptive challenges and how the adaptive leadership framework can be practically used to face these. It seems very few have dealt with adaptive leadership through the quantitative lens and have attempted to measure adaptive leadership behaviors or tested Heifetz's adaptive leadership model. In response, this PhD aimed to develop a greater understanding of followers' perception of adaptive leadership behaviors in the Italian corporate context and to investigate whether Heifetz's adaptive leadership model can apply to the Italian culture. Hence, the research question "Can followers' perception of adaptive leadership behaviors be measured across the Italian corporate sector and what insights does this give for Heifetz's adaptive leadership model?" was answered using a multi-method research design which involved two questionnaire surveys, a card sorting activity and an expert evaluation.

Among the questionnaires available in literature, Northouse's Adaptive Leadership Questionnaire (2016) was chosen for answering the research question. It was administered to a purposive sample of 400 respondents working in the corporate sector in Italy. The psychometric assessment identified that this questionnaire did not seem to be sufficiently valid when applied to the Italian context. In response, as detailed in the thesis, Northouse's AL questionnaire was adapted and extended into a new questionnaire with the goal of providing a quantitative adaptive leadership behavior measurement tool for the Italian corporate context. This new questionnaire was designed through a card sorting activity which took place over three rounds involving 25 participants. They were to match each designed item with one of the six dimensions the adaptive leadership framework is based on. Once an item would receive at least 85% of participants' consensus, it would be validated and included into what became the Italian Adaptive Leadership Behavior Questionnaire (IALBQ). The psychometrics of the IALBQ were validated with a purposive sample of 459 respondents across the Italian corporate sector. The IALBQ was further validated through an international 7-expert panel evaluation.

Considering the lack of quantitative tools which have been validated for the measurement of adaptive leadership behaviors, the IALBQ is a significant contribution in this way.

Its use allowed to throw light into what adaptive leadership behaviors can be perceived and measured in the Italian corporate context, that the Italian public sector seems to be paralyzed and change-averse in comparison to the private sector and that Italians are oriented to authoritative and directive leadership over adaptive leadership with this characteristic being evident in typically Italian small enterprises (11-50 employees).

It also identified the adaptive leadership behavior called ‘identifying the adaptive challenge’ as problematic. Hence these results lead to challenge Heifetz’s (1994) adaptive leadership six-dimensional model. Findings suggest that the model should be redesigned as a five-dimensional model, with the exclusion of the so called ‘identifying the adaptive challenge’. Considering the lack of publications aiming to test the claims of the adaptive leadership model, this PhD also makes an important contribution to the world of academics, researchers, and scholars in this way. In addition, the IALBQ leads to rethink adaptive leadership. Differently from many publications which see adaptive leadership instrumentally as a solution to adaptive challenges, the IALBQ opens up a proactive perspective where five observable and measurable adaptive leadership behaviors can take place on a daily basis in order for staff to be ready to face changes when they happen rather than working on adaptability only after a challenge has occurred.

To my grandma, Federica Di Nottia, who lived a century (1922-2022) and in my heart will live forever.

To my parents Loredana Valletta and Roberto Novellini, who have taught me the values of sacrifice and perseverance.

I hope I have made you proud.

Acknowledgements

I would like to thank my Director of Studies, Professor Lynne Hall, for her invaluable support, guidance, advice and feedback through supervision, and for her generous investment of time throughout this process. I would like to thank my co-supervisor Dr Paul-Alan Armstrong, Professor John Fulton and Professor Catherine Hayes for their support. I would like to thank the fabulous team of Mark Proctor and Garry Storer for solving all IT problems. I would like to thank all my PhD and Prof Doc colleagues from the University of Sunderland who have encouraged me throughout these years: Petra Vojnova, Shola Bassey-Cardoso, Liam McCarroll, Wale Adeniji, Hashim Hirani, Ian Green.

I would like to thank Greta Villa who has provided significant support and guidance with statistics.

I would like to thank all the experts for dedicating their time to me and believing in this research: Prof Adriano Pianesi, Prof Alessandro Sancino, Dr Andrew Clesen, Prof David Dunaetz, Dr Roberto Fioretto, Prof Simone Tani, Dr Stefano Zordan.

I would like to thank Miriam, Antonino, Billa, Rosmarino, Giuly, Mauri, Raffa who have been there in my times of need.

I would like to thank all my friends who have taken part in this research and have contributed in their own personal ways to my thinking and the emotional encouragement needed to keep going, especially: Miriam Rigoldi, Antonino Martino, Sibilla Ulivi & Luigi Polotti, Angelo Colombo & C., Stefania Vendramin & Maria Ines Cristini, Fabiana Saccheri & Riccardo Macchi, Maurizio Pratici, Giuliana Toppi, Emanuela Angeloro & Marco Paolella, Simona Moretti & Federico Viganò, Francesco Gattel, Flavia Bondardo, Valeria Fraschetti, Elena Maria Gatti, Sara Pozzi, Giulia Del Bue, Antonella Pappadà, Roberta Nava & family, Aurora D'Andrea, Ilaria Di Napoli, Giovanna Ianni & Maurizio Pandolfini, Elena Russello & Marco Sperati, Elena Dugnani, Maria Rosaria Ingenito, Stefania Colia, Antonio Cantali, Liana Rondi & Claudio Marra, Francesca Terrile, Franca Bertocchi & family, Maria D'Errico & family, Lucilla Crosta, Sabrina Specchio, Raffaella Maggioni, Stefania Perugini.

I would like to thank all my students who have taken part in this research, especially: Federica Ferrara, Raffaella Scarpitta, Anna Rivolta & Alessandro Segramora, Enza Iannone, Marica Molinari, Enrico Camarri, Giovanni Bonfanti, Marzia Oberti, Matteo Albarelli, Paolo Carboni, Marco Brambilla, Sara Musci and Davide Mancinelli, Francesco Carucci, Guido Amati, Dario Marchetto, Giovanni Barletta, and all my students from SMC Italia S.p.A.

Thanks to all the participants that have taken part in this research - without you, this wouldn't have happened.

Paola Novellini, July 2022

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1 INTRODUCTION

The twenty-first century is characterized by the social and business environments continually presenting new challenges and opportunities (Miller, 2017). Rasmussen in her publication (2022) uses the acronym VUCA (Volatile, Uncertain, Complex and Ambiguous) to define this world. Specific factors making this era more complex include: "*increased globalization and international commerce, rapid technological change, changing cultural values, a more diverse workforce, more use of outsourcing, new forms of social networking, increased use of visual interactions, more visibility of […] actions, and concerns for outcomes besides profits*" (Yukl & Mahsud, 2010, p. 81). In such a general context where the pace of change across the corporate world is aggressive and constant, the only adequate course of action is to never stop learning (Vaill, 1996; Moen, 2017) and, nowadays more than ever, adaptive leadership is needed (Raei, 2022).

Adaptive leadership is defined as "*the activity of mobilizing people to tackle the toughest problems and do the adaptive work necessary to achieve progress*" (Heifetz *et al*., 2004, p.24). Adaptive leadership constitutes a change in the paradigm of leadership theories:

- Leadership is not conceived as a personality trait, or a style, or a process of influence but it is conceived as a practice (Heifetz et al, 2019). Therefore, it is accessible to anyone irrespective of the power position or the authority, and it can be exercised and learnt. Nowadays, the idea of leaders as superheroes or elected people is outdated (Bennis, 2007). In a historical moment that is characterized by climate change, population's ageing, immigration flows, economic stagnation, delocalization of production units, political uncertainty, learning has become vital, and it is an urge for everyone to take responsibility and exercise adaptive leadership to face any unexpected changes and complex challenges (Miller, 2017; Rasmussen, 2022).
- Etymology can also help understand the real and apparently controversial meaning of leadership. The term 'leader' comes from the Indo-European root *leit*. This root indicates the person who held the banner in front of an army, who went to war and who usually would be killed first, giving a good example to the soldiers who were following (Heifetz, et al. 2019), the example of an act of courage and sacrifice. This is the true purpose of adaptive leadership and what adaptive leadership wants to emphasize, differently from many other more popular leadership theories which celebrate only glory and successes of leaders (Bennis, 2007).
- Adaptive leadership also seems to be the only framework that deals with a critical aspect of human life: the fear of the loss. It is difficult to embrace change, it is more likely that people will resist it and

fight to maintain the status quo, though apparently dysfunctional (Savel, et al. 2017). This reaction of restraint is due to the fear of the loss. Exercising adaptive leadership will lead to diagnose problems and challenges and analyze which losses all stakeholders fear to incur. Hence, it also means to find and offer alternative perspectives which will help them overcome their legitimate fear of the loss (Ruggeri 2015).

Leadership literature seems to be leader-centered and the focus seems to be on those who are supposed to be 'leaders' within the environment. Adaptive leadership shifts the locus of responsibility for action from the authority to everyone. There are neither absolute leaders nor absolute followers, but every single individual can exercise adaptive leadership (Bennis, 2007). In this research the perspective is that of the followers that is somebody who has a boss to report to across the corporate hierarchy. This term is used to mean coworkers, collaborators, colleagues (Crossman et al., 2011). It means those who are at a lower level than their bosses' in the corporate hierarchy. Kellerman's (2008, p. xix) definition of followers in relation to hierarchy may also help in that they are conceived as "*subordinates who have less power, authority, and influence than do their superiors and who therefore usually, but not invariably, fall into line*". In this research there is no philosophical implication in the concept of 'followership'.

Adaptive leadership is based on Heifetz's six-dimensional adaptive leadership model (1994) and explained in his seminal book *Leadership without easy answers*. The six adaptive leadership dimensions or adaptive leadership behaviors are the following:

1) 'Getting on the balcony', which means being able to step back and observe reality
2) 'Identifying the adaptive challenge', which means understanding what problems need to be solved by implementing a change of habits, assumptions, values, and perspectives
3) 'Regulating distress', which means 'keeping the heat up without blowing up the vessel'
4) 'Maintaining disciplined attention', which means directing attention to the real problem and counteracting work avoidance mechanisms, without getting drifted away by stress-reducing distractions
5) 'Giving the work back to the people', which means trusting coworkers, empowering them, and making them responsible for the adaptive work they must do
6) 'Protecting leadership voices from below', which means to take into consideration the voice of coworkers who are not in power positions or have a different opinion from the rest of the group (Heifetz, 1994)

This research is about the perception of adaptive leadership behaviors. This research does not claim to reveal the objective reality of adaptive leadership behaviors. On the contrary, it aims to measure how deeply they

are recognized through the eyes of the followers in line with a post-positivistic research paradigm. This assumption is also in line with what Sackrule (2020) reports, which is a popular sentence by Korzybski, and, before, by the mathematician Eric Bell: 'the map is not the territory'. The territory refers to an external reality and its stimuli which reach people through the five senses. It is a reality which may be common to everyone. However, everyone maps the information received from reality his/her own way, through his/her own lenses. In such terms, the mapping of the territory and the knowledge of reality will be perfectible.

The context where this research has taken place is the Italian corporate context. Italian culture has some characteristics which should be mentioned because they could impact on the perception of leadership and adaptive leadership behaviors. Italy seems to score very highly in 'power distance', 'uncertainty avoidance' and 'masculinity' (Hofstede et al., 2001). As regards 'power distance', Italians, in general, not only those in position of power but also those who are not in position of power, seem to expect that some individuals and groups in the community are more powerful than others and that power is distributed unequally. Italian culture seems to accept and encourage authority, power differences and status privileges. As a result, people who are not in power positions do not expect to be asked what to do, but they expect to be told what to do. They consider centralization popular whereas decentralization seems to be less desirable (Tavanti, 2012). As regards 'uncertainty avoidance', Italians seem to perceive what is different as dangerous and seem not to tolerate ambiguity and uncertainty. Research showed that they tend to avoid risk and opt for friends over strangers and familiar situations over new ones (Gannon and Pillai, 2010). As regards 'masculinity', Italy seems to have a very masculine society. It seems that Italian companies expect men and not women to reach the top of the hierarchy and at the same time women do not have the ambition to. Such a division of roles is considered natural both by men and women (Traquandi and Castellucci, 2002).

Adaptive leadership has been investigated mostly from a qualitative perspective since the moment it was designed by Heifetz in 1994. Most publications are qualitative research studies exploring the framework of adaptive leadership through qualitative methods such as focus groups, interviews, observation, case studies. Most of them highlight the usefulness of adaptive leadership to face challenges and complex problems (Northouse, 2018). Few publications deal with adaptive leadership from the quantitative perspective (Clesen, 2017; Raei, 2018; Jayan *et al*., 2016; Potchana *et al*., 2020). There is a lack of quantitative research about adaptive leadership. There is a lack of validated questionnaires measuring adaptive leadership behaviors.

There is also a lack of publications aiming at testing the adaptive leadership framework and its claims. Some researchers (Northouse, 2018; Miller, 2017) have highlighted the necessity to test the theoretical foundations of the adaptive leadership framework. Other researchers (Alvesson et al., 2019) have warned the scholarship against the current fashion of excessive positivity in leadership studies.

1.1 RESEARCH QUESTION

The research question of this doctoral thesis was: "Can followers' perception of adaptive leadership behaviors be measured across the Italian corporate sector and what insights does this give for Heifetz's adaptive leadership model?" This question informed and drove this doctoral research.

This research question was further examined through the following sub-questions:

1) Can followers' perception of adaptive leadership behaviors across the corporate sector in Italy be measured in a reliable and valid way?
2) What adaptive leadership behaviors are perceived across the corporate context in Italy from the followers' perspective?
3) Are Heifetz (1994)'s six adaptive leadership behaviors an effective model for the Italian corporate context?

1.2 RESEARCH AIM & OBJECTIVES

The aim of this research was to develop a greater understanding of followers' perception of adaptive leadership behaviors in the Italian corporate context and to investigate whether Heifetz's adaptive leadership model (1994) can apply to Italian culture, hence, answering the research question mentioned above.

The objectives of this research, in line with the research question above mentioned, were the following:

1. To understand how adaptive leadership differentiates from other leadership theories, identify the most common approach to adaptive leadership theory and any possible gap in literature.
2. Once it was clear that few publications dealt with adaptive leadership from the quantitative point of view, the second objective was to understand whether the existing Northouse's Adaptive Leadership (AL) questionnaire (2016), designed in an American context, could be a reliable and a valid tool to measure the perception of adaptive leadership behaviors across the corporate sector in Italy
3. Once it was clear that Northouse's AL questionnaire was not sufficiently valid when applied to the Italian corporate context, the third objective was to design a new questionnaire that could be suitable to the Italian corporate context for measuring the perception of the six adaptive leadership behaviors by Heifetz (1994)
4. The fourth objective was to throw light on the way adaptive leadership behaviors were perceived in the Italian corporate context from the followers' perspective
5. The fifth objective was to test Heifetz's adaptive leadership model (1994) and understand if it fits the Italian corporate context.

1.3 INTENDED CONTRIBUTION TO THE FIELD

The intended contribution to knowledge of this doctoral research is multi-faceted. Firstly, it is to investigate what adaptive leadership behaviors are perceived in the Italian corporate context from the followers' perspective. Heifetz's model (1994) identified six adaptive leadership behaviors: 'getting on the balcony', 'identifying the adaptive challenge', 'regulating distress', 'maintaining disciplined attention', 'giving the work back to the people', 'protecting leadership voices from below'. The intended contribution is to understand if all these adaptive leadership behaviors are perceived in the Italian context. It is also to identify whether an already existing adaptive leadership questionnaire, available in literature, can be a valid and reliable tool to measure the above-mentioned adaptive leadership behaviors and, if this tool does not prove to be sufficiently valid, the indented contribution is to design a questionnaire which could suit the Italian culture and be validated for measuring perceived adaptive leadership behaviors in the Italian corporate context. Finally, this doctoral research wants to contribute to test Heifetz's adaptive leadership model and assess whether such a model designed in 1994 is still valid over 20 years later, in such a globalized period where changes are fast-paced and unpredictable.

This intended contribution could benefit practitioners, such as managers and staff, who could have a reliable and valid tool for assessing the perceived adaptive leadership behaviors across the Italian corporate context and encouraging these best practices on a daily basis. It could also benefit academics and researchers who could use this tool to study adaptive leadership behaviors across several contexts while at the same time testing the theory and building on it. Adaptive leadership has been investigated mostly qualitatively with a focus on how to use this framework when facing complex challenges. Few publications have attempted to measure adaptive leadership behaviors and test the theoretical foundations of the model (Northouse, 2018).

1.4 RESEARCH MOTIVATION AND RESEARCHER'S POSITIONALITY

The first reason why this doctoral research was undertaken is because, as explained before, in such a historical period of complex challenges and fast-paced changes, adaptive leadership seems to be helpful and useful to disseminate, especially across the Italian corporate context. It is conceived as a practice accessible to everyone, irrespective of the power position, in a systemic perspective. Its perspective is not leader-centered but it is follower-centered in the sense that collaborators' empowerment is its target. It pushes individuals to question the status quo and take responsibility for their own learning. It facilitates a systemic analysis focusing on why some stakeholders might resist the change, what losses they might incur, what limitations should be overcome.

The second reason why this research was undertaken is related to the shortage of publications and papers, in the literature of the last twenty years, looking at adaptive leadership from the quantitative perspective.

While the majority of the articles throw light into individuals' and organizations' experience of adaptive leadership across all sectors and aspects of a community's life, few have attempted to create a tool measuring the perception of adaptive leadership behaviors or testing the claims of the adaptive leadership model. There seems to be a gap in literature which could be filled and benefit the world of academics and the world of practitioners.

Researcher's positionality also explains additional reasons why this research was undertaken. According to Jafar (2018, p.323) positionality is "*the recognition and declaration of one's own position in a piece of academic work*". She states that positionality adds value to research because it will help contextualize the researcher and research environment and understand the meaning of any research much better. At the same time, it defines 'the boundaries within which the research was produced'. Positionality needs an act of reflexivity on the researcher's side and reflexivity is defined as "*an act of self-reflection that considers how one's own opinions, values, and actions shape how data is generated, analyzed and interpreted*" (Jafar, 2018, p.324). Therefore, following Holmes' guidelines (2020) and placing my researcher self in perspective, I will explain where it comes from and how it relates to and affects the research context, the subject under investigation, the research participants, and the research process.

I am an Italian woman, and I am a practitioner beside being an academic. I am a free-lance teacher of Business English working with corporate customers and teaching Business English to adult people who need to improve their knowledge of the language to carry out daily tasks and to deal with either foreign customers or suppliers or colleagues.

A few years ago, while I was studying on a part-time basis with The Open University on the MBA program, I came across the adaptive leadership theory, and it struck my attention because adaptive work is what my adult students are supposed to do when they decide to embark on the English training. They must fit their studying activity into their busy days full of work commitments and family life commitments. It is my responsibility as a teacher to practice adaptive leadership in the first place, which in this specific case means helping them make space in their life to study English; helping them change their daily or weekly habits; supporting them in times of difficulty; pushing them to persevere; helping them reach a shared and agreed target; defending them in front of their bosses; listening to what they are going through; motivating them. Receiving inputs about the adaptive leadership theory during my MBA and reflecting on my personal daily work experience were the two combined actions which created in me the interest in deepening the knowledge of this topic and spending a few years of my life on this doctoral research.

The result of being a free-lance teacher of Business English in the corporate sector who contributes to build students' language competences is that I tend to see human nature as perfectible and able to be agent within the environment. This assumption of mine, about the way individuals interact with the environment and relate to it, is very similar to the assumption lying beneath adaptive leadership that anyone can exercise it.

Because I come from the practitioners' world, I also tend towards a practitioner's point of view when it comes to investigating and developing my research about adaptive leadership. One of the research objectives is to develop a tool to measure the perception of adaptive leadership behaviors in the Italian corporate context. This is meant to be a practical product that might be used not only by academics and researchers to study adaptive leadership across several social environments, but also by practitioners across the corporate context. It might help managers and colleagues to reflect on the importance of such a theme, hence, to encourage adaptive leadership behaviors on a daily basis. For this practical reason, practitioners were also chosen as research participants. This strategic choice allowed to collect information about adaptive leadership in real life and test the reality of it, as Heifetz strongly recommends (1994).

As regards the limitations of my job as a practitioner and of my humanistic studies background, this research journey has been tough for many reasons. Firstly, it was an act of courage on my side to accept the challenge of embracing this predominantly quantitative approach. While reading through adaptive leadership articles in the past years I realized there was a shortage of quantitative studies and a shortage of studies which might challenge the adaptive leadership model. I was at a crossroads. Either I could pretend I had not seen such a gap and could go on with a qualitative research approach like many others, which might be more familiar and comfortable to me, or I could be honest with myself and embark on this predominantly quantitative research to contribute and fill in the literature void. This was for me *the adaptive work* because this doctoral research led me totally out of my comfort zone, but it also constituted a steep learning curve. Every step of this research was taken building new knowledge on previously consolidated results and findings. It was an incredible journey that made me more aware of my limitations as a researcher and as a person, though more competent in the field of adaptive leadership and scientific research.

Finally, it is also important to recognize my interest in the role of women across the corporate sector and I noticed some differences between men and women in my two purposive samples. Observations regarding this issue will be made where samples are described.

1.5 RESEARCH CONTEXT

1.5.1 What the Italian corporate context looks like

This research has been carried out in the Italian business context. This context seems to be characterized by an authoritarian leadership style within a highly hierarchical context, as well as a confusion in the conception of the difference between leadership and authority, as Linsky states in the preface to the Italian translation of *The Practice of adaptive leadership* (Heifetz et al. 2019). The hierarchical principle may help when it comes to reach a daily target, whereas it may hinder both creativity and the implementation of innovative initiatives in the long run. The hierarchical structure also assumes that people in power positions are where they are because they have the responsibility to think and find solutions. Differently from the hierarchical principle, clustering, which is an intrinsic development dynamic of the Internet, might inspire a better organization of the resources of a company (Levinson, 2004) to facilitate the adaptive leadership practice. In fact, the Internet is made of strong bonds, namely the clusters, which are groups of people who trust each other, and weak bonds connecting the clusters among them. Without these weak bonds the Internet would never work. By analogy, the leadership agent should function as a connector generating trust among all employees.

Another problematic reality of the Italian corporate context is the rationalization of the procedures and the introduction of bureaucratization. This issue may help get rid of the emotional and relational elements, but bureaucratic procedures slow down all processes of change, innovation initiatives included. Rules and procedures that should help prevent administration chaos have become an end point with the consequence that people in power positions may start to get influenced more by the fear of a loss than by the opportunity of a gain (Hattke *et al*., 2020; Bruni et al., 2016).

Another reality that seems to obstruct the adaptive leadership practice in Italy is groupthink, which is widespread across the corporate sector. Within an organization, the risk of groupthink is very high, since its members may aim to the unanimity of thought, without taking into consideration different opinions. Although this practice may be satisfactory in the short term as it brings people to make decisions shortly, it reduces the practice of critical thinking, hence, it will lead to conformism and will limit creativity in the long run (Antin, et al., 2014; Murnighan, 1981; Curry, 2018).

According to what Zamagni writes in his preface to the Italian translation of the book *The practice of adaptive leadership* (Heifetz *et al*., 2019), a further limitation of the Italian system is that there is no clear distinction between technical problems and adaptive challenges. Especially when there is such a generalized confusion and the vision is not clear, the temptation to solve adaptive challenges by applying technical solutions given by experts is very strong. However, this shortcut is very often harmful, as it does not go to the heart of the problem. The quick fix solution will often make the problem bigger rather than solving it. In Italy there are

many examples of this phenomenon such as some technical governments that have dominated the Italian political context in the last decades and some generational transitions within family-run middle-sized companies which have taken place without rethinking about the governance model (Sarwar *et al*.,2020).

This confusion between technical problems and adaptive challenges is strongly linked to the confusion between leadership and authority. In fact, in Heifetz's terms (1997) adaptive leadership can be exercised even by those who are not in power positions and very often the practice of it can benefit from the absence of a formal recognition. The practice of adaptive leadership could be the right approach to a problem which is systemic and cannot be solved through the top-down application of specific knowledge and know-how by those who are in positions of authority. Hence, those who perform adaptive leadership will play a role that is of mobilization rather than decisional. In the Italian context there seems to be a rigid scheme that has been perpetrated and that, in fact, should be broken. Executives tend to provide leadership in the form of solutions. This seems only natural as they have come to power positions because they have proved able to take responsibility and solve problems (Ruggeri, 2015).

Finally, according to what Zordan claims in his preface to his Italian translation of the book *The practice of adaptive leadership* (Heifetz *et al*., 2019), Italy is overwhelmed by a crisis of leadership, due to an increasing distrust in the institutions, a disappointment with some supranational policies and a general awareness of the fact that global phenomena, which impact on people's life, are not under individuals' control. Besides, in Italy, even though there are some good examples of leadership, leadership itself seems to lack diagnosis and a systemic vision of things and this impacts negatively on the few good interventions existing. The consequence is that parochialism spreads all around and weakens not only the Italian system overall but also those sub-systems which might turn out to be virtuous.

1.5.2 Italian culture and leadership

Leadership seems to be influenced by culture, as the implicit leadership theory and the culturally implicit leadership theory state (Schyns and Meindl, 2005; Yukl, 2010). The former claims that individuals tend to have certain expectations about the behaviors and the characteristics of their leaders. Hence, leadership may be considered an 'implicit social label' which is perceived as such by the observers belonging to the same cultural context and society (Dorfman *et al*., 2004, p.670) and the perception of leadership may differ depending on the culture. Other publications in literature confirm the impact of the cultural dimension on the perception of both leadership and followership characteristics and desirable behaviors (Hanges and Dickson, 2004; Knippenberg and Hogg, 2003; Yaghi, 2017).

In his publication (2012), Tavanti refers to Hofstede *et al.* (2001) and considers their analysis of the Italian culture in relation to three cultural dimensions. The first one, 'power distance', is linked to the perception of power and authority, and it refers to the extent to which a society accepts and encourages authority, power differences, and status privileges. The second one, 'uncertainty avoidance', refers to the individuals' attitude to risk and to the extent to which they feel in danger when threatened by uncertain or unknown situations. The third aspect, 'masculinity', does not refer to gender absolute differences but it refers to culturally defined conventions in society. In fact, a man can behave in a 'feminine' way and a woman can behave in a 'masculine' way when they behave differently from what society expects from them. Specifically, a society is considered masculine when emotional gender roles are separate, where men are expected to be assertive, strong, and determined to develop their career and create material success, while women are expected to be more modest, tender, and taking care of the quality of life. On the other side, a feminine society is considered as such when emotional gender roles are not clearly distinct and both men and women are expected to be humble, kind, and concerned with the quality of life.

In line with Hofstede's analysis (2011) reported by Tavanti (2012), in relation to the first dimension, 'power distance', Italy seems to be among the countries which tolerate more power distance and Italians, in general, not only those in position of power but also those who are not in position of power, seem to expect that some individuals and groups in the community are more powerful than others and that power is distributed unequally. For example, subordinates do not expect to be asked what to do, but they expect to be told what to do. They consider centralization popular whereas decentralization seems to be less desirable. They tolerate more supervisors and control, and, in this kind of community, managers rely on superiors and formal rules rather than on their experience and their subordinates. Information does not tend to be shared. Social mobility is limited (Carl *et al*., 2004).

In relation to the second dimension, 'uncertainty avoidance', Italians seem to perceive what is different as dangerous and seem not to tolerate ambiguity and uncertainty. Research showed that they tend to avoid risk and opt for friends over strangers and familiar situations over new ones (Gannon and Pillai, 2010). Italians seem to be alleviating anxiety coming from nature, people's behaviors, and transcendental forces and death, by facing uncertainty with the help of technology, law, and religion respectively (Hofstede, 2001).

As regards the third aspect, 'masculinity', Italy seems to have a very masculine society. It seems that Italian companies expect men and not women to reach the top of their hierarchy and at the same time women do not have such an ambition. Such a division of roles is considered natural both by men and women. Catholic culture might have led to such an unconscious behavior and personal decision (Traquandi and Castellucci, 2002).

In such a corporate context characterized by the culturally distinct features just mentioned, in the light of the literature findings presented above, the corporate hierarchy is well defined, the authority figure is predominant, supposed to have a vision, supposed to align people with his /her vision while indicating the way, and the people, in turn, are supposed to follow. Hence, it might be particularly difficult to address adaptive challenges the way it was conceived by the founders Heifetz and Linsky (2002). In fact, with adaptive problems, authoritative solutions may not be suitable. Authoritative behavior could prevent rethinking, debate, learning to mobilize people look for a solution rather than receiving it from the top.

1.6 THESIS STRUCTURE

Chapter 2 presents the literature review. It provides a focus on leadership and the most important theories of leadership which have populated leadership literature since approximately 1950s. It provides a section about followership. Then it presents Heifetz's adaptive leadership framework and the change in the paradigm of leadership theories, how the adaptive leadership framework has developed throughout the years, and how it has been investigated in literature.

Chapter 3 deals with the methodological approach of this study. It presents the post-positivistic paradigm of the research. This chapter outlines the multi-method approach, identifying the methods used to answer the research question including psychometric assessment of the exiting Northouse's questionnaire; the card sorting approach used to create a questionnaire for Italian context; and the psychometric assessment and expert evaluation of the developed questionnaire. Research ethical issues are also detailed.

Chapters 4 to 8 present the findings of this research, with each of the four chapters presenting findings from each of the multiple methods used. These findings have been presented separately, with the aim of giving clarity of the theoretical and chronological points of view and to give a better understanding of the research journey.

- Chapter 4 focuses on exploring the use of Northouse's Adaptive Leadership (AL) questionnaire as a measurement tool for adaptive leadership assessing the psychometrics of this instrument when applied to the Italian corporate context with a sample of 400 respondents. The results highlight that for the Italian context this questionnaire is reliable but not sufficiently valid.
- Chapter 5 deals with the main adaptation of Northouse's AL questionnaire to the Italian corporate context. It presents the main changes made to the questionnaire items and how new items were designed and validated to be included in the Italian Adaptive Leadership Behavior Questionnaire (IALBQ). It presents the sample of 25 respondents who took part in the activity, it explains the reason

why and how this task was carried out, it shows the results emerging after each of the three rounds of card sorting with the final removal of redundant items.

- Chapter 6 focuses on administering the Italian Adaptive Leadership Behavior Questionnaire (IALBQ). It presents the 459-respondent purposive sample, it presents the psychometric results, which is whether the questionnaire is a reliable and a valid tool to measure the perception of adaptive leadership behaviors in the Italian corporate context and it shows a comparison between the findings collected through the circulation of the IALBQ and the ones collected through the circulation of Northouse's AL questionnaire.
- Chapter 7 shows how the IALBQ would be used in order to explore the perception of adaptive leadership behaviors across the Italian corporate sector. It is contributory and it is also a good example of what sort of results the IALBQ can produce with a sample of 459 respondents. It also explores the way Italian culture impacts on the adaptive leadership behavior perception.
- Chapter 8 focuses on evaluating the questionnaire through exploring the viewpoint of seven experts in relation to the use of the IALBQ as a measurement tool for adaptive leadership behaviors across the Italian corporate context. It presents the reason why the evaluation of the IALBQ was performed through a panel of international experts. It presents a short bio for each expert, the answers that the experts gave to the questions and briefing, and some themes which were not in the evaluation form, yet they were raised by the experts.

Chapter 9 analyzes, explores the meaning, and identifies the importance and the significance of the findings. It presents how the research question has been answered, and how research aim, and objectives have been met, it identifies the main themes emerging from the findings and interprets them and compares them to the existing literature, it lists the drawbacks of this study and suggests improvements, it highlights the contribution that this doctoral research has made to the field, it shows possible developments in terms of further research in the field.

Chapter 10 presents the conclusions of this study and the final remarks.

1.7 SUMMARY OF THE CHAPTER

This introduction chapter has highlighted the usefulness of the adaptive leadership framework in such a historical globalized period of complex challenges and fast-paced changes. It has presented the research question, aim, objectives and intended contribution to knowledge and explained the reasons why this PhD has been undertaken. It has presented the positionality of the researcher. It has described the Italian context where the research has taken place pointing out to some characteristics of the Italian culture which may

impact on the perception of adaptive leadership. Finally, it has shown the structure of the research summarizing the focus of each of the chapters. In the next chapter, the literature review will be carried out.

2 LITERATURE REVIEW

This chapter firstly aims to create the literature base for contextualizing the adaptive leadership framework by Heifetz (1994). Hence, the chapter is structured as follows:

- What is leadership: this section presents the most popular definitions of leadership
- Leadership theories excursus: this section presents, interprets, and critically evaluates the most important theories of leadership which have populated the leadership literature since approximately 1950s
- Followership in leader-centered literature: this section presents the most popular definitions and theories of followership in leader-centered leadership literature
- Adaptive leadership theory, a change in the leadership paradigm: this section explains why adaptive leadership differs from some other leadership theories and points to its distinct features
- The adaptive leadership model (Heifetz, 1994): this section explains the adaptive leadership theory, its rationale, its assumptions, its background, the six behaviors it is based on, and the difference between technical problems and adaptive challenges
- Adaptive leadership literature review: this section looks at publications done on adaptive leadership, discusses the literature that has developed around the adaptive leadership theory in the last two decades, pointing to all those studies which highlight the benefits of exercising adaptive leadership across many aspects of human life
- Quantitative research in adaptive leadership and adaptive performance: this section reports some of the quantitative studies done on adaptive leadership and adaptive performance, and highlights the need to develop quantitative research about Heifetz's originally designed adaptive leadership model (1994)
- Why adaptive leadership in a nutshell: this section underlines the reasons why in this historical period the adaptive leadership theory is useful and worth investigating.

2.1 WHAT IS LEADERSHIP?

There have been many definitions of leadership across the business sector in the last decades. The most relevant have been reported in the table here below in a chronological order:

Definitions of leadership	Author and year
"*The reciprocal process of mobilizing by persons with certain motives and values, various economic, political, and other resources in a context of competition and conflict, in order to realize goals independently or mutually held by both leaders and followers*"	Burns, 1978, p.425

"*Leadership [is] the process of directing and inspiring workers to perform the task-related activities of their group*"	Stoner and Wankel, 1986, p.459
"*Management focuses on speed and methods – doing things right. Leadership focuses on direction and purpose – doing the right thing*"	Covey, 1989, cited in The Open University, 2012, p.66
"*Management is about coping with complexity... Leadership, by contrast, is about coping with change*"	Kotter, 1990, p.104
"*Leadership is a process by which members of a group are empowered to work together synergistically toward a common goal or vision that will create change, transform institutions, and thus improve the quality of life*"	Astin and Leland, 1991, p.8
"*A leader shapes and shares a vision which gives point to the work of others*"	Handy, 1992, cited in The Open University, 2012, p.66
"*If one wishes to distinguish leadership from management or administration, one can argue that leaders create and change cultures, while managers and administrators live within them*"	Schein, 1992, p.5
"*Leadership is a function of knowing yourself, having a vision that is well communicated, building trust among colleagues, and taking effective action to realize your own leadership potential*"	Bennis, 1994
"*The only definition of a leader is someone who has followers*"	Drucker, 1996, cited in The Open University, 2012, p.66
"*Leadership is a reciprocal relationship between those who choose to lead and those who choose to follow*"	Kouzes and Posner, 2003, cited in The Open University, 2012, p.66
"*Leadership is a process whereby an individual influences a group of individuals to achieve a common goal*"	Northouse, 2010, cited in The Open University, 2012, p.67

Table 1 Definitions of leadership

What can be observed is that many of them suggest that leadership is a process involving vision, influence, followership, and change. Leadership is also meant to take place in a group of individuals who are willing to reach a goal. What can also be noticed is that across all these definitions listed in a chronological order there is a shift in emphasis from the relevance of the single leader to the relevance of the relationship between the leader and the group members. This might suggest that the conception of leadership is also influenced by the historical period and the context, as it will be explained shortly after.

According to Zaleznik (1998 [1977]), across the corporate sector it is also important to distinguish between leadership and management. He states that the leaders tolerate chaos and confusion whereas managers try to establish order and control. Hence, both separate functions are necessary for a company to flourish.

Kotter (1990) is in line with Zaleznik (1998 [1977]) and states that leadership deals with change whereas management deals with complexity. Leadership contributes to develop a vision and set strategic direction

whereas management establishes order and uniformity to the organization by planning and budgeting. He explains the difference between the two functions this way:

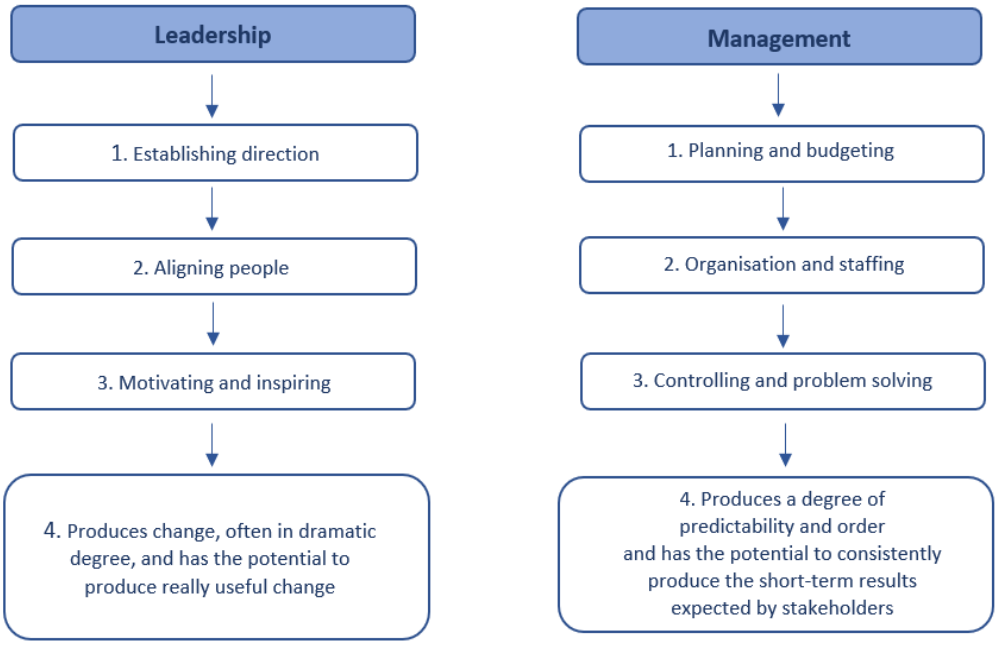

Figure 1 Leadership versus Management (The Open University, 2012)

Nevertheless, Kotter (1990) distinguishes organizing human resources from aligning them while guaranteeing their dedication to making the vision come true, as the picture below shows:

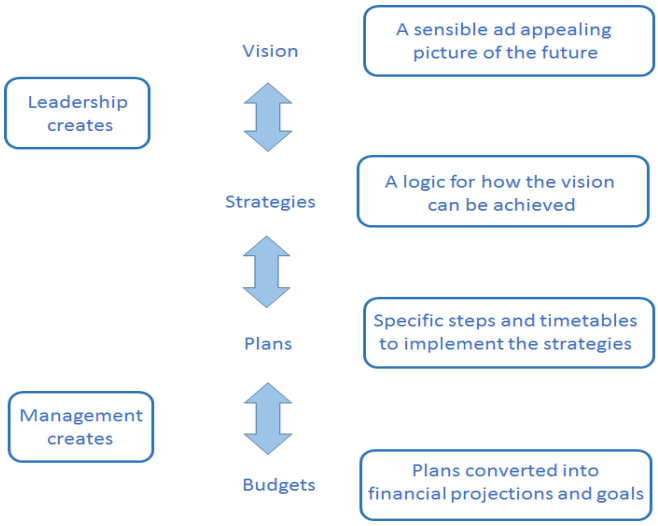

Figure 2 Leadership functions and Management functions (The Open University, 2012)

Both Zaleznik and Kotter conceive leadership and management as two separate entities, yet very strictly connected. Luthans (2007) conceive them as partially overlapping. Mintzberg (1973) considers leadership as

one of the roles of a manager. The three conceptions of leadership and management are shown in the picture below:

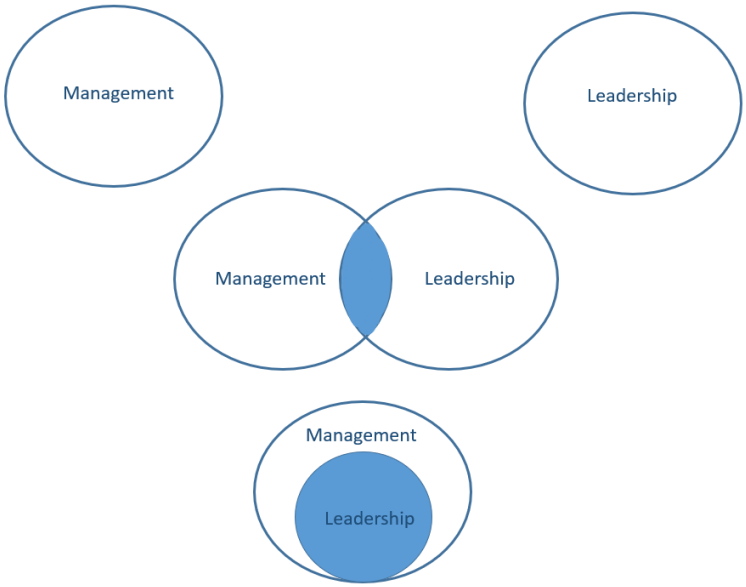

Figure 3 The different conceptions of the relationship between leadership and management (The Open University, 2012)

Northouse (2018) highlights the complex nature of leadership, as the picture shows:

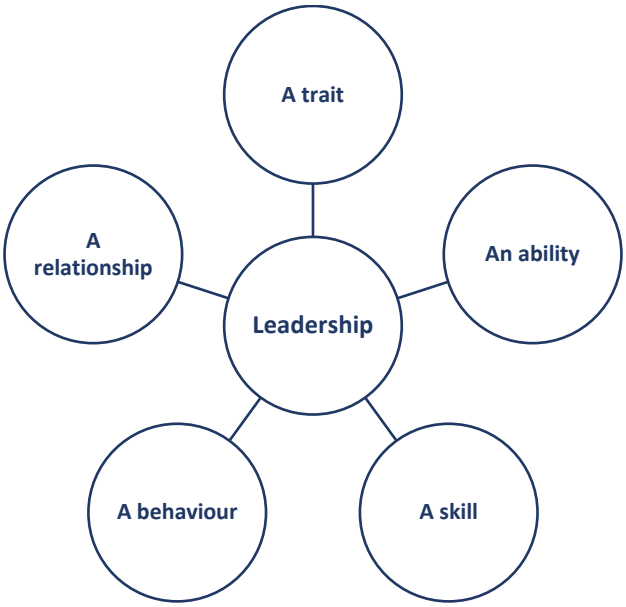

Figure 4 What is leadership

Leadership can be: a) a trait since an individual may have innate characteristics which affect the way he/she leads; b) an ability since it may also be learnt and developed through practice; c) a skill since an individual can acquire the competence of leading somebody, by learning from experience; d) a behavior since it may

be what an individual does and how they act; e) a relationship since it may be the specific relationship between whoever leads and whoever follows.

2.2 LEADERSHIP THEORIES EXCURSUS

The theme of 'leadership' has been widely discussed. Considering how important leadership is across the business sector and considering all technological developments and economic and societal changes taking place over the last decades, in academic literature numerous theories have been advanced focusing on one or another aspect of leadership or variables that influence leadership (Chance, 2009).

The most relevant theories are reported here below, in a chronological order since the historical context may have impacted on the different theoretical approaches to make sense of leadership. All of them may have some limitations, some theories may be conceptually weaker, some theories may be stronger, some other theories may still need empirical validity. However, this scenario reflects how complex the theme of leadership is (The Open University, 2012). In this respect, Mintzberg (2004) states that a theory is chosen not on the basis of how true the theory is but on the basis of how useful it is. For this reason, the most highly regarded theories of leadership that have populated the literature in the last century will be presented. Some of their strong and weak points will be emphasized together with the usefulness of each theory contextualized in its historical period.

2.2.1 Trait-based leadership theories

Trait-based theories were born in the first decades of the twentieth century.

They do not differ much from the 'great man' theories which date back to the late 19th century. Both these types of theories assume that leaders are outstanding individuals, born with innate qualities and a predisposition to lead others. These theories emphasize the selection of leaders rather than the development of leaders.

Nowadays these theories seem to have some limitations. They assume that leadership cannot be learnt. There seems to be little consensus as to what traits a leader should have, whether charisma, intelligence, physical attributes, psychological make-up, *etc* (The Open University, 2012). Efforts were done by earlier periods' authors to create a complete list of universal traits related to successful leadership. Zacarro (2007), cited by Nelson *et al*. (2017), also tried in this intent. However, researchers have not come to an agreement whether leadership traits must do more with either temperament, or personality, or intellectual ability, or a person's behavior or, finally, a person's skills. This approach also seems to exclude women from leadership, given the 'maleness' of the leadership traits identified such as physical strength.

Collins (2001) is one supporter of the trait-based approaches to leadership. He carried out a project working

on 1435 *Fortune 500* companies. Among all these companies, only 11 of them reached the highest level of 'greatness' which he defined as breakthrough performance improvement and sustained financial growth. He realized that the common characteristic of these 11 companies was a 'level 5' leader leading the company. According to Collins (2001), in order for a leader to be considered a 'level 5' leader he/she must 'own' the previous 4 levels as the picture below shows:

Figure 5 Collin's (2001) five-level model

2.2.2 Style-based leadership theories

Style-based leadership theories were born around the middle of the last century. They differ from trait-based leadership styles since they give more emphasis to what a leader does than to his/her own qualities.

There are several theories that are behavior-based. McGregor (1960) studied the leaders' behavior in relation to their followers and identified two kinds of leaders, theory X leaders and theory Y leaders depending on the leaders' assumptions regarding what approach to work employees have. Theory X leaders' behavior is the result of their belief that the typical employee does not like work and, as a result, must be forced and controlled to work effectively. On the other side, the theory Y leaders' view is that employees are happy and motivated to work and, consequently, their leaders' behavior will be more participatory in their leadership approach.

Instead, theorists such as Blake and Mouton (1964) identified two main types of behavior. These are task behaviors and relationship behaviors and the style-based approach to leadership looks at behavior combinations to influence others. Blake and Mouton's managerial grid tends to identify leaders based on

their behaviors characterized by a mix of concern for people and concern for target, as the picture below shows:

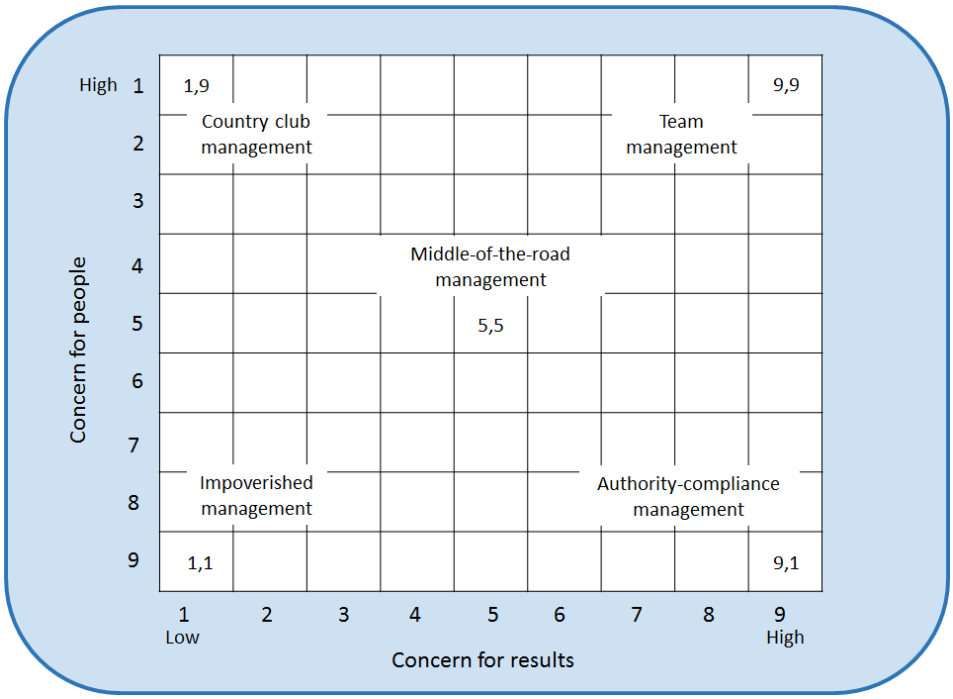

Figure 6 Blake and Mouton's (1964) Managerial Grid

The five styles are characterized as follows: a) *Country club management*: a leader seeks to encourage a positive atmosphere by acting as a friend, but this choice may be at the expense of results; b) *Team management*: it is the ideal style of leadership which can harmonize tasks and interpersonal relationships and insists on the importance of teamwork; c) *Middle-of-the-road management*: a leader always seeks compromises and avoids conflicts, leading to middle of the road performance; d) *Impoverished management*: a leader takes care of neither interpersonal relationships nor results to achieve; e) *Authority-compliance management*: a leader is target-driven and takes too little care of staff. A limitation of this style-based leadership theory is the absence of empirical validity and the lack of research studying the connection between these types of behaviors and positive leadership results. Moreover, it seems difficult to identify one style of leadership which is successful across all situations (Northouse, 2016).

Another style-based leadership supporter is Goleman (2002) who states that at the basis of leadership there is emotional intelligence. He states that emotional intelligence is a set of personal and social competences, as the picture shows:

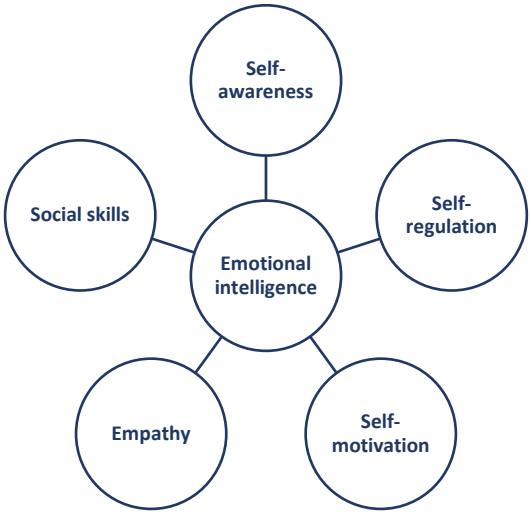

Figure 7 Goleman's (1998) emotional intelligence

According to Goleman (1998), the five components of emotional intelligence can be explained as follows: 1) self-awareness: the skill to recognize one's own emotions and drives, and how these impact on others and the ability to be honest with oneself and with others; 2) self-regulation: the skill to control one's own feelings, moods, impulses, to suspend judgement and think before taking action, to have integrity and courage to take responsibility for one's own performance; 3) self-motivation: enthusiasm about the work itself and energy to reach targets and pursue goals, and a willingness to take the initiative and to persist when things seem to go wrong; 4) empathy: the first social competence, the skill to deal with others according to their emotional reactions rather than one's own. Beside understanding others, it also has to do with developing others; service orientation; leveraging diversity; political awareness; 5) social skills: the ability to influence others, manage conflict, communicate effectively, manage relationships, and build networks. Goleman (2000) also identifies six leadership styles coming from the components of emotional intelligence:

- Directive: this style is used to obtain compliance from employees.
- Visionary: this style allows people to move towards a long-term vision and shared goals.
- Affiliative: this style generates trust and harmony among the team members.
- Participative: this style obtains commitment and buy-in through participation.
- Pacesetting: this style is high paced, and target driven.
- Coaching: this style allows staff to improve performance and focus on professional growth.

Goleman (2000) states that the most effective leaders rely on all styles rather than on one style alone and they use each style, in different measure, depending on the circumstances. Those leaders who use especially the visionary, affiliative, participative, and coaching styles may create a more productive work environment and reach the best results. However, also pacesetting and directive styles have their own function.

2.2.3 Situational leadership theories

Situational leadership or contingency theories were born in the second half of the 20th century and Blanchard *et al*. (1982) are the most popular supporters of this approach which the picture below shows:

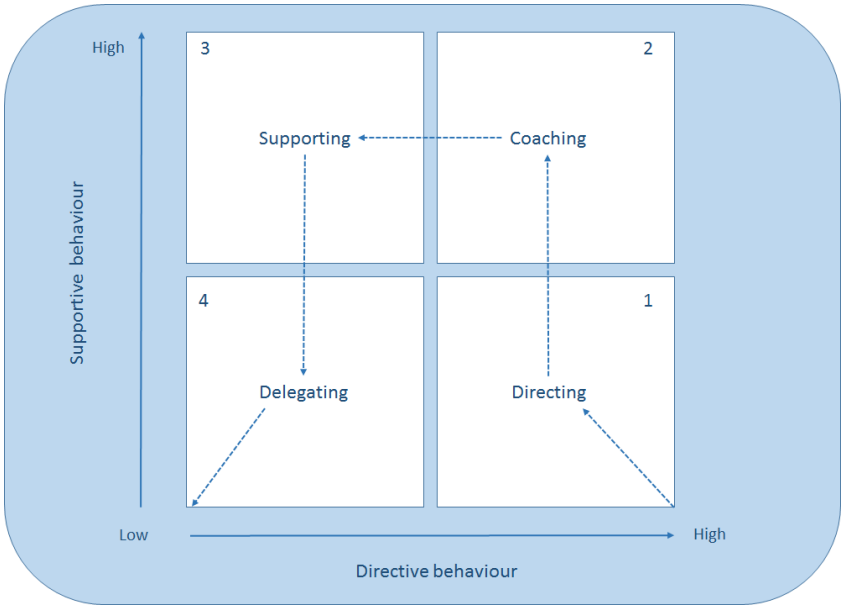

Figure 8 Hersey and Blanchard's (1982) model

Directive behaviors aim to achieve goals and targets whereas supportive behaviors aim to harmonize people, create the team and motivate members to work in the same direction. According to Blanchard *et al*. (1985), the types of situational leadership approaches (directing, coaching, supporting, delegating) depend on the maturity of each member of the team, whether each member needs one style more than another. Follower maturity is determined by the ability and confidence of the group that a leader is leading, hence, the higher the maturity level of the follower, the higher the autonomy he/she will get.

They identify four different levels of maturity:

- **M1** – this is the lowest level of maturity. Team members at this level do not have the knowledge, skills, or confidence to work autonomously, and they frequently must be pushed to work on tasks.
- **M2** – at this level of maturity, people do not have the skills to accomplish tasks successfully, despite their willingness.
- **M3** – at this level, team members are ready and willing to help with the task. They are more skilled than the previous two groups, but they are not confident in their competences yet.
- **M4** – These people can work autonomously. They are skilled and confident in their ability to carry out tasks, and they can manage this.

The combination between maturity levels and leader's attitude will generate four leadership styles:

- **Telling (S1)** – A leader will give precise instructions to their team members about what to do and how to do it.
- **Selling (S2)** – A leader will give information and direction, but he/she will communicate with followers, and he/she will sell their message and get team members aboard.
- **Participating (S3)** – A leader will be concerned about the relationship with his/her team members rather than the task. He/she will work with the team and share decision-making responsibilities.
- **Delegating (S4)** – A leader will give his/her team members decisional power and the responsibility to take initiatives. He/she will still monitor progress and his/her involvement in decision-making will be much lower.

According to Northouse (2018), styles S1 and S2 are target driven. Styles S3 and S4 are people driven and they aim to develop team members' skills to work autonomously. The strong point of this approach is the understanding on a leader's side the importance of adapting to any kind of situation and that the right combination between target-oriented behaviors and people-oriented behaviors could help maximize leadership effectiveness. For example, if a leader delegates his/her tasks to an experienced colleague, who is competent and excited to do the job, and spends hours creating a detailed list of tasks and giving full instructions on how to do them instead of trusting his co-worker's knowledge and skills to do the work, the result will be that the task will be accomplished whereas the relationship with the colleague will be damaged by the lack of trust. This leader would use an S1 leadership style with an M4 maturity level colleague with whom it would be more suitable to use an S4 leadership style. This approach assumes that leadership is determined by the requirements of a given situation rather than the personality traits of a single leader. For example, in the military environment a leader would need qualities or behaviors which might be out of context in a school or hospital environment. Although the strong point of these theories is the focus on the external context with the consequence that leadership may change from situation to situation, still situational leadership theories seem to have little empirical validity (The Open University, 2012).

2.2.4 Transactional and transformational leadership theories

Transactional and transformational leadership theories were born around 1970s when Burns emphasized and studied the process of influence used by leaders to motivate their people. According to Burns (1978), transactional theories focus on the leader trying to influence his/her followers by appealing to their own self-interest. Also, these theories highlight the mutual benefits which derive from the leader-follower relationship 'contract' through which the leader gives rewards and recognition in return for the followers' commitment

and loyalty. Bastardoz (2019) states that followership is the result of a calculation, and that people choose to follow as either they see very few benefits associated with leadership, or leadership has too high costs, or they are unable to attract followers and lead them.

Transformational leadership theories try and empower followers by establishing a connection with them. It seems an effective leadership behavior to reach long-term success. An example of a transformational leader is Gandhi who was attentive to the needs of his people, he established a strong connection with them, and he managed to elevate them and himself. Northouse (2018) states that transformational leaders try and empower followers and help them change. According to Bass and Avolio (1991) there are four types of transformational leadership behavior: a) idealized influence: it generates an identification and strong emotions in the followers toward their leader; b) inspirational motivation: it shapes high ethical values and passes an inspiring vision on to the followers; c) individualized consideration: it offers support and encouragement to certain followers; d) intellectual stimulation: it motivates followers to look at problems from different perspectives and increase their level of awareness.

Kouzes and Posner (1987) developed a transformational leadership model based on five exemplary leadership behaviors, as the picture shows:

Figure 9 Kouzes and Posner's (1987) transformational leadership

According to Kouzes and Posner (1987), the five components are the following: 1) model the way: leaders behave very highly from the ethical standpoint and become models; 2) inspire a shared vision: leaders create a vision of a better future and buy people in; 3) challenge the process: leaders question the status quo and are ready to take risks and challenges to improve the organization; 4) enable others to act: leaders build trust, enhance collaboration, and create a positive atmosphere in the work environment; 5) encourage the heart: leaders appreciate and reward the efforts of their staff to reach targets.

House (1977) conceived the theory of charismatic leadership which is similar to this type of transformational leadership theories, given that charismatic leaders are self-confident, often dominant, they are often willing to influence others and have strong moral values (Ruggeri, 2015).

2.2.5 Distributed leadership

Distributed leadership theories were born at the end of the 20th century when Byrne (1999, pp.88-89) wrote that "*success will belong to companies that are leaderless – or to be more precise, companies whose leadership is so widely shared that they resemble beehives, ant colonies […] In the 21st century, the all-powerful CEO may not be powerful at all. Companies that thrive will be led by people who understand that in business, as in nature, no one person can ever really be in control*". The term 'distributed leadership' is used interchangeably with other terms such as 'shared leadership', 'team leadership' and 'democratic leadership'. In line with Byrne (1999), Nielsen (2004) states that within a company a peer-based structure where the decision-making process also involves those who directly deal with customers or end users would be more beneficial than a rank-based structure where decisions are made by a few leaders at the top of the hierarchy, hence joy, innovation or meaning are lost to the rest of the employees.

Spillane (2005) states that distributed leadership theories assume that leadership is a practice spread among leaders and followers in the context where they interact with each other. He insists on the concept of leadership as a practice which may be exercised across all levels of the organization hierarchy rather than on the concept of leadership strongly related to fixed roles and rigid positions within the corporate structure, or defined traits of some people at the top of the corporate hierarchy.

According to Seifter (2001), the Orpheus Chamber Orchestra based in New York City is a great example of distributed leadership since it encourages collaboration among its artists and discourages the traditional and fixed role of leader / conductor. The leadership roles of the Orchestra are shared and rotate among its members. For every piece of work which they need to prepare, they select a concertmaster and the main players. This little leading group of musicians, who change every time, oversees the piece of music which will be performed, sharing their vision with the rest of the Orchestra members, and shaping the rehearsal

process. As a result, thanks to this distributed leadership process, every member of the Orchestra can contribute to its success using his/her own talent, creativity, and vision. This experience is relevant to many organizations that nowadays operate across the private and public sectors (Xu, et al. 2021).

2.2.6 The authentic leadership theory

One of the most recent leadership theories is that of authentic leadership which seems to have dominated the literature in the last fifteen years. It dates to the first years of the new millennium. Such a model seems to have been born due to the many corporate scandals such as Enron, Worldcom and the global financial crisis that have impacted on society in the early years of the twenty-first century. Bennis (2007) says that such a moral crisis seems to justify the emergence of the authentic leadership theory which might work as an anti-depressive drug and serve the purpose to boost leaders' self-confidence so as for them to feel invested of a new and heroic responsibility.

There seem to be many and fragmented definitions of the model. Gardner et al. (2011) count 12 of them. The most popular is the one by Walumbwa *et al*. (2008) namely "*a pattern of leader behavior that draws upon and promotes both positive psychological capacities and a positive ethical climate, to foster greater self-awareness, an internalized moral perspective, balanced processing of information, and relational transparency on the part of leaders working with followers, fostering positive self-development*" (reported in Semedo et al. 2019, p.94). The theory has been criticized by Alvesson et al. (2019). They state that if we look at the definition of the authentic leadership theory, it seems tautological and logically incoherent to use words. The 'pattern of leader behavior' allegedly coincides with the four dimensions mentioned just afterwards, and these four dimensions in turn seem to be what authentic leadership promotes. Hence, it is not clear whether these elements are either the base, or the purpose, or both, as these four components seem to be antecedents and consequences of authentic leadership, causes and effects.

The figure below shows all components of authentic leadership:

Figure 10 Authentic leadership model

'Self-awareness' means that a leader knows himself/herself and his / her strengths and weaknesses, and they know how they are perceived by the others, and which impact they have on the others (Walumbwa et al., 2011). Self-awareness might be measured by looking at actions or behaviors. Probably, this dimension might be investigated through self-assessment questionnaires, but it is known that when people are to self-assess their qualities, they may lack objectivity or indulge in tolerance, overestimating themselves (Thornhill *et al*., 2019; Xiong et al., 2014; Sarkar, 2019). The second component is 'relational transparency', which means that a leader shares information, feelings, reflections with his / her followers in an interpersonal relationship. Still, in the workplace people may not be entitled to be transparent and authentic in any situation and this may not even be what the company wants. There may be agendas which cannot be disclosed for any reason (Liu *et al*., 2015; Guenter et al., 2017; Gatling et al., 2014; Fusco et al., 2016; Dar et al., 2016). The third element is the 'internalized moral perspective' which means that a leader should have a high moral standing and high ethical standards of conduct, and that he / she should not be influenced by group pressures, organization pressures, or target driven pressures (Gardner *et al*., 2005; Avolio and Gardner *et al*., 2005; Walumbwa *et al*., 2011; Saeed et al., 2019; Mubarak et al., 2018; Mira et al., 2019; Liu et al., 2018; Kiersch et al., 2017). In such a complex period and global context, where multinationals work across several countries of the world (The Open University, 2012), it might be difficult to identify which moral values one individual should refer to, whether the ones of the society, or the ones of the company a person works for, or his/her own moral values as a person. Cultural differences may also impact on the issue of what is moral and what is not. Finally,

'balanced information processing' means that leaders try and analyze all information which is available and relevant before making any decision and try and take this decision fairly (Gardner *et al*., 2005; Walumbwa *et al*., 2011; Bandura et al., 2019). However, especially considering that stakeholders' interests are often difficult to harmonize, decisions which seem to be fair to some of them might be perceived unfair by others (Freeman *et al*., 2013).

Most of the authors who write about authentic leadership do not seem to consider any constraints which may stop authentic leadership from being exercised at work. This positionality might be supported by an ideology of individualization where neoliberal principles aim for accountability and efficiency and the actions of the individual do not seem to be affected by any external context or structure (Romanowski, 2017). The agent has all means to be an authentic leader and make "*individualized, rational, instrumental and, ultimately, context-free*" decisions, as Baker reports (2019, p.1). In a literature review about authentic leadership done during this doctoral research in 2020, it resulted that out of 45 authors writing about authentic leadership, only Alvesson et al. (2019) and Iszatt-White *et al*. (2019) mention some kinds of constraints. They see possible conflicts arising respectively between authentic leadership and leadership effectiveness and between personal expectations and corporate expectations. This latter discrepancy may also be connected to the theory of the role as given and the role as taken which highlights respectively what leaders may be expected to do against what they expect to do themselves (Krants and Maltz, 1997), as the picture below shows:

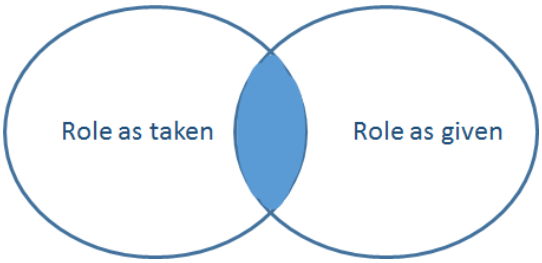

Figure 11 Role as given and role as taken (The Open University, 2012)

Beside the constraints established by the external structure, there may be also the ones which are internal to the individual. Given that authenticity means "*acting in accord with one's true self by expressing what one genuinely thinks and believes* (Luthans and Avolio, 2003)", as reported in Gardner *et al*. (2011), in this respect Ibarra (2003) states that people might experience many possible discrepant selves. From an intrapersonal perspective, the theory does neither get into the matter nor indicate which self an authentic leader should refer to, whether the personal ones or the professional ones.

According to Alvesson et al. (2019) authentic leadership might be conflicting with flexibility and adaptability

if the external context changes and it might also clash with performativity. Ball et al. (2020) say that company targets might be the priority over personal values and leaders might find themselves having to reach these targets even by acting inauthentically. Sometimes in the corporate world opacity rather than transparency is chosen to create and keep fabrications alive.

Here is a table summarizing the theories of leadership presented in this section of the literature review chapter:

Historical period	Leadership theory	In a nutshell:
Late 19th century	Great man	Leaders are outstanding individuals who have innate qualities and were born to lead.
1920s	Trait	Leaders have certain personality traits who make them in the position to lead the others.
Middle of the last century	Style/behavior	Various patterns of leadership behavior are observed and categorized as 'styles of leadership'.
1950s-1960s	Situational	Leaders act on the basis of the context and the situation in which they are together with their followers.
1950s-1960s	Contingency	The right leadership depends on the requirements of a certain situation; one style cannot be effective in all situations.
1970s	Transactional	Leaders reward followers and followers are loyal and committed to their leaders.
1970s	Transformational	Leaders are visionary people who inspire their followers and make changes happen through motivation and empowerment
End of the 20th century	Distributed	Leadership is shared by many group members
First years of the new millennium	Authentic	Leaders encourage authenticity, psychological capacities, and a positive ethical climate for their followers to develop in this direction

Table 2 Summary of leadership theories

2.3 FOLLOWERSHIP IN LEADER-CENTERED LITERATURE

The literature around leadership tends to be leader centered. Many authors refer to the strong and crucial relationship between leader and follower (Trevino et al., 2000; Walumbwa *et al*., 2011; Gabriel, 2015; Thiel *et al*., 2018; Owens *et al*., 2019; Epitropakia et al., 2020; Jiang et al., 2021). This follower-leader relationship

is referred to through several theories. It is called positive modeling by Dimovski *et al*. (2012) and Azanza *et al*. (2018). It is called leader-member exchange by Maximo *et al*. (2019). In this respect, they mention Blau's social exchange theory (1964) because through this relationship followers might get the inspiration to be ethical like their leaders and to be up to the desired behavioral standards (cited in Maximo *et al*., 2019). Bandura's social learning theory (1977) is also taken into consideration (cited in Zhou *et al*., 2014), since it focuses on learning through observation and imitation. In this respect, Thiel *et al*. (2018) stated that the effectiveness of leadership is influenced by the number of the leader's collaborators: the bigger the number of collaborators, the less effective the leadership, as building a relationship with collaborators demands energy, costs, and time. Despite this, most of the authors, among whom Rego *et al*. (2011), Nasab *et al*. (2019), Miao *et al*. (2018), clearly state that companies should put in place leadership skills training for their managers whereas none of the authors states the same as regards followership skills. Therefore, if the leader-follower relationship is so important, and followers are as important as leaders, companies should invest not only in leadership skills training but also in followership skills training, which does not seem to happen. The assumption implied here is that people already know how to follow well, which is questionable. Also, this great interest in developing leadership skills and the total inexistence of followership skills training programs is not justified considering that in the real world of work there may be very few absolute leaders and thousands of followers (Bennis, 2007). Moreover, many leaders are middle-managers, and as such, they are leaders and followers at the same time, or, considering the complex and flatter structures of multinationals nowadays, they may be leaders in a team and followers in another team (Crossman *et al*., 2011).

Few publications put the follower at the center of their research. Some of these publications look at followership using a quantitative approach such as (Kelley, 1992), Chalef (2008), Johnson (2014), Goodman (2015). Some other publications aim to review the current literature about followership (Crossman *et al*., 2011). Some significant publications seem to be those by Sidani *et al*. (2018), Gabriel (2015) and Bastardoz (2019) for the reasons here explained. The first conceives a model of leadership which is not style-based but it is based on the moral legitimation of the followers, though empirical testing is still missing. The second one is the only author who investigates followers' experience and their perception of leadership through a qualitative perspective and gives us precious insights about the concept that leadership passes through the experience of being cared for. Bastardoz (2019) comes up with a unique interpretation of followership taken from evolutionary psychology which seems to reduce followers' value, freedom of choice and role in the corporate world, allegedly supporting the widespread leader-centered perspective. What he says is that people choose to follow because either there are few benefits associated with leadership, or the costs of leading are too high, or they lack the skills to attract followers and lead them. Followership would end up

being the result of a calculation. He also adds that followers will decide to accept to be as such because "*it is the optimal strategy among a set of potential other alternatives, but at times, individuals will freely follow dominant, despotic leaders because they lack credible alternative options*" (Bastardoz, 2019, p.85). In a way, this might be a critique of what reality truly is, lacking valid leadership. A fish rots from the head down.

According to Crossman *et al*., (2011), this leader centered perspective is also evident in the language and discourse used. They show another questionable assumption, which is the fact that leadership is exercised top-down. In some of the literature publications, the followers are called not only collaborators or colleagues, but also 'subordinates', which seems to express, again, an ideological position of superiority on the leaders' side.

Literature around followership has been dominated by some theories. Let us consider firstly the most important definitions that have been given of followership, though, as it happens for literature around leadership, there have been many more fragmented definitions of it (Crossman *et al*., 2011).

According to Townsend and Gebhart (1997, p.52) followership is defined in relation to the leader's perspective as a "*process in which subordinates recognize their responsibility to comply with the orders of leaders and take appropriate action consistent with the situation to carry out those orders to the best of their ability. In the absence of orders, they estimate the proper action to contribute to mission performance and take that action*."

Bjugstad *et al*. (2006, p.304) share the same leader's perspective as previously mentioned and define followership as "*the ability to effectively follow the directives and support the efforts of a leader to maximize a structured organization*."

Wortman (1982, p.373) gives a more neutral definition of followership as "*the process of attaining one's individual goals by being influenced by a leader into participating in individual or group efforts toward organizational goals in a given situation. Followership thereby becomes seen as a function of the follower, the leader, and situational variables*."

According to Kelley (2008, pp.146–147) followership should be defined as strongly connected to leadership. Whereas "*people who are effective in the leader role have the vision to set corporate goals and strategies, the interpersonal skills to achieve consensus, the verbal capacity to communicate enthusiasm to large and diverse groups of individuals, the organizational talent to coordinate disparate efforts and, above all, the desire to lead, […] people who are effective in the follower role have the vision to see both the forest and the*

trees, the social capacity to work well with others, the strength of character to flourish without heroic status, the moral and psychological balance to pursue personal and corporate goals at no cost to others, and, above all, the desire to participate in a team effort for the accomplishment of some greater common purpose." He also states that followership is "*an influence relationship between leaders and followers with the intent to support a goal, purpose, or mission that reflects the mutual purpose of both leaders and followers*" (cited in Goodman, 2015, p.45), and leaders cannot exist or act in a vacuum without followers.

Howell and Costley (2006, p.298) state that both leadership and followership are equally important in reaching corporate targets. They also emphasize the importance of an interactive relationship between leadership and followership rather than a hierarchical approach of the two. They associate followership with "*enthusiasm, cooperation, effort, active participation, task competence and critical thinking*" adding that followers offer support in achieving corporate targets without the need to claim overall responsibility.

Finally, there are two authors who see followership as if it were an 'upward leadership'. Rost (1995, p.112) states that "*followers do leadership not followership. And while followers sometimes change places and become leaders, they do have to be leaders to exert influence, to use power resources to persuade others of their position. In sum, followers are active agents in the leadership relationship, not passive recipients of the leader's influence*." In line with this conception of followership, Carsten *et al*. (2010, p.559) define followership as "*a relational role in which followers have the ability to influence leaders and contribute to the improvement and attainment of group and organizational objectives. It is primarily a hierarchically upwards influence*."

As for followership theories, Baker (2007) states that they fall into three groups (cited in Crossman et al. 2011). The first group of followership theories is *descriptive* and emphasizes how followers act and whether their behaviors are active or passive, supporting, or obstructive. The second group of followership theories is *prescriptive* and emphasizes the types of behaviors followers should demonstrate rather than the behaviors followers have. The third group of followership theories focuses on *situational* factors and emphasizes the importance of the context where the interaction between followers and leader takes place. Though these areas of interest have been distinguished, they are also interrelated being underpinned by constructs of self and motivation.

One of the major supporters of the first group of theories is Kelley (1992; 2008). He bases his model on two variables which he identifies in the critical thinking ability and in the active engagement in creating positive energy for the organization. Considering the combination of these two variables he identifies five

followership styles which, then, get combined with certain leadership styles:

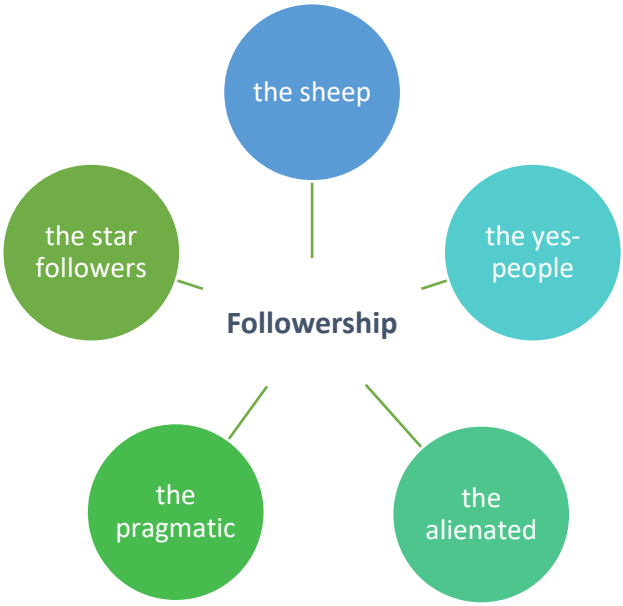

Figure 12 Kelley's (1992) followership styles

The followership styles are here explained:

- the sheep: this type of follower is uncritical, passive and tends to contribute little and remain a spectator rather than taking the initiative.
- the yes-people: these followers are active, non-threatening conformists who are willing to avoid conflict.
- the alienated: this category of followers is composed by cynical people who can create trouble and do contrast their leader.
- the pragmatic: these followers may question their leader, but they take little initiative, they find a good compromise between task and performance within the organizational culture and environment.
- the star followers: these followers are the ideal ones since they take the initiative, support co-workers and leaders and have the courage to speak up and come up with sometimes antithetical views to their leaders.

One of the major supporters of prescriptive followership theories is Chalef (1995; 2008). He does not focus on what followers would do and how they would behave. Instead, he identifies five components of courageous followership focusing on ideal behaviors:

- the courage to take responsibility on behalf of the organization without receiving any guarantees in return.

- the courage to serve a leader taking on new tasks and challenges in order to serve the organization better.
- the courage to question the policies of their leader or organization when they feel what is happening is not fair or right.
- the courage to take part in processes of change and transformation.
- the courage to leave the organization or the group.

If followers are courageous, they are ready to oppose and counteract destructive leaders whatever it takes. In 2008 Chaleff refines his theory and identifies four followership behavioral typologies based on two variables, the courage to support the leader and the courage to challenge the leader's behavior, as follows:

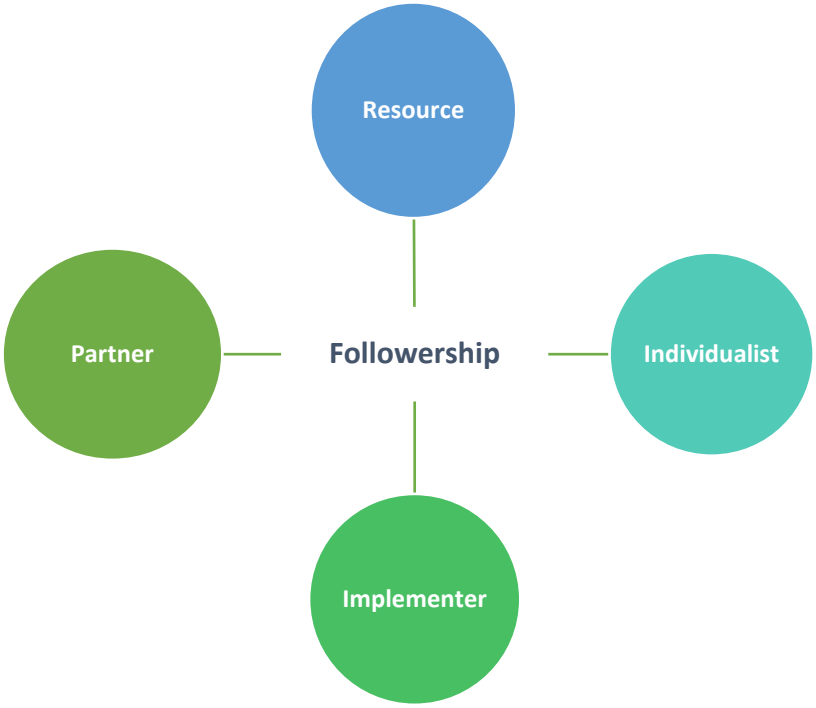

Figure 13 Chaleff's (1995) followership model

Here the followership categories are explained:

- resource: this type of followership means low support and low challenge; the follower will limit his/her actions to retain position and nothing else.
- individualist: this type of followership means low support and high challenge; this follower will speak up while others may remain silent, but he/she may be marginalized as perceived obstructive.
- implementer: this type of followership means high support and low challenge; this follower will offer the leader a lot of support but will not advise the leader about possible risks and mistakes
- partner: this type of followership means high support and high challenge; this follower takes full responsibility for his/her own actions and for the leader’s actions.

Crossman *et al*. (2011) state that the most popular followership frameworks in literature are the two by Kelley (1992) and Chalef (1995) above mentioned. They both seem to be successful in academia and it is worth noticing that in the last decades not many significant publications have been produced about followership after these two models, yet there is still little empirical research about them.

Regarding the third group of situational followership theories, Wortman (1982) stated that followership is influenced by the type of organization whether it is a conservative one or an innovative one. The former tends to recognize and reward stability and efficiency while discouraging deviations from group norms. The latter enhances creativity and freedom to take initiatives. According to Potter and Rosenbach (2006) followership is influenced by the type of organization in terms of whether it is expanding its business and growing at a fast pace or experiencing a slower growth, or it just remains steady. Hence, there may be target driven followers or risk avoidance-oriented followers. Bjugstad *et al*. (2006) used the categories by Kelley's (1992) and the situational leadership styles of telling, selling, delegating, and participating by Hersey and Blanchard (1982) and they combined followership behaviors together with leadership styles. For example, a leader could choose a telling, directive style with a follower who is a conformist and is little motivated to reach a target or complete a task, whereas a delegating leadership style could be used with star followers, a participative leadership style with alienated followers with a view to increase their motivation, a selling leadership style with 'sheep' followers to encourage them to increase their commitment. According to Crossman *et al*. (2011), this model has little empirical evidence, but it emphasizes the importance of meeting leaders' and followers' expectations to improve performance and productivity.

2.4 ADAPTIVE LEADERSHIP THEORY: A CHANGE IN THE LEADERSHIP PARADIGM

In the light of what has been just said, adaptive leadership theory seems to differ from other leadership and followership theories for several reasons. The adaptive leadership framework designed by Heifetz (1994) does not idealize the figure of the leader, which is the mainstream view mentioned in the previous section. The word 'leader' is never used (Heifetz et al., 1997; Heifetz et al., 2022; Heifetz et al, 2004a; Heifetz et al., 2004b; Heifetz et al., 2011). They do not distinguish between leaders and followers. They conceive leadership as a practice, not as a personality trait, nor as a style, nor as a process of influence, and because it is a practice, they claim that anyone can exercise it, irrespective of their power position or role or authority. Because of this conception, leadership as a practice can also be learnt. Learning and getting out of one's own comfort zone are at the heart of the adaptive leadership framework. Ruggeri (2015) also states that leadership is not a trait or an innate characteristic that emerges very soon in a person's life and 'either you have it, or you do not'. He claims that leadership can be developed by understanding what the leadership qualities and

characteristics are, and by training any of them daily and making any of them part of a person's daily life, as best practices.

The adaptive leadership framework takes into consideration the fear of the loss, which is that factor pushing people to avoid and resist change. In line with what Heifetz *et al*. (2019) say, adaptive leadership is difficult to exercise because it questions relationships, identities, tasks within a group. As it happens in nature, every group or system should keep the DNA which is necessary to survive and adapt and leave behind the DNA which is not useful anymore. Hence, the adaptive leadership agent will need to help stakeholders face their fear of what they will lose, in terms of privileges, habits, certainties, identities (Pianesi, 2019).

In this respect, stakeholder mapping will be necessary. The picture here below is an example of how many, and which stakeholder groups might be affected by any change or adaptive challenge happening within an organization:

Figure 14 Stakeholder view in an adaptive challenge

For each group values, loyalties, losses should be identified in order to help them face the fear of what they will lose (Heifetz *et al*., 2002).

The adaptive leadership model also insists on the importance of 'getting on the balcony', which means taking a step back from the scene, diagnosing the reality, analyzing it systematically. The adaptive leadership model offers suitable analytical and intervention tools to manage change (Heifetz *et al*., 2011).

In line with the adaptive leadership model there are neither absolute leaders nor absolute followers but anyone, irrespective of his/her own role, power position, level in the hierarchy plays a crucial role in exercising adaptive leadership and thriving while facing change and learning to adapt (Heifetz *et al*., 2019).

Another aspect of this change of paradigm is the systemic perspective. The adaptive leadership practice passes through a depersonalization in the sense that the focus is not on the person exercising adaptive leadership, but it is on the systemic impact that the adaptive leadership practice has itself (Heifetz *et al.*, 2004a; Heifetz *et al*., 2004b; Heifetz *et al*., 2019). All systems are made for meeting the needs of those who live in them, especially those who control it. Although it may appear dysfunctional to external members or to those who are inside and have a critical view on things, any system works well. Hence, according to Sackrule (2020), it is obvious that anyone trying to change things will be opposed, since the more anyone tries to change the status quo, the more people who benefit from the system will counteract his/her intervention. The system tends to maintain the status quo, irrespective of how unbalanced it is. Exercising adaptive leadership means shaking the system and pushing the people involved to change. People do not want to change as they will possibly lose what they are familiar with. For this reason, it will be difficult to exercise adaptive leadership and it will be also risky. The adaptive leadership agent will need to accept the risk, the uncertainty and the danger coming from questioning the *status quo*. Adaptability and growth pass through the ability of the people to recognize their own vulnerability and the vulnerability of the system. However, this realistic attitude is discouraged by many other leadership theories which, instead, tend to celebrate the leaders and their *ego* and all their successes, as Zordan claims in his preface to his Italian translation of the book *The practice of adaptive leadership* (Heifetz *et al*., 2019).

2.5 THE ADAPTIVE LEADERSHIP MODEL (HEIFETZ, 1994)

2.5.1 Definition of adaptive leadership

The definition of adaptive leadership that constitutes the starting point of this research is the one given by Heifetz, Kania, and Kramer (2004) who state that adaptive leadership is "*the activity of mobilizing people to tackle the toughest problems and do the adaptive work necessary to achieve progress*" (p. 24). Heifetz (1994) conceives adaptive leadership in terms of adaptive work. This adaptive work coincides with the learning that must be done when it is necessary to resolve conflicts in the values held or when there is a discrepancy existing between the values held and what reality is like. Adaptive work requires a change in the values and the beliefs held, and in the behaviors held. Consequently, it is crucial to understand what compromises can

be accepted, what can be sacrificed, what can be kept. We interpret reality and problems in the light of the values we hold. As a result, if the target is to adapt successfully, it is necessary to factor in competing value perspectives. This is what reality testing is about. If values and beliefs are not questioned, there may be a wrong diagnosis and definition of the problems, as values shape the perception of reality (Heifetz *et al*, 2019; Heifetz *et al*., 2011).

2.5.2 The rationale of adaptive leadership

Adaptive leadership can be understood, Heifetz says, by looking at a simple and concrete example in the field of medicine. In his article (1997) he talks about a man, Jack Pritchard, who had to change his life. After heart surgery, if he really wanted to solve the problem, he should take responsibility for changing his lifestyle. No technical fix would help. He should relearn how to breathe deeply, he should stop smoking, he should get on a diet, he should do some physical exercise and take some time to relax too. In practice, the heart surgeon provided his expertise and offered support to mobilize the patient to make behavioral changes but Pritchard himself did adaptive work with the view to understand which changes he should make in his daily life to guarantee better health conditions over the long run. This situation is emblematic of what adaptive challenges companies may face today, for example when companies need restructuring, or develop a strategy, or merge businesses, when within the company a department has difficulty working with another unit, when cross-functional teams are not effective, or when targets are not reached. This is a reason why adaptive leadership is key to nowadays' business world, and society (Miller, 2017; Pianesi 2019).

It is necessary to define values, set new strategies, learn new ways. Frequently, the most difficult task for a manager is to mobilize people within the company to do adaptive work. This means to challenge deeply held beliefs, to recognize that certain values become less relevant and to accept the option to adopt different perspectives (Rasmussen, et al. 2022b).

2.5.3 The assumptions of adaptive leadership

There are four assumptions that lie beneath the adaptive leadership theory: the systems perspective, the biological perspective, the service orientation perspective, and the psychotherapy perspective.

The first one is that if the system is broken, it will be necessary to diagnose it and remedy it by taking risks and questioning and challenging the status quo to initiate change. Problems are complex, and part of a dynamic system, hence, they are always changing (Heifetz et al., 2002). Problems are interactive and affect the people involved in totally different ways. For this reason, they should be looked at from a system perspective (Morgan, 1986; Heifetz *et al*, 2019). Adaptive leadership is a practice which calls for a depersonalization to facilitate a systemic vision. It was born in the context of Harvard Kennedy School of Government with the view to provide people with the skills necessary to manage change in times of

uncertainty in an increasingly complex world. Adaptive leadership insists on a systemic approach to problems and challenges, which might benefit, in turn, the single individuals, groups, and organizations, as Zordan claims in his preface to his Italian translation of the book *The practice of adaptive leadership* (Heifetz *et al*., 2019).

The second one is that the theory has its roots in Darwin's theory of evolution. Plants and animals evolve or adapt over time to survive and thrive. In the same way, if a system, a group, an organization wants to adapt and thrive, it is necessary to look at the past and build on it and understand what is not essential and can then be sacrificed. Adaptation is based on experimentation and diversity (Heifetz, 1994). Changes require time and happen while the heritage is recognized as well as whatever can be the loss is diagnosed and left behind. A corporation can be compared to an ecosystem and challenges must be detected before acting (Ali et al., 2020). The ability to adapt and overcome difficulties will allow people to thrive in new situations (Miller, 2017).

The third assumption is that of adaptive leadership seen as a service provided to others, mainly the resolution of a problem, which managers will come to by working closely with their collaborators. For doing this, they should learn about their coworkers' point of view and values to provide a higher quality service (Heifetz, et al., 2002).

Finally, the fourth perspective is that the theory received some influence coming from psychotherapy, because it highlights the importance of the psychological state of the people involved when change takes place. In fact, adaptive leadership is based on the creation of a holding environment which may help people not only face change (Lawton *et al*., 2009; Heifetz et al., 2002), but also be more open and creative, which in turn facilitates problem solving (Ruggeri, 2015). These four perspectives are the foundation which the six behaviors of adaptive leadership are based on.

2.5.4 The six behaviors of adaptive leadership

According to the original conception of adaptive leadership (Heifetz, 1994), especially those who are in authority positions can help their coworkers adapt by putting in place six behaviors which are the founding principles of adaptive leadership:

1) 'getting on the balcony' which means being able to step back and observe reality

2) 'identifying the adaptive challenge', which means understanding what problems need to be solved by implementing a change of habits, assumptions, values, and perspectives

3) 'regulating distress', which means 'keeping the heat up without blowing up the vessel'

4) 'maintaining disciplined attention', which means directing attention to the real problem and counteracting

work avoidance mechanisms, without getting drifted away by stress-reducing distractions

5) 'giving the work back to the people', which means trusting coworkers, empowering them, and making them responsible for the adaptive work they must do

6) 'protecting leadership voices from below', which means to take into consideration the voice of coworkers who are not in power positions or have a different opinion from the rest of the group (Heifetz, 1994)

2.5.4.1 'Getting on the balcony'

'Getting on the balcony' means to be able to see the big picture. Business leaders should see patterns as if they were on a balcony. They should not be swept up in the field of action. They should identify what is good about the company's history and what should be left behind in the light of an analysis of the present market scenario and the possible future developments. They should understand all conflicts over power and values, spot patterns of work avoidance, recognize all the other dysfunctional reactions the employees might have to change. They must be able to move back and forth between the field of action and the balcony, as in several ways a company's habits can obstruct adaptive work. If a leader is trapped in the battlefield, he/she will become a prisoner of the system and would never be able to mobilize people to do adaptive work (Heifetz and Linsky, 2002). In the literature some articles give examples of what this means in practice. When the person who would have become current CEO of Netflix met CEO of Blockbuster some years ago and proposed him to start a partnership to make films available online to a worldwide audience, as he had understood times were changing, CEO of Blockbuster refused, confident of the sales they were doing at that time. He could neither see the big picture nor identify the adaptive challenge, and after few years the company went bankrupt (Myran and Sutherland, 2016). When Turbitt was a chief superintendent in the Police Service of Northern Ireland, he was given the responsibility to manage the annual Drumcree Sunday demonstrations in Northern Ireland between 2002 and 2004. Together with Benington, who was teaching leadership at Warwick University MPA degree, he designed his policing strategy based on the six adaptive leadership principles, which implied getting on the balcony, a mix of sophisticated future thinking and scenario planning, with close attention to operational and logistical details. He kept moving "*between the balcony - which provides a strategic overview of the whole field of action and of all the different stakeholders -, and the battlefield - where people are in the trenches and up to their necks in the muck and the bullets*'' (Benington, Turbitt, 2007, p.393). Hence, 'getting on the balcony' is crucial for putting in practice the next five principles.

2.5.4.2 'Identifying the adaptive challenge'

The second principle is 'identifying the adaptive challenge'. Nowadays, not only it is important for leaders to understand exactly what the challenge is, but also there are many daily problems at work which are not possible to solve by using the expertise of the boss only. Instead, all members of the team or all coworkers should be involved and do their part. Adaptive challenges are like facing conflicts, succeeding in changing the

habits of the subordinates, filling a possible gap between the scope of the organization and the targets that an individual is asked to achieve. For this reason, leadership is not only a responsibility of the few, or a rare opportunity (Myran and Sutherland, 2016). It is a practice that must be extended to everyone involved in the company. Hence, leadership practice requires learning new habits, facing challenges, adjusting values, changing perspectives. This is what happened to Colin Marshall CEO of British Airways in the '80s when he had to turn the company from one which valued pleasing their bosses more than pleasing customers into 'The World's Favorite Airline'. Marshall identified the adaptive challenges among which the most important point was to 'create trust' throughout the company. For this reason, values had to change, coworkers had to learn to collaborate, a collective sense of responsibility had to be created (Heifetz *et al*., 2019).

2.5.4.3 'Regulating distress'

The third principle is *regulating distress*. When change must happen, coworkers must feel the need to change and at the same time they must not feel overwhelmed by change. Such a crucial balance should be hit. Hence, leadership is in this case a 'razor's edge' (Heifetz *et al*., 1997, p.49). On the one side, if coworkers do not feel the need to change, they will not modify their habits and mentality (Audia and Brion, 2007). On the other side, if leaders put their coworkers under too much pressure, change will not take place, since followers cannot adapt fast enough and will be unreceptive to anything. Adaptive work generates distress, and the responsibility of the boss is to regulate it by creating a holding environment in which dialogue can take place, issues can be debated, and competing perspectives discussed; by prioritizing tasks, as not everything is important in the same way; by providing direction while identifying the adaptive challenges and pointing to the key issues; by seeing conflict as an opportunity for creativity and innovation; by maintaining the rules that should remain strong and by challenging the rules which should change. Regulating distress is probably the most difficult task for a boss, since the pressures to restore the status quo may be very strong (Robbins & Judge, 2016). A boss should be able to hold steady and tolerate frustration, uncertainty, and maintain the tension while leading his/her coworkers towards change. Talking about British Airways, it took four / five years to move the focus onto their customers by taking several actions and during that period all the employees understood how they should change (Heifetz *et al*., 2019). The optimal zone for adaptive work seems to be like the concept of flow by Csikszentmihalyi (1990). A person is in the flow when they are involved in the task, they are focused, and they have a distorted sense of time in that hours can be perceived as if they were seconds and seconds can be perceived as if they were hours. This state is the optimal zone for doing adaptive work where tasks are difficult enough and the person is skilled enough to carry out the tasks. Instead, if the tasks are too difficult, the people get frustrated, and tasks are abandoned. On the other hand, if the tasks are too easy, people get frustrated. In Heifetz's terms (2019) this optimal zone for adaptive work is called 'Productive Zone of Disequilibrium' where people are creative and come up with solutions. If distress

becomes too much, so people move too high in the Productive Zone of Disequilibrium, they will panic and will not take any action. This goes back to the systemic perspective and what is necessary to do to keep control of the temperature.

2.5.4.4 'Maintaining disciplined attention'

The fourth principle is 'maintaining disciplined attention'. Very often it happens that within the company at different levels, people are unwilling to confront competing perspectives collectively and tend to avoid focusing on disturbing issues. Hence, they tend to restore a delicate balance very quickly, through maneuvers aimed at work avoidance, and this negatively impacts on the system (Robbins & Judge, 2016). Instead, innovation and learning are generated by diversity and employees at all levels must focus on facing the real problem. Distractions from the focus must be counteracted, conflict must be brought out into the open and 'used as a source of creativity' as Jan Carlzon, the legendary CEO of Scandinavian Airlines System stated (cited by Heifetz *et al*., 1997, p.51). Forms of work avoidance will be explained in one of the following sections of this chapter, but here it is possible to mention some of them such as "*scapegoating, denial, focusing only on today's technical issues, or attacking individuals rather than the perspectives they represent*" (Heifetz *et al*., 1997, p.51). An example is the way Italian citizens would like to reduce the budget deficit but most of them do not want to give up their privileges or tax benefits. Then, also managers might find it difficult to sacrifice their working style as Zamagni states in his preface of the Italian translation of *The practice of adaptive leadership* (Heifetz *et al*, 2019).

2.5.4.5 'Giving the work back to the people'

The fifth principle is 'giving the work back to people'. The widespread tendency is that within a company, employees expect managers and executives to solve problems, and they do not tend to think that it is their responsibility, instead. Besides, since adaptive work requires effort and brings about distress, then employees will tend to avoid adaptive work, become passive, and create more dependency on their bosses. Not only taking responsibility for action is difficult for lower-level employees, but it is also difficult for higher-level employees to let their co-workers take the initiative, as this would imply a totally different management style, passing from control on to support. Also, adaptive managers must learn from their subordinates, and need to be willing to change themselves (Raney, 2014). However, if a decisive action on the boss' side solves the problem in the short term, in the long run it may lead to complacency and work avoidance mechanisms. Instead, if staff are put in the conditions to take their responsibility for action, they can get to understand what the problem is and how it can be solved. Participation is crucial and it gives rise to collaboration, which is ideal to resolve conflicts (Belasco and Stayer, 1994; Robbins & Judge, 2016). In the '80s, Carlzon managed to collectively build self-confidence across Scandinavian Airlines System through experience and the organization's environment, succeeding in getting the employees learn to take risk and responsibility (Heifetz

et al., 1997). Also, Marchionne (2008) stated "*from day one I recognized that Fiat had a leadership problem. Traditionally, all-important decisions in Italian companies are made by the CEO. It probably worked fine as a leadership model back in the 1950s, but today it's quite unsustainable. A business, like Fiat, is far too large and complicated for one man alone to lead*" (cited in Tavanti, 2012, p.297).

2.5.4.6 *'Protecting leadership voices from below'*

The very last principle is 'protecting leadership voices from below'. According to Heifetz *et al*., (2019), this may turn out to be difficult since leadership voices from below may generate disequilibrium. Hence, these voices tend to be silenced to restore equilibrium within the company in the name of teamwork or alignment. These voices are not usually harmonized or well-articulated, and they often choose the wrong time and place, and do not use adequate channels of communication, bypassing authority lines. However, behind such a 'burden' there may lie a truth, an important intuition for the business, which should be taken into consideration. If such a potentially valuable piece of information is dismissed, this would also discourage potential leadership in the organization. Hence, in general, when people in power positions have the reflexive urge to silence somebody, they should resist. In addition, when the marginalization of others is reduced and employees are listened to and involved in the decision-making process, there is a significant increase in the levels of dedication to group goals (Gerstner and Day, 1997), greater citizenship behaviors (Ilies *et al*., 2007), and creativity (Atwater and Carmeli, 2009). Besides, creativity is crucial to facing challenges without known solutions, as well as an open environment, where anyone can say his/her opinion, minimizes groupthink (Breshears and Volker, 2012).

2.5.5 Failures in adaptive leadership

Heifetz (1994) states that people fail to adapt for several reasons. Firstly, they may fail due to their inability to distinguish technical challenges from adaptive challenges, as shown in the picture below on the left side and explained afterwards:

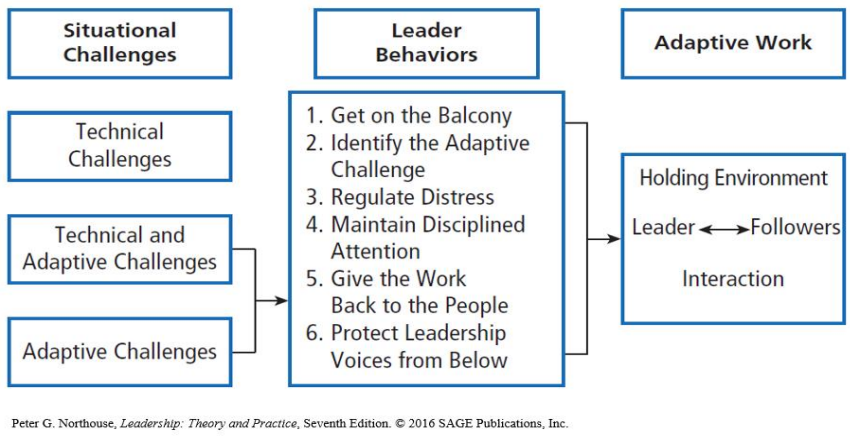

Figure 15 Adaptive Leadership challenges - graphical representation

An example from medicine taken from Heifetz's original publication in 1994 may help understand the difference between these two types of problems or challenges. As regards the first type of challenges in the picture above, called technical problems or challenges, if a person has an infection, he/she may go to the physician and the physician, after defining the problem, may give the patient an antibiotic treatment so that the infection will be healed. The patient's expectations are realistic: the doctor understands and resolves the problem thanks to his/her expertise and to the shift of the problem from the patient's shoulders on to the doctor's shoulders.

As regards the second type of challenge which is technical and adaptive, the problem is identifiable, but the solution is not clear. If a patient suffers from heart disease, his/her problems may be resolved if he/she takes responsibility for them and changes his/her lifestyle possibly introducing exercise, diet program, reduction of stress *etc.* Therefore, in this case, the doctor identifies the problem and suggests a solution. However, if the patient does not implement this solution, the problem will remain. The patient must face reality, accept the changes and the challenges ahead, and be involved in the first person in learning new ways. The doctor in this respect, should understand how to help the patient take the responsibility for implementing adaptive work, as this type of situation is not only technical, where the authority of the doctor is enough to solve the problem, but it is also adaptive as the only person who could solve the problem is the patient himself / herself.

Lastly, as regards the third type of challenge, which is called adaptive, the expertise of the doctor does not help much. These are the cases of patients who are at an advanced stage of cancer, whose concerns may not be to recover from illness, but they may be how to face death, how to prepare their beloved ones to be departed, how to bring professional tasks to completion or how to make the most of life remaining. If cancer were defined as primary problem to solve, all efforts would be done for treating cancer, which would be unrealistic, and the attention would be diverted from the real adaptive work which should be done. The harder the problem, the more people expect the authority to provide a way out. People do not want questions, they expect answers (Bennis, 2007; Oncken et al., 1999).

Beside the inability to diagnose reality, or perceive the nature of threat, which may turn out to be downsized, or the inability to adapt to a just too big challenge, there are several work avoidance mechanisms which are defensive routines, patterns of response to disequilibrium tending to avoid the distress created by both the problem and the changes it requires. Behaviors like scapegoating, denying the problem, externalizing the

enemy, blaming authority, jumping to conclusions, holding onto past assumptions, finding a distracting issue may reintroduce equilibrium and this is less stressful than taking the challenge of change (Jagacinski *et al*., 2020).

Finally, another cause of failing to adapt is the so common tendency to avoid distress. For this reason, the challenge is also to help people learn despite all their resistance and counteract the expected work avoidances. Every culture has typical behaviors work-avoiding in response to stress. However, there are some common behaviors that can be detected such as removing a topic of discussion from the table, as with diversions; making the level of stress caused by a problem suddenly decrease through implementing a quick fix; displacing the responsibility for an issue to an easy target, as with scapegoating; shifting the focus from solving the problem to alleviating the symptoms of stress; placing the responsibility for solving the problem on the authority with the consequence of not doing any adaptive work (Heifetz, *et al*., 2019).

Work avoidance mechanisms could be considered also as counterproductive work behaviors like sabotage, which may damage the organization and the employees. Adaptive practice could be considered an organizational citizenship behavior in terms of Spector et al. (2002). As they state, there are some work conditions which also provoke these negative types of behavior. These are constraints on performance, job stressors, the perception of injustice, a violation of the psychological contract. Hence, emotional reactions will be initiated. Positive emotions will facilitate positive behaviors, and negative emotions will cause negative behaviors. Also, negative behaviors are strongly connected with some personality traits such as anger, anxiety, delinquency, locus of control whereas positive behaviors are connected to ability to help the others and empathy. Therefore, the ability to create a good environment and a good atmosphere which creates good emotions will be likely to facilitate organizational citizenship behaviors without mining the likelihood to have adaptive practice in place.

2.6 ADAPTIVE LEADERSHIP IN LITERATURE

This section will analyze literature about adaptive leadership and will present how the framework has developed over the last two decades and how it has been used.

2.6.1 Development of the adaptive leadership theory

The adaptive leadership theory originated from Heifetz's (1994) seminal book *Leadership Without Easy Answers*. The theory was then developed mostly through the work of Heifetz and his colleagues (Heifetz, 1994; Heifetz *et al*., 2019; Heifetz & Laurie, 1997; Heifetz & Linsky, 2002) highlighting its usability to face complex challenges.

Beside Heifetz and his colleagues, the theory has been reinterpreted by other scholars. Several authors developed a conception of adaptive leadership which does not seem to originate from Heifetz's adaptive leadership theory (1994), though this model was already existing. Some of them designed a theory called complexity leadership theory (CLT) based on three principles, adaptive leadership, administrative leadership and enabling leadership (Lichtenstein *et al*., 2006; Uhl-Bien *et al*., 2007). They conceptualized adaptive leadership as an element of the Complexity Leadership Theory that is useful to catch the ultimate meaning of leadership for organizations of the 21st century where the core commodity is knowledge and information rather than the production of goods as it was in the industrial era (Uhl-Bien *et al*., 2007). "*Traditional, hierarchical forms of leadership address technical challenges through managerial functions, policies, and procedures; however, the challenges of this knowledge era require a leadership model that encourages learning, innovation, and flexibility*" (Miller, 2017, p.3). The focus of Complexity Leadership Theory is on behaviors that promote learning, creativity, and adaptation in complex organizational systems. Within the Complexity Leadership Theory framework adaptive leadership is conceived as a process that originates in conflicts, tensions, and struggles, and as a "*generative dynamic*" emerging from the system (Uhl-Bien *et al*., 2007, p. 299). This means that adaptive leadership focuses on the cooperative efforts of individuals rather than solely on a person to fulfill a managerial role and that adaptive leadership and complexity leadership offer a stronger tool to address adaptive work than adaptive leadership alone (Raei, 2022).

DeRue (2011) conceptualized adaptive leadership as a process in which individuals take part in leading-following interactions which evolve as the group needs change, allowing groups to adapt and be flexible in dynamic situations.

Other scholars (Yukl, 2010) conceived adaptive leadership in similar terms as Heifetz did with the main difference that leadership is not seen as a practice, but it is seen as a position. They define it as leadership that involves "*changing behavior in an appropriate way as the situation changes*" (Yukl *et al*, 2010, p.81).

Rasmussen *et al*. (2022b) associated adaptive leadership with Improvement Science because having complex challenges to face pinpointed the urge to develop and use a system of practice for new learning. Improvement Science is based on six principles "*to enable consistent and authentic progress on persistent challenges, most of which could be categorized as adaptive – hence the connection to adaptive leadership*" (Rasmussen et al., 2022b, p.127). Improvement Science was tested through the work of Carnegie Foundation. The six principles are the following:

- Make the work problem-specific and user-centered
- Focus on variation in performance

- See the system that produces the current outcomes
- We cannot improve at scale what we cannot measure
- Use disciplined inquiry to drive improvement
- Accelerate learning through networked communities

This learning system can support adaptive leadership and can help the actualization of the tenets of adaptive leadership.

Reams (2022) focused his studies on the fact that 'getting on the balcony' to see oneself as a system is a principle of adaptive leadership (Heifetz, 1994; Heifetz *et al*., 2019) and this metaphor implies a subject who can observe this self-system. He then developed his conception of soul as a 'creative unit of pure awareness' (Reams, 2022, p.151) looking at the self-system, drawing on neuroscience, neuro-cardiology, and neuroplasticity. Hence, soul is on the balcony and self is on the dance floor. He also distinguished between soul and spirit and linked adaptive leadership with self-leadership.

Some scholars dealt with the relationship between adaptive leadership and cultural influences (Yaghi, 2017) and claimed that adaptive leadership is driven by cultural necessities.

Raei (2022) investigated adaptive leadership within the Chinese environment where overt conflict tends to be avoided for saving face and Confucian values are spread all around. For this reason, due to cultural specificity, adaptive leadership should be modified for example creating stronger holding environments than in Western countries and setting a slower pace of adaptive work.

Watanabe and Watanabe (2022) looked into the relationship between adaptive leadership and Kabuki leadership, which is a form of improvisational theatre across the hierarchical and collectivist Japanese society. Kabuki leadership enhances improvisation and experimentation skills, fosters adaptation, promotes productive disequilibrium and creates the conditions for adaptive leadership to happen.

Kenny and Four Arrows (2022) deepened the knowledge of adaptive leadership applied to the American Indigenous world of women and how they face the many challenges of today's world. The model they described is called Democratic Indigenous Adaptive Leadership (DIAL).

2.6.2 Adaptive leadership applied to adaptive challenges

Publications about adaptive leadership have focused on the practical use of the framework of adaptive leadership as a tool to face adaptive challenges and help people change and adjust to new circumstances (Northouse, 2018). As detailed in the sections below, most of the articles use a narrative, prescriptive or descriptive style exploring adaptive leadership through the qualitative research lens, through methods such

as case study, action research, interviews, focus groups, getting insights into people's experience of adaptive leadership (Miller, 2017). The areas where adaptive leadership has been studied are various: medical and healthcare related, societal, non-for-profit, organizational, military, educational, business-related, as explained below.

2.6.2.1 Adaptive leadership within the medical and healthcare sector

Adaptive leadership has been extensively written about in the medical and healthcare sector, specifically to study the relationship between medical doctors and patients, to help physicians mobilize patients in taking responsibility for facing and managing their illnesses and not only to improve patients' life quality but also to decrease suffering when dealing with illnesses and death (Thygeson *et al*., 2010; Adams *et al*. 2013b). It was demonstrated that families involved in adaptive leadership dimensions such as decision making and participation in the medical treatments would be more prone to develop a patient-centered approach and to make decisions in line with the patient's goals with a view to improve the patient's life quality (Adams *et al*., 2013a; Bailey *et al*.,2012). Some studies were carried out on the need of adaptive leadership in nursing homes, from two perspectives. On the one side, care always needs to be adapted to the patient and caregivers must take responsibility for that. On the other side, residents and family members must face real adaptive challenges (Corazzini *et al*., 2015; Anderson *et al*., 2015a). It was demonstrated that adaptive leadership can be of great help in such an environment for everyone, especially for the staff who are supposed to work on their emotional awareness, awareness of assumptions, realistic reflections, and collaboration skills (Song *et al*.,2016; Eubank *et al*., 2012). Other studies pointed to the importance of adaptive leadership in the person-directed care sector and in the training programs of medical doctors and paramedic professionals since paramedics' jobs deal with constantly changing environments. In addition, adaptive leadership proves to generate a higher quality service and effective solutions, allowing local health departments to become assets for their stakeholders (Dickinson, 2010; Reid *et al*., 2010; Mantha *et al*., 2016; Haeusler, 2010; Snebold, 2015; Shah *et al*., 2019; Kuluski *et al*., 2021). Some authors through a qualitative study across the United States and the United Kingdom stated the importance of adaptive leadership to exercise by men with male factor infertility during infertility treatment (Stevenson *et al*., 2019). Some others studied the potential for development of adaptive leadership and collaborative partnership within the family and with healthcare agents that parents of children who are medically at-risk hold (McKechnie *et al*., 2020). Fiscus *et al*. (2018) put in practice especially four principles of the adaptive leadership framework and they managed to expand clinical hours in the Clinics and Surgery Center, in Minnesota, which is still growing. Wylie (2020) used the adaptive leadership model to redesign NHS Greater Glasgow and Clyde (NHSGGC) Podiatry Service that finally took full responsibility for all foot and ankle wounds across all operating units in the area. Charney and Gick (2022) investigated the usefulness of adaptive leadership across the healthcare industry

focusing on "*liminal folds and rhizomic spaces*" (p.194) and how adaptive leadership can offer a guide to solve 'wicked problems.'

2.6.2.2 Adaptive leadership and societal and environmental challenges

As for societal change, adaptive leadership has been studied qualitatively through case studies and action research. The results of this research have shown that adaptive leadership is necessary to face unexpected and complicated situations, such as hurricane Katrina and the Great East Japan earthquake (Hayashi & Soo, 2012), war and conflicts between and within countries and how to establish peace (O'Doherty & Kennedy, 2013; Benington *et al*., 2007), wildlife endangered indigenous species on the verge of extinction and how to preserve them in Florida (Haubold, 2012). According to O'Doherty & Kennedy (2013), adaptive leadership can be used to obtain peace, since conflicts generally have to do with values, often resulting in adaptive challenges. Haubold (2012) highlighted that The Florida Fish and Wildlife Conservation Commission debated on how to manage their indigenous species for two decades without finding any satisfactory solution. Finally, it was only when the wildlife commission engaged in the facilitation function of adaptive leadership that it brought stakeholders together that the problem was solved. Adaptive leadership was shown to be important to stimulate societal change through community engagement and service learning where individuals could take responsibility for the change they would make, and not-for-profit organizations could impact on society to address educational issues as well as complex challenges of any kind (Esler *et al*., 2016; Preece, 2016; Valeras *et al*., 2020). These authors emphasize how important it is for the individuals who have leadership roles to be involved in the change processes also considering that adaptive leadership is not possible without involvement. According to Heifetz *et al*. (2004), one specific study investigated non-profit organizations located in Pittsburgh and their capability to stimulate social change by taking an active, visible, and controversial role. In 2002 three foundations in Pennsylvania lost trust in the Pittsburgh school district and stopped their donations. In the previous five years they had donated about $ 12 million dollars. This news which became public put the school board under a lot of pressure and reform took place shortly after. These foundations managed to push the local community to address social and educational issues. Adaptive leadership was found to be useful also in relation to implementing new responsible and environmentally friendly behaviors and a greater cooperation between citizens and their government at a policy making level (Burke, 2007). Hlalele *et al*. (2015) proved that adaptive leadership facilitates shared ownership of learning. They carried out an action research project in Africa aimed at community engagement and service learning, which was supported by the University of the Free State (UFS) Qwa Qwa campus and the University of KwaZulu-Natal (UKZN) Pietermaritzburg campus. There are also some publications dealing with the adaptive leadership framework and how to keep the community library service up to date and effective. At the Hong Kong University of Science and Technology Library, a study was carried out about how librarians can manage

change with the team through difficulties and uncertainties, and design change strategies based on the adaptive leadership framework (Wong *et al*., 2018). Patrick and Lyons (2022) investigated how adaptive leadership can help communities fight against racism, especially against the White supremacy which has always controlled the conversation about racial justice. Adaptive leadership can help change the way racial stories are told and question conversation patterns. MacDonald Hardesty *et al*. (2022) pinpointed the efficacy of small, micro-interactions against large-scale activism within the political climate and how adaptive leadership can enhance effectiveness.

2.6.2.3 Adaptive leadership in education

Many scholars in academia and, generally, across the education sector have proved the usefulness of the adaptive leadership practice across several fields of studies providing indications about how to use the model (Brothers *et al*., 2015; Linsky & Lawrence, 2011; Nelson *et al*., 2017; Khan, 2017). Woolard (2018) wanted to enhance students' group work and he managed to reach his goal and created autonomous groups by embedding adaptive leadership into the construct of the group-work itself. Noble (2021) studied the implementation of adaptive leadership in promoting character development among the teacher community in a primary school in Maryland, USA, across a 4-year longitudinal qualitative research project. Hence, these teachers managed to become more prepared to meet students' increasingly diverse needs. McLaughlin (2020) in his book pointed to the importance for leadership students of managing disequilibrium, practicing adaptive leadership, and applying reflective judgement. Adaptive leadership was implemented by Virginia Polytechnic Institute and State University to help the State address an economic decline and facilitate a social and economic change. This was a great way a higher education institution worked closely with the community through adaptive leadership which turned out to be social leadership (Maybaumwisniewsk, 2007). This case demonstrated that universities may not only provide their communities with technical assistance or research and development through adaptive leadership, but they can also take on a more important role for community engagement. Wolfe (2015) investigated adaptive leadership applied to curriculum reform at Nebraska Wesleyan University. This case study highlighted that after years of debate without getting anywhere, an agreement was found when each group of stakeholders started to share their views and values with the other groups of stakeholders, hence change in academia took place thanks to adaptive leadership. Adaptive leadership focus on dialogue, active listening, and stakeholder conflict management, was chosen as a criterion to evaluate the effectiveness of change initiatives in the academic world (Randall and Coakley, 2007). Ozen (2019) used the lens of complex adaptive leadership to assess the effectiveness of school management through the eyes of Syrian refugee students in Turkey and their school principals.

2.6.2.4 Adaptive leadership within the corporate sector

There are also some publications promoting the practice of adaptive leadership across companies operating in complex environments where changes happen fast (Doyle, 2017; Yaghi, 2017; Jefferies, 2017). In France companies are pushed to rethink their approaches to quality of life in the place of work especially for their employees. This may happen through the implementation of adaptive leadership (Coulombe, 2015). Pianesi (2019) designed a Change Canvas which is a visual framework for strategic conversations about change with large groups that is based on adaptive leadership. Schroeder (2017) designed a non-linear leadership development training model across one of the NY stock exchange financial service companies based on the adaptive leadership theory. Ali *et al*. (2020) studied the positive impact of shared leadership and adaptive leadership on team creativity in China. Adaptive leadership is also used in sportive environments to improve any team's organization, for example, in Leicester City's (2015/16) English Football Premier League (Coleman, 2021). Some authors investigated the impact of adaptive leadership practices on promoting sustainability across the business sector. They stated that the connection between data-driven and adaptive leadership is a key factor for non-financial sustainability, which in turn contributes to financial sustainability in modern agri-food supply chains (Akhtar *et al*. 2016). Bilal (2022) looked into all various challenges that virtual teams face nowadays and how adaptive leadership can help staff working together in a virtual environment solve problems and overcome barriers.

2.6.2.5 Adaptive leadership and Covid-19

There were some publications in 2020 and 2021 all over the world about adaptive leadership and Covid-19, proving how useful the adaptive leadership model can be as an approach to deal with crises such as the Covid-19 pandemic. Dunn (2020) explored the usefulness of adaptive leadership for school leaders during times of significant change such as the pandemic. Goode *et al*. (2021) reported a successful response to Covid-19 pandemic across the Catholic Educational Diocese of Ballarat in Australia not only on the side of the educators but also on the side of the community. Specific solutions and extraordinary adaptive leadership allowed to support the most isolated students, teachers, and leaders. Nissim *et al*. (2021) also studied the way institutions of higher education across Israel reacted to Covid-19 through mixed-method research. They found out that such an emergency forced institutions of higher education to adopt agile leadership behaviors, especially adaptive leadership and one consequence of this was the flattening of the hierarchy curve. Santra *et al*. (2021) examined the adaptive leadership of medical doctors during the pandemic and how useful this model proved to be to face an unexpected occupational demand increase, information overload, sociocultural issues as well as to embark on new learning to address unknown issues, totally new perspectives, while creating and protecting a safe and engaging workplace environment. Also, doctors identified new training opportunities in this direction to enhance staff's flexibility. Hawley (2021) developed

a leadership course for undergraduate students in health, nursing, social science, business, and education in the USA exploiting adaptive leadership and preparing students for systemic challenges and unexpected situations such as the pandemic. Mukaram et al. (2021) conducted a quantitative study to underline the importance of adaptive leadership together with academic leadership for building and assessing readiness for change among higher education institutions in Pakistan during the pandemic period. Garavaglia et al. (2020) studied the impact of covid-19 on local communities. The mayors of the Italian municipalities faced an adaptive challenge where they had to demonstrate their position of authority through various adaptive leadership actions, such as translating the DPCMs in a clear effective way to clarify what might be done and what might not be done, to demonstrate their skills and support citizens in a moment of "chaos". Le Fevre (2022) investigated the adaptive leadership experience that Arden, prime minister of Aotearoa New Zealand, did responding to the covid-19 pandemic with compassion and caring. It is considered one of the most successful responses to the pandemic across the whole world. Egitim (2022) looked into the way Japanese universities faced the covid 19 pandemic enhancing collective intelligence and accelerating adaptive leadership practices.

2.7 QUANTITATIVE RESEARCH IN ADAPTIVE PERFORMANCE AND ADAPTIVE LEADERSHIP

This section of the literature review chapter explains the part of the literature review that specifically drove the origin of this research study and the research question "Can followers' perception of adaptive leadership behaviors be measured across the Italian corporate sector and what insights does this give for Heifetz's adaptive leadership model?" and informed the choice of the methods used to answer this research question. As the previous paragraph shows, in the last two decades adaptive leadership has been studied and investigated largely through qualitative methods, whereas the quantitative research in the field seems still little.

Some articles were found about quantitative research in adaptive performance. However, none of them is based on Heifetz's adptive leadership model designed in 1994. Griffin and Hesketh (2004) developed a twenty-item instrument of adaptive career performance, which considered adaptive behaviors such as being proactive (e.g., innovative problem-solving), reactive (e.g., interpersonal adaptability) and tolerant (e.g., coping with stress). Han and Williams (2008) designed a team adaptive performance framework, but it seems they did not deeply analyze the psychometrical characteristics of their adaptive performance instrument. Charbonnier-Voirin and Roussel (2012) designed an individual adaptive performance measurement tool based on nineteen items, including five of Pulakos' *et al*. (2000) eight dimensions. The scale was created especially for a French-speaking audience and some parts of the analysis had a cross-sectional nature, hence, difficult to perform simultaneously. Pulakos *et al*. (2000) designed a measurement tool of career oriented

adaptive performance. The scale was built on the following eight dimensions of job adaptive performance: a) handling emergencies or crisis situations; b) handling work stress; c) solving problems creatively; d) dealing with uncertain and unpredictable work situations; e) learning work tasks, technologies, and procedures; f) demonstrating interpersonal adaptability; g) demonstrating cultural adaptability; h) demonstrating physically oriented adaptability. Marques-Quinteiro *et al*. (2015) developed a measurement tool of adaptive performance at a team level in all kinds of jobs. However, also this scale is far from the adaptive leadership model that is the focus of this research.

Very few articles were found about quantitative research in adaptive leadership. Jayan *et al*. (2016) pointed to the need for the development of an adaptive leadership scale, even if at the time being it is still unknown if their quantitative project has been carried out. Potchana *et al*. (2020) published an article about the measurement of some components of adaptive leadership. However, their questionnaire is not only about adaptive leadership. It is also about some other aspects such as managing skills, a freedom to act, and being visionary, which to their view are additional components of an '*adaptive leader*', as they define it (p.93).
Two questionnaires were found related to the adaptive leadership theory by Heifetz (1994; 2009): Northouse's Adaptive Leadership questionnaire (2016) and Raei's Adaptive Leadership with Authority scale (2018).

2.8 WHY ADAPTIVE LEADERSHIP IN A NUTSHELL

This chapter has presented the most popular leadership definitions and theories since the first decades of the 20th century. It has also presented the most recent followership definitions and theories. According to Mintzberg (2004), who states that a theory is chosen not on the basis of how true the theory is but on the basis of how useful it is, the adaptive leadership model by Heifetz (1994) was chosen and investigated in this PhD for the following reasons. Considering the historical period of the new millennium and the adaptive challenges which are to face in terms of climate change, new technology developments, economic crises, societal changes, population's ageing, immigration flows, delocalization of production units, political uncertainty, finally, a pandemic, the adaptive leadership theory seems to be very useful due to the change in the paradigm of leadership literature that it has brought about. Leadership is not conceived as a personality trait, or a style, or a process of influence. The idea of leaders as superheroes or elected people is outdated (Bennis, 2007). Leadership is conceived as a practice (Heifetz et al. 2019). Therefore, it is accessible to anyone irrespective of the power position or the authority, and it can be exercised and learnt. There is an urge for everyone to take responsibility and exercise adaptive leadership, as Zamagni claims in his preface to the Italian translation of the book *The practice of adaptive leadership* (Heifetz *et al*., 2019). The etymology of the word 'leader' coming from the Indo-European root *leit* indicates what the real meaning of leadership should

be. In fact, this root indicates the person who held the banner in front of an army, who went to war and who usually would be killed first, giving a good example of an act of courage to the soldiers who were following (Heifetz, *et al*. 2019). In addition, adaptive leadership calls for a depersonalization to facilitate a systemic vision and insists on a systemic approach to facing problems and challenges, which might benefit, in turn, the single individuals, groups, and organizations. Adaptive leadership also seems to be the only framework that deals with and throws light on the fear of the loss. It is difficult to embrace change, it is more likely that people will resist it and fight to maintain the status quo, though apparently dysfunctional (Savel, *et al*. 2017). This reaction of restraint is due to the fear of the loss. Exercising adaptive leadership will lead to diagnose problems and challenges and analyze which losses all stakeholders fear to incur. Hence, it also means to find and offer alternative perspectives which will help them overcome their legitimate fear of the loss, as Zordan states in his preface to his Italian translation of the book 'The practice of adaptive leadership' (Heifetz *et al*., 2019).

2.9 SUMMARY OF THE CHAPTER

This chapter has provided a leadership literature review, a followership literature review, an adaptive leadership literature review. It has pinpointed the distinct features of the adaptive leadership theory and the change in the paradigm that the adaptive leadership framework has brought about. It has also highlighted the shortage of quantitative research measuring the perception of adaptive leadership behaviors and testing the claims of the adaptive leadership model (Heifetz, 1994). The next chapter will present the methodological approach used in this research.

3 METHODOLOGY

This chapter explains the research paradigm forming the basis of this research and the methods used to collect and analyze data to guarantee the high standard of the research findings. The chapter structure is the following:

- Research Paradigm: this section presents an outline of the post-positivistic philosophical positionality of the researcher in line with the choice of the research design and methods used.
- Research Design: this section presents the predominantly multi-method quantitative approach chosen for better answering the research question.
- Research Methods: this section discusses the methods used in each stage of the research to reach a positive outcome of the research.
- Research ethics: this section outlines the ethical issues the research incurs and the ethical standards and requirements for this research.

3.1 RESEARCH PARADIGM

A research paradigm is a way the world is viewed and described, which is determined by some philosophical assumptions about the nature of reality (ontology), how the knowledge of reality is produced (epistemology) and what is valued (axiology) in the research (Shannon-Baker, 2016; Creswell and Poth, 2016; Thanh and Thanh, 2015). This research paradigm may be identified as post-positivism. Post-positivism or post-empiricism is a critique of positivism. It was created by Kuhn in the second half of the twentieth century. Kuhn was an American philosopher of science who introduced the term 'paradigm shift' as the dominant positivistic paradigm at that time started to seem incompatible with phenomena (Fenwick, W., 2001). Post-positivism rejects the positivistic claims that reality has an objective nature, and that science can understand and discern it. This positionality has the following implications. While positivism believes in the real possibility for the researcher to study and understand reality without influencing it, post-positivism states that the researcher, his/her hypotheses, values, and knowledge can impact on the reality under investigation. Post-positivism also claims that objectivity can be reached by admitting the possible effects of biases which are rejected by positivism. Finally, positivism sees quantitative methods the only acceptable approach to reality and its investigation, whereas post-positivism recognizes the importance of both methods, quantitative and qualitative, to get to know reality (Racher and Robinson, 2002).

The assumptions of post-positivism are the following. From the epistemological perspective, human knowledge is the result of human conjectures, which means opinions, hypotheses based on incomplete information. These conjectures can be tested by experiment or observation and can be considered valid

when consensus is reached. Hence, these conjectures are justified by certain warrants which explain why the data proves the claims. The warrants authorizing the inferential leap from the conjectures to the claim can be rejected or modified in the light of further investigation. Anyway, post-positivism still believes it is possible to reach an objective truth and rejects any form of relativistic claims. Especially in social sciences, various ways of understanding reality such as those coming from human experiences, reasoning or interpretation are considered appropriate to allow the production of rich and deep insights into human life (Panhwar *et al*., 2017). Besides, while positivism rejects the importance of context and it attempts to come to generalizable conclusions irrespective of the environment, in social science, data collection must be contextualized and context is crucial to post-positivism (Fox, N.J., 2008). From the ontological perspective, post-positivism claims that reality can be studied and understood only imperfectly and probabilistically. However, it still believes a reality exists. The post-positivistic conception of reality is also influenced by social constructionism (Saunders, M. *et al*, 2015). From the axiological perspective, post-positivism states that biases are inevitable, and it is necessary to recognize them, detect them and limit their impact on the knowledge of reality. Differently from positivism, which claims that research is value-free or value-neutral, post-positivism recognizes that the researcher's values and believes can influence the way he/she sees the world. Hence, these values and assumptions must be recognized to understand how they can impact on the research not only in terms of result interpretation and analysis but also in terms of sampling, population, measurement tools and design. Finally, while positivism attempts to remove subjectivity from knowledge production, post-positivism allows reflexivity to take place among researchers (Fox, N.J, 2008).

This research focused on the research question: "Can followers' perception of adaptive leadership behaviors be measured across the Italian corporate sector and what insights does this give for Heifetz's adaptive leadership model?" The scope of this research was to develop a greater understanding of followers' perception of adaptive leadership behaviors in the Italian corporate context and to investigate whether Heifetz's adaptive leadership model (1994) can apply to the Italian culture. In line with the assumptions of post-positivism, the newly designed questionnaire does not claim to be scientifically flowless. Within the epistemological perspective mentioned above (Easterby-Smith, M. *et al*, 2018), the newly designed questionnaire is the result of several attempts to test 60 statements built on conjectures and incomplete information, of which 21 of them were validated based on research participants' consensus. Through constant and further investigation, the quality of each statement improved to guarantee the successful design of a tool which can help understand the reality of adaptive leadership behaviors and the way they are perceived as accurately as possible, though imperfectly, across the corporate sector in Italy. Such a reality was explored, and the results of this research were influenced both by the perspective of the researcher, her

values, her background, her interpretation of data and by the specific cultural economic and social context where the investigation took place, which is Italy. The limitations and possible biases of the sample and the research design were acknowledged and minimized.

3.2 RESEARCH DESIGN

Researchers examine their ontological, epistemological, and methodological assumptions and use research methods in line with their philosophy of science (Guba, 1990). In line with a post-positivistic paradigm, multiple methods were chosen as a research design to better answer the research question: "Can followers' perception of adaptive leadership behaviors be measured across the Italian corporate sector and what insights does this give for Heifetz's adaptive leadership model?" In order to answer the research question, the two questionnaires about the adaptive leadership framework available in literature, Raei's Adaptive Leadership with Authority scale (2018) and Northouse's Adaptive Leadership (AL) questionnaire (2016), were examined.

Raei's adaptive leadership questionnaire with authority scale was not chosen because it might be perceived excessively long by Italian respondents who may not be willing to fill in a questionnaire consisting of 23 questions and approximately 80 sub-questions. In addition, as the author states, his results did not confirm the validity of his questionnaire measuring the several dimensions of adaptive leadership. Instead, it seems his questionnaire conceives adaptive leadership as a one-dimensional entity and as such, it might be difficult to use this questionnaire to verify the six-dimensional framework of adaptive leadership designed by Heifetz in 1994.

Northouse's AL questionnaire consists of 30 items and focuses on the six adaptive leadership behaviors which the adaptive leadership model (Heifetz, 1994) is based on, namely, 'getting on the balcony', 'identifying the adaptive challenge', 'regulating distress', 'maintaining disciplined attention', 'giving the work back to people', and 'protecting leadership voices from below'. In literature Clesen (2017) used Northouse's questionnaire. He tested its validity and reliability in a US military context with a sample of 203 respondents.

Northouse's AL questionnaire was chosen as a tool to answer the research question: "Can followers' perception of adaptive leadership behaviors be measured across the Italian corporate sector and what insights does this give for Heifetz's adaptive leadership model?"

The reasons why it was chosen are the following:

- It is accessible to the public.

- It focuses specifically on the six adaptive leadership behaviors which the adaptive leadership model (Heifetz, 1994) is based on, namely, 'getting on the balcony', 'identifying the adaptive challenge', 'regulating distress', 'maintaining disciplined attention', 'giving the work back to people', and 'protecting leadership voices from below'.
- It aims at assessing and measuring these six adaptive leadership behaviors across any sector. In its nature it was designed with the view to be a practical tool to be completed by any manager and his/her coworkers to assess adaptive leadership behaviors. By comparing the manager's score on each dimension during a self-assessment task and the ones given by the coworkers, the manager would discover which components of adaptive leadership he/she would be better at and which components he/she would be worse at (Northouse, 2016).

However, the adaptive leadership self-assessment task was not performed in this research. The questionnaire was circulated to respondents for assessing their bosses' adaptive leadership behaviors only, because it would be difficult to measure the gap between self-perception and others' perception about a person's adaptive leadership behaviors considering that the questionnaire is totally anonymous. Northouse's permission to use the questionnaire was granted and it is visible in appendix I.

Northouse's AL questionnaire's reliability and validity were tested on a sample of 400 respondents. As this questionnaire did not prove to be sufficiently valid when applied to the Italian corporate context, it was adapted and extended into the Italian Adaptive Leadership Behavior Questionnaire (IALBQ). All items included in the IALBQ were validated through over 85% participants' consensus (Easterby-Smith *et al*., 2018). This consensus was obtained during a card sorting activity. 25 participants on a voluntary basis were asked to match each statement with one of the six dimensions of the adaptive leadership framework (Heifetz, 1994). Every time 85% of the respondents would match a statement with the correct dimension, this statement would be considered eligible to express that dimension, hence it would become an item of the questionnaire. Out of 60 statements, 21 were validated and two extra items were included. The 23-item questionnaire was circulated to 459 respondents who were asked to assess how frequently their boss would demonstrate certain behaviors on a scale from 1 (never) to 5 (always). The psychometric assessment of the IALQ was performed and the IALBQ was also submitted to the evaluation of an international panel of experts. Therefore, this would be the research methodology design:

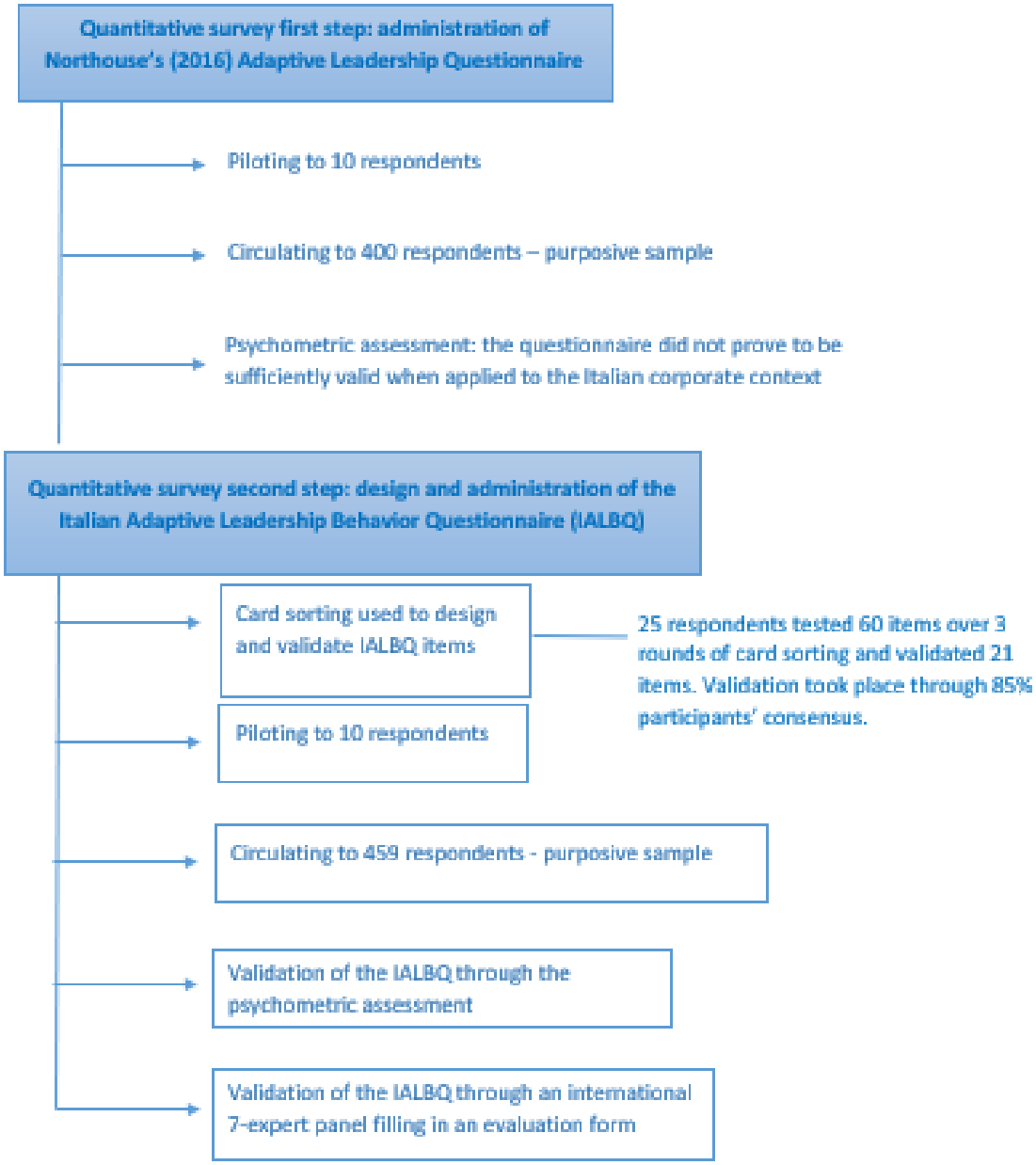

Figure 16 Scheme of the research methodology

Looking at the picture below, this research design could be identified in the predominantly multi-method quantitative studies (Thornhill, A. *et al*., 2019):

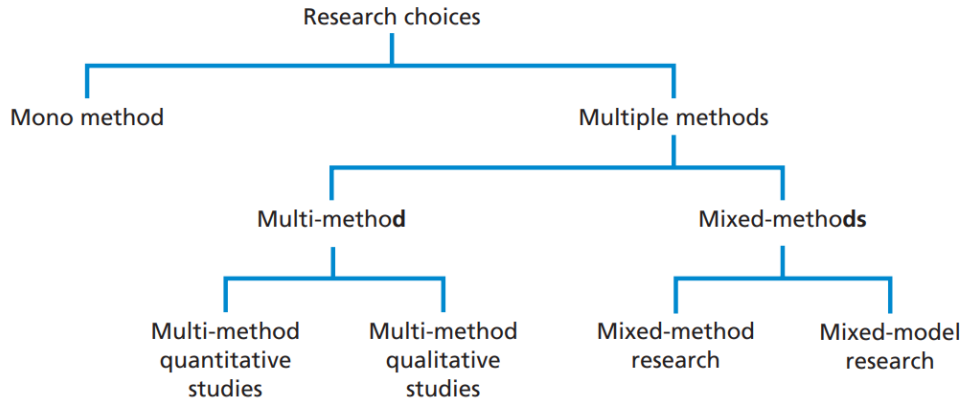

Figure 17 Research design types

3.2.1 Rationale for predominantly multi-method quantitative studies

To begin with, looking at both the ways data was collected and analyzed to better answer the research question, the focus was on numeric data whereas non-numeric data (words) were only taken into consideration when analyzing the expert evaluation form and the comments the experts made on the usability of the IALBQ. In terms of data collection, the methods used were the two questionnaires, the expert evaluation form and the card sorting activity. Card sorting was not used qualitatively during interviews or focus groups with the view to get an insight into the richness of participants' sensations, feelings, emotions about the reality investigated. It was administered specifically to reach the participants' consensus on each statement that might be validated to be part of the IALBQ (Bryman *et al*., 2019).

The research has a cross-sectional design and not a longitudinal one. This is because the research did not aim to detect any developments or changes over time in the sample population, but it aimed to understand how the perception of a reality can be measured at one point in time. Despite the fundamental critique moved against the cross-sectional design, that there is no evidence of temporal relationship between exposure and outcome because they are evaluated at the same time, still it can be a valid design to study potential cause-effect relationships assuming that the exposure remains unchanged over time (Bell *et al*, 2018; Easterby-Smith *et al*., 2018).

Considering the classification given by Hanson *et al*. (2005), there may be four types of research design: the *complementarity* design takes place when using results from one method to elaborate on results from the other method. The *development* design is based on using results from one method to help develop or inform the other method. *Initiation* happens when molding again results from one method to questions or results from the other method. Finally, the *expansion* design tends to expand the breadth of scientific inquiry by using different methods for the different parts of the research. This specific research has a *development*

design where the items validated through the card sorting activity were the ones included in the IALBQ. It also has an *expansion* design, because two methods were used to validate the IALBQ, the psychometric assessment and the expert evaluation.

3.2.2 Procedural notations

In terms of procedural notations, combining multiple methods can take place during the data collection phase and during the data analysis phase of the research (Easterby-Smith, M. *et al*, 2018). As regards data collection, three distinct designs can be identified. The *handmaid* design is based on the principle that one method serves the needs of the other, there is a specific sequence in the use of methods, and one method dominates the other, which is the case of this research. In the *partnership* design both methods have the same degree of importance. Instead, in the *compensatory* design one method compensates the weaknesses of the other one and *vice-versa*. This specific research has a *handmaid* design, where, given the little satisfactory results obtained during the first stage of the research, when it was understood that the questionnaire designed by Northouse (2016) could not apply to the Italian context, the cart sorting method implemented during the second stage of the research served the purpose to create and design the items of the IALBQ. The expert panel evaluation of the questionnaire was another method to assess the IALBQ.

According to Hanson *et al*. (2005, p.228), six primary types of designs are presented: three sequential (explanatory, exploratory, and transformative) and three concurrent (triangulation, nested, and transformative). Every type of design depends on four factors: an explicit theoretical positionality or advocacy lens, an approach to implementation which can be seen in sequential or concurrent data collection procedures, the priority of quantitative and qualitative data (equal or unequal), the phase in which the data is analyzed and integrated (separated, transformed, or connected), and procedural notations (Creswell, 2009). Therefore, in Hanson's terms (2005), this research design can also be considered a sequential explanatory design for several reasons. It does not use any explicit advocacy lens. In fact, the post-positivistic paradigm of this research does not involve any scope of social change or any advocacy-based lens such as feminism and it is not a "critical/emancipatory" paradigm, as Ponterotto (2005) defines it. Quantitative data was predominant throughout all research phases, with data collection and analysis methods used sequentially and not concurrently. Data analysis was connected. This is also the case when coming to defining this research design. Quantitative data was not only analyzed statistically but it was also analyzed through the factor analysis technique to look for hidden patterns. This happened during the analysis of the experts' evaluation forms too. In turn, results from the card sorting method were analyzed through the frequency count technique, by calculating how many times a specific nominal category was associated to a statement. Finally, data was integrated during the interpretation and the discussion phases, due to the necessity to

compare results from the questionnaire designed by Northouse (2016) and the IALBQ and also to compare the results emerging from the psychometric assessment and the expert evaluation of the IALBQ (Lancaster, G., 2005).

3.2.3 Advantages of multi-method quantitative studies

According to Tashakkori and Teddlie (2003) multiple methods can provide a good solution to better answer the research question because different methods can be used for different purposes. In the specific case of this research, both questionnaires, Northouse's AL questionnaire and the IALBQ served the purpose to collect descriptive and possibly explanatory data, whereas the card sorting method served the purpose to validate the statements which would constitute the items of the IALBQ. The experts' evaluation of the IALBQ served the purpose to assess it as a quantitative tool.

In line with the post-positivistic paradigm which admits that theory leading the research process is imperfect and it may offer a limited vision of reality, multiple methods can lead to a research outcome that might not consolidate existing theories (Shannon-Baker, 2016). This is the case of Northouse's AL questionnaire, which was designed in America, but in the light of the results emerging from this research, it seems it cannot apply to the Italian context. This research through the IALBQ also tested and challenged the theoretical foundations of Heifetz's 6-dimensional model (1994).

Generally, the aim of the multiple methods approach is to contribute and verify the validity of theories, models and tools being looked at from different perspectives (Shannon-Baker, 2016). In this research, the expert panel evaluation and the psychometric assessment of the IALBQ contributed to validate the IALBQ. Card sorting was used to validate the items which were included in the IALBQ. This way, multiple methods added value to the research because they contributed to increase the validity and credibility of the research findings (Easterby-Smith *et al.,* 2018). They also allowed diverse mental perspectives to play an important role in the research process and these different points of view may well be the ''*the starting point for further theorizing*'' and facilitate the continual refinement of theories (Modell, 2009, p.219).

The importance of context emerged in this research. In other words, this predominantly quantitative multi-method research design had a focus on process and a ''*generative*'' view of making inferences while trying to recognize potential causal relationships which are context based (Clark, *et al*., 2007; Maxwell *et al.*, 2010, p. 156). Multi methods facilitated the inference of causal relationships that are not only contextually based but they could also be generalizable to others (Shannon-Baker, 2016).

3.2.4 Disadvantages of multi-method quantitative studies

Some disadvantages of the quantitative approach may have to do with the impossibility to get the richness of data which just qualitative research might offer (Easterby-Smith *et al* 2018). Qualitative research allows to collect data which is lost when using a standardized questionnaire. In this research, through quantitative methods it was not possible to deepen the knowledge of adaptive leadership by getting rich insights into the respondents' experience of such a complex social phenomenon. Their opinions, emotions, critical incidents, reflections were automatically left out. Multiple methods may also be time-consuming and take up more resources than single method research. Finally, the overall design needs to be a valid one and the researcher needs to be competent in the use of all methods (Bryman and Bell, 2019).

3.3 RESEARCH METHODS

As shown in figure 16, in order to answer the research question "Can followers' perception of adaptive leadership behaviors be measured across the Italian corporate sector and what insights does this give for Heifetz's adaptive leadership model?" a research design composed by two stages was set to create coherence among all parts of this research. Data was collected and analyzed using the most suitable methods to better answer the research question: an already existing questionnaire during the first stage of the research; a card sorting method at the beginning of the second stage of the research; a newly designed questionnaire during the second stage of the research; an expert panel evaluation of the newly designed questionnaire at the end of the second stage of the research. This two-stage research design is based on the findings of the literature review, in which it seems there is little empirical research carried out on the adaptive leadership theory, especially from the quantitative perspective (Northouse, 2018), as already explained in chapter 2. At the beginning of every step a critical literature review about the method used in that specific stage of the research was carried out with the view to substantiate the knowledge both at the basis of the content and at the basis of the methodology of this research.

3.3.1 The questionnaire as a data collection method

The survey through a questionnaire is considered an authoritative research method in the scientific world and it is relatively easy to carry out, explain, and understand (Thornhill *et al*., 2019). A quantitative survey facilitates the collection of a large amount of data in a very fast, easy, and economical way. In this specific case the survey was carried out using two multiple-choice standard questionnaires. The one used during the first stage of the research is the one designed by Northouse (2016) and filled in by 400 respondents. The one used during the second stage of the research was a newly designed questionnaire, the IALBQ, filled in by 459 respondents and built on the results of the card sorting activity, as explained later on in this chapter. Here are both questionnaires:

1	When difficulties emerge in our organization my boss is good at stepping back and assessing the dynamics of the people involved
2	When events trigger strong emotional responses among employees, my boss uses his/her authority as a leader to resolve the problem
3	When my colleagues and I feel uncertain about organizational change I trust that my boss will help us work through the difficulties
4	In complex situations, my boss gets people to focus on the issues they are trying to avoid
5	When employees are struggling with a decision, my boss tells them what he/she thinks they should do
6	During times of difficult change, my boss welcomes the thoughts of group members with low status
7	In difficult situations, my boss sometimes loses sight of the “big picture”
8	When people are struggling with a value conflict, my boss uses his/her expertise to tell them what to do
9	When people begin to be disturbed by unresolved conflicts, my boss encourages them to address the issues
10	During organizational change, my boss challenges people to concentrate on the “hot” topics
11	When employees look to my boss for answers, he/she encourages them to think for themselves
12	Listening to group members with radical ideas is valuable to my boss
13	When my boss disagrees with someone, he/she has difficulty listening to what the other person is really saying
14	When others are struggling with intense conflicts, my boss steps in to resolve their differences for them
15	My boss has the emotional capacity to comfort others as they work through intense issues
16	When people try to avoid controversial organizational issues, my boss brings these conflicts into the open
17	My boss encourages his/her employees to take initiative in defining and solving problems
18	My boss is open to people who bring up unusual ideas that seem to hinder the progress of the group
19	In challenging situations, my boss likes to observe the parties involved and assess what’s really going on
20	My boss encourages people to discuss the “elephant in the room”
21	People recognize that my boss has confidence to tackle challenging problems
22	My boss thinks it is reasonable to let people avoid confronting difficult issues
23	When people look to my boss to solve problems, he/she enjoys providing solutions
24	My boss has an open ear for people who don’t seem to fit in with the rest of the group
25	In a difficult situation, my boss will step out of the dispute to gain perspective on it
26	My boss thrives on helping people find new ways of coping with organizational problems
27	People see my boss as someone who holds steady in the storm
28	In an effort to keep things moving forward, my boss lets people avoid issues that are troublesome

29	When people are uncertain about what to do, my boss empowers them to decide for themselves
30	To restore equilibrium in the organization, my boss tries to neutralize comments of out-group members

Table 3 Northouse's Adaptive Leadership (AL) Questionnaire

1	When difficulties arise in the organization, my boss takes a step back and evaluates the dynamics among the people involved
2	My boss understands the needs of his/her staff
3	In challenging situations, my boss pushes people to focus on the real problem
4	My boss acts in a centralizing way
5	My boss allows the ideas of whoever plays the devil's advocate role to be heard by everyone
6	My boss reacts impulsively without reflecting
7	My boss takes the time to analyze challenges at work
8	My boss defends his/her staff in front of his/her superiors
9	My boss focuses on the real problems
10	My boss gives his/her staff opportunities to take the initiative
11	My boss is open to people who express unusual ideas, even if that means delaying decision-making
12	In difficult situations my boss gets carried away by events without being able to distance himself/herself from them
13	My boss helps staff to learn from their mistakes
14	My boss fights to resolve the real problem without fear of being judged
15	My boss proposes 'quick fix' solutions without examining the situation sufficiently
16	My boss gives responsibilities to his/her staff
17	My boss tries to understand the ideas of those who are not aligned with the rest of the team
18	My boss takes a 360-degree view when addressing organizational issues
19	My boss blames his/her staff when something goes wrong
20	My boss decides for his/her staff without considering their views
21	My boss analyses pros and cons of what his/her staff say
22	In order to maintain the status quo in the organization, my boss ignores team members who have different ideas
23	My boss supports his/her staff, even when he/she is having a hard time themselves

Table 4 The Italian Adaptive Leadership Behavior Questionnaire (IALBQ)

The Italian version of the IALBQ is visible in appendix F.

3.3.1.1 Advantages of a questionnaire

According to Easterby-Smith *et al.* (2018), in terms of credibility, a standardized questionnaire can be considered value-free in the sense that the researcher's interpretation is left out, so it guarantees the objectivity of the research. Moreover, a questionnaire allows comparisons among groups. In terms of generalizability of the findings, a questionnaire can also guarantee more objectivity than that of a qualitative survey, looking into potential causal relationships between the variables and explaining why a certain part of the population perceives a reality in a certain way. The data collected through a questionnaire can also suggest possible reasons for certain relationships between the variables and they can be used to produce models explaining these relationships. Hence, a questionnaire should give more control over the research process and allow the generation of results representing the whole population when adequate sampling is

used (Bryman, 2019; Thornhill *et al*., 2019).

3.3.1.2 Disadvantages and possible biases of a questionnaire and how they were dealt with

The downsizes of using a questionnaire are the following (Easterby-Smith *et al* 2018). Data analysis can be time consuming even with readily available analysis software. A questionnaire can provide limited data in comparison to other research strategies. An example of this drawback is the limited number of questions that are thought to be acceptable for the respondents to fill in. Hence, even in the choice of the questionnaire to use in this specific research, Northouse's questionnaire was preferred to Raei's (2018) due to its acceptable length, considering that Raei's (2018) questionnaire is composed by approximately 80 questions and respondents might not be ready to dedicate so much time to a survey (Dawson, 2019). The IALBQ is composed by 23 questions. This small number of questions might be a limitation, but it might also be a strong point, since it would be probably faster to do for the respondents, showing more accuracy and more willingness to complete it. Finally, a standardized questionnaire does not allow any rich insights into reality to come up to surface (Bell, *et al*., 2018).

In terms of biases, it is very difficult to demonstrate the discriminant validity of the adaptive leadership construct, especially relative to leader-member exchange. It is very difficult for people to provide accurate evaluations of their supervisor's behavior and thought processes (Dunaetz, 2020). For example, the first item in Northouse's Adaptive Leadership Questionnaire (see table 3) is "When difficulties emerge in our organization, my boss is good at stepping back and assessing the dynamics of the people involved." If people do not have access to their supervisor's thought processes, they are likely to use the quality of their relationship with their supervisor to determine what he or she is thinking. If they have a good relationship with their supervisor (high leader-member exchange), they will say that he or she is good at this. However, if they think poorly of their supervisor (low leader-member exchange), they will say he or she is bad at this. This bias was reduced by making the leader-subordinate relationship less salient and emphasizing the behavior of the supervisor in relation to the colleagues, not directly in relation to the respondent, so that the respondent would not need to refer to his/her own personal experience and relationship with his/her boss.

Another possible bias is common source bias which is a major hindrance to leadership studies (Dunaetz, 2020). In this case, common source bias could occur because the six leadership behaviors ('getting on the balcony', 'identifying the adaptive challenge', 'regulating distress', 'maintaining disciplined attention', 'giving the work back to the people', 'protecting leadership voices from below') and the adaptive leadership construct come from the same source. Happy, positive people tend to rate everything high, while unhappy, negative people tend to rate everything low. This might create spurious relationships that are the result of the participants' personality differences rather than the veracity of the model. This is especially true in survey

research. In order to reduce this bias, it would be necessary to control for positive and negative affect when testing the model and the PANAS scale is specifically designed for this and could be used (Watson, et al., 1988; Thompson, 2007).

3.3.1.3 Questionnaire design in the first stage of the research

Northouse (2016) designed the Adaptive Leadership Questionnaire used in the first stage of this research with 30 generic statements which could be rephrased depending on whether it is used as a self-assessment tool or as a tool to assess other people's adaptive leadership behaviors. A little variation to the sentences was made to make them more suitable to this research purpose. Sentences like 'When difficulties emerge in our organization this leader is good at stepping back and assessing the dynamics of the people involved' became 'When difficulties emerge in our organization my boss is good at stepping back and assessing the dynamics of the people involved'. This slight change of words made the translation of the statements into Italian more effective and suitable to the Italian culture and environment. Circulating the questionnaire in Italian was necessary to put all respondents in the conditions to perfectly understand the sentences and the purpose of the questionnaire and respond adequately. In order to guarantee the accuracy and validity of the translation, the questionnaire, once translated into Italian by the researcher, was translated back into English by a bilingual person not previously involved in the translation (see appendix C). This post-translation process was put in place for triangulating items of the questionnaire and enhancing its face validity (Alves, 2003).

3.3.1.4 The IALBQ design

The IALBQ (see table 4) is composed by 23 items, and it was designed in compliance with five principles (Easterby-Smith *et al*., 2018; Thornhill *et al*., 2019). Firstly, each item expresses only one idea, therefore, each statement does not ask more than one thing at the same time, since if a statement should be formed by two ideas, it would not be possible to know which idea respondents might think about, when giving their answer. Secondly, no jargon or colloquialism is present in the questionnaire items, to avoid communication problems, and the language used is plain. Thirdly, each item is worded in a simple way, for example the passive form is avoided, and the active form is used, since it is more immediate to understand. In the fourth place, the use of negatives is also avoided. Practically the use of 'no' or 'not' added to a verb to give the opposite meaning is avoided, since problems could emerge. If the respondent reads the statement of the questionnaire very quickly, he/she might miss the negative and give the wrong answer. In addition, this questionnaire is built on a unipolar Likert scale. The IALBQ has a 5-point unipolar Likert scale (never, rarely, neutral, often, always) to allow respondents to think about how frequently a specific behavior takes place and perceive the dynamism of adaptive leadership conceived as a practice (Heifetz et al., 2019). 7 statements out of 23 have a reversed score because they are negatively worded. Finally, leading questions are avoided

since the questionnaire aims to investigate the perception of some adaptive leadership behaviors. Negatively worded statements also have the function to make sure the respondents give the answer they think is right rather than giving the answer that the researcher wants (Lancaster, 2005). The design of the IALBQ required thought and effort. It was developed keeping in mind the following general principles taken from Gendall (1998) as a source adapted from Labaw (1980):

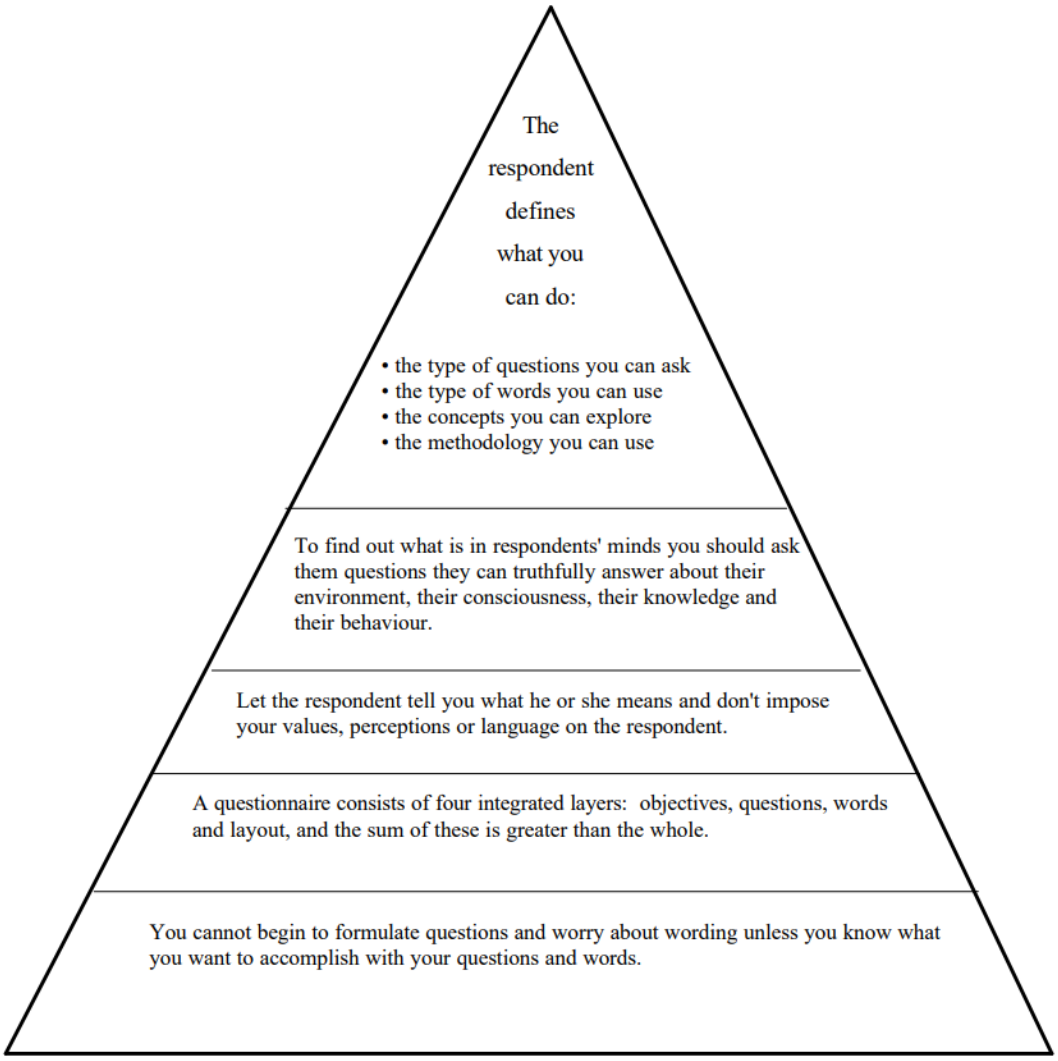

Figure 18 General principles of questionnaire design

The IALBQ needed to be planned and developed in several phases as follows (Rattray and Jones, 2007; Patel and Joseph, 2016; Krosnick, 2018; Parfitt, 2013):

- The content of each item was established following a validation process based on a minimum of 85% of participants' consensus through three rounds of a card sorting activity (see section 5.4).
- Questions were closed-ended and multiple choice so as to make the psychometric assessment of the IALBQ possible.

- The wording of the questions was developed following the five golden rules of questionnaire design mentioned above. In addition, questions were kept short, simple, and concrete. All these types of words were also avoided:
    - unfamiliar or difficult words
    - many information-carrying words in one question
    - words that sound like something else (partial/impartial)
    - a qualifying clause at the end of a question
    - two questions in one
    - suggestions
    - big names
    - questions that call for a lot of respondent effort
- Questions were numbered and randomized in a manner that the latent factors could not be recognized by respondents, and they would give their answers more freely. The 'funneling' technique that begins with simple questions to put respondents at ease and then focuses on more specific questions was used in that demographic questions were asked the beginning of the IALBQ while questions related to adaptive leadership behaviors were asked afterwards. The latter questions were all at the same level of specificity.
- As explained in section 3.3.1.8, piloting and pre-testing were performed.
- The Italian version of the IALBQ was administered, as explained in section 3.3.1.4
- The translation of the IALBQ items from Italian into English was done last, by a bilingual person and a native speaker so as to guarantee a more reliable outcome.

3.3.1.5 Questionnaire measurement scale

As regards the measurement scale, both questionnaires used in the research are built on a category measurement scale. Differently from continuous scales, in both questionnaires there are just five distinctions between the alternative points on the measurement scale (Easterby-Smith *et al*., 2018). In Northouse's AL questionnaire the categories are the following: 'I strongly disagree', 'I disagree', 'Neutral', 'I agree', 'I strongly agree', whereas in the IALBQ the categories are the following: 'Never', 'Rarely', 'Not sure', 'Sometimes', 'Always'. Precisely, this category scale is an ordinal scale, because it has a natural ordering passing through a neutral point and every category is assigned a number which makes sense and must not be shuffled. 'Always'/'I strongly agree' is assigned a value of 5. 'Sometimes'/'I agree' is assigned a value of 4. 'Not sure'/'Neutral' is assigned a neutral and average value of 3. 'Rarely'/'I disagree' is assigned a value of 2. 'Never'/'I strongly disagree' is assigned a value of 1 (Dawson, 2019). Since both questionnaires aim to measure the strength of opinion of the respondents regarding their perception of their boss' adaptive

leadership behaviors, the *Likert* scale allows to do this. As already mentioned above, the Likert scale has a neutral point in the middle, to allow for the possibility that respondents might not be able to take a position regarding the issue at stake. This choice has an advantage in that the respondents might feel at ease while giving their answers. However, it might also have a drawback since the mid-point could be an easy shortcut for respondents who may not want to think about which answer to give (Thornhill, *et al*., 2019). Therefore, to prevent the mid-point answer from impacting negatively on the accuracy of the data collected, especially in the IALBQ, it was decided to eliminate all observations having more than 8 neutral answers. All observations having up to 8 neutral answers were kept in the sample which is composed by 459 respondents. Differently from Northouse's AL questionnaire which has a bipolar Likert scale, the IALBQ has a unipolar Likert scale going from the minimum level of frequency to the maximum level of frequency. This unipolar version of the *Likert* scale seems to be more helpful to answer the research question, since respondents are asked to think about how often a target behavior has occurred (Rattray and Jones, 2007; Chyung et al., 2018). Besides, unipolar scales accomplish the criteria of equidistance best (Lim *et al*. 2021).

3.3.1.6 Distribution and ethical compliance

Both questionnaires were created by using Qualtrics software found on the University of Sunderland website. The link to Northouse's AL questionnaire was circulated in the period between December 2020 and February 2021, whereas the link to the IALBQ was circulated in the period between November and December 2021. In both cases, in the first page of the questionnaire, prior to completing it, respondents could read an explanation of the research and of its benefits and purpose, they were informed that their participation was voluntary, and that anonymity and confidentiality of data were guaranteed. In fact, informed consent and participation sheet were incorporated in the introduction of the questionnaire. This is visible in appendices B and E.

3.3.1.7 The sample and the sampling design

There are two main principles a sample must comply with: representativeness and precision.

In terms of precision, the bigger the sample, the higher the degree of precision reached, the lower the margin of error in the claims that are made (Lancaster, 2005). In this specific case, as regards Northouse's AL questionnaire, it was filled in by 444 respondents. Approximately 6% of them left it blank. 415 respondents filled it in either completely or partially. Finally, only 400 observations came to constitute the sample.

As for the IALBQ, it was filled in by 533 respondents. Approximately 2.5% left it blank. 520 respondents filled it in either completely or partially. Finally, 459 observations came to constitute the sample. In both cases, a big enough number of responses was collected to guarantee more credibility, validity, and generalizability to the research.

The rate of response in both cases was very high probably because people were interested in this topic and eager to help carry out this research. It is also true that some actions were taken in order to improve response rate: 1) both questionnaires were easy and short, likely to be completed in less than ten minutes; 2) in the light of the feedback received from the piloting of both questionnaires, the purpose was explained clearly before respondents could start the survey so that everyone could understand the value and the benefits that made up for the cost of their time; 3) confidentiality and anonymity were guaranteed; 4) the language used was Italian to give all the Italian respondents the possibility to understand the questions with no problem; 5) reminders were sent out to increase the likelihood of response, considering that people lead busy lives and the link to a questionnaire might arrive at an inconvenient time (Thornhill *et al*., 2019).

In terms of representativeness, according to Easterby-Smith *et al*. (2018) it is only probability sampling that guarantees a clear relationship between the sample and the population the sample is taken from. It is always possible, for example, to identify the probability of each respondent being selected for inclusion in the research. It is also true that this type of probability sampling design is not always possible to apply. In the specific case of this research, the sampling designed used was a non-probability sampling design, which means that it is not possible to define the probability of any member of the population being included in the research sample. Although a non-probability sampling design does not guarantee the same level of confidence as a probability sampling design when it comes to drawing inferences about the population the sample is meant to refer to, still non-probability sampling designs are valuable, since they allow the researchers to overcome many practical problems they might experience while carrying out their studies. In both cases, with Northouse's AL questionnaire and the IALBQ, the sample used was purposive and based on network contacts (Ghauri, *et al*., 2020; Thornhill *et al*., 2019). Respondents were chosen depending on their suitability to some criteria. In fact, the only categories which were not eligible for the survey were the following ones: unemployed people, retired people, full-time students, teachers, medical doctors, and nurses. Unemployed people were excluded since they could not refer to any boss when filling in the questionnaire. Doctors and nurses were excluded due to excessive pressures and extreme changes to the working conditions in the national healthcare system in Italy, especially in the period between December 2020 and February 2021, given by the covid-19 pandemic. Teachers do not belong to the corporate sector; they belong to the educational sector. Full-time students do not have any work experience to refer to.

3.3.1.8 Piloting

There are always several reasons why it is advisable to pilot one's own questionnaire before launching the survey. Piloting helps check if it is possible to get meaningful results through the survey, to make sure all categories needed are included and necessary data can be collected. Through piloting it is possible to

understand if the survey displays correctly both on the computer and on the mobile phone. It is also possible to make sure the respondents understand the questions, considering that respondents may not know anything about the topic investigated. In addition, typos may be spotted, and errors may be solved on time. Finally, piloting the survey can assure that the survey complies with the ethical standards required in terms of anonymity and confidentiality and that any practical problem emerging can be dealt with immediately (Lancaster, 2005; Sharma, 2020).

In this research, Northouse's AL questionnaire was sent to a 10-participant pilot group. Feedback was positive. However, as regards demographics it was necessary to add some categories to suit Italian respondents. In terms of 'respondent's role' it was recommended to add the category of the 'consultant'. In terms of qualifications, 'bachelor's degree from old higher education system' was added, so that no respondent might be in difficulty not finding his/her proper category. For the same reason, this process applied to 'respondent's role' and 'boss' role' as well, as it was necessary to add the following roles: 'office boss', 'production department supervisor', 'workshop supervisor', 'worker coordinator'. This was done so that every respondent could flag his/her proper role at work. As regards the IALBQ, it was sent to a 10-participant pilot group. However, demographics had already been improved piloting Northouse's AL questionnaire. In terms of qualifications, 'bachelor's degree from old higher education system' was combined with 'bachelor's degree', so that all respondents could find their own category.

3.3.2 Questionnaire data analysis

This section explains how data collected from both questionnaires was analyzed.

3.3.2.1 Pre-processing

After collecting data, the software R was chosen to carry out data analysis for several reasons. It is a free open source which can be used by anyone (http://www.r-project.org, 2022), it supplies a wide range of statistical and graphical techniques such as linear and non-linear modelling, classical statistical tests, time-series analyses, classification, clustering, and it can be highly extended. Finally, a strong point of this software is also the fact that it allows the production of well-designed publication-quality plots, mathematical symbols, and formulae relatively easily.

As regards both questionnaires, the categories mentioned above in section 3.3.1.8 were merged again, as they were thought of originally. Therefore, 'bachelor's degree from old higher education system' was merged with 'bachelor's degree'; 'office boss' was merged with 'manager'; 'production department supervisor' was merged with 'workshop supervisor' and 'worker coordinator'. The rough data were cleaned of what was unnecessary. The first 17 columns related to some information such as start and end date, IP address,

duration, location, etc.., in both questionnaires were eliminated.

Therefore, it was necessary to decide which approach to have with the null answers. As regards Northouse's AL questionnaire, the lines of the 20 people who left the questionnaire totally blank were deleted, whereas as regards the IALBQ 13 totally blank lines were deleted. Afterwards, as regards Northouse's AL questionnaire, it was decided to get the highest level of data accuracy and maximum 5 null answers were allowed for any observation so that null answers would not impact on the calculations. Moreover, the total number of null answers was calculated and turned to be 45 out of 12,000 answers, which means that there was just 0.37% of null answers. Therefore, 400 observations were considered.

As regards the IALBQ, it was decided to get the highest level of data accuracy and maximum 1 null answer out of a total of 23 questions was allowed for any observation so that null answers would not impact on the calculations. Therefore, the total number of observations was 508. A further action was taken to guarantee the highest level of accuracy possible. Just the observations with a maximum number of 8 'neutral' answers, which is one third of the total for each observation, were kept and the final number of observations in the sample was 459.

As for both questionnaires, it was decided to allocate to the remaining null answers a neutral value of 3. This value of 3 was allocated to the neutral answer in the Likert scale too, so that it would not influence the results either way, since respondents would choose this option for not taking any position. In Northouse's AL questionnaire the *Likert* scale is bipolar, as follows: 1= I strongly disagree, 2 = I disagree, 3 = neutral, 4 = I agree, 5 = I strongly agree. In the IALBQ, the *Likert* scale is unipolar, as follows: 1= never, 2 = rarely, 3 = neutral, 4 = often, 5 = always. The reversed score questions were dealt with by reversing their score to treat them correctly in both questionnaires.

Besides, in both questionnaires before performing the analysis of variance (ANOVA) some of the categories were merged to guarantee more accuracy to the analysis. Respondent's age sub-categories were merged into a smaller number of sub-categories, namely 'under 35', '35-44', '45-54', and 'over 55'. The boss' age sub-categories were merged slightly differently from the respondent's age sub-categories, due to a small number of bosses under 44. This new grouping was composed by three sets, namely 'under 44', '45-54', and 'over 55'. As for the respondents' qualifications, these sub-categories were: 'vocational qualification', 'diploma', 'degree' and 'postgraduate qualification'.

3.3.2.2 Processing and statistical tests

As for the analysis of the results collected through the circulation of both questionnaires, several statistical

tests, as explained below, were performed. Some of them were used to perform the psychometric assessment of both questionnaires and the objective measurement of latent variables which cannot be observed directly.

3.3.2.2.1 Cronbach's alpha coefficient

Cronbach's alpha coefficient is "*an index of the internal consistency of a composite variable formed by combining a set of items; a common measure of reliability*" (Easterby-Smith et al 2012, p.340). It was performed to verify the reliability of both questionnaires and the average correlation among the latent variables, namely, the six dimensions of the adaptive leadership framework (Heifetz, 1994). In general, Cronbach's alpha coefficient ranges from 0 to 1. If the items of the scale are not correlated and do not share any covariance, Cronbach's alpha will be 0 whereas if the items of the scale share covariances, Cronbach's alpha coefficient will be closer to 1. The higher the coefficient, the more the items share covariances, the more we can infer that the items measure the same concept. A minimum coefficient between 0.65 and 0.8 is recommended for the coefficient to be considered good (Dunaetz, 2020).

3.3.2.2.2 Exploratory factor analysis and confirmatory factor analysis

Exploratory factor analysis is "*a multivariate method for fitting measurement models, which describes the covariances among a set of observed variables in terms of a set of latent variables*" (Easterby-Smith *et al*. 2012, p.341). Confirmatory factor analysis is "*a multivariate method for testing measurement models of the relationship between a set of observed variables and a hypothesized set of latent variables*" (Easterby-Smith *et al*. 2012, p.340). The reason why exploratory factor analysis and confirmatory factor analysis were performed is because these statistical tests allow to understand what type of construct lies beneath any questionnaire items. Heifetz (1994) designed the adaptive leadership framework based on six dimensions, or better, six behaviors which can all lead to adaptive leadership practice overall. Northouse designed a questionnaire (2016) where six sets of five statements each would intend to measure each of the six dimensions of adaptive leadership, namely, 'getting on the balcony', 'identifying the adaptive challenge', 'regulating distress', 'maintaining disciplined attention', 'giving the work back to the people' and 'protecting leadership voices from below'. Since the construct may not be observed directly, the six sets of five items each that are associated with the six dimensions of adaptive leadership are expected to measure this construct. The IALBQ is conceived as a measurement tool, grasping the relationship between 23 observed behaviors and the variables they intend to measure (Lancaster, 2005).

The IALBQ was an attempt to avoid a simple-minded approach to measure adaptive leadership as a unidimensional construct. As this concept is complex and it was conceived in six dimensions, the attempt was done to design questionnaire items which might measure these six dimensions of adaptive leadership, with the view to get greater richness in measurement and all possible shades of the construct. The assumption to

verify was that those items that measure all the same variable should show common patterns of answering. Such a consistency in responses would lead to correlations among items, and, in turns, these correlations would be the starting point to identify patterns reflecting the construct (Thornhill, *et al*. 2019).

In this research, the observed variables are the items of both questionnaires, and the latent variables are the six adaptive leadership behaviors that are expected to influence the way the participants would respond to the observed variables in a supposedly causal relationship. Here below an example of how influences would take place:

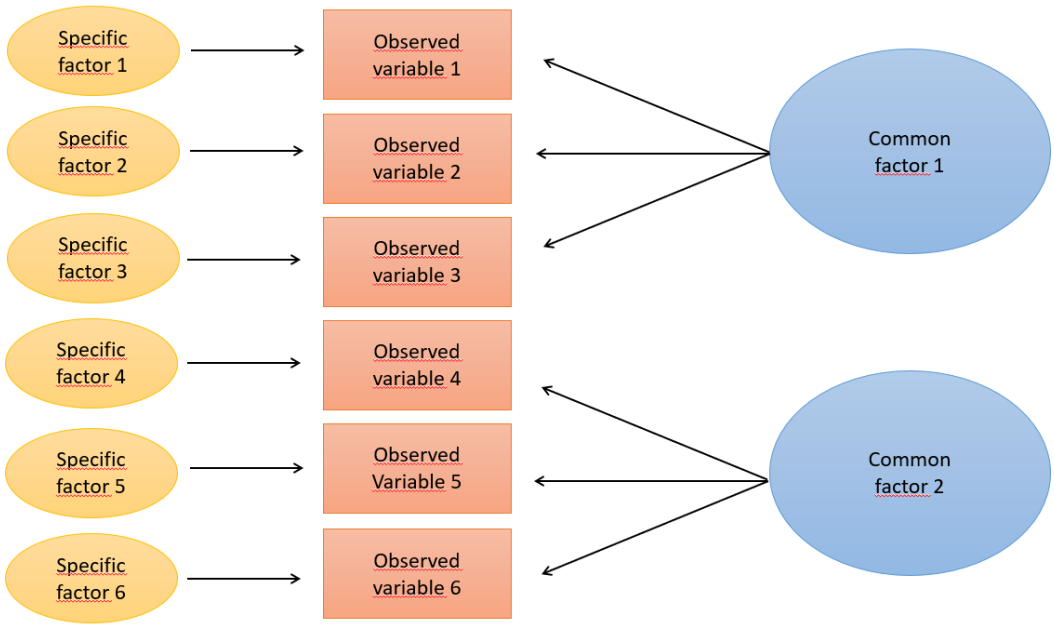

Figure 19 Example of a model

Looking at the picture, this model shows six observed variables and two latent variables. The model identifies two influences on the way participants respond to each observed variable:

a) Those reflecting common characteristics of the construct indicated by the two common factors. The first factor is assumed to influence the first three variables and the second factor is assumed to influence the second three variables. The stronger the influence of the common factors, which is expressed by a value called factor loading, the stronger the correlations among the observed variables

b) Those who "*are idiosyncratic to the wording of each variable, indicated by the specific factor, one for each observed variable. These are unique to that question and will not influence answers to other questions*" (Easterby-Smith et al., 2012, p.286)

Both tests were performed to both questionnaires. Still, exploratory factor analysis was performed to verify whether the adaptive leadership framework is based on six dimensions as it was conceived by Heifetz (1994). Confirmatory factor analysis was also performed to both questionnaires with the view to confirm or disconfirm the construct.

In the exploratory factor analysis, there may be as many common factors as observed variables and each observed variable has a factor loading on the common factors. There are two methods used to verify the measurement model, the common factor analysis, and the principal components analysis. Both methods "*derive estimates for the factor loadings of each of the common factors and the specific factors and give summary indices (called eigenvalues) of the importance of each of the common factors, shown by how much of the covariation among the observed variables each one accounts for […] The size of the loadings for the common factors determines the correlations among the observed variables. The size of the loadings for the specific factors determines the reliability of the common factors*" (Easterby-Smith et al 2012, p.288). In this research, the eigenvalues together with the results of the scree plot were used during the first and the second stages of the research to select the most suitable number of common factors.

Kaiser-Meyer-Olkin (KMO) factor adequacy and Cortest-Bartlett test were performed to check whether data could be factorized. The Kaiser-Meyer-Olkin factor adequacy test computes the overall measure of sampling adequacy for each variable in the model and for the complete model. KMO ranges from 0 to 1. The higher the value, the higher the sampling adequacy. A value of less than 0.6 indicates that the sampling is not adequate. If the value is close to zero it means that there are widespread correlations which are a large problem for factor analysis. The Cortest-Bartlett is an alternative way of testing whether a correlation matrix is factorable*, id est*, the correlations differ from 0 (Sharma, 2020).

The statistical method of parallel analysis was used to determine the number of factors to keep in an exploratory factor analysis**.** This method compares the eigenvalues produced by the matrix of data to those produced by a Monte-Carlo simulated matrix generated from the same size random data. A scree plot, which is a line plot of the eigenvalues of factors, was also used to determine the number of factors to keep in an exploratory factor analysis (Ghauri, *et al*., 2020).

Other measures analyzing the model fit were used. A chi-square was used to measure the difference between the observed frequencies and the expected frequencies of the outcomes of the given set of variables. A chi-square is generally used to analyze this difference in categorical variables especially the nominal ones. It depends on the size of the difference between actual and observed values, the degrees of freedom and the

sample size. It is used to test whether a model fits the data and whether two variables are related or independent from each other. The RMSEA (Root Mean Square Error Approximation) was also used to verify whether the regression model fitted the data. The RMSEA reveals the average distance between the expected values from the model and the actual values in the dataset. The lower the RMSEA, the better a model can fit the data. The CFI (Comparative Fit Index) was another measure used to check whether the model fitted by analyzing the discrepancy between the data and the model while adjusting for the issues of sample size inherent in the chi-squared test of model fit, and the normed fit index. The higher the CFI, the better a model fits the data. The SRMR (Standardized Root Mean Square Residual) was used as a measure of badness of fit for evaluating latent variable models. The SRMR measures the average discrepancy between the model implied covariance matrix and the observed covariance matrix. The TLI (Tucker-Lewis Index) was also used as an index of fit. The lower the values of the TLI, the less acceptable the model is regarded (Sharma, 2020).

3.3.2.2.3 Pearson correlation coefficient

The Pearson correlation coefficient is "*the extension of the variance to cover the co-variance between two variables: the extent to which variation in one variable is associated with variation in the other*" (Easterby-Smith et al 2012, p.275). It was performed to test the association between the six latent variables which are the six dimensions of the adaptive leadership framework (Heifetz, 1994). It ranges from +1 to -1. A value of 0 shows that there is no correlation between the variables. A value which is greater than 0 indicates that there is a positive correlation between the variables, which means that if one variable increases, then the other one increases too. A value which is lower than 0 indicates that there is a negative correlation between the variables, which means that if one variable increases, then the other one decreases (Ghauri *et al,* 2020).

3.3.2.2.4 ANOVA

The analysis of variance (ANOVA) is "*a form of hypothesis test for comparing the means of two or more groups which may be classified on the basis of other variables*" (Easterby-Smith et al 2012, p.339). The result of the analysis of variance is called F statistic or F-ratio and it allows for the analysis of the variability between samples and within samples. In this specific case it was necessary to determine how the sample groups would vary. If there is no difference between the independent groups, and this coincides with the null hypothesis, the result of the ANOVA's F-ratio will be approximately 1. This statistical test was performed unidirectionally, to evaluate the impact that independent variables had on the dependent variables and identify if there was any significant difference among the independent groups (Lancaster, 2005). In this research, one-way ANOVA was performed to determine whether in the Italian corporate context there were any significant differences among the independent groups of respondents (i.e., groups generated by respondents' gender, respondents' age, respondents' qualification, respondents' role, boss' gender, boss' age, boss' role, size of the company,

sector) in the variability of their answers in relation to the six latent variables or dimensions of adaptive leadership.

3.3.3 Card sorting data collection

According to Wood *et al*. (2008), card sorting was a method used in psychological research to understand how people would organize and categorize their knowledge. Originally, respondents would sort cards into piles based on their similarity. In a second moment, they would be asked to name the piles of cards sorted keeping in mind the concept the piles would refer to. Recently, card sorting has become popular among information technology web developers and designers who need to organize the information items and features the best way possible for readers to find immediately what they are looking for.

In this specific research, the scope of card sorting was to validate several statements that would constitute the newly designed adaptive leadership behavior questionnaire. It took place over three rounds and participants were asked to evaluate each statement and associate it with one of the six latent variables that are the pillars of the six-dimensional adaptive leadership framework by Heifetz (1994). The six latent variables were operationalized based on Heifetz's conception (1994). Hence, participants were asked to match each statement with one of the six operationalized variables whose names had been changed, with the view to make it more explicit and fully understandable to all participants, as follows:

- 'Getting on the balcony' became 'taking a step back and observing the situation'
- 'Identifying the adaptive challenge' became 'analyzing the situation and reflecting on it'
- 'Regulating distress' became 'supporting collaborators'
- 'Maintaining disciplined attention' became 'focusing on the real problem without looking for quick fixes'
- 'Giving the work back to the people' became 'empowering collaborators and delegating'
- 'Protecting leadership voices from below' became 'listening to the opinion of those who march to the beat of a different drummer and those who are at a lower level in the corporate hierarchy'

According to Tullis and Wood (2004), the ideal number of participants for the card sorting activity is about 20-30 respondents. Instead, Lantz *et al*. (2019) have proved it is 10–15 participants. The use of such a small sample is encouraging, since it can get the same optimal results as the ones achieved using larger samples. However, in this research, it was chosen to set the sample size approximately in between the lowest and highest values mentioned by the two publications. 25 respondents took part in the three card sorting rounds. The aim of this card sorting activity was to reach the participants' consensus set at a minimum threshold of 85%. All statements which reached such a value of participants' consensus and were matched with the right

adaptive leadership behavior were validated and would be included in the IALBQ.

In this type of single-level card sorting, participants were not asked to rate each statement, but they were asked to sort all statements into piles or clusters by associating each statement with the expected behavior. Also, participants were not free to choose how many piles to use to sort cards. Instead, the number of clusters was chosen by the researcher, and it was six clusters, the same number as the adaptive leadership dimensions. Hence, it was not an open sort; it was a closed card sorting project (Wood *et al*., 2008).

An advantage of card sorting is that it is fast and not cognitively too demanding. It requires few "*decisions for a given number of stimuli because many comparisons are made at once by placing one card with the other cards that fit best overall*" (Lantz et al., 2019, p.650). In addition, it is not expensive in terms of research method, and it is user-centered in that it aims to anticipate the way people will perceive the information and the way the algorithm will work in terms of organizing and sorting the information available, as a forecasting technique. It is also used to conceive underlying mental models (Wood *et al*., 2008; Celeste, 2008). On the other side, the card sorting technique results in binary data for the proximity matrix and binary data may not fully get the intensity of similarity or dissimilarity between cards and piles of cards (Lantz et al., 2019).

3.3.4 Card sorting data analysis

During the analysis of card sorting, as already mentioned in the previous paragraph, the principle used was that of the participants' consensus set at a minimum threshold of 85%. This principle was based on the frequency with which all statements were categorized in the same group by the participants. Although qualitative methods are used commonly to analyze data with the view to look for patterns in the sorts and get the sense of the experience of the participants and their emotions, sensations, reflections, in this specific research a quantitative analysis only was performed to validate statements which would constitute the items of the IALBQ. The participants' consensus was the criterion used for analyzing data with the view to forecast the patterns and the algorithm at the basis of the adaptive leadership behavior measurement model. In fact, if participants were to categorize a set of statements in the same group, then that common latent factor underlying their sort might be the one impacting on the way participants would respond to the same set of questions in the questionnaire too (Nawaz, 2012).

3.3.5 Expert evaluation data collection

The IALBQ was also submitted to an international panel of experts composed by 2 American experts, one Italian American expert, and 4 Italian experts for validation. This additional validation method beside the psychometric assessment of the IALBQ enhanced the validity of the findings, since it made it possible to verify whether different methods or different observers of the same phenomenon produce the same results (Easterby-Smith *et al*, 2018).

The experts' evaluation was used like a usability test by several researchers especially in computer science (Sivilevicius, 2011; Baauw *et al*, 2005; Korhonen *et al*, 2009). It was also used to prove the validity of a questionnaire by Olson (2010, p.295) who provided empirical evidence that "*experts are able to discern questions that manifest data quality problems, even if individual experts vary in what they rate as being problematic. Compared to a publicly available computerized question evaluation tool, ratings by the human experts positively predict questions with data quality problems, whereas the computerized tool varies in success in identifying these questions. These results indicate that expert reviews have value in identifying question problems that result in lower survey data quality*".

The evaluation form aimed to identify strong and weak points of the IALBQ with the view to check its usability across the corporate Italian context as a tool measuring the perception of adaptive leadership behaviors. Here is the evaluation form:

1. Is this questionnaire a useful approach to enable researchers to study adaptive leadership practices across the Italian corporate context? If not, why? If yes, why?

2 Do you think the questionnaire items cover the six dimensions adequately? If not, why? If yes, why?

Dimensions	Adequately covered	Suggestions for improvements
getting on the balcony		
identifying the adaptive challenge		
regulating distress		
maintaining disciplined attention		
giving the work back to the people		
protecting leadership voices from below		

3 Will this questionnaire be effective to measure the perception of adaptive leadership behaviors? If not, why? If yes, why?

4 Will it be easy to use this questionnaire to assess staff's perception of adaptive leadership behaviors? If not, why? If yes, why?

5 Do you think the questionnaire could be extended with additional items? If not, why? If yes, why, and which ones?

6 Do you think results from this questionnaire could be used to encourage adaptive leadership practices in organizations? If not, why? If yes, how?

7 This questionnaire has been developed specifically for the Italian context. Do you think it has characteristics that make it particularly appropriate in Italy? If not, why? If yes, why?

8 Would you use this questionnaire? If not, why? If yes, what for?

Table 5 Expert evaluation form

3.3.6 Expert evaluation data analysis

The target of the expert evaluation data analysis was to measure how easy and user-friendly the IALBQ was. Experts were representatives of target end-users and evaluated the IALBQ to expose usability defects (Bastien, 2010). Data was analyzed mainly quantitatively counting how many answers to each question were positive or negative. As for the open questions, data was summarized and organized following the main evaluation form questions, but some elementary form of thematic analysis was performed too. It was not applied at a latent level but just at a semantic level "*within the explicit or surface meanings of the data*" where "*the analyst is not looking for anything beyond what a participant has said or what has been written*" (Braun and Clarke, 2006, p.84).

Thematic analysis is the process of identifying patterns or themes within qualitative data (Maguire and Delahunt, 2017). According to Maguire and Delahunt (2017), thematic analysis is not linked to a specific epistemological or theoretical approach and for this reason it is a very flexible method. In the case of this research, beyond the main evaluation form questions, themes were looked for, identified, interpreted, and given a name.

3.4 RESEARCH ETHICS

In terms of ethical conduct, a priority task was to apply for the ethical approval through the University of Sunderland website for any type of investigation that was performed during the research (Fulton et al., 2013). Three applications went to the ethical committee of the University of Sunderland, one application for performing both questionnaires, one application for performing the card sorting activity, one application for contacting the experts and having them evaluate the IALBQ. All applications were advanced to guarantee the compliance of this research with the University ethical research standards (see appendix A).

Regarding the risks and ethical implications of the research, the anonymity of data was guaranteed for both the questionnaires considering the possible concern respondents might have while assessing whether and how frequently their bosses might have adaptive leadership behaviors, if they were to say something unpleasant about their manager. The commitment to guarantee anonymity and confidentiality of data was expressed in the first page of both questionnaires to reassure respondents about this. In the case of the questionnaire, true anonymity was achieved because the researcher did not know the identities of the participants.

As for card sorting and expert evaluation, confidentiality was achieved considering that the researcher knew the identity of the participants, but she committed to not revealing the person's participation and identity in the case of the card sorting activity, whereas for the expert evaluation form, all experts accepted to have

their name revealed. The card sorting file and the expert evaluation form were both circulated to participants via email, and it was not possible to guarantee the anonymity of the data collected, since the files, once filled in, were sent by the respondents back to the researcher. However, all participants were aware of this, which was made clear in the email text. 25 people decided to participate in the card sorting. 7 experts decided to fill in the evaluation form. They all did it on a voluntary basis.

The aim of the research was explained at the beginning of the questionnaire and in the email accompanying both the card sorting file and the expert evaluation form. The way this information would be used was also explained. Participants gave their informed consent if they wanted to proceed either with the questionnaire or with the card sorting or with the expert evaluation form, so that they were fully aware of risks and benefits of the research (Thornhill *et al*., 2019). As regards the 7 experts who took part in the research for the validation of the IALBQ, they all accepted to have their name and bio included in the thesis.

Honesty and transparency of the research and avoidance of false reports during data analysis were also guaranteed (Easterby-Smith et al 2018; Dawson, 2019; Cameron, 2011). An ethical issue related to this research methodology is that there were no multiple researchers. There was one researcher involved only and a limitation of this is that the study may turn out to be overly subjective. However, all efforts were made to recognize this bias, hence, to minimize it (Bryman, 2019; Zyphur, et al., 2017; Edwards, 2020).

According to Roth et al. (2018), ethical reflexivity was put in practice and the following considerations can apply to this research ethics:

- This project was worthwhile because it contributed to develop a greater understanding of followers' perception of adaptive leadership behaviors in the Italian corporate context and to investigate whether Heifetz's adaptive leadership model (1994) can apply to the Italian culture. Scholars, academics, scientists as well as practitioners can benefit from the findings of this research, as explained in section 9.4.
- As declared in the application for the ethical approval received from the University of Sunderland (see appendix A), as per the risk assessment, there were no potential risks for the participants, as anonymity of data (when possible) and confidentiality were guaranteed. No harm was done to anyone. Nobody except the researcher had access to the data. No name was disclosed unless participants approved of it.
- In this research, the role and responsibility of the researcher were: to prevent any of the participants from feeling distressed while taking part in the research; to deal with and manage data fairly and

interpret data as correctly as possible; to exercise perseverance and take the research to completion; to guarantee anonymity (when possible) and confidentiality of data; to 'do no harm'.

- The researcher was accountable to the University of Sunderland for complying with its ethical standards and requirements and to the whole scientific community for intellectual honesty and objectivity of result analysis. Even if ethics is intertwined with politics within the academic world, the state or the field of research itself and could receive several interpretations (Dooly et al. 2017), in this specific case, the researcher was self-funded, and no conflict of interest existed with any other institutions or bodies.

An additional point to make is that, although this was not qualitative research and it was not possible to establish a close relationship with the participants, great respect and trust was shown to them, either they were familiar, or they were strangers. In Ellis's terms (2007), this research complied with:

- procedural ethics (related to procedures adequately managed such as anonymity, when possible, informed consent, confidentiality, rights to privacy, deception, and protecting human subjects from harm)
- situational ethics (related to the right attitude to have in ethically important moments of unexpected complexity)
- relational ethics. Care for participants was shown during the survey, when respondents were contacted to fill in the questionnaire, during the card sorting activity, when familiar people were asked to engage in any phase of the research, during the expert evaluation phase, when unfamiliar people were contacted and asked to evaluate the IALBQ. Reflexive discussion and appreciation of ethical issues throughout the research took place while planning, collecting material, analyzing data, making sense of things. Research design was chosen in such a way that it could enhance professional work, enrich scientific community, and contribute to improve life quality across the Italian corporate sector encouraging adaptive leadership behaviors. This research might have taught participants something about adaptive leadership behaviors. As already said in section 3.3.1.7, the rate of response in both questionnaires was very high probably because people were interested in this topic and eager to help carry out this research (Simon, 2018).

Finally, in line with the post-positivistic paradigm, while presenting the researcher's positionality in section 1.4, while presenting the methodology in section 3.3 and while discussing the findings in chapter 9, it was admitted that the researcher would inevitably affect the research outcomes, and limitations and biases of research and researcher were declared and dealt with (Simon, 2018).

3.5 SUMMARY OF THE CHAPTER

This chapter argued that post-positivism is the paradigm of this research, which considers reality subjective and rejects the objective stance claimed by positivism. Post-positivism states that the researcher, his/her hypotheses, values, and knowledge can impact on the reality under investigation and supports and encourages the use of multiple methods to study reality. It states that research cannot disregard the context and the environment in which the scientific survey takes place. This research used a predominantly quantitative multi-method design where Northouse AL questionnaire (2016) was used during the first stage of the research, card sorting served the purpose to develop the IALBQ, which was validated by a psychometric assessment and a panel of 7 international experts. These specific methods used for the effective outcome of the research were presented and discussed. Also, the approach to data analysis was presented and discussed both for the questionnaire, the card sorting activity and the expert evaluation of the IALBQ. Finally, ethical compliance with the University of Sunderland standards was declared and ethical issues related to the research were presented and discussed. The following chapters will present the results of the research carried out.

4 PYCHOMETRICS OF NORTHOUSE'S ADAPTIVE LEADERSHIP (AL) QUESTIONNAIRE

This chapter focuses on exploring the use of Northouse's Adaptive Leadership (AL) questionnaire as a measurement tool for adaptive leadership assessing the psychometrics of this instrument when applied to the Italian corporate context. As presented in this chapter, the results highlight that for the Italian context this questionnaire is reliable but not sufficiently valid. The structure of the chapter is as follows:

- Sample description: in this section the sample is described, and a few considerations are done in relation to the Italian context and culture
- Psychometric assessment of Northouse's AL questionnaire: this section presents the results and explains why it is a reliable but not a sufficiently valid tool to measure the perception of adaptive leadership behaviors across the Italian corporate context
- Summary of the findings

4.1 SAMPLE DESCRIPTION

The administration of Northouse's AL questionnaire was carried out on a sample of 400 respondents, with the following characteristics:

Gender	Male	183	45.8%
	Female	216	54.0%
Age	18-24	3	0.8%
	25-34	41	10.2%
	35-44	122	30.5%
	45-54	170	42.5%
	55-64	61	15.2%
	65-74	2	0.5%
	over 75	1	0.2%
Qualifications	Minimum level of compulsory education	19	4.8%
	Vocational qualification	13	3.2%
	High school diploma	162	40.5%
	Bachelor's Degree / Bachelor's degree from old higher education system	134	33.5%

	Masters' degree	60	15.0%
	PhD / Prof Doc	11	2.8%
Role	Executive	20	5.0%
	Manager / Office Boss	83	20.8%
	Office-worker	193	48.2%
	Production department supervisor / Workshop supervisor / Worker coordinator	6	1.5%
	Worker	23	5.8%
	Project leader / Team leader	56	14.0%
	Consultant	16	4.0%

Table 6 Respondents' characteristics

Sector	Public	59	14.8%
	Private	340	85.0%
Size of the company	Small company with fewer than 10 employees	38	9.5%
	Small company – between 11 and 50 employees	56	14.0%
	Medium-sized company – between 51 and 250 employees	71	17.8%
	Big company with more than 251 employees	220	55.0%
	Free-lancer in partnership with the same customers	14	3.5%

Table 7 Respondents' sector and size of company

In terms of respondents' age, almost 43% of the respondents are between 45 and 54 years of age and about one third of the sample is composed by respondents between 35 and 44 years of age. About 54% are women and about 46% are men. As regards the respondents' qualifications, just over 40% of the respondents got the high school diploma, just over 33% got a degree and 15% got a postgraduate specialization. Overall, the respondents are mostly well-educated. In terms of respondents' role, almost 40% of the respondents are office-workers, one fifth is composed by managers, 14% of the sample is constituted by project leaders.

As regards the sector, 85% of the respondents work in the private sector whereas approximately 15% work in the public sector.

In terms of size of the company, 55% of the respondents work in big companies with more than 251 employees, just over 17% work in medium-sized companies with a number of employees between 51 and 250, 14% of the respondents work in small companies with a number of employees between 11 and 50 and almost 10% work in small companies with fewer than 10 employees, whereas a little less than 4% are free-lancers dealing with the same corporate customers.

These are the characteristics of the sample respondents' bosses:

Gender	Male	288	72.0%
	Female	111	27.8%
Age	18-24	0	0
	25-34	9	2.2%
	35-44	66	16.5%
	45-54	191	47.8%
	55-64	111	27.8%
	65-74	19	4.8%
	over 75	3	0.8%
Role	Executive	170	42.5%
	Manager / Office Boss	161	40.2%
	Production department supervisor / Workshop supervisor / Worker coordinator	26	6.5%
	Project leader / Team leader	42	10.5%

Table 8 Respondents' bosses' characteristics

As regards the respondents' bosses, almost one third is composed by women and almost two thirds are composed by men. Although slightly more than half of the respondents are women, a very small number of women occupies managerial positions in comparison to men – just one third of the total sample -, all of which may reflect the impact of the Italian culture on the management of power positions (Tavanti, 2012).
About 47% of the respondents' bosses are aged between 45 and 54, about 27% of the respondents' bosses are aged between 55 and 64, just over 15% of the respondents' bosses are aged between 35 and 44 years of age, whereas approximately 2% of the respondents' bosses are younger than 34. About 40% of the respondents' bosses are managers and just over 40% are executives, whereas just over one tenth is constituted by project leaders.

As it can be seen from the tables, this data can be explained by looking at cultural components. Although half the respondents are women, a very small number of women occupies managerial positions in comparison to men – not even one third of the total sample -, all of which may reflect the impact of the Italian culture on the management of power positions (Tavanti, 2012). In terms of highest-level positions in the hierarchy, in this 400-respondent sample, 90% of men (18) versus 10% of women (2) are executives. Also, a significant difference confirming the literature just mentioned is that women (125) tend to outnumber men (68) by approximately 50% in an executing position like that of office-workers.

Also, Campa *et al*. (2009) state that the gender gap existing in leadership is connected to cultural family values, even though more women than men have university degrees and postgraduate qualifications (Guerrina, 2005). This study is also confirmed by the 400-respondent sample of this research, as the table below shows:

Respondents' qualifications	**Female numbers**	**Female percentages**	**Male numbers**	**Male percentages**
Up to vocational qualification	13	40.6%	19	59.4%
High school diploma	88	54.3%	74	45.7%
Bachelor's Degree / Bachelor's degree from old higher education system	72	53.7%	62	46.3%
Post-graduate qualification	43	60.6%	28	39.4%

Table 9 Respondents' qualifications

It seems approximately 20% more men than women have a low-level qualification, whereas just over 10% more women than men hold a diploma, approximately 8% more men than women hold a degree, and approximately 20% more women than men have a postgraduate qualification.

4.2 PSYCHOMETRIC ASSESSMENT OF NORTHOUSE'S (2016) AL QUESTIONNAIRE

In this section the psychometric characteristics of Northouse's AL questionnaire are presented. Psychometrics are related to the objective measurement of latent variables which cannot be observed directly. One of the objectives of this research is to investigate whether Northouse's AL questionnaire is a valid and reliable tool to measure latent variables such as the six dimensions which the adaptive leadership framework (Heifetz, 1994) is based on.

4.2.1 Reliability

In order to answer whether Northouse's AL questionnaire is reliable, the test performed was Cronbach's alpha (see section 3.3.2.2.1). The value of Cronbach's alpha was 0.864 with a 99% bootstrap confidence interval of 0.841 and 0.883, which was a satisfactory result. It was calculated on 400 sample units. The table below shows Cronbach's alpha for all adaptive leadership dimensions too:

Dimension	**Cronbach's Alpha**	**CI**
Global	0.864	(0.841, 0.883)
Getting on the balcony	0.742	(0.688, 0.794)
Identifying the adaptive challenge	-0.542	(-0.891, -0.242)
Regulating distress	0.849	(0.812, 0.880)
Maintaining disciplined attention	0.639	(0.547, 0.716)
Giving the work back to the people	0.187	(-0.048, 0.370)
Protecting leadership voices from below	0.743	(0.683, 0796)

Table 10 Cronbach's alpha in Northouse's AL Questionnaire

As the table shows, there seem to be controversial results. For some dimensions Cronbach's alpha was satisfactory. The one for 'getting on the balcony' was 0.742 CI = (0.688, 0.794), the one for 'regulating distress' was 0.849 CI = (0.812, 0.880), the one for 'maintaining disciplined attention' was 0.639 CI = (0.547, 0.716) and the one for 'protecting leadership voices from below' was 0.743 CI = (0.683, 0.796). Instead, Cronbach's alpha for 'identifying the adaptive challenge', which was -0.542 CI = (-0.891, -0.242) and Cronbach's alpha for 'giving the work back to the people', which was 0.187 CI = (-0.048, 0.370), were unsatisfactory.

In response, the questions related to 'identifying the adaptive challenge' and 'giving the work back to the people' were looked at and they are visible in the table below:

Identifying the adaptive challenge	Giving the work back to the people
2 - When events trigger strong emotional responses among employees, my boss uses his/her authority as a leader to resolve the problem	5 - When employees are struggling with a decision, my boss tells them what he/she thinks they should do
8 - When people are struggling with a value conflict, my boss uses his/her expertise to tell them what to do	11 - When employees look to my boss for answers, he/she encourages them to think for themselves
14 - When others are struggling with intense conflicts, my boss steps in to resolve their differences for them	17 - My boss encourages his/her employees to take initiative in defining and solving problems
20 - My boss encourages people to discuss the "elephant in the room"	23 - When people look to my boss to solve problems, he/she enjoys providing solutions
26 - My boss thrives on helping people find new ways of coping with organizational problems	29 - When people are uncertain about what to do, my boss empowers them to decide for themselves

Table 11 Items of 'identifying the adaptive challenges' and 'giving the work back to the people'

It was noticed that the questions with a reversed score in both dimensions were related to a directive and authoritative leadership. As regards 'identifying the adaptive challenge' the reversed score questions are the following:

- item 2 - When events trigger strong emotional responses among employees, my boss uses his/her authority as a leader to resolve the problem
- item 8 - When people are struggling with a value conflict, my boss uses his/her expertise to tell them what to do
- item 14 - When others are struggling with intense conflicts, my boss steps in to resolve their differences for them.

As regards 'giving the work back to the people' the reversed score questions are the following:

- item 5 - When employees are struggling with a decision, my boss tells them what he/she thinks they

should do

- item 23 - When people look to my boss to solve problems, he/she enjoys providing solutions.

With the research occurring in Italy, the impact of the Italian context (see section 1.5.1) was then considered recognizing that culture might influence the interpretation of the questions. The Italian conception of leadership considers directivity positive, as explained in section 1.5.2, whereas from the North-European, Anglo-Saxon, and American perspective directivity seems to be hindering adaptivity.

Considering the high Cronbach's alpha in the other dimensions, when looking at all the reversed score questions, it was evident that no other question deals with authoritative and directive leadership, as shown below:

- Item 7 (getting on the balcony) - In difficult situations, my boss sometimes loses sight of the "big picture"
- Item 13 (getting on the balcony) - When my boss disagrees with someone, he/she has difficulty listening to what the other person is really saying
- Item 22 (maintaining disciplined attention) - My boss thinks it is reasonable to let people avoid confronting difficult issues
- Item 28 (maintaining disciplined attention) – In an effort to keep things moving forward, my boss lets people avoid issues that are troublesome
- Item 30 (protecting leadership voices from below) - To restore equilibrium in the organization, my boss tries to neutralize comments of out-group members

4.2.2 Validity

When it came to verifying the validity of Northouse's AL questionnaire, considering that the variables of the questionnaire are categorical, some preliminary tests (see section 3.3.2.2.2) to check whether the data can be factorized were performed. The first test was Kaiser-Meyer-Olkin factor adequacy which computed the overall MSA (measure of sampling adequacy). The result of 0.93 was very positive given that a value over 0.60 is considered acceptable. Then the Cortest-Bartlett test was performed to check if the data was correlated. The p-value was lower than 0.01, hence the *null* hypothesis of uncorrelation was rejected. These results created the conditions for proceeding with the exploratory factor analysis.

4.2.2.1 Exploratory factor analysis

Three methods were used to determine the optimal number of factors (see section 3.3.2.2.2). Firstly, the parallel analysis showed that six factors could be relevant to explain the variability of the answers. As it can be seen in the table, while in the sixth line the reduced eigenvalue was still higher than the simulated eigenvalue, in line 7 the trend reversed. Hence six factors could be optimal:

Nfactor	ReducedEig	RandEigM	RandEig95
1	12,37	0,623	0,688
2	1,75	0,543	0,612
3	1,11	0,485	0,533
4	0,65	0,433	0,478
5	0,56	0,393	0,436
6	0,47	0,351	0,384
7	0,34	0,316	0,350

Table 12 Eigenvalues

Secondly, the scree plot (reduced correlation matrix) shows an inflection point corresponding to four factors which could impact significantly on the variability of the answers, as the chart below shows:

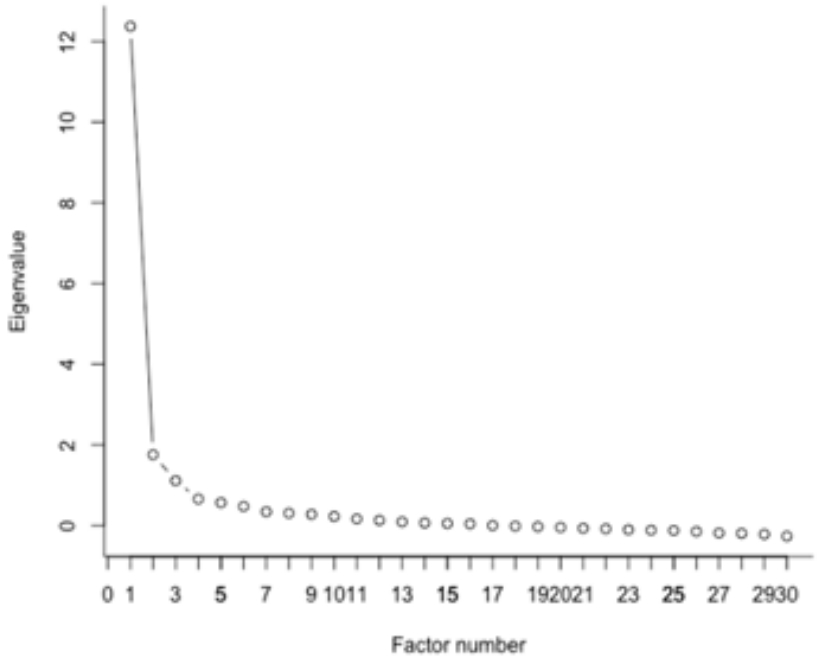

Figure 20 Scree plot (reduced correlation matrix)

In addition, the scree plot based on the unreduced correlation matrix also shows an inflection point corresponding to four factors, but five eigenvalues are higher than 1, indicating that 5 factors impact significantly on the variability of the answers:

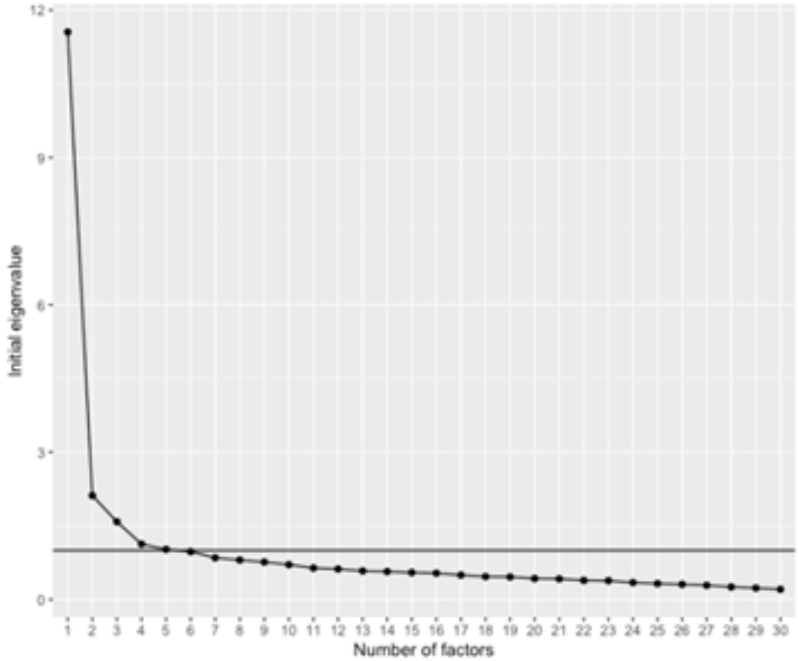

Figure 21 Scree plot based on unreduced correlation matrix

Finally, as the figure above shows, only five eigenvalues are higher than 1, indicating that 5 factors impact significantly on the variability of the answers. Therefore, the exploratory factor analysis was performed. The variables were treated as categorical, as there were 5 categories to deal with. The exploratory factor analysis was performed considering 5 factors, as the method of eigenvalues higher than 1 suggested. Here below, the factor loadings are shown in the table where:

- AW stands for 'awareness' and refers to 'getting on the balcony'
- DG stands for 'diagnosing' and refers to 'identifying the adaptive challenge'
- RD refers to 'regulating distress'
- F stands for 'focus' and refers to 'maintaining disciplined attention'
- GWB refers to 'giving the work back to the people'
- PV refers to 'protecting leadership voices from below'

Standardized loadings (pattern matrix) based upon correlation matrix

	item	PA1	PA5	PA2	PA4	PA3
PV_2	12	0.795				
GWB_3	17	0.772			-0.366	
PV_4	24	0.749				
GWB_2	11	0.722				
PV_1	6	0.705				
PV_3	18	0.646				
RD_3	15	0.601	0.447			
GWB_5	29	0.536				
AW_4	19	0.485				
F_2	10	0.381				
DG_5	26					
GWB_1_R	5		-0.871			
GWB_4_R	23		-0.816			
RD_5	27		0.588			
RD_1	3	0.376	0.471			
RD_4	21		0.468		0.360	
DG_1_R	2		-0.333			
F_3	16			0.554		
RD_2	9			0.554		
DG_3_R	14			-0.518		
DG_2_R	8			-0.472		
AW_5	25			0.463	0.377	
F_1	4			0.390		
PV_5_R	30	0.359		-0.375		
DG_4	20			0.321		
AW_2_R	7				0.631	
AW_3_R	13				0.430	
AW_1	1				0.343	
F_4_R	22					0.810
F_5_R	28					0.601

Table 13 Factor loadings

At the top of the table, it is possible to see the name of the five factors (PA1, PA2, PA3, PA4, PA5). In the second column it is possible to see the number of questions whose factor loading is indicated. Besides, every acronym in the first column shows the number of the question which is within that specific category of questions (e.g., AW1 refers to the first question of 'getting on the balcony', DG3 refers to the third question of 'identifying the adaptive challenge', PV5 refers to the fifth question of 'protecting leadership voices from below', etc..).

Here is also the exploratory factor diagram, where broken lines refer to reversed score questions and express a negative correlation:

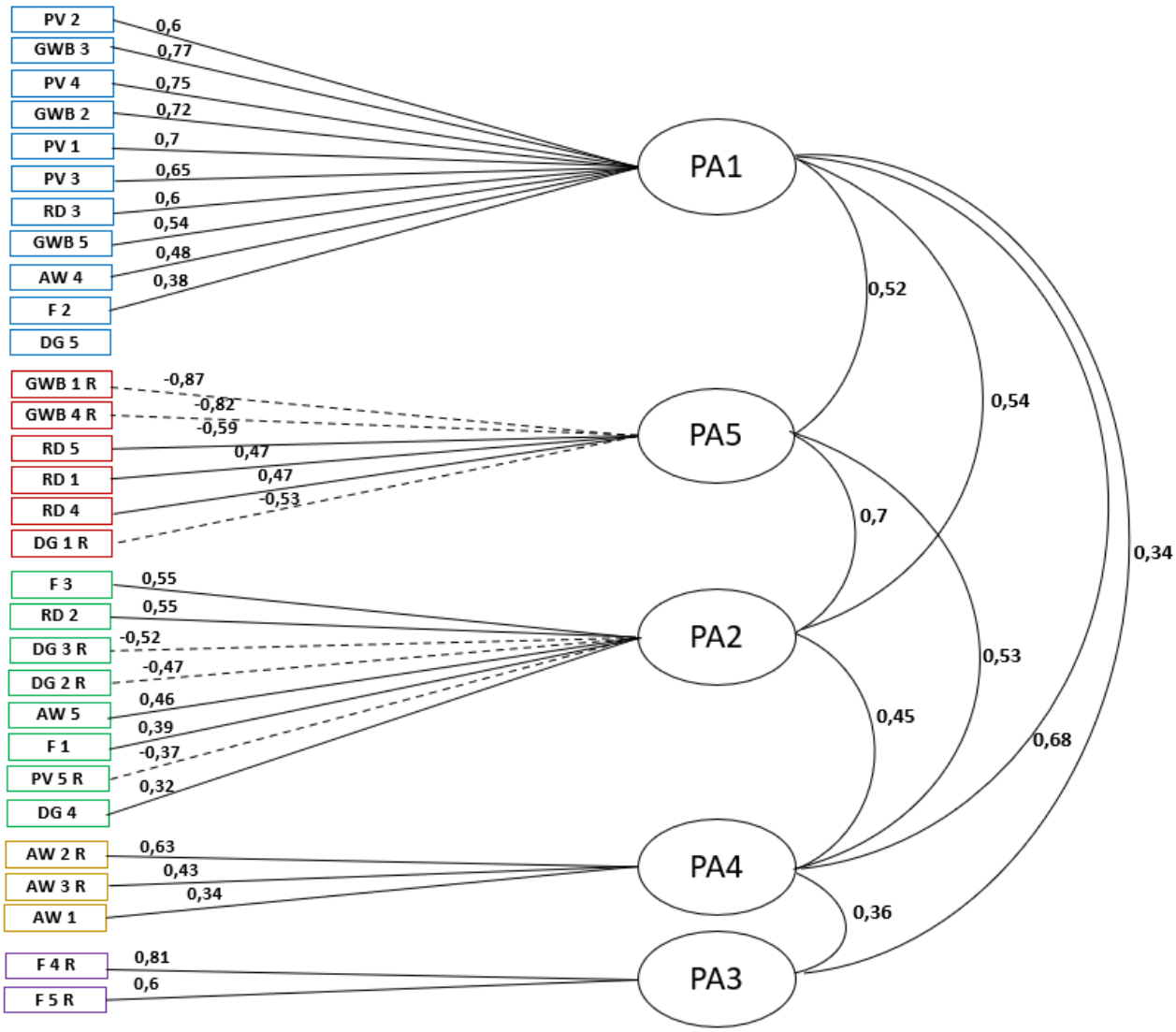

Figure 22 Exploratory factor diagram

As in social science a model is acceptable if it accounts for the 60% of the answers' variance, in this survey the five-factor model could be considered a valid result, as it accounts for 62.86% of the answers' variance, as the table below shows:

Factor	Eigenval	%var	%var cumulative
1	12.74	42.46	42.46
2	2.27.	7.57	50.03
3	1.66	5.54	55.57
4	1.16	3.88	59.45
5	1.02	3.41	62.86

Table 14 Cumulative variance of the answers

The table below explains the exploratory factor diagram in the picture above and shows clearly which item is influenced by which factor:

Latent factors impacting on items	**Questionnaire items**
PA 4 - Getting on the balcony	Item 1 - When difficulties emerge in our organization my boss is good at stepping back and assessing the dynamics of the people involved Item 7 - In difficult situations, my boss sometimes loses sight of the "big picture" Item 13 - When my boss disagrees with someone, he/she has difficulty listening to what the other person is really saying
PA 2 - Identifying the adaptive challenge	Item 8 - When people are struggling with a value conflict, my boss uses his/her expertise to tell them what to do Item 14 - When others are struggling with intense conflicts, my boss steps in to resolve their differences for them Item 20 - My boss encourages people to discuss the "elephant in the room" **Additional items from other dimensions influenced by latent factor PA2**: Item 4 (**maintaining disciplined attention**) - In complex situations, my boss gets people to focus on the issues they are trying to avoid Item 16 (**maintaining disciplined attention**) - When people try to avoid controversial organizational issues, my boss brings these conflicts into the open Item 9 (**regulating distress**) - When people begin to be disturbed by unresolved conflicts, my boss encourages them to address the issues Item 25 (**getting on the balcony**) - In a difficult situation, my boss will step out of the dispute to gain perspective on it Item 30 (**protecting leadership voices from below**) - To restore equilibrium in the organization, my boss tries to neutralize comments of out-group members
PA3 - Maintaining disciplined attention	Item 22 - My boss thinks it is reasonable to let people avoid confronting difficult issues Item 28 - In an effort to keep things moving forward, my boss lets people avoid issues that are troublesome
PA5 - Regulating distress	Item 3 - When my colleagues and I feel uncertain about organizational change I trust that my boss will help us work through the difficulties Item 21 - People recognize that my boss has confidence to tackle challenging problems Item 27 - People see my boss as someone who holds steady in the storm **Additional items from other dimensions influenced by latent factor PA5:** Item 2 (**identifying the adaptive challenge**) - When events trigger strong emotional responses among employees, my boss uses his/her authority as a leader to resolve the problem Item 5 (**giving the work back to the people**) - When employees are struggling with a decision, my boss tells them what he/she thinks they should do Item 23 (**giving the work back to the people**) - When people look to my boss to solve problems, he/she enjoys providing solutions
PA1- Protecting leadership voices from below	Item 6 - During times of difficult change, my boss welcomes the thoughts of group members with low status Item 12 - Listening to group members with radical ideas is valuable to my boss Item 14 - When others are struggling with intense conflicts, my boss steps in to resolve their differences for them **Additional items from other dimensions influenced by latent factor PA1**:

	Item 11 (**giving the work back to the people**) - When employees look to my boss for answers, he/she encourages them to think for themselves Item 17 (**giving the work back to the people**) - My boss encourages his/her employees to take initiative in defining and solving problems Item 29 (**giving the work back to the people**) - When people are uncertain about what to do, my boss empowers them to decide for themselves Item 19 (**getting on the balcony**) - In challenging situations, my boss likes to observe the parties involved and assess what's really going on Item 15 (**regulating distress**) - My boss has the emotional capacity to comfort others as they work through intense issues Item 10 (**maintaining disciplined attention**) - During organizational change, my boss challenges people to concentrate on the "hot" topics

Table 15 Which latent factors affecting which items

4.2.2.2 Getting on the balcony

PA4, the fourth factor in order of importance, which impacts on the variability of the answers by 3.88%, seems to be strongly related to three questions belonging to 'getting on the balcony':

Latent factor PA 4 - Getting on the balcony	Item 1 - When difficulties emerge in our organization my boss is good at stepping back and assessing the dynamics of the people involved Item 7 - In difficult situations, my boss sometimes loses sight of the "big picture" Item 13 - When my boss disagrees with someone, he/she has difficulty listening to what the other person is really saying

Table 16 Items influenced by 'getting on the balcony'

These three questions seem to identify an observable behavior which may reflect a certain degree of awareness, which is the ability to step back and observe (Benington & Turbitt, 2007).

4.2.2.3 Identifying the adaptive challenge

PA2, the third factor in order of importance, seems to impact on the variability of the answers by 5.54%. It impacts on three items from 'identifying the adaptive challenge' and also on other items from 'getting on the balcony', 'maintaining disciplined attention', and 'regulating distress'. Hence, there is some overlapping:

Latent factor PA 2 - Identifying the adaptive challenge	Item 8 - When people are struggling with a value conflict, my boss uses his/her expertise to tell them what to do Item 14 - When others are struggling with intense conflicts, my boss steps in to resolve their differences for them Item 20 - My boss encourages people to discuss the "elephant in the room" **Additional items from other dimensions influenced by latent factor PA2**: Item 4 (**maintaining disciplined attention**) - In complex situations, my boss gets people to focus on the issues they are trying to avoid Item 16 (**maintaining disciplined attention**) - When people try to avoid controversial organizational issues, my boss brings these conflicts into the open Item 9 (**regulating distress**) - When people begin to be disturbed by unresolved conflicts, my boss encourages them to address the issues Item 25 (**getting on the balcony**) - In a difficult situation, my boss will step out of the dispute to gain perspective on it Item 30 (**protecting leadership voices from below**) - To restore equilibrium in the organization, my boss tries to neutralize comments of out-group members

Table 17 Items influenced by 'identifying the adaptive challenge'

It seems that most of these questions across 'maintaining disciplined attention', 'regulating distress' and 'identifying adaptive challenge' refer to the observable behavior of addressing conflict (Lohr et al., 2018).

4.2.2.4 Maintaining disciplined attention

PA3, the fifth factor in order of importance, seems to correspond to 'maintaining disciplined attention' and it seems to impact on the variability of the answers by 3.41 %:

Latent factor PA3 - Maintaining disciplined attention	Item 22 - My boss thinks it is reasonable to let people avoid confronting difficult issues Item 28 - In an effort to keep things moving forward, my boss lets people avoid issues that are troublesome

Table 18 Items influenced by 'maintaining disciplined attention'

Reversed score question 22 (My boss thinks it is reasonable to let people avoid confronting difficult issues) and the reversed score question 28 (In an effort to keep things moving forward, my boss lets people avoid issues that are troublesome) seem to be strongly connected to work avoidance mechanisms and issue avoidance behaviors (Heifetz and Linsky, 2002).

4.2.2.5 Regulating distress

PA5, the second factor in order of importance, seems to impact on the variability of the answers by 7.57%. it impacts on items related to 'regulating distress' and on items related to 'identifying the adaptive challenge' and 'giving the work back to the people'. Hence, there is some overlapping:

Latent factor PA5 - Regulating distress	Item 3 - When my colleagues and I feel uncertain about organizational change I trust that my boss will help us work through the difficulties Item 21 - People recognize that my boss has confidence to tackle challenging problems Item 27 - People see my boss as someone who holds steady in the storm **Additional items from other dimensions influenced by latent factor PA5**: Item 2 (**identifying the adaptive challenge**) - When events trigger strong emotional responses among employees, my boss uses his/her authority as a leader to resolve the problem Item 5 (**giving the work back to the people**) - When employees are struggling with a decision, my boss tells them what he/she thinks they should do Item 23 (**giving the work back to the people**) - When people look to my boss to solve problems, he/she enjoys providing solutions

Table 19 Items influenced by 'regulating distress'

Beside the three items from 'regulating distress', it seems that also the two questions from 'giving the work back to the people' refer to an observable behavior which is the boss' directivity which in the Italian context of this research seems to be strongly connected to the respondents' feelings of reassurance. These findings confirm some characteristics of the Italian culture already documented in literature (Martin, *et al.*, 2013; Lonati, 2020).

4.2.2.6 Protecting leadership voices from below

PA1, the first factor in order of importance, seems to impact on the variability of the answers by 42.46%. It is related to three questions from 'protecting leadership voices from below' but it also impacts on three questions from 'giving the work back to the people', one question from 'getting on the balcony', one question

from ‘regulating distress’ and one question from ‘maintaining disciplined attention’:

Latent factor PA1 - Protecting leadership voices from below	Item 6 - During times of difficult change, my boss welcomes the thoughts of group members with low status Item 12 - Listening to group members with radical ideas is valuable to my boss Item 14 - When others are struggling with intense conflicts, my boss steps in to resolve their differences for them **Additional items from other dimensions influenced by latent factor PA1**: Item 11 (**giving the work back to the people**) - When employees look to my boss for answers, he/she encourages them to think for themselves Item 17 (**giving the work back to the people**) - My boss encourages his/her employees to take initiative in defining and solving problems Item 29 (**giving the work back to the people**) - When people are uncertain about what to do, my boss empowers them to decide for themselves Item 19 (**getting on the balcony**) - In challenging situations, my boss likes to observe the parties involved and assess what’s really going on Item 15 (**regulating distress**) - My boss has the emotional capacity to comfort others as they work through intense issues Item 10 (**maintaining disciplined attention**) - During organizational change, my boss challenges people to concentrate on the “hot” topics

Table 20 Items influenced by 'protecting leadership voices from below'

The items from ‘protecting leadership voices from below’ and ‘giving the work back to the people’ seem to have to do with the observable behavior of listening and generating a dialogue on the one side and a feeling of trust through delegating/empowering on the other side. Delegating and empowering collaborators may start from listening to them and creating a dialogue with them (Mukherjee, *et al*., 2021). Question 26 from ‘identifying the adaptive challenge’, which is ‘my boss thrives on helping people find new ways of coping with organizational problems’, does not seem to be influenced by any of these factors.

4.2.2.7 Summary of exploratory factors analysis and link into confirmatory factor analysis

Overall, the questionnaire items seemed to be split and subdivided differently across dimensions which overlap. It seems that there are many overlapping items. On average, approximately 56% of the items are influenced by the latent factor whose perception they are expected to measure, and the table shows the percentage for every single dimension, which seems low in all cases:

Dimension	Percentage of items influenced by their latent factor in Northouse’s AL questionnaire
Getting on the balcony	60%
Identifying the adaptive challenge	60%
Regulating distress	60%
Maintaining disciplined attention	40%
Giving the work back to the people	0%
Protecting leadership voices from below	60%

Table 21 Percentage of items influenced by their latent factor

The results of the exploratory factor analysis seem to show that the questions may not find correspondence to the six dimensions of adaptive leadership as they were conceived originally. The items related to 'giving the work back to the people' were affected by two different factors: 'protecting leadership voices from below' and 'regulating distress'. Therefore, apparently it is not possible to say whether the questionnaire fits the six-dimensional model in real life.

4.2.2.8 Confirmatory factor analysis

A confirmatory factor analysis to better understand the validity of the measurement model was also performed, as explained in section 3.3.2.2.2. As expected, the Chi Square fit index of 1,777 with 390 degrees of freedom suggested that there are no differences between variables due to a relationship among them and there is very little probability that this data refers to the six-dimension model. Hence, we can conclude that the six-dimensional model does not fit the data. In line with the result of the exploratory factor analysis the model does not seem to measure the perception of six adaptive leadership behaviors.

However, the other indexes (see section 3.3.2.2.2) were positive. The CFI (Comparative Fit Index), which looks at how fit the model is by examining the gap between the data and the hypothesized model, was 0.94 against the empirical threshold which should be major or equal to 0.90. The RMSEA (Root Mean Square Error Approximation) was 0.064 against the empirical threshold which should be minor or equal to 0.06. The SRMR (Standardized Root Mean Square Residual), which measures the average discrepancy between the model implied covariance matrix and the observed covariance matrix, was 0.077 and it should be minor or equal to 0.08. The TLI (Tucker-Lewis Index), which is preferable for smaller samples and is an index for assessing the model fit, was 0.93 and it should be close to 0.95.

In order to guarantee more accuracy to the analysis and considering that the variables were categorical and not continuous, it was decided to merge the extreme value categories with the moderated value categories to have 3 categories ('I strongly disagree/I disagree', 'neutral' and 'I agree/I strongly agree').
Here is the factor loading for each question, once the categories were reduced, in the table below, where:

- AW stands for 'awareness' and refers to 'getting on the balcony'
- DG stands for 'diagnosing' and refers to 'identifying the adaptive challenge'
- RD refers to 'regulating distress'
- F stands for 'focus' and refers to 'maintaining disciplined attention'
- GWB refers to 'giving the work back to the people'
- PV refers to 'protecting leadership voices from below'

Latent Variables:

	Estimate	Std.Err	z-value	P(>|z|)	Std.lv	Std.all
AW =~						
AW_1	0.841	0.030	28.104	0.000	0.841	0.841
AW_2_R	0.365	0.058	6.339	0.000	0.365	0.365
AW_3_R	0.536	0.048	11.164	0.000	0.536	0.536
AW_4	0.814	0.030	27.461	0.000	0.814	0.814
AW_5	0.727	0.034	21.302	0.000	0.727	0.727
RD =~						
RD_1	0.817	0.027	29.977	0.000	0.817	0.817
RD_2	0.683	0.036	18.908	0.000	0.683	0.683
RD_3	0.889	0.023	38.045	0.000	0.889	0.889
RD_4	0.807	0.028	28.566	0.000	0.807	0.807
RD_5	0.700	0.034	20.371	0.000	0.700	0.700
FF =~						
F_1	0.803	0.032	24.998	0.000	0.803	0.803
F_2	0.724	0.038	19.049	0.000	0.724	0.724
F_3	0.628	0.042	14.797	0.000	0.628	0.628
F_4_R	0.229	0.059	3.862	0.000	0.229	0.229
F_5_R	0.373	0.054	6.868	0.000	0.373	0.373
PV =~						
PV_1	0.862	0.029	29.333	0.000	0.862	0.862
PV_2	0.916	0.023	38.995	0.000	0.916	0.916
PV_3	0.356	0.056	6.320	0.000	0.356	0.356
PV_4	0.839	0.027	30.622	0.000	0.839	0.839
PV_5_R	0.170	0.062	2.745	0.006	0.170	0.170
DG =~						
DG_1_R	0.271	0.058	4.649	0.000	0.271	0.271
DG_2_R	0.652	0.039	16.716	0.000	0.652	0.652
DG_3_R	0.611	0.042	14.692	0.000	0.611	0.611
DG_4	-0.824	0.029	-28.629	0.000	-0.824	-0.824
DG_5	-0.858	0.025	-33.671	0.000	-0.858	-0.858
GWB =~						
GWB_1_R	0.527	0.059	8.975	0.000	0.527	0.527
GWB_2	-0.485	0.051	-9.513	0.000	-0.485	-0.485
GWB_3	-0.709	0.046	-15.478	0.000	-0.709	-0.709
GWB_4_R	0.800	0.037	21.560	0.000	0.800	0.800
GWB_5	-0.786	0.032	-24.261	0.000	-0.786	-0.786

Table 22 Factor loadings original model - reduced categories

As the table shows, there are many factor loadings that are low:

- In 'getting on the balcony' item AW_2_R factor loading is 0.36
- In 'maintaining disciplined attention' item F_4_R factor loading is 0.22 and item F_5_R factor loading is 0.37
- In 'protecting leadership voices from below' item PV_3 factor loading is 0.35 and item PV_5_R factor loading is 0.17
- In 'identifying the adaptive challenge' item DG_1_R factor loading is 0.27
- In 'giving the work back to the people' item GWB_2 factor loading is -0.48

Afterwards, it was decided to remove the questions with a factor loading lower than 0.3, since a low factor loading implies that the question is not strongly related to the factor. The reversed score questions 22-F4 (My boss thinks it is reasonable to let people avoid confronting difficult issues), 30-PV5 (To restore equilibrium in the organization, my boss tries to neutralize comments of out-group members) and 2-DG1 (When events trigger strong emotional responses among employees, my boss uses his/her authority as a leader to resolve the problem) were then removed and the confirmatory factor analysis fit indexes improved. What these three

questions seem to have in common is that they all are written using the positive form, but the content is negative as they talk about the boss' attitude to issue avoidance (questions 22 and question 30) or 'quick fix' (question 2). Here is the table with a further increase in the factor loading for each question, once the three questions with a factor loading lower than 0.3 were removed:

Latent Variables:

	Estimate	Std.Err	z-value	P(>|z|)	Std.lv	Std.all
AW =~						
AW_1	0.840	0.030	28.103	0.000	0.840	0.840
AW_2_R	0.365	0.057	6.356	0.000	0.365	0.365
AW_3_R	0.533	0.048	11.030	0.000	0.533	0.533
AW_4	0.816	0.030	27.633	0.000	0.816	0.816
AW_5	0.728	0.034	21.309	0.000	0.728	0.728
RD =~						
RD_1	0.818	0.027	30.125	0.000	0.818	0.818
RD_2	0.684	0.036	18.999	0.000	0.684	0.684
RD_3	0.889	0.023	38.016	0.000	0.889	0.889
RD_4	0.807	0.028	28.407	0.000	0.807	0.807
RD_5	0.700	0.034	20.391	0.000	0.700	0.700
FF =~						
F_1	0.794	0.032	25.038	0.000	0.794	0.794
F_2	0.718	0.037	19.279	0.000	0.718	0.718
F_3	0.620	0.042	14.807	0.000	0.620	0.620
F_5_R	0.353	0.054	6.487	0.000	0.353	0.353
PV =~						
PV_1	0.857	0.029	29.310	0.000	0.857	0.857
PV_2	0.909	0.023	38.770	0.000	0.909	0.909
PV_3	0.360	0.056	6.441	0.000	0.360	0.360
PV_4	0.835	0.027	30.579	0.000	0.835	0.835
DG =~						
DG_2_R	0.646	0.039	16.507	0.000	0.646	0.646
DG_3_R	0.608	0.042	14.644	0.000	0.608	0.608
DG_4	-0.816	0.029	-28.329	0.000	-0.816	-0.816
DG_5	-0.851	0.026	-33.386	0.000	-0.851	-0.851
GWB =~						
GWB_1_R	0.527	0.059	8.974	0.000	0.527	0.527
GWB_2	-0.486	0.051	-9.559	0.000	-0.486	-0.486
GWB_3	-0.710	0.046	-15.538	0.000	-0.710	-0.710
GWB_4_R	0.800	0.037	21.628	0.000	0.800	0.800
GWB_5	-0.785	0.032	-24.200	0.000	-0.785	-0.785

Table 23 Factor loadings without three questions - reduced categories

Hence, the CFI (Comparative Fit Index) was 0.96 against the expected result which should be major or equal to 0.90 (well above the threshold of 0.95 which would be a more robust benchmark). The RMSEA (Root Mean Square Error Approximation) was 0.055 against the empirical threshold which should be minor or equal to 0.06. The SRMR (Standardized Root Mean Square Residual) was 0.063 and it should be minor or equal to 0.08. The TLI (Tucker-Lewis Index) was 0.96 and it should be close to 0.95.

This is the Confirmatory Factor Analysis model as, finally, it appeared to be:

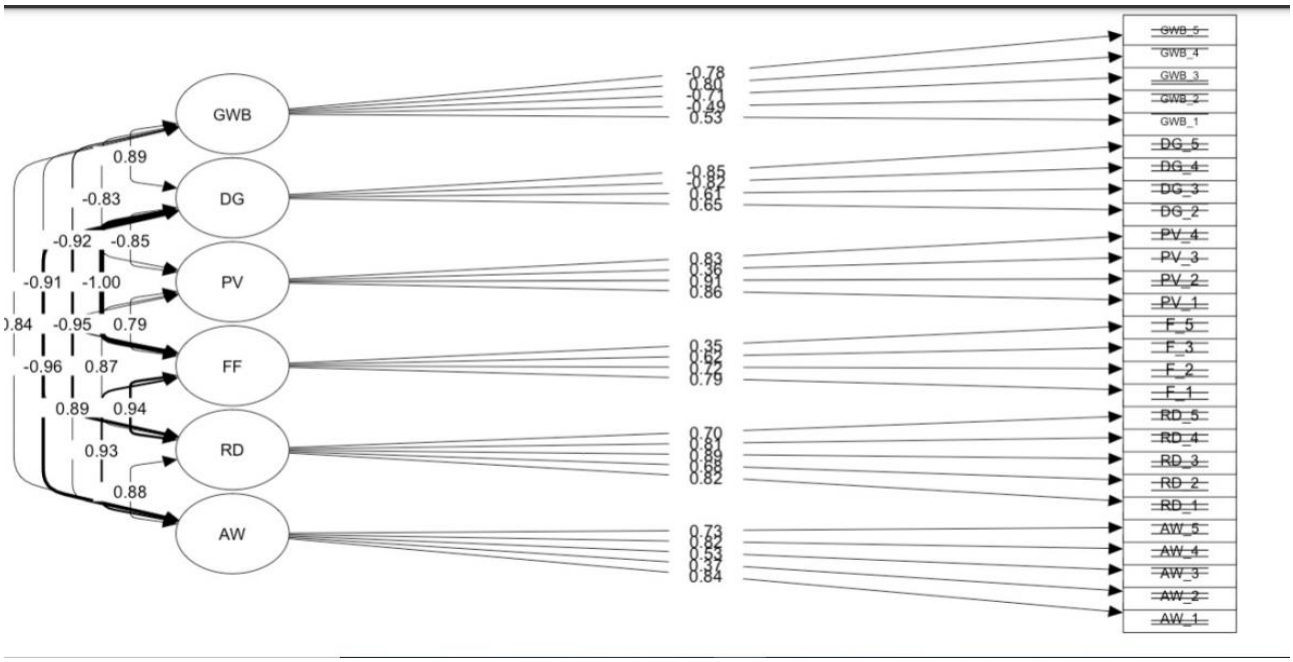

Figure 23 Confirmatory factor diagram

The result is that if the three questions with a factor loading lower than 0.3 can be removed (F4R - Q22 'My boss thinks it is reasonable to let people avoid confronting difficult issues', PV5R – Q30 'To restore equilibrium in the organization, my boss tries to neutralize comments of out-group members' and DG1R – Q2 'When events trigger strong emotional responses among employees, my boss uses his/her authority as a leader to resolve the problem'), it seems that content validity of the questionnaire and of the measurement model will improve. Yet, it can possibly be better if the other three questions with a factor loading of approximately 0.35, here below mentioned, could be removed, or adjusted:

- reversed score question 7-AW2 (In difficult situations, my boss sometimes loses sight of the "big picture")
- reversed score question 28-F5 (In an effort to keep things moving forward, my boss lets people avoid issues that are troublesome)
- question 18-PV3 (My boss is open to people who bring up unusual ideas that seem to hinder the progress of the group).

4.3 SUMMARY OF THE FINDINGS

In the light of all statistical tests performed on a sample of 400 respondents across the corporate sector in Italy, Northouse's AL questionnaire shows a high degree of global reliability given the general Cronbach's alpha of 0.864 with a 99% bootstrap confidence interval of 0.841 and 0.883. However, the Cronbach's alpha of 'identifying the adaptive challenge' and 'giving the work back to the people' is very low in comparison to all the other dimensions. This result is due to reversed score questions related to authoritative and directive

leadership which are assumed to be negative in the adaptive leadership framework, whereas they are seen positively by the Italians.

As the exploratory factor analysis and the confirmatory factor analysis show, Northouse's AL questionnaire does not seem to be sufficiently valid to measure the perception of six distinct adaptive leadership dimensions, since they overlap each other very much.

4.4 SUMMARY OF THE CHAPTER

This chapter has presented the results from the psychometric testing of Northouse's AL questionnaire. It is reliable but it is not sufficiently valid when applied to the Italian corporate context. The next chapter focuses on the main adaptation of Northouse's AL questionnaire to the Italian corporate context. It presents the main changes made to the questionnaire items and how new items were designed and validated to be included in the Italian Adaptive Leadership Behavior Questionnaire (IALBQ).

5 CARD SORTING: RESULTS

In the previous chapter the psychometric assessment of Northouse's Adaptive Leadership (AL) questionnaire highlighted that Northouse's AL questionnaire is not sufficiently valid as a tool to measure the perception of adaptive leadership behaviors when applied to the Italian corporate context. This chapter focuses on the main adaptation of Northouse's AL questionnaire to the Italian corporate context. It presents the main changes made to the questionnaire items and how new items were designed and validated to be included in the Italian Adaptive Leadership Behavior Questionnaire (IALBQ). The structure of the chapter is as follows:

- Adaptation of Northouse's AL questionnaire to the Italian corporate context: this section presents how the items from Northouse's AL questionnaire were modified and changed with the view to suit the Italian corporate context and the criteria used to carry out this adaptation.
- Card sorting sample: this section presents the sample of 25 respondents who took part in the activity.
- Card sorting activity: this section explains the reason why and how this task was carried out.
- Card sorting results: this section presents how new items were designed and validated to be included in the IALBQ and it also presents the refining of the IALBQ with the final removal of redundant items.
- Summary of the findings: the IALBQ.

5.1 ADAPTATION OF NORTHOUSE'S AL QUESTIONNAIRE TO THE ITALIAN CORPORATE CONTEXT

As explained in chapter 4, the psychometric assessment of Northouse's AL questionnaire highlighted that it is not sufficiently valid as a tool to measure the perception of adaptive leadership behaviors when applied to the Italian corporate context. This section presents how the items from Northouse's AL questionnaire were modified and changed with the view to suit the Italian corporate context and the criteria used to carry out this adaptation.

A number of items from Northouse's AL questionnaire were not effective and it was decided to adapt the questionnaire by taking the following actions:

- The bipolar *Likert* scale based on the measurement of an attitude perception (I strongly disagree, I disagree, neutral, I agree, I strongly agree) was turned into a unipolar scale based on the measurement of a behavior frequency perception (never, rarely, neutral, often, always). This would help the respondents think about how frequently a specific behavior takes place and perceive the dynamism of adaptive leadership conceived as a practice (Heifetz, 1994), and not as a style or a personality trait.

- The words related to the emotional sphere and to the performance assessment (e.g., like, dislike, good at) were removed because they could shift the respondents' focus away from assessing how frequently a specific behavior would happen.
- Time adverbs (e.g., sometimes) or time references (e.g., 'in complex situations', 'when people are uncertain about what to do', etc..) were in some cases removed. As explained in the literature review chapter, although adaptive leadership might be exercised especially when there are adaptive challenges to cope with, adaptive behaviors could take place every day. A gap may exist between the reality as such and what respondents would like it to be ideally. This gap would justify the practice of adaptive leadership behaviors on a daily basis.
- The item factor loading was taken into consideration (see section 4.2.2.8), and those items with a very low factor loading were either removed and replaced with new ones or rephrased.
- Reversed score questions related to authoritative and directive leadership were removed since Italians perceived them positively (see section 4.2.1).

The specific changes for each of the dimensions are outlined in the following sections.

5.1.1 Questions about 'getting on the balcony'

The table below shows how items were changed, and these changes are commented on afterwards following an order of association:

Original questions	Parts removed	Questions changed
19) In challenging situations, my boss likes to observe the parties involved and assess what's really going on	likes to	19) In challenging situations, my boss observes the parties involved and assesses what's really going on
1) When difficulties emerge in our organization my boss is good at stepping back and assessing the dynamics of the people involved	is good at	1) When difficulties arise in our organization, my boss takes a step back and evaluates the dynamics among the people involved
25) In a difficult situation, my boss will step out of the dispute to gain perspective on it	dispute	25) In a difficult situation my boss will step out of the field to gain perspective on it
13R) When my boss disagrees with someone, he/she has difficulty listening to what the other person is really saying		13R) When my boss disagrees with someone, he/she has difficulty listening to what the other person is really saying
7R) In difficult situations, my boss sometimes loses sight of the "big picture"	sometimes	7R) In difficult situations, my boss loses sight of the "big picture"

Table 24 Questions about 'getting on the balcony'

Regarding the questions about 'getting on the balcony', question 19 (In challenging situations, my boss likes to observe the parties involved and assess what's really going on) showed the highest factor loading of 0.81 in the confirmatory factor analysis. However, the exploratory factor analysis showed that this question

seemed to be influenced by a factor dealing with listening and open dialogue rather than observation and stepping back from the scene to get the big picture. For this reason, the question was slightly changed, and the emotional aspect related to attitude perception was removed.

As for question 1 (When difficulties emerge in our organization my boss is good at stepping back and assessing the dynamics of the people involved) which had the second highest factor loading of 0.78 in the confirmatory factor analysis, the performance assessment element was removed too, as the focus is not how well a behavior takes place but how frequently it takes place. The fact that a boss is good at doing something does not disclose anything about whether and how frequently this action is repeated over time.

Question 25 (In a difficult situation, my boss will step out of the dispute to gain perspective on it) which had the third highest factor loading of 0.75 in the confirmatory factor analysis, seemed to be influenced by a factor related to addressing conflict in the exploratory factor analysis. Hence, the word 'dispute' was changed with 'field' which seems to be more neutral and might not convey necessarily a sense of conflict.

Reversed score question 13 (When my boss disagrees with someone, he/she has difficulty listening to what the other person is really saying) had a factor loading of 0.54 in the confirmatory factor analysis, and it seemed to be strongly associated with question 1 (When difficulties emerge in our organization my boss is good at stepping back and assessing the dynamics of the people involved). Hence, it remained unchanged.

Finally, reversed score question 7 (In difficult situations, my boss sometimes loses sight of the "big picture") was kept as it is with just a minor change, since in the exploratory factor analysis it seemed well correlated to question 1 and reversed score question 13, although it showed a very low factor loading of 0.38 in the confirmatory factor analysis.

5.1.2 Questions about 'identifying the adaptive challenge'

The table below shows how items were changed, and these changes are commented on afterwards following an order of association:

Original questions	**Parts removed**	**Questions changed**
26) My boss thrives on helping people find new ways of coping with organizational problems	thrives; helping people	26) My boss tries to think about new ways of coping with organizational problems
20) My boss encourages people to discuss the "elephant in the room"	totally replaced	20) My boss takes the time to analyze problems at work
8R) When people are struggling with a value conflict, my boss uses his/her expertise to tell them what to do	totally replaced	8R) My boss finds 'quick fixes' when his/her collaborators are struggling with problems

14R) When others are struggling with intense conflicts, my boss steps in to resolve their differences for them	totally replaced	14) My boss analyses pros and cons of what his/her staff say
2R) When events trigger strong emotional responses among employees, my boss uses his/her authority as a leader to resolve the problem	totally replaced	2R) My boss jumps into action without thinking

Table 25 Questions about 'identifying the adaptive challenge'

The 'identifying the adaptive challenge' set of question seemed too little related to analysis and reflection. For this reason, all the questions were partially or totally changed and replaced with words that are less related to the 'intervention' sphere and more related to the 'diagnosis' sphere (Heifetz et al., 2019). Question 26 (My boss thrives on helping people find new ways of coping with organizational problems) is the one with the highest factor loading of -0.85 in the confirmatory factor analysis and it is the only question which was not related to any other in the exploratory factor analysis. It was partially replaced. A verb indicating performance (thriving) was removed to make the question easier to answer and shift the focus from whether the behavior is successful or not on to how frequently a specific behavior happens. Also, the intervention verb 'helping people find new ways' was replaced with a more diagnostic verb such as 'thinking about new ways.'

Question 20 (My boss encourages people to discuss the "elephant in the room") had the second highest factor loading of -0.82 and it was associated with reversed score question 8 (When people are struggling with a value conflict, my boss uses his/her expertise to tell them what to do) and question 14 (When others are struggling with intense conflicts, my boss steps in to resolve their differences for them) in the exploratory factor analysis, having to do with addressing conflict. This question was moved to the 'maintaining disciplined attention' set of questions, as it seemed to be more operative than reflective and it was replaced with the question 'my boss takes enough time to analyze problems at work', which seemed to have to do with diagnosing challenges.

Reversed score questions 8 (When people are struggling with a value conflict, my boss uses his/her expertise to tell them what to do), 14 (When others are struggling with intense conflicts, my boss steps in to resolve their differences for them) and 2 (When events trigger strong emotional responses among employees, my boss uses his/her authority as a leader to resolve the problem) were rephrased in a way that an authoritative attitude would not be relevant to the purpose of the question, because Italians do not see authoritative behaviors negatively. Hence, although reversed score question 8 (When people are struggling with a value conflict, my boss uses his/her expertise to tell them what to do) had a high factor loading of 0.65, the authoritative element of the question was replaced with 'finding quick fixes', a behavior which can be

considered negative irrespective of the cultural differences, since it is on the opposite side to diagnosing adaptive challenges. Reversed score question 14 (When others are struggling with intense conflicts, my boss steps in to resolve their differences for them) had a factor loading of 0.61 but it was still seen as positive by the Italians. Therefore, it was replaced by the behavior of 'analyzing pros and cons of the collaborators' views', which has to do with diagnosing. Reversed score question 2 (When events trigger strong emotional responses among employees, my boss uses his/her authority as a leader to resolve the problem) had a very low factor loading of 0.27 and was influenced in the exploratory factor analysis by a factor dealing with authority. Also, this question which was perceived as positive by the Italians was replaced with 'jumping into action without thinking', a behavior which can be considered negative irrespective of the cultural differences.

5.1.3 Questions about 'regulating distress'

The table below shows how items were changed, and these changes are commented on afterwards following an order of association:

Original questions	Parts removed	Questions changed
15) My boss has the emotional capacity to comfort others as they work through intense issues	has the emotional capacity	15) My boss supports his/her staff even when she / he is having a hard time themselves
3) When employees are struggling with a decision, my boss tells them what he/she thinks they should do	The whole sentence	3) My boss supports his/her coworkers while getting out of their comfort zone
21) People recognize that my boss has confidence to tackle challenging problems	People recognize that	21) My boss has confidence to tackle challenging problems
27) People see my boss as someone who holds steady in the storm	People see	27) My boss holds steady in the storm
9) When people begin to be disturbed by unresolved conflicts, my boss encourages them to address the issues	The whole sentence	9) My boss stands by his/her own coworkers

Table 26 Questions about 'regulating distress'

As regards this set of questions, questions 3 (When employees are struggling with a decision, my boss tells them what he/she thinks they should do), 21 (People recognize that my boss has confidence to tackle challenging problems) and 27 (People see my boss as someone who holds steady in the storm) are strongly correlated to each other. In the confirmatory factor analysis, they had a very high factor loading respectively of 0.81, 0.81 and 0.74, and in the exploratory factor analysis they were influenced by the same factor having to do with authoritative behaviors. In question 21 (People recognize that my boss has confidence to tackle challenging problems) and question 27 (People see my boss as someone who holds steady in the storm) some words were removed ('people recognize that', 'people see') to shift the focus from what people see or think

about the boss on to his/her behavior itself. Question 3 (When employees are struggling with a decision, my boss tells them what he/she thinks they should do) was replaced because it was too similar to some questions of 'identifying the adaptive challenge' and 'giving the work back to the people' which should be treated negatively whereas respondents perceived them positively. This would raise some ambiguity, while there should be coherence in the way the questions are approached when assessing the results.

Question 15 (My boss has the emotional capacity to comfort others as they work through intense issues) had a very high factor loading of 0.87 but it did not seem to relate to the others. For this reason, the emotional element was removed to homogenize this question with the others. In fact, what is relevant is not that the boss has the emotional capacity to comfort others but that he does it. The target for each question should be to point to a behavior not to a trait or personality style. The question was extended focusing on the ability of the boss to support his/her staff although he/she might be in difficulty themselves.

Although question 9 (When people begin to be disturbed by unresolved conflicts, my boss encourages them to address the issues) had a very high factor loading of 0.72, it was decided to replace it with a question which could have more to do with creating a holding environment rather than addressing issues, since the 'maintaining disciplined attention' set of questions already deals with this theme repeatedly.

5.1.4 Questions about 'maintaining disciplined attention'

The table below shows how items were changed, and these changes are commented on afterwards following an order of association:

Original questions	**Parts removed**	**Questions changed**
4) In complex situations, my boss gets people to focus on the issues they are trying to avoid	Complex; they are trying to avoid	4) In challenging situations, my boss pushes people to focus on the real problem
10) During organizational change, my boss challenges people to concentrate on the "hot" topics	The whole sentence	10) My boss focuses on the real problem
16) When people try to avoid controversial organizational issues, my boss brings these conflicts into the open	The whole sentence	16) My boss encourages people to deal with 'the elephant in the room'
28R) In an effort to keep things moving forward, my boss lets people avoid issues that are troublesome		28R) In an effort to keep things moving forward, my boss lets people avoid issues that are troublesome
22R) My boss thinks it is reasonable to let people avoid confronting difficult issues		22R) My boss thinks it is reasonable to let people avoid confronting difficult issues

Table 27 Questions about 'maintaining disciplined attention'

As regards this set of questions, reversed score questions 28 (In an effort to keep things moving forward, my boss lets people avoid issues that are troublesome) and 22 (My boss thinks it is reasonable to let people avoid confronting difficult issues) had the lowest factor loading of respectively 0.31 and 0.17. They are the ones which were influenced by a factor reflecting the most what 'maintaining disciplined attention' means in practice. For this reason, these two questions were kept unchanged, whereas the other three questions were slightly modified.

Question 4 (In complex situations, my boss gets people to focus on the issues they are trying to avoid) and question 16 (When people try to avoid controversial organizational issues, my boss brings these conflicts into the open), which had respectively a factor loading of 0.80 and 0.61, were influenced by a factor dealing with addressing conflict in the exploratory factor analysis. For this reason, in question 4 (In complex situations, my boss gets people to focus on the issues they are trying to avoid) 'they are trying to avoid' was replaced with 'difficult', to avoid respondents feeling uncomfortable. Question 16 (When people try to avoid controversial organizational issues, my boss brings these conflicts into the open) was totally rephrased to move from the idea of facing issues through conflicts on to facing issues without necessarily get into conflicts.

Question 10 (During organizational change, my boss challenges people to concentrate on the "hot" topics), which had a factor loading of 0.71, was, yet, more correlated to other question sets addressing listening and dialogue, rather than 'situation avoidance'. The word 'topic' was replaced with the word 'real problem' since the former gives the idea of a dialogue whereas the word 'issue' gives more the idea of a problem. The phrase 'during organizational change' was removed, since this attitude might take place daily, not only when a change is in force. The attention was moved from the staff's focus, as question 4 already did, on to the boss' focus in the first place, in order to extend the exploration of this dimension.

5.1.5 Questions about 'giving the work back to the people'

The table below shows how items were changed, and these changes are commented on afterwards following an order of association:

Original questions	Parts removed	Questions changed
23R) When people look to my boss to solve problems, he/she enjoys providing solutions	The whole phrase	23R) My boss provides solutions his/her own way without involving his/her coworkers
29) When people are uncertain about what to do, my boss empowers them to decide for themselves	empowers; When people are uncertain about what to do	29) My boss puts his/her coworkers in the conditions to decide for themselves
17) My boss encourages his/her employees to take initiative in defining and solving problems		17) My boss encourages his/her employees to take initiative in defining and solving problems

5R) When employees are struggling with a decision, my boss tells them what he/she thinks they should do	The whole sentence	5R) My boss centralizes decisional power and task procedures
11) When employees look to my boss for answers, he/she encourages them to think for themselves	The whole sentence	11) My boss encourages his/her collaborators to take responsibility for their learning

Table 28 Questions about 'giving the work back to the people'

As regards this set of questions, it seemed the two reversed score questions 5 (When employees are struggling with a decision, my boss tells them what he/she thinks they should do) and 23 (When people look to my boss to solve problems, he/she enjoys providing solutions) were correlated to each other, but they were both seen positively by the respondents. The other three questions were also correlated to each other and influenced by a different factor in the exploratory factor analysis. This factor had to do with several behaviors such as listening, open dialogue and delegating. Although reversed score question 23 (When people look to my boss to solve problems, he/she enjoys providing solutions) seemed to have a very high factor loading of 0.80, it did not seem to be perceived negatively by the respondents, as they consider authoritative behaviors positive. For this reason, 'enjoys providing solutions' was replaced with 'provides solutions his/her own way without involving coworkers', which may well have a negative valence for Italians too.

In line with this perspective, reversed score question 5 (When employees are struggling with a decision, my boss tells them what he/she thinks they should do), which had a factor loading of 0.50, was also rephrased using positive words that may well be perceived negatively by the Italians. The phrase 'tells them what he/she thinks they should do' was replaced by 'centralizes decisional power and task procedures', which may well be considered a negative behavior, as it is the opposite to 'giving the work back to the people'.

Although question 29 (When people are uncertain about what to do, my boss empowers them to decide for themselves) had a high factor loading of 0.78, it was decided to simplify the question by removing time references ('when people are uncertain about what to do') and to replace 'empowers' with a more practical verb which is 'put coworkers in the conditions' to give more the idea of intervention.

Question 17 (My boss encourages his/her employees to take initiative in defining and solving problems) had a factor loading of 0.71 and it remained unchanged.

Finally, in question 11 (When employees look to my boss for answers, he/she encourages them to think for themselves), which had a factor loading of 0.48, the time references ('when employees look to my boss for answers') were removed to simplify the question and 'encouraging coworkers to think for themselves' was replaced with 'taking responsibility for their learning' which seems more connected to the effort of getting

out of one's own comfort zone.

5.1.6 Questions about 'protecting leadership voices from below'

The table below shows how items were changed, and these changes are commented on afterwards following an order of association:

Original questions	Parts removed	Questions changed
12) Listening to group members with radical ideas is valuable to my boss	is valuable to	12) My boss tries to understand the ideas of those who are not aligned with the rest of the team
6) During times of difficult change, my boss welcomes the thoughts of group members with low status		6) During times of difficult change, my boss welcomes the thoughts of group members with low status
24) My boss has an open ear for people who don't seem to fit in with the rest of the group		24) My boss has an open ear for people who don't seem to fit in with the rest of the group
18) My boss is open to people who bring up unusual ideas that seem to hinder the progress of the group	hinder the progress of the group	18) My boss is open to people who express unusual ideas, even if that means delaying decision-making
30R) To restore equilibrium in the organization, my boss tries to neutralize comments of out-group members	the whole sentence	30R) In order to maintain the status quo in the organization, my boss ignores team members who have different ideas

Table 29 Questions about 'protecting leadership voices from below'

Question 12 (Listening to group members with radical ideas is valuable to my boss), question 6 (During times of difficult change, my boss welcomes the thoughts of group members with low status), question 24 (My boss has an open ear for people who don't seem to fit in with the rest of the group) and question 18 (My boss is open to people who bring up unusual ideas that seem to hinder the progress of the group) seemed to be correlated to each other being affected by the same factor in the exploratory factory analysis. Question 12 (Listening to group members with radical ideas is valuable to my boss) had the highest factor loading of 0. 88 from the confirmatory factor analysis and just one word expressing an attitude to the behavior ('is valuable to') was removed to shift the focus on the behavior itself. Question 6 (During times of difficult change, my boss welcomes the thoughts of group members with low status) with a factor loading of 0.85 and question 24 (My boss has an open ear for people who don't seem to fit in with the rest of the group) with a factor loading of 0.83 remained unchanged. Although question 18 (My boss is open to people who bring up unusual ideas that seem to hinder the progress of the group) seemed to be strongly correlated to the previous three questions, still the question was partially rephrased because of the low factor loading of 0.37. In the specific case, the verb 'hindering the progress of the group' was replaced with 'delaying the decision-making process' which does not necessarily mean to create a contrast between individuals' objectives and group's objectives.

Reversed score question 30 (To restore equilibrium in the organization, my boss tries to neutralize comments of out-group members), which had a very low factor loading of 0.11 and seemed to be affected by a different factor from the other questions in the exploratory factor analysis, was almost totally rephrased. It remained positively worded with a negative valence to monitor the coherence of the respondents. However, the word 'neutralize' was replaced with 'ignore' and the phrase 'to restore equilibrium' was replaced with 'to consolidate the status quo' to avoid passing a sensation of 'open conflict' onto the respondents and to let them associate this question with an attitude to listening rather than addressing conflict.

5.1.7 Summary of changes – Card sorting questions round 1

The new items and the adapted items outlined above that were to be used for the first round of the card sorting activity are the following:

1) When difficulties arise in the organization, my boss takes a step back and evaluates the dynamics among the people involved
2R) My boss jumps into action without thinking
3) My boss supports his/her coworkers while getting out of their comfort zone
4) In challenging situations my boss pushes people to focus on the real problem
5R) My boss centralizes decisional power and task procedures
6) During times of difficult change, my boss welcomes the thoughts of group members with low status
7R) In difficult situations, my boss loses sight of the "big picture"
8R) My boss finds 'quick fixes' when his/her collaborators are struggling with problems
9) My boss stands by his/her own coworkers
10) My boss focuses on the real problem
11) My boss encourages his/her collaborators to take responsibility for their learning
12) My boss tries to understand the ideas of those who are not aligned with the rest of the team
13R) When my boss disagrees with someone, he/she has difficulty listening to what the other person is really saying
14) My boss analyses pros and cons of what his / her staff say
15) My boss supports his/her staff even when she / he is having a hard time themselves
16) My boss encourages people to deal with 'the elephant in the room'
17) My boss encourages his/her employees to take initiative in defining and solving problems
18) My boss is open to people who express unusual ideas, even if that means delaying decision-making
19) In challenging situations, my boss observes the parties involved and assesses what's really going on
20) My boss takes the time to analyze problems at work
21) My boss has confidence to tackle challenging problems
22R) My boss thinks it is reasonable to let people avoid confronting difficult issues
23R) My boss provides solutions his/her own way without involving his/her coworkers
24) My boss has an open ear for people who don't seem to fit in with the rest of the group
25) In a difficult situation my boss will step out of the field to gain perspective on it
26) My boss tries to think about new ways of coping with organizational problems
27) My boss holds steady in the storm
28R) In an effort to keep things moving forward, my boss lets people avoid issues that are troublesome
29) My boss puts his/her coworkers in the conditions to decide for themselves
30R) In order to maintain the status quo in the organization, my boss ignores team members who have different ideas

Table 30 Items for first round of card sorting

5.2 CARD SORTING SAMPLE

The sample was a convenience sample of respondents chosen on a voluntary basis. Respondents would represent those who would complete the IALBQ when being ready to be circulated. It was constituted by 25 participants, though 4 of them did not complete the task during the first round. Here is a short description of the 25-respondent sample:

Gender	Male Female	7 18
Age	35-44 45-54 55-64	5 15 5
Qualifications	High school diploma Bachelor's Degree Masters' degree PhD / Prof Doc	8 12 3 2

Table 31 Respondents' characteristics

As we can see from the table, 70% of the sample is constituted by women and 30% is constituted by men. 50% of respondents are between 45 and 54, 25% of respondents are between 35 and 44, whereas 25% of respondents are between 55 and 64. Almost 50% of the sample is graduated, approximately 30% of the sample has a high school diploma whereas 20% of respondents obtained a PhD or a master's degree.

5.3 CARD SORTING ACTIVITY

The purpose of this card sorting activity was to validate items to be included in the IALBQ. The respondents were asked to match each item listed in section 5.1.7 with one of the six dimensions of the adaptive leadership framework (Heifetz, 1994). In order to facilitate this task for the respondents, the six dimensions were operationalized and defined in such a way that they could be better understood:

- 'Getting on the balcony' was rephrased as 'taking a step back and observing the situation'
- 'Identifying the adaptive challenge' was rephrased as 'analyzing the situation and reflecting on it'
- 'Regulating distress' was rephrased as 'supporting collaborators'
- 'Maintaining disciplined attention' was rephrased as 'focusing on the real problem without looking for quick fixes'
- 'Giving the work back to the people' was rephrased as 'empowering collaborators and delegating'
- 'Protecting leadership voices from below' was rephrased as 'listening to the opinion of those who march to the beat of a different drummer and those who are at a lower level in the corporate hierarchy'

These are the six original principles the adaptive leadership framework is based on, though over these two decades some aspects of it have been given emphasis such as the systemic perspective, the fear of the loss, the work avoidance mechanisms, as mentioned in section 2.5. There were three rounds. Every round the respondents were sent a set of items to match with one of the six operationalized dimensions of the adaptive leadership framework. Every time 85% of the respondents would match an item with the correct behavior, this item would be considered eligible to express that dimension, hence it would become an item of the IALBQ. The other items which would not receive 85% of the respondents' consensus would be either changed or dismissed and replaced with other items following the same criteria as those explained in section 5.1.

5.4 CARD SORTING RESULTS

Over 3 rounds, 23 items were included in the IALBQ. 21 items were validated with 85% of participants' consensus. 2 items were still introduced in the IALBQ even though they had less clarity, with about 50% of the participants matching them with 'getting on the balcony' and about 50% of the participants matching them with 'identifying the adaptive challenge'. This process will be explained in detail in the next sections.

5.4.1 Card sorting results – first round

Here are the results of the first round of card sorting using the items listed in section 5.1.7 and presented dimension by dimension:

Items about 'getting on the balcony'	**Participants' consensus**	**Items validated**
19) In challenging situations, my boss observes the parties involved and assesses what's really going on	33%	
1) When difficulties arise in the organization, my boss takes a step back and evaluates the dynamics among the people involved	86%	v
25) In a difficult situation my boss will step out of the field to gain perspective on it	66%	
13R) When my boss disagrees with someone, he/she has difficulty listening to what the other person is really saying	23%	
7R) In difficult situations, my boss loses sight of the "big picture"	42%	

Table 32 Items about 'getting on the balcony' validated during first round

Items about 'identifying the adaptive challenge'	Participants' consensus	Items validated
26) My boss tries to think about new ways of coping with organizational problems	71%	
20) My boss takes the time to analyze problems at work	86%	v
8R) My boss finds 'quick fixes' when his/her collaborators are struggling with problems	28%	
14) My boss analyses pros and cons of what his / her staff say	95%	v
2R) My boss jumps into action without thinking	57%	

Table 33 Items about 'identifying the adaptive challenge' validated during first round

Items about 'regulating distress'	Participants' consensus	Items validated
15) My boss supports his/her staff even when she / he is having a hard time themselves	95%	v
3) My boss supports his/her coworkers while getting out of their comfort zone	76%	
21) My boss has confidence to tackle challenging problems	4%	
27) My boss holds steady in the storm	23%	
9) My boss stands by his/her own coworkers	76%	

Table 34 Items about 'regulating distress' validated during first round

Items about 'maintaining disciplined attention'	Participants' consensus	Items validated
4) In challenging situations my boss pushes people to focus on the real problem	86%	v
10) My boss focuses on the real problem	95%	v
16) My boss encourages people to deal with 'the elephant in the room'	38%	
28R) In an effort to keep things moving forward, my boss lets people avoid issues that are troublesome	38%	
22R) My boss thinks it is reasonable to let people avoid confronting difficult issues	19%	

Table 35 Items about 'maintaining disciplined attention' during first round

Items about 'giving the work back to the people'	Participants' consensus	Items validated
23R) My boss provides solutions his/her own way without involving his/her coworkers	52%	
29) My boss puts his/her coworkers in the conditions to decide for themselves	52%	
17) My boss encourages his/her employees to take initiative in defining and solving problems	57%	
5R) My boss centralizes decisional power and task procedures	66%	
11) My boss encourages his/her collaborators to take responsibility for their learning	33%	

Table 36 Items about 'giving the work back to the people' validated during first round

Items about 'protecting leadership voices from below'	Participants' consensus	Items validated
12) My boss tries to understand the ideas of those who are not aligned with the rest of the team	86%	v
6) During times of difficult change, my boss welcomes the thoughts of group members with low status	61%	
24) My boss has an open ear for people who don't seem to fit in with the rest of the group	76%	
18) My boss is open to people who express unusual ideas, even if that means delaying decision-making	86%	v
30R) In order to maintain the status quo in the organization, my boss ignores team members who have different ideas	95%	v

Table 37 Items about 'protecting leadership voices from below' validated during first round

Overall, 9 items were validated to be included in the IALBQ with over 85% of the participants' consensus. The number of the items indicated are the ones appearing in the final draft of the IALBQ shown in table 69:

- one item from 'getting on the balcony':
  - item 1 - When difficulties arise in the organization, my boss takes a step back and evaluates the dynamics among the people involved
- two items from 'identifying the adaptive challenge':
  - item 7 - My boss takes the time to analyze problems at work
  - item 21 - My boss analyses pros and cons of what his/her staff say
- one item from 'regulating distress':
  - item 23 - My boss supports his/her staff, even when he/she is having a hard time themselves
- two items from 'maintaining disciplined attention':
  - item 9 - My boss focuses on the real problems
  - item 3- In challenging situations, my boss pushes people to focus on the real problem
- no item from 'giving the work back to the people'
- three items from 'protecting leadership voices from below':
  - item 11 - My boss is open to people who express unusual ideas, even if that means delaying decision-making
  - item 22R - In order to maintain the status quo in the organization, my boss ignores team members who have different ideas
  - item 17 - My boss tries to understand the ideas of those who are not aligned with the rest of the team

5.4.2 Card sorting questions – second round

The items which did not reach 85% of validation on the participants' side during the first round were modified or totally replaced with new items, following the criteria explained in section 5.1, as follows:

Items about 'getting on the balcony'	**Parts removed**	**Changed items**
19) In challenging situations, my boss observes the parties involved and assesses what's really going on	the parties involved	19) In difficult situations, my boss observes what is going on
25) In a difficult situation my boss will step out of the field to gain perspective on it	totally replaced	25) In difficult situations, my boss reflects on the situation before taking action
13R) When my boss disagrees with someone, he/she has difficulty listening to what the other person is really saying	rephrased	13R) When my boss disagrees with his/her managers, he/she has difficulties examining the situation objectively
7R) In difficult situations, my boss loses sight of the "big picture"	totally replaced	7R) In difficult situations my boss gets carried away by events without being able to distance himself/herself from them

Table 38 Questions about 'getting on the balcony'

Items about 'identifying the adaptive challenge'	**Parts removed**	**Changed items**
26) My boss tries to think about new ways of coping with organizational problems	Totally replaced	26) My boss takes a 360-degree view when addressing organizational issues
8R) My boss finds 'quick fixes' when his/her collaborators are struggling with problems	Totally replaced	8R) My boss proposes 'quick fix' solutions without examining the situation sufficiently
2R) My boss jumps into action without thinking	Rephrased	2R) My boss reacts impulsively without reflecting

Table 39 Questions about 'identifying the adaptive challenge'

Items about 'regulating distress'	**Parts removed**	**Changed items**
3) My boss supports his/her coworkers while getting out of their comfort zone	Totally replaced	3) My boss understands the needs of his/her staff
21) My boss has confidence to tackle challenging problems	Totally replaced	21) My boss helps his/her staff to manage difficult situations
27) My boss holds steady in the storm	Not included	
9) My boss stands by his/her own coworkers	Rephrased	9) My boss defends his/her staff in front of his/her superiors

Table 40 Questions about 'regulating distress'

Items about 'maintaining disciplined attention'	Parts removed	Changed items
16) My boss encourages people to deal with 'the elephant in the room'	Rephrased	16) My boss deals with critical issues that nobody wants to manage
28R) In an effort to keep things moving forward, my boss lets people avoid issues that are troublesome	Totally replaced	28R) My boss always minds his/her own business to avoid having problems
22R) My boss thinks it is reasonable to let people avoid confronting difficult issues	Totally replaced	22R) My boss avoids facing delicate and critical issues

Table 41 Questions about 'maintaining disciplined attention'

Items about 'giving the work back to the people'	Parts removed	Changed Items
23R) My boss provides solutions his/her own way without involving his/her coworkers	Totally replaced	23R) My boss ignores his/her staff's ambition for professional growth
29) My boss puts his/her coworkers in the conditions to decide for themselves	Rephrased	29) My boss gives responsibilities to his/her staff
17) My boss encourages his/her employees to take initiative in defining and solving problems	Rephrased	17) My boss gives his/her staff opportunities to take the initiative
5R) My boss centralizes decisional power and task procedures	Rephrased	5R) My boss acts in a centralizing way
11) My boss encourages his/her collaborators to take responsibility for their learning	Totally replaced	11) My boss gives decisional power to his/her staff

Table 42 Questions about 'giving the work back to the people'

Items about 'protecting leadership voices from below'	Parts removed	Changed items
6) During times of difficult change, my boss welcomes the thoughts of group members with low status	Totally replaced	6) My boss welcomes the ideas of those who are at a lower level and have no decisional power
24) My boss has an open ear for people who don't seem to fit in with the rest of the group	Not included	

Table 43 Questions about 'protecting leadership voices from below'

The items were rephrased, changed, or totally replaced with the view to capture several aspects of the six adaptive leadership dimensions and allow the items to be more effectively designed. The results of the second round are shown in the next section.

5.4.3 Card sorting results – second round

The results of the card sorting second round can be seen in the following tables dimension by dimension:

Items about 'getting on the balcony'	Participants' consensus	Items validated
7R) In difficult situations my boss gets carried away by events without being able to distance himself/herself from them	88%	v
13R) When my boss disagrees with his/her managers, he/she has difficulties examining the situation objectively	80%	
25) In difficult situations, my boss reflects on the situation before taking action	44%	
19) In difficult situations, my boss observes what is going on	48%	

Table 44 Items about 'getting on the balcony' validated during second round

Items about 'identifying the adaptive challenge'	Participants' consensus	Items validated
26) My boss takes a 360-degree view when addressing organizational issues	88%	v
2R) My boss reacts impulsively without reflecting	56%	
8R) My boss proposes 'quick fix' solutions without examining the situation sufficiently	48%	

Table 45 Items about 'identifying the adaptive challenge' validated during second round

Items about 'regulating distress'	Participants' consensus	Items validated
3) My boss understands the needs of his/her staff	100%	v
9) My boss defends his/her staff in front of his/her superiors	100%	v
21) My boss helps his/her staff to manage difficult situations	96%	v

Table 46 Items about 'regulating distress' validated during second round

Items about 'maintaining disciplined attention'	Participants' consensus	Items validated
22R) My boss avoids facing delicate and critical issues	44%	
16) My boss deals with critical issues that nobody wants to manage	72%	
28R) My boss always minds his/her own business to avoid having problems	36%	

Table 47 Items about 'maintaining disciplined attention' validated during second round

Items about 'giving the work back to the people'	Participants' consensus	Items validated
11) My boss gives decisional power to his/her staff	100%	v
17) My boss gives his/her staff opportunities to take the initiative	88%	v
29) My boss gives responsibilities to his/her staff	96%	v
5R) My boss acts in a centralizing way	88%	v
23R) My boss ignores his/her staff's ambition for professional growth	32%	

Table 48 Items about 'giving the work back to the people' validated during second round

Items about 'protecting leadership voices from below'	Participants' consensus	Items validated
6) My boss welcomes the ideas of those who are at a lower level and have no decisional power	60%	

Table 49 Items about 'protecting leadership voices from below' validated during second round

Overall, during the second round 9 items were validated to be included in the IALBQ with over 85% of participants' consensus. The number of the items indicated below are the ones appearing in the final draft of the IALBQ shown in table 69:

- one item from 'getting on the balcony':
  - item 12R - In difficult situations my boss gets carried away by events without being able to distance himself/herself from them
- one item from 'identifying the adaptive challenge':
  - item 18 - My boss takes a 360-degree view when addressing organizational issues
- three items from 'regulating distress':
  - item 2 - My boss understands the needs of his/her staff
  - item 8 - My boss defends his/her staff in front of his/her superiors
  - item 24 – My boss helps his/her staff to manage difficult situations
- no item from 'maintaining disciplined attention'
- four items from 'giving work back to the people':
  - item 4R - My boss acts in a centralizing way
  - item 10 – My boss gives his/her staff opportunities to take the initiative
  - item 16 - My boss gives responsibilities to his/her staff
  - item 25 – My boss gives decisional power to his/her staff
- no item from 'protecting leadership voices from below'

Analyzing the items validated it was decided not to include in the IALBQ item 24 (My boss helps his/her staff to manage difficult situations – item 21 in table 46) from 'regulating distress' and item 25 (My boss gives decisional power to his/her staff – item 11 in table 48) from 'giving the work back to the people' to avoid item redundancy.

It was also decided to reintroduce item 2R (My boss reacts impulsively without reflecting) and 8R (My boss proposes 'quick fix' solutions without examining the situation sufficiently) in the list of the items to be reassessed during the third round for several reasons. There was an insufficient number of validated items for 'getting on the balcony', despite the many items designed and proposed during round one and two. These two items were reversed score items and as such they would be useful to measure the consistency of the

respondents' answers. They were matched with no other dimension than 'identifying the adaptive challenge' or 'getting on the balcony'. Approximately half of the respondents matched them with both dimensions. Hence, a new assessment would help understand which dimension they both could be expected to measure.

5.4.4 Card sorting questions – third round

The items which did not reach 85% of validation on the participants' side during the second round were modified or totally replaced with new items, following the criteria explained in section 5.1, as follows:

Items about 'getting on the balcony'	**Parts removed**	**Changed items**
13R) When my boss disagrees with his/her managers, he/she has difficulties examining the situation objectively	Replaced	13) My boss' problems prevent him/her from analyzing the situation objectively
25) In difficult situations, my boss reflects on the situation before taking action	Rephrased	25) In difficult situations, my boss suspends the judgement in order to understand the situation better
19) In difficult situations, my boss observes what is going on	Totally replaced	19) When my boss makes a mistake, he/she admits it

Table 50 Questions about 'getting on the balcony'

Items about 'identifying the adaptive challenge'	**Parts removed**	**Changed items**
2R) My boss reacts impulsively without reflecting	No change	2R) My boss reacts impulsively without reflecting
8R) My boss proposes 'quick fix' solutions without examining the situation sufficiently	No change	8R) My boss proposes 'quick fix' solutions without examining the situation sufficiently

Table 51 Questions about 'identifying the adaptive challenge'

Items about 'regulating distress'	**Parts removed**	**Changed /added items**
		15) My boss helps staff to learn from their mistakes 21R) My boss blames his/her staff when something goes wrong

Table 52 Questions about 'regulating distress'

Items about 'maintaining disciplined attention'	**Parts removed**	**Changed / added items**
22R) My boss avoids facing delicate and critical issues	Removed	
16) My boss deals with critical issues that nobody wants to manage	Rephrased	16) My boss is brave enough to raise critical issues that might annoy other people
28R) My boss always minds his/her own business to avoid having problems	Removed	

		4) My boss avoids raising critical issues if he/she risks losing authority and power 10) My boss fights to resolve the real problem without fear of being judged 28R) My boss deals with problems as if they were all urgent and all important in the same degree

Table 53 Questions about 'maintaining disciplined attention'

Items about 'giving the work back to the people'	**Parts removed**	**Changed items**
23R) My boss ignores his/her staff's ambition for professional growth	Replaced	23R) My boss decides for his/her staff without considering their views

Table 54 Questions about 'giving the work back to the people'

Items about 'protecting leadership voices from below'	**Parts removed**	**Changed items**
6) My boss welcomes the ideas of those who are at a lower level and have no decisional power	Replaced	6) My boss allows the ideas of whoever plays the devil's advocate role to be heard by everyone

Table 55 Questions about 'protecting leadership voices from below'

The items were rephrased, changed, or totally replaced with the view to capture aspects of the six adaptive leadership dimensions and allow the items to be more effectively designed. The results of the third round are shown in the next section.

5.4.5 Card sorting results – third round

The items which did not reach 85% of validation on the participants' side during the second round were modified or totally replaced with new items which were circulated during the third round. The results of round three can be seen in the following tables, dimension by dimension:

Items about 'getting on the balcony'	**Participants' consensus**	**Items validated**
25) In difficult situations, my boss suspends the judgement in order to understand the situation better	52%	
13) My boss' problems prevent him/her from analyzing the situation objectively	52%	
19) When my boss makes a mistake, he/she admits it	28%	

Table 56 Items about 'getting on the balcony' validated during third round

Items about 'identifying the adaptive challenge'	**Participants' consensus**	**Items validated**
8R) My boss proposes 'quick fix' solutions without examining the situation sufficiently	44%	
2R) My boss reacts impulsively without reflecting	40%	

Table 57 Items about 'identifying the adaptive challenge' validated during third round

Items about 'regulating distress'	Participants' consensus	Items validated
15) My boss helps staff to learn from their mistakes	88%	v
21R) My boss blames his/her staff when something goes wrong	88%	v

Table 58 Items about 'regulating distress' validated during third round

Items about 'maintaining disciplined attention'	Participants' consensus	Items validated
4) My boss avoids raising critical issues if he/she risks losing authority and power	56%	
10) My boss fights to resolve the real problem without fear of being judged	96%	v
28R) My boss deals with problems as if they were all urgent and all important in the same degree	4%	
16) My boss is brave enough to raise critical issues that might annoy other people	76%	

Table 59 Items about 'maintaining disciplined attention' validated during third round

Items about 'giving the work back to the people'	Participants' consensus	Items validated
23R) My boss decides for his/her staff without considering their views	88%	v

Table 60 Items about 'giving the work back to the people' validated during third round

Items about 'protecting leadership voices from below'	Participants' consensus	Items validated
6) My boss allows the ideas of whoever plays the devil's advocate role to be heard by everyone	88%	v

Table 61 Items about 'protecting leadership voices from below' validated during third round

Overall, during the third round 5 items were validated to be included in the IALBQ with over 85% of participants' consensus. The number of the items indicated below are the ones appearing in the final draft of the IALBQ shown in table 69:

- no item from 'getting on the balcony'
- one item from 'identifying the adaptive challenge'
- two items from 'regulating distress':
    - item 13 - My boss helps staff to learn from their mistakes
    - item 19R – My boss blames his/her staff when something goes wrong
- one item from 'maintaining disciplined attention'
    - item 14 - My boss fights to resolve the real problem without fear of being judged
- one item from 'giving work back to the people':
    - item 20R – My boss decides for his/her staff without considering their views
- one item from 'protecting leadership voices from below':

- item 5 – My boss allows the ideas of whoever plays the devil's advocate role to be heard by everyone

However, the two reversed score items 2R and 8R, which were reassessed, were included in the IALBQ even without a proper validation based on 85% participants' consensus. This decision was taken for several reasons. Despite the many items designed and proposed during round one, two and three, there was still an insufficient number of validated items for measuring 'getting on the balcony'. These two items were reversed score items and as such they would be useful to measure the consistency of the respondents' answers. They were matched with no other dimension than 'identifying the adaptive challenge' or 'getting on the balcony'. Slightly more than half of the respondents matched them with 'getting on the balcony' respectively 60% and 56%. Hence, they were included in the IALBQ as:

- item 6R - My boss reacts impulsively without reflecting
- item 15R - My boss proposes 'quick fix' solutions without examining the situation sufficiently

5.4.6 Card sorting results – overview

The tables below show the 60 items designed and used over the three rounds of card sorting and show how many items and which items were validated (the ones underlined), dimension by dimension:

Dimension	Items used	No. of items used	No. of items validated
Getting on the balcony	• In challenging situations, my boss observes the parties involved and assesses what's really going on • <u>When difficulties arise in the organization, my boss takes a step back and evaluates the dynamics among the people involved</u> • In a difficult situation my boss will step out of the field to gain perspective on it • When my boss disagrees with someone, he/she has difficulty listening to what the other person is really saying • In difficult situations, my boss loses sight of the "big picture" • <u>In difficult situations my boss gets carried away by events without being able to distance himself/herself from them</u> • When my boss disagrees with his/her managers, he/she has difficulties examining the situation objectively • In difficult situations, my boss reflects on the situation before taking action • In difficult situations, my boss observes what is going on • In difficult situations, my boss suspends the judgement in order to understand the situation better • My boss' problems prevent him/her from analyzing the situation objectively • When my boss makes a mistake, he/she admits it	12	2

Table 62 'Getting on the balcony': items used and items validated

As already explained, two items were included in the IALBQ without a proper validation, since two items were not enough to measure the perception of this dimension.

Dimension	Items used	No. of items used	No. of items validated
Identifying the adaptive challenge	• My boss tries to think about new ways of coping with organizational problems • My boss takes the time to analyze problems at work • My boss finds 'quick fixes' when his/her collaborators are struggling with problems • My boss analyses pros and cons of what his / her staff say • My boss jumps into action without thinking • My boss takes a 360-degree view when addressing organizational issues • My boss reacts impulsively without reflecting • My boss proposes 'quick fix' solutions without examining the situation sufficiently	8	3

Table 63 'Identifying the adaptive challenge': items used and items validated

Dimension	Items used	No. of items used	No. of items validated
Regulating distress	• My boss supports his/her staff even when she / he is having a hard time themselves • My boss supports his/her coworkers while getting out of their comfort zone • My boss has confidence to tackle challenging problems • My boss holds steady in the storm • My boss stands by his/her own coworkers • My boss understands the needs of his/her staff • My boss defends his/her staff in front of his/her superiors • My boss helps his/her staff to manage difficult situations • My boss helps staff to learn from their mistakes • My boss blames his/her staff when something goes wrong	10	6

Table 64 'Regulating distress': items used and items validated

One item (My boss helps his/her staff to manage difficult situations) was not included in the IALBQ, as previously mentioned, since it was redundant. Hence 'regulating distress' consists of 5 items, though 6 items were validated.

Dimension	Items used	No. of items used	No. of items validated
Maintaining Disciplined attention	• In challenging situations my boss pushes people to focus on the real problem • My boss focuses on the real problem • My boss encourages people to deal with 'the elephant in the room' • In an effort to keep things moving forward, my boss lets people avoid issues that are troublesome • My boss thinks it is reasonable to let people avoid confronting difficult issues • My boss avoids facing delicate and critical issues • My boss deals with critical issues that nobody wants to manage • My boss always minds his/her own business to avoid having problems • My boss avoids raising critical issues if he/she risks losing authority and power • My boss fights to resolve the real problem without fear of being judged • My boss deals with problems as if they were all urgent and all important in the same degree • My boss is brave enough to raise critical issues that might annoy other people	12	3

Table 65 'Maintaining disciplined attention': items used and items validated

Dimension	Items used	No.of items used	No. of items validated
Giving the work back to the people	• My boss provides solutions his/her own way without involving his/her coworkers • My boss puts his/her coworkers in the conditions to decide for themselves • My boss encourages his/her employees to take initiative in defining and solving problems • My boss centralizes decisional power and task procedures • My boss encourages his/her collaborators to take responsibility for their learning • My boss gives decisional power to his/her staff • My boss gives his/her staff opportunities to take the initiative • My boss gives responsibilities to his/her staff • My boss acts in a centralizing way • My boss ignores his/her staff's ambition for professional growth • My boss decides for his/her staff without considering their views	11	5

Table 66 'Giving the work back to the people': items used and items validated

One item (My boss gives decisional power to his/her staff) was not included in the IALBQ, as previously mentioned, since it was redundant. Hence 'giving the work back to the people' consists of 4 items, though 5 items were validated.

Dimension	Items used	No. of items used	No. of items validated
Protecting leadership voices from below	• My boss tries to understand the ideas of those who are not aligned with the rest of the team • During times of difficult change, my boss welcomes the thoughts of group members with low status • My boss has an open ear for people who don't seem to fit in with the rest of the group • My boss is open to people who express unusual ideas, even if that means delaying decision-making • In order to maintain the status quo in the organization, my boss ignores team members who have different ideas • My boss welcomes the ideas of those who are at a lower level and have no decisional power • My boss allows the ideas of whoever plays the devil's advocate role to be heard by everyone	7	4

Table 67 'Protecting leadership voices from below': items used and items validated

The table below shows the ratio between the number of validated items and the number of items used for each dimension, reflecting the degree of difficulty in designing items which could be considered eligible for measuring each of the dimensions:

Dimension	Number of items used	Number of items validated	Percentage of validated items on items used
Getting on the balcony	12	2	16%
Identifying the adaptive challenge	8	3	37%
Regulating distress	10	6	60%
Maintaining disciplined attention	12	3	25%
Giving the work back to the people	11	5	45%
Protecting leadership voices from below	7	4	57%
IALBQ	60	23	

Table 68 Percentage of validated items on items used for each dimension

Apparently it was more difficult to design and validate items expected to measure 'getting on the balcony' (16%), 'identifying the adaptive challenge' (37%) and 'maintaining disciplined attention' (25%), whereas it seemed to be less complicated to design and validate items for the other three dimensions: 'regulating distress' (60%), 'giving the work back to the people' (45%) and 'protecting leadership voices from below' (57%).

5.5 SUMMARY OF THE FINDINGS: THE IALBQ

The card sorting activity was performed over three rounds with 25 respondents who validated 21 items with over 85% participants' consensus. Two more items were included in the IALBQ without a proper validation based on 85% participants' consensus due to lack of items measuring the perception of 'getting on the balcony'. The IALBQ final items are shown in the table below:

Item (observed variable)	**Adaptive Leadership Dimension to measure (latent variable)**	**Validated through over 85% participants' consensus during:**
1) When difficulties arise in the organization, my boss takes a step back and evaluates the dynamics among the people involved	Getting on the balcony	First round
2) My boss understands the needs of his/her staff	Regulating distress	Second round
3) In challenging situations, my boss pushes people to focus on the real problem	Maintaining disciplined attention	First round
4R) My boss acts in a centralizing way	Giving the work back to the people	Second round
5) My boss allows the ideas of whoever plays the devil's advocate role to be heard by everyone	Protecting leadership voices from below	Third round
6R) My boss reacts impulsively without reflecting	Getting on the balcony	Included without validation
7) My boss takes the time to analyze problems at work	Identifying the adaptive challenge	First round
8) My boss defends his/her staff in front of his/her superiors	Regulating distress	Second round
9) My boss focuses on the real problems	Maintaining disciplined attention	First round
10) My boss gives his/her staff opportunities to take the initiative	Giving the work back to the people	Second round
11) My boss is open to people who express unusual ideas, even if that means delaying decision-making	Protecting leadership voices from below	First round
12R) In difficult situations my boss gets carried away by events without being able to distance himself/herself from them	Getting on the balcony	Second round
13) My boss helps staff to learn from their mistakes	Regulating distress	Third round

14) My boss fights to resolve the real problem without fear of being judged	Maintaining disciplined attention	Third round
15R) My boss proposes 'quick fix' solutions without examining the situation sufficiently	Getting on the balcony	Included without validation
16) My boss gives responsibilities to his/her staff	Giving the work back to the people	Second round
17) My boss tries to understand the ideas of those who are not aligned with the rest of the team	Protecting leadership voices from below	First round
18) My boss takes a 360-degree view when addressing organizational issues	Identifying the adaptive challenge	Second round
19R) My boss blames his/her staff when something goes wrong	Regulating distress	Third round
20R) My boss decides for his/her staff without considering their views	Giving the work back to the people	Third round
21) My boss analyses pros and cons of what his/her staff say	Identifying the adaptive challenge	First round
22R) In order to maintain the status quo in the organization, my boss ignores team members who have different ideas	Protecting leadership voices from below	First round
23) My boss supports his/her staff, even when he/she is having a hard time themselves	Regulating distress	First round

Table 69 Items included in the Italian Adaptive Leadership Behavior Questionnaire (IALBQ)

5.6 SUMMARY OF THE CHAPTER

This chapter has presented the results from the card sorting activity. It has shown how the IALBQ items were designed and how they were validated with over 85% participants' consensus, over three rounds of card sorting involving 25 respondents. The next chapter will present the results emerging from the psychometric assessment of the IALBQ.

6 PSYCHOMETRICS OF THE ITALIAN ADAPTIVE LEADERSHIP BEHAVIOR QUESTIONNAIRE (IALBQ): RESULTS

This chapter focuses on administering the Italian Adaptive Leadership Behavior Questionnaire (IALBQ). The design presented in section 3.3 is of a measurement tool for adaptive leadership behaviors. In this chapter the psychometrics of the IALBQ are assessed. As presented in this chapter, the results highlight that for the Italian corporate sector this questionnaire is highly reliable and seems more valid than Northouse's Adaptive Leadership (AL) questionnaire when applied to the Italian context. The structure of the chapter is as follows:

- Brief introduction, assumptions, and aims.
- Sample description: in this section the IALBQ's sample is described and compared with the 400-respondent sample used for Northouse's AL questionnaire, also in relation to the Italian context and culture.
- Psychometric assessment of the IALBQ: this section presents the psychometric results, which is whether the questionnaire is a reliable and a valid tool to measure the perception of adaptive leadership behaviors in the Italian corporate context.
- A comparison between the IALBQ and Northouse's AL questionnaire: in this section the findings collected through the circulation of the IALBQ are compared with the ones collected through the circulation of Northouse's AL questionnaire.
- Five-factor model and justification: this section explains the findings of the research and the reasons why the IALBQ seems to measure five dimensions and not six.
- Summary of the findings.

6.1 BRIEF INTRODUCTION, ASSUMPTIONS AND AIMS

As explained in chapter 2, adaptive leadership has been investigated mostly from a qualitative perspective. Northouse's AL questionnaire is the main quantitative instrument that has been developed for empirical research about adaptive leadership. However, the psychometric results presented in chapter 4 highlight that Northouse's AL questionnaire seems to be reliable but not sufficiently valid when applied to the Italian context. In response, as detailed in chapter 5, Northouse's AL questionnaire was adapted and extended into the IALBQ focusing on the Italian corporate context.

The aim of developing the IALBQ was to provide a quantitative tool to increase the possibility of undertaking empirical research about Heifetz's (1994) adaptive leadership framework and test its theoretical foundations.

In this chapter the psychometrics for the IALBQ were assessed in the Italian context with the aims of assessing whether the IALBQ can be a reliable and valid tool to measure the perception of adaptive leadership behaviors across the corporate sector in Italy. 459 respondents across the business sector completed the questionnaire.

6.2 SAMPLE DESCRIPTION

459 respondents completed the IALBQ, with the characteristics as outlined in the following tables:

Respondents' age	**Number**	**Percentage**
18 – 24	5	1%
25 – 34	47	10.2%
35 - 44	115	25.1%
45 – 54	213	46.4%
55 – 64	74	16.1%
65 – 74	5	1%
Respondents' gender	**Number**	**Percentage**
Female	235	51.2%
Male	224	48.8%
Respondents' qualifications	**Number**	**Percentage**
High school diploma	198	43.1%
PhD / Prof Doc	6	1.3%
Bachelor's Degree / Bachelor's degree from old higher education system	147	32%
Vocational qualification	9	1.9%
Minimum level of compulsory education	8	1.7%
Masters' degree	91	19.8%
Respondents' roles	**Number**	**Percentage**
Project leader / Team leader	53	11.5%
Production department supervisor / Workshop supervisor / Worker coordinator	9	1.9%

Consultant	34	7.4%
Executive	24	5.2%
Office-worker	206	44.9%
Manager / Office Boss	119	25.9%
Worker	14	3%

Table 70 Respondents' charactheristics

Size of the company	**Number**	**Percentage**
Free-lancer in partnership with the same customers	26	5.6%
Big company with more than 251 employees	290	63.2%
Medium-sized company – between 51 and 250 employees	68	14.8%
Small company – between 11 and 50 employees	43	9.3%
Small company with fewer than 10 employees	32	6.9%
Sector	**Number**	**Percentage**
Private	408	88.9%
Public	50	10.9%

Table 71 Respondents' sector and size of company

In terms of respondents' age, almost 50% of the respondents are between 45 and 54 years of age and one fourth of the sample is composed by respondents between 35 and 44 years of age. About 51% are women and about 49% are men. As regards the respondents' qualifications, just over 43% of the respondents got the high school diploma, 32% got a degree and almost 20% got a postgraduate specialization. Overall, the respondents are mostly well-educated. In terms of respondents' role, almost 45% of the respondents are office-workers, one fourth is composed by managers, 11.5% of the sample is constituted by project leaders. In terms of size of the company, approximately 63% of the respondents work in big companies with more than 251 employees, almost 15% work in medium-sized companies with a number of employees between 51 and 250, almost 10% of the respondents work in small companies with a number of employees between 11 and 50 and almost 7% work in small companies with fewer than 10 employees, whereas almost 6% are free-lancers dealing with the same corporate customers. Almost 89% of the respondents work in the private sector whereas approximately 11% work in the public sector.

These are the characteristics of the sample respondents' bosses:

Bosses' gender	**Number**	**Percentage**
Female	134	29.2%
Male	325	70.8%
Bosses' age	**Number**	**Percentage**
25-34	20	4.3%
35-44	77	16.8%
45-54	214	46.6%
55-64	124	27%
65-74	21	4.5%
75 and over 75	3	0.6%
Bosses' roles	**Number**	**Percentage**
Project leader / Team leader	59	12.9%
Production department supervisor / Workshop supervisor / Worker coordinator	14	3%
Executive	169	36.8%
Manager / Office Boss	216	47.1%

Table 72 Respondents' bosses' characteristics

As regards the respondents' bosses, one third is composed by women and two thirds are composed by men. Also in this sample, although half the respondents are women, a very small number of women occupies managerial positions in comparison to men - just one third of the total sample -, all of which may reflect the impact of the Italian culture on the management of power positions (Tavanti, 2012).

Almost 47% of the respondents' bosses are aged between 45 and 54, just over one fourth of the respondents' bosses is aged between 55 and 64 whereas almost 17% of the respondents' bosses are younger and aged between 35 and 44. Almost 50% of the respondents' bosses are managers whereas just over 36% are executives. Just over one tenth is constituted by project leaders.

This sample also confirms what Campa *et al*. (2009) state that the gender gap in managerial positions exists, even though more women than men have university degrees and generally study more in the higher education sector than men (Guerrina, 2005), as the table below shows:

Respondents' qualifications	Female numbers	Female percentages	Male numbers	Male percentages
Minimum level of compulsory education	2	25%	6	75%
Vocational qualification	5	55.6%	4	44.4%
High school diploma	92	46.5%	106	53.5%
Bachelor's Degree / Bachelor's degree from old higher education system	78	53.1%	69	46.9%
Masters' degree	53	58.2%	38	41.8%
PhD / Prof Doc	5	83.3%	1	16.7%

Table 73 Respondents' qualification

6.2.1 Comparison between samples

If we compare the 400-respondent sample used for administering Northouse's AL questionnaire and the 459-respondent sample used for administering the IALBQ, they seem to be similar in the number of people working in the public and private sector. The number of respondents working in the private sector in the IALBQ's sample is approximately 4% bigger than the number of respondents working in the private sector in Northouse's questionnaire's sample. The respondents' age figures of both samples are very similar. The number of women in the IALBQ's sample is 3% smaller than the number of women in the first stage survey sample. It seems that in the IALBQ's sample there is an approximately 4% bigger number of respondents with a master's degree qualification than in Northouse's questionnaire's sample and it seems in the IALBQ's sample there is an approximately 4% smaller number of respondents with a minimum level of compulsory education than in Northouse's questionnaire's sample. The two samples are alike in relation to the other qualification categories and in terms of respondents' roles.

The figures related to the bosses' gender and bosses' age in both samples are much the same. In the IALBQ's sample there seem to be 3% fewer production department supervisors, workshop supervisors, and worker coordinators than in Northouse's questionnaire's sample. There also seem to be 5% fewer executives in the IALBQ's sample than in Northouse's questionnaire's sample, whereas there seem to be approximately 7% more managers in the IALBQ's sample than in Northouse's questionnaire's sample.

In conclusion, the two samples are quite similar.

6.3 PSYCHOMETRIC ASSESSMENT OF THE IALBQ

In this section the psychometric characteristics of the IALBQ are presented. Psychometrics are related to the objective measurement of latent variables which cannot be observed directly. One of the objectives of this research is to create a questionnaire which is a valid and reliable tool to measure latent variables such as the six dimensions the adaptive leadership framework (Heifetz, 1994) is based on. In the light of the results

presented in chapter 4, Northouse's questionnaire seems to be reliable but not sufficiently valid when applied to the Italian corporate context. Hence, the IALBQ was designed, and this section will present the results of the IALBQ in terms of reliability and validity as a measurement tool for the perception of adaptive leadership behaviors across the Italian corporate context. The six dimensions are the following:

- 'Getting on the balcony' which means being able to step back and observe reality
- 'Identifying the adaptive challenge', which means understanding what problems need to be solved by implementing a change of habits, assumptions, values, and perspectives
- 'Regulating distress', which means 'keeping the heat up without blowing up the vessel'
- 'Maintaining disciplined attention', which means directing attention to the real problem and counteracting work avoidance mechanisms, without getting drifted away by stress-reducing distractions
- 'Giving the work back to the people', which means trusting coworkers, empowering them, and making them responsible for the adaptive work they must do
- 'Protecting leadership voices from below', which means to take into consideration the voice of coworkers who are not in power positions or have a different opinion from the rest of the group (Heifetz, 1994)

6.3.1 Reliability

In order to answer whether the IALBQ is reliable, the test performed was Cronbach's alpha, explained in section 3.3.2.2.1. The value of Cronbach's alpha was calculated on 459 sample units, and it was 0.944 with a 99% bootstrap confidence interval of 0.931 and 0.953, which was a remarkable result. The table below shows Cronbach's alpha for all adaptive leadership dimensions too:

Dimension	Cronbach's Alpha	CI
Global	0.944	(0.931, 0.953)
Getting on the balcony	0.701	(0.633, 0.755)
Identifying the adaptive challenge	0.801	(0.747, 0.843)
Regulating distress	0.854	(0.820, 0.880)
Maintaining disciplined attention	0.754	(0.691, 0.808)
Giving the work back to the people	0.777	(0.723, 0.818)
Protecting leadership voices from below	0.781	(0.728, 0.823)

Table 74 Cronbach's alpha for all dimensions in the IALBQ

All dimensions had a high Cronbach's alpha, as detailed in the above table. The one for 'getting on the balcony' was 0.701 CI = (0.633, 0.755). The one for 'regulating distress' was 0.854 CI = (0.820, 0.880). The one for 'maintaining disciplined attention' was 0.754 CI = (0.691, 0.808). The one for 'protecting leadership voices

from below' was 0.781 CI = (0.728, 0.823). Finally, the one for 'giving the work back to the people' was 0.777 CI = (0.723, 0.818) and the one for 'identifying the adaptive challenge' was 0.801 CI = (0.747, 0.843). This means that each dimension is internally consistent and that all the IALBQ items are consistent, including the reversed score items. Methodologists recommend a minimum alpha coefficient between 0.65 and 0.8 or higher in many cases (see section 3.3.2.2.1). Therefore, it is possible to conclude that, overall, the IALBQ is highly reliable for the Italian corporate context.

6.3.2 Validity

When it came to verifying the validity of the IALBQ, considering that the variables of the questionnaire are categorical, some preliminary tests to check whether the data can be factorized were performed. The first test was Kaiser-Meyer-Olkin factor adequacy (see section 3.3.2.2.2) which computed the overall MSA (measure of sampling adequacy). The result of 0.94 was very positive given that a value over 0.60 is considered acceptable. Then the Cortest-Bartlett test (see section 3.3.2.2.2) was performed to check if the data was correlated. The p-value was lower than 0.01, hence the *null* hypothesis of uncorrelation was rejected (see section 3.3.2.2.2). These results created the conditions for proceeding with the exploratory factor analysis.

6.3.2.1 Exploratory Factor Analysis

Similar to the first stage survey data analysis, three methods were used to determine the optimal number of factors. Firstly, the parallel analysis (see section 3.3.2.2.2) showed that seven factors could be relevant to explain the variability of the answers. As it can be seen in the table, while in the seventh line the reduced eigenvalue was still higher than the simulated eigenvalue, in line 8 the trend reversed. Hence seven factors could be optimal:

Nfactor	ReducedEig	RandEigM	RandEig95
1	10.992	0.524	0.597
2	1.234	0.440	0.492
3	0.728	0.379	0.427
4	0.497	0.334	0.383
5	0.441	0.289	0.327
6	0.335	0.248	0.282
7	0.322	0.209	0.241
8	0.159	0.169	0.203
9	0.125	0.132	0.162
10	0.096	0.097	0.124
11	0.061	0.065	0.093
12	0.034	0.034	0.055
13	0.015	0.002	0.026
14	-0.005	-0.029	-0.006
15	-0.030	-0.058	-0.031
16	-0.048	-0.088	-0.066
17	-0.096	-0.117	-0.090
18	-0.116	-0.146	-0.122
19	-0.128	-0.175	-0.144
20	-0.144	-0.207	-0.185
21	-0.158	-0.241	-0.218
22	-0.196	-0.273	-0.248
23	-0.214	-0.321	-0.283

Table 75 IALBQ - Eigenvalues

Then, the scree plot based on the reduced correlation matrix shows that three eigenvalues are higher than 1, indicating that 3 factors impact significantly on the variability of the answers:

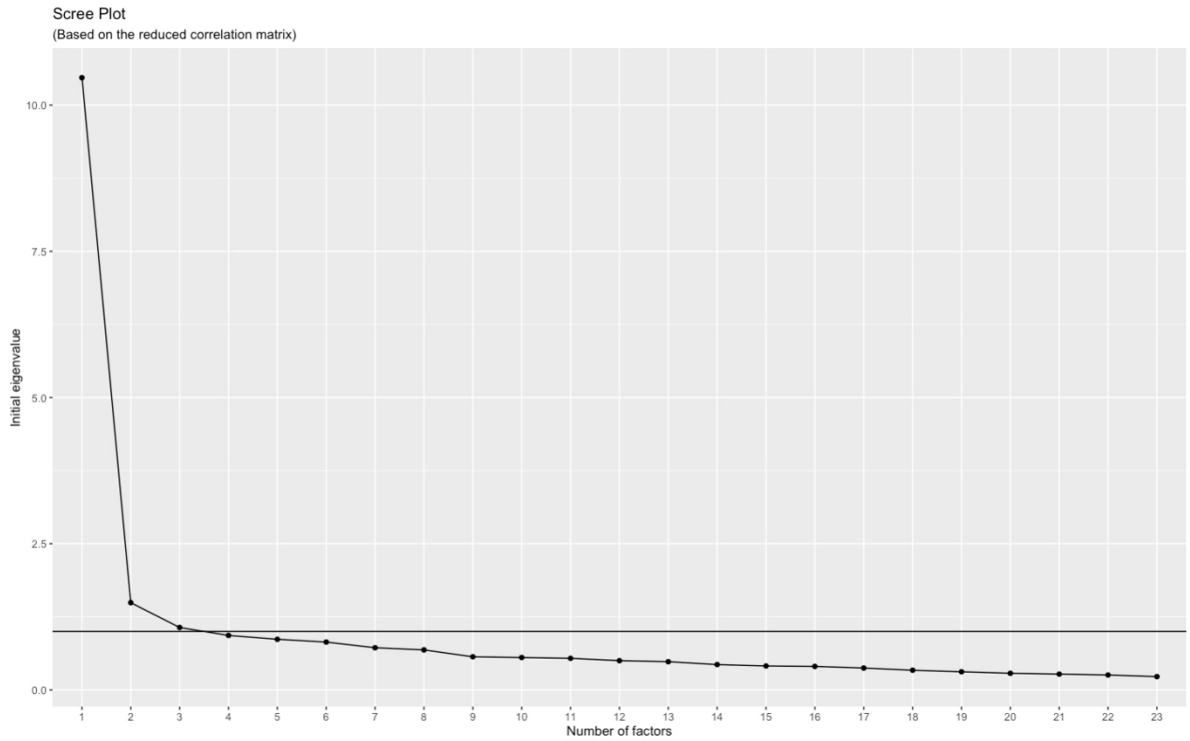

Figure 24 IALBQ - Scree plot based on reduced correlation matrix

The exploratory factor analysis considered 5 factors, as in the first stage survey data analysis, to support comparison with the following. The table shows the factor loadings:

Standardized loadings (pattern matrix) based upon correlation matrix

	item	PA1	PA5	PA4	PA2	PA3	h2	u2	com
Q12_17	17	0.998					0.813	0.187	1.04
Q12_11	11	0.649					0.580	0.420	1.39
Q12_1	1	0.499					0.359	0.641	1.71
Q12_21	21	0.488					0.662	0.338	1.59
Q12_5	5	0.396					0.257	0.743	1.43
Q12_13	13	0.358					0.660	0.340	2.74
Q12_22	22	0.347					0.582	0.418	3.42
Q12_9	9		0.797				0.770	0.230	1.25
Q12_3	3		0.703				0.662	0.338	1.12
Q12_18	18	0.380	0.478				0.681	0.319	2.11
Q12_2	2						0.680	0.320	3.32
Q12_14	14		0.332	0.773			0.735	0.265	1.44
Q12_19	19			0.717		0.411	0.751	0.249	1.78
Q12_8	8			0.635			0.593	0.407	1.23
Q12_23	23			0.320			0.554	0.446	2.59
Q12_4	4				0.735		0.587	0.413	1.50
Q12_16	16				0.664		0.479	0.521	1.26
Q12_10	10				0.632		0.747	0.253	1.61
Q12_20	20				0.409		0.571	0.429	2.91
Q12_6	6					0.748	0.650	0.350	1.13
Q12_12	12	-0.358	0.327			0.657	0.570	0.430	2.20
Q12_7	7					0.408	0.544	0.456	2.37
Q12_15	15	0.326				0.328	0.507	0.493	4.02

Table 76 IALBQ - Factor loadings

This is the five-factor model diagram where:

- PA1 stands for ‘protecting leadership voices from below’ latent factor
- PA2 stands for ‘giving the work back to the people’
- PA3 stands for ‘getting on the balcony’ latent factor
- PA4 stands for ‘regulating distress’ latent factor
- PA5 stands for ‘maintaining disciplined attention’ latent factor

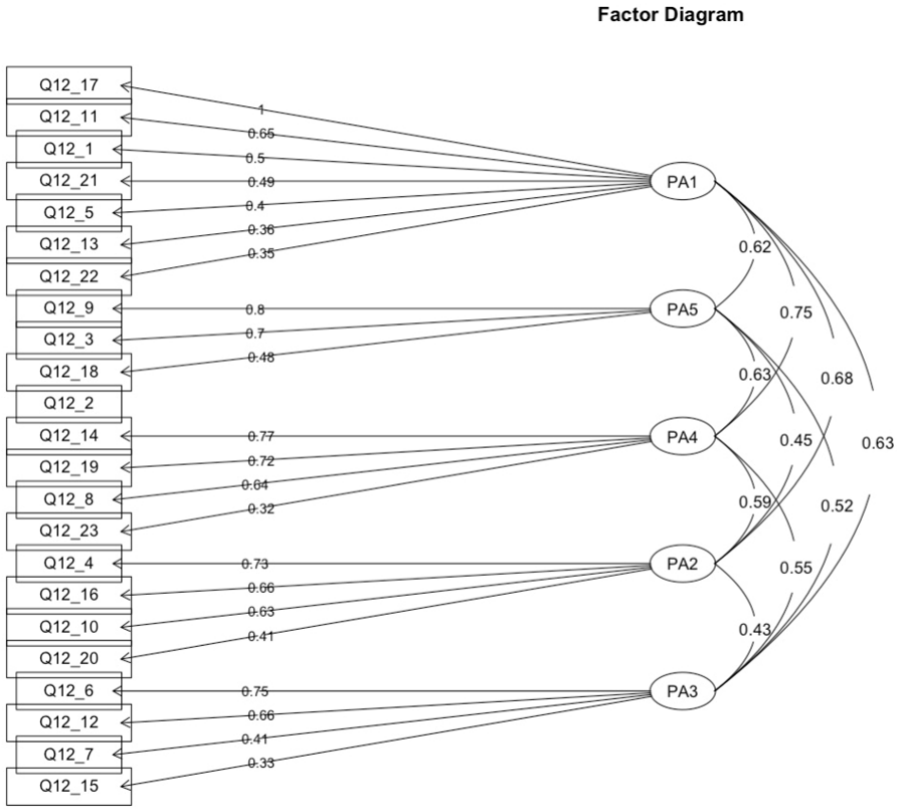

Figure 25 Exploratory factor diagram

A model is acceptable if it accounts for 60% of the answers’ variance. In this survey the five-factor model can be considered a valid result, as it accounted for 69.20% of the answers’ variance, as the table below shows:

Factor	Eigenval	PcntVar	Cumul_Pcnt_var
1	11.36	49.41	49.41
2	1.63	7.07	56.49
3	1.13	4.91	61.39
4	0.93	4.02	65.42
5	0.87	3.79	69.20

Table 77 IALBQ - Cumulative variance of the answers

These five factors explored correspond to the five dimensions:

6.3.2.2 'Getting on the balcony' latent factor

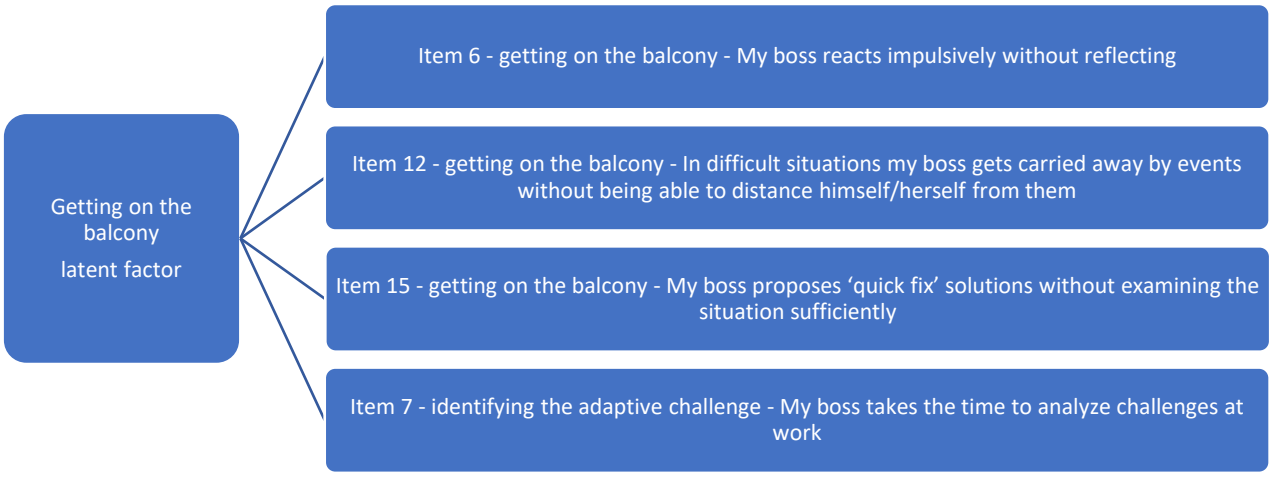

Figure 26 Items influenced by 'getting on the balcony'

The perception of 'getting on the balcony' behaviors is supposed to be measured by four items: question 1 (When difficulties arise in the organization, my boss takes a step back and evaluates the dynamics among the people involved), question 6 (My boss reacts impulsively without reflecting), question 12 (In difficult situations my boss gets carried away by events without being able to distance himself/herself from them) and question 15 (My boss proposes 'quick fix' solutions without examining the situation sufficiently). One factor impacts on three of these questions: 6, 12 and 15, which constitute 75% of the items related to this dimension. It is significant that this factor also impacts on one item related to 'identifying the adaptive challenge', question 7 (My boss takes the time to analyze challenges at work), which in the card sorting activity was associated by approximately 50% with 'getting on the balcony' and by approximately 50% with 'identifying the adaptive challenge'. Hence, we could say that this factor represents the 'getting on the balcony' latent factor.

6.3.2.3 'Maintaining disciplined attention' latent factor

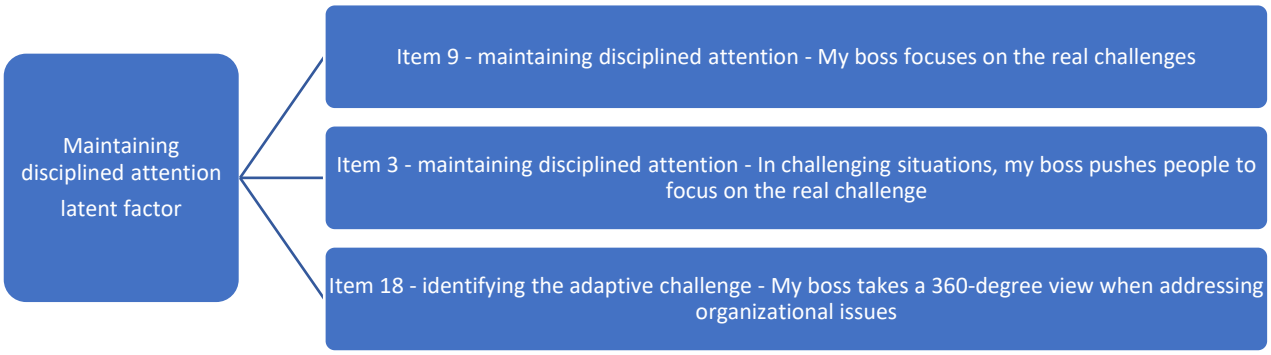

Figure 27 Items influenced by 'maintaining disciplined attention'

The perception of 'maintaining disciplined attention' behaviors is supposed to be measured by three items: question 3 (In challenging situations, my boss pushes people to focus on the real challenge), question 9 (My boss focuses on the real challenges) and question 14 (My boss fights to resolve the real problem without fear of being judged). One factor impacts on three questions: 3, 9 and 18. Questions 3 and 9 constitute 66% of the items related to 'maintaining disciplined attention'. Question 18 (My boss takes a 360-degree view when addressing organizational issues) belongs to 'identifying the adaptive challenge' which seems the least consistent dimension as a latent factor affecting the variability of the answers. Hence, we could say that this factor represents the 'maintaining disciplined attention' latent factor.

6.3.2.4 'Regulating distress' latent factor

Figure 28 Items influenced by 'regulating distress'

The perception of 'regulating distress' behaviors is supposed to be measured by five items, question 2 (My boss understands the needs of his/her staff), question 8 (My boss defends his/her staff in front of his/her superiors), question 13 (My boss helps staff to learn from their mistakes), question 19 (My boss blames his/her staff when something goes wrong), question 23 (My boss supports his/her staff, even when he/she is having a hard time themselves). Question 2 (My boss understands the needs of his/her staff) is not influenced by any of the five factors. One factor impacts on questions 8, 19, and 23, which are 60% of the items related to this dimension. This factor impacts on one item related to 'maintaining disciplined attention', question 14 (My boss fights to resolve the real problem without fear of being judged). The reason why this question might be connected to 'regulating distress' might be because it relates to the attitude of the boss to taking a stand and support his/her staff as well as fight for them, whereas question 2 and question 13 seem to be more connected with a caring and supportive management style. Hence, we could say that this factor represents the 'regulating distress' latent factor.

6.3.2.5 'Giving the work back to the people' latent factor

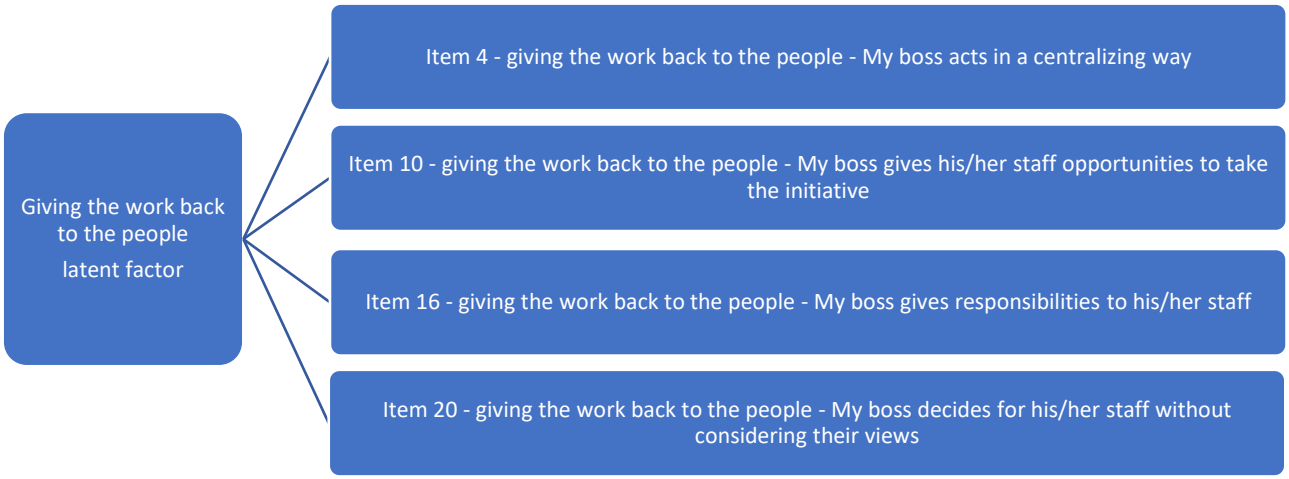

Figure 29 Items influenced by 'giving the work back to the people'

The perception of 'giving the work back to the people' behaviors is supposed to be measured by four items, questions 4 (My boss acts in a centralizing way), 10 (My boss gives his/her staff opportunities to take the initiative), 16 (My boss gives responsibilities to his/her staff) and 20 (My boss decides for his/her staff without considering their views), which are all influenced on by one factor. This latent factor seems to be very consistent with 'giving the work back to the people' dimension. In addition, this latent factor does not impact on any other items of the questionnaire. This shows great consistency.

6.3.2.6 'Protecting leadership voices from below' latent factor

Figure 30 Items influenced by 'protecting leadership voices from below'

The perception of 'protecting leadership voices from below' behaviors is supposed to be measured by four items, questions 5 (My boss allows the ideas of whoever plays the devil's advocate role to be heard by everyone), 11 (My boss is open to people who express unusual ideas, even if that means delaying decision-making), 17 (My boss tries to understand the ideas of those who are not aligned with the rest of the team), and 22 (In order to maintain the status quo in the organization, my boss ignores team members who have different ideas), which are all influenced by one factor. This shows a great consistency of the latent factor, since all the items expected to measure the perception of this dimension are influenced by this factor. Hence, we could say that this represents the 'protecting leadership voices from below' latent factor. In relation to this factor, it is not unexpected that it impacts on a big number of items and accounts for 50% of the variability of the answers. This factor impacts on three other items beside the ones related to 'protecting leadership voices from below'. These three items seem to be all strongly connected to the action of listening. One item, question 21 (My boss analyses pros and cons of what his/her staff say), is related to 'identifying the adaptive challenge'. It has already been said that the 'identifying the adaptive challenge' dimension is the least consistent and the least represented of the six. Moreover, question 21 seems to be strongly connected to the attitude of the boss to listening to his/her staff, which is the action through which 'protecting leadership

voices from below' can happen. Another item is related to 'regulating distress', question 13 (My boss helps staff to learn from their mistakes). This item seems to be connected to a caring management style, which may pass through active listening. The last item, question 1 (When difficulties arise in the organization, my boss takes a step back and evaluates the dynamics among the people involved) is related to 'getting on the balcony'. However, this item seems to be connected to the attitude of the boss to observing the reality of the relationship among his/her staff, which is strongly connected to listening to the others.

6.3.2.7 Summary of exploratory factors analysis and link into confirmatory factor analysis

It seems that there are few overlapping items. On average, approximately 80% of the items are influenced by the latent factor whose perception they are expected to measure, and the table shows the percentage for every single dimension:

Dimension	Percentage of items influenced by their latent factor
Getting on the balcony	75%
Regulating distress	60%
Maintaining disciplined attention	66%
Giving the work back to the people	100%
Protecting leadership voices from below	100%

Table 78 Percentage of items influenced by their latent factor

Hence the results are positive and highlight the appropriateness of the IALBQ. It seems not all the questions may find correspondence to the six dimensions of adaptive leadership as they were conceived originally. 'Identifying the adaptive challenge' is not recognized by the exploratory factor analysis as the items are affected by three different latent factors, 'getting on the balcony', 'maintaining disciplined attention' and 'protecting leadership voices from below'. Although the IALBQ does not seem to fit the six-dimensional model in real life, it still might be a valid tool to measure the perception of five adaptive leadership behaviors.

6.3.2.8 Confirmatory factor analysis

A confirmatory factor analysis to better understand the validity of the measurement model was also performed, as explained in section 3.3.2.2.2. As expected, the Chi Square fit index of 768 with 194 degrees of freedom suggested that there are no differences between variables due to a relationship among them and there is very little probability that this data refers to the six-dimensional model. Hence, we can conclude that the six-dimensional model does not fit the data. In line with the result of the exploratory factor analysis the model seems to measure the perception of five adaptive leadership behaviors rather than six.

This result was also confirmed by the RMSEA (Root Mean Square Error Approximation), a way to assess how well a model fits the data, which was 0.078 against the empirical threshold which should be minor or equal to 0.06. Since it is higher than the threshold, it means that the six-dimensional model does not fit the data.

However, the other indexes (see section 3.3.2.2.2) showed a high level of validity. The CFI (Comparative Fit Index), which looks at how fit the model is by examining the gap between the data and the hypothesized model, was 0.95 against the empirical threshold which should be major or equal to 0.90. The SRMR (Standardized Root Mean Square Residual), which measures the average discrepancy between the model implied covariance matrix and the observed covariance matrix, was 0.05 and it should be minor or equal to 0.08.

The TLI (Tucker-Lewis Index), which is preferable for smaller samples and is an index for assessing the model fit, was 0.945 and it should be close to 0.95.

All factor loadings are over 0.61. This can be seen in the following table where:

- AW stands for 'getting on the balcony'
- DG stands for 'identifying the adaptive challenge'
- RD stands for 'regulating distress'
- FF stands for 'maintaining disciplined attention'
- GWB stands for 'giving the work back to the people'
- PV stands for 'protecting leadership voices from below'

Latent Variables:

	Estimate	Std.Err	z-value	P(>|z|)	Std.lv	Std.all
AW =~						
Q12_1	0.614	0.040	15.455	0.000	0.614	0.614
Q12_6	0.709	0.029	24.512	0.000	0.709	0.709
Q12_12	0.648	0.032	20.363	0.000	0.648	0.648
Q12_15	0.678	0.034	19.982	0.000	0.678	0.678
DG =~						
Q12_7	0.722	0.027	26.649	0.000	0.722	0.722
Q12_18	0.835	0.019	44.877	0.000	0.835	0.835
Q12_21	0.850	0.017	48.779	0.000	0.850	0.850
RD =~						
Q12_2	0.838	0.018	47.531	0.000	0.838	0.838
Q12_8	0.710	0.025	28.585	0.000	0.710	0.710
Q12_13	0.823	0.018	45.398	0.000	0.823	0.823
Q12_19	0.752	0.025	30.469	0.000	0.752	0.752
Q12_23	0.748	0.023	31.932	0.000	0.748	0.748
FF =~						
Q12_3	0.808	0.022	36.352	0.000	0.808	0.808
Q12_9	0.821	0.020	42.075	0.000	0.821	0.821
Q12_14	0.814	0.024	33.295	0.000	0.814	0.814
GWB =~						
Q12_4	0.629	0.034	18.490	0.000	0.629	0.629
Q12_10	0.846	0.020	41.927	0.000	0.846	0.846
Q12_16	0.628	0.037	17.023	0.000	0.628	0.628
Q12_20	0.778	0.025	30.639	0.000	0.778	0.778
PV =~						
Q12_11	0.733	0.024	30.373	0.000	0.733	0.733
Q12_17	0.850	0.018	48.303	0.000	0.850	0.850
Q12_22	0.762	0.026	29.344	0.000	0.762	0.762

Table 79 IALBQ - Factor loadings

If the null hypothesis is that the factor loading is equal to 0, the alternative is usually that the factor loading is not equal to 0. Therefore, we can conclude that the results from the confirmatory factor analysis are partially satisfactory, and this was an expected outcome because the exploratory factor analysis had already pointed to the fact that there is no six-factor model. However, all factor loadings are very high. The assessment of the statistical significance of each factor loading tells that each item of the IALBQ is strongly related to its latent variable. All items are significant and none of them will be trimmed from the confirmatory factor analysis.

6.4 COMPARISON BETWEEN THE IALBQ AND NORTHOUSE'S AL QUESTIONNAIRE

Here a comparison between the IALBQ and Northouse's AL questionnaire, assessed in chapter 4, has been made in terms of reliability and validity.

6.4.1 Reliability

The value of the IALBQ's Cronbach's alpha of 0.944 with a 99% bootstrap confidence interval of 0.931 and 0.953 was a remarkable result. It was significantly higher than Northouse's AL questionnaire's which was 0.864 with a 99% bootstrap confidence interval of 0.841 and 0.883. The table below also shows the significant differences between the dimensions in the IALBQ and Northouse's AL questionnaire:

	AL questionnaire		IALBQ	
Dimension	**Cronbach's Alpha**	**CI**	**Cronbach's Alpha**	**CI**
Global	0.864	(0.841, 0.883)	0.944	(0.931, 0.953)
Getting on the balcony	0.742	(0.688, 0.794)	0.701	(0.633, 0.755)
Identifying the adaptive challenge	-0.542	(-0.891, -0.242)	0.801	(0.747, 0.843)
Regulating distress	0.849	(0.812, 0.880)	0.854	(0.820, 0.880)
Maintaining disciplined attention	0.639	(0.547, 0.716)	0.754	(0.691, 0.808)
Giving the work back to the people	0.187	(-0.048, 0.370)	0.777	(0.723, 0.818)
Protecting leadership voices from below	0.743	(0.683, 0796)	0.781	(0.728, 0.823)

Table 80 Cronbach's alpha - comparison between Northouse's AL questionnaire and the IALBQ

In relation to the Cronbach's alpha for each dimension in both questionnaires, that for 'getting on the balcony', 'regulating distress', 'maintaining disciplined attention' and 'protecting leadership voices from below' were high and similar, with confidence intervals overlapping. There was a significant difference between the IALBQ and Northouse's AL questionnaire when it came to 'giving the work back to the people' and 'identifying the adaptive challenge'. In the IALBQ, Cronbach's alpha for 'giving the work back to the people' was 0.777 CI = (0.723, 0.818), significantly higher than in Northouse's AL questionnaire, where Cronbach's alpha was 0.187 CI = (-0.048, 0.370). In the same way, in the IALBQ, Cronbach's alpha for 'identifying the adaptive challenge' was 0.801 CI = (0.747, 0.843), significantly higher than in Northouse's AL questionnaire, where Cronbach's alpha was -0.542 CI = (-0.891, -0.242). As explained in chapters 4 and 5, 'identifying the adaptive challenge' and 'giving the work back to the people' contained questions related to directive and authoritative leadership which the 400 respondents perceived positively, and not negatively as the adaptive leadership framework assumes. As explained in section 1.5, the Italian conception of leadership considers directivity positive, whereas from the North-European, Anglo-Saxon, and American perspective directivity seems to be hindering adaptivity.

6.4.2 Validity

Here a comparison in terms of validity is made between the IALBQ's results and Northouse's AL questionnaire's when applied to the Italian corporate context, both in terms of exploratory factor analysis and in terms of confirmatory factor analysis.

Regarding the exploratory factor analysis, the table below shows the consistency of the latent factors:

The IALBQ		Northouse's AL questionnaire	
Latent factors	**Questionnaire items**	**Latent factors**	**Questionnaire items**
Getting on the balcony	Item 6 - My boss reacts impulsively without reflecting Item 12 - In difficult situations my boss gets carried away by events without being able to distance himself/herself from them Item 15 - My boss proposes 'quick fix' solutions without examining the situation sufficiently **Additional items:** Item 7 (**identifying the adaptive challenge**) - My boss takes the time to analyze challenges at work	Getting on the balcony	Item 1 - When difficulties emerge in our organization my boss is good at stepping back and assessing the dynamics of the people involved Item 7 - In difficult situations, my boss sometimes loses sight of the "big picture" Item 13 - When my boss disagrees with someone, she has difficulty listening to what the other person is really saying
Maintaining disciplined attention	Item 3 - In challenging situations, my boss pushes people to focus on the real problem Item 9 - My boss focuses on the real problems **Additional items:** Item 18 (**identifying the adaptive challenge**) - My boss takes a 360-degree view when addressing organizational issues	Maintaining disciplined attention	Item 22 - My boss thinks it is reasonable to let people avoid confronting difficult issues Item 28 - In an effort to keep things moving forward, my boss lets people avoid issues that are troublesome
Regulating distress	Item 8 - My boss defends his/her staff in front of his/her superiors Item 19 - My boss blames his/her staff when something goes wrong Item 23 - My boss supports his/her staff, even when he/she is having a hard time themselves **Additional items:** Item 14 (**maintaining disciplined attention**) - My boss fights to resolve the real problem without fear of being judged	Regulating distress	Item 3 - When my colleagues and I feel uncertain about organizational change I trust that my boss will help us work through the difficulties Item 21 - People recognize that my boss has confidence to tackle challenging problems Item 27 - People see my boss as someone who holds steady in the storm **Additional items:** Item 2 (**identifying the adaptive challenge**) - When events trigger strong emotional responses among employees, my boss uses his/her authority as a leader to resolve the problem Item 5 (**giving the work back to the people**) - When employees are struggling with a decision, my boss tells them what he/she thinks they should do Item 23 (**giving the work back to the people**) - When people look to my boss to solve problems, he/she enjoys providing solutions
Protecting leadership voices from below	Item 5 - My boss allows the ideas of whoever plays the devil's advocate role to be heard by everyone Item 11 - My boss is open to people who express unusual ideas, even if that means delaying decision-making	Protecting leadership voices from below	Item 6 - During times of difficult change, my boss welcomes the thoughts of group members with low status Item 12 - Listening to group members with radical ideas is valuable to my boss Item 14 - When others are struggling with intense conflicts, my boss steps in to resolve their differences for them

	Item 17 - My boss tries to understand the ideas of those who are not aligned with the rest of the team Item 22 - In order to maintain the status quo in the organization, my boss ignores team members who have different ideas **Additional items**: Item 1 (**getting on the balcony**) - When difficulties arise in the organization, my boss takes a step back and evaluates the dynamics among the people involved Item 13 (**regulating distress**) - My boss helps staff to learn from their mistakes Item 21 (**identifying the adaptive challenge**) - My boss analyses pros and cons of what his/her staff say		**Additional items:** Item 11 (**giving the work back to the people**) - When employees look to my boss for answers, he/she encourages them to think for themselves Item 17 (**giving the work back to the people**) - My boss encourages his/her employees to take initiative in defining and solving problems Item 29 (**giving the work back to the people**) - When people are uncertain about what to do, my boss empowers them to decide for themselves Item 19 (**getting on the balcony**) - In challenging situations, my boss likes to observe the parties involved and assess what's really going on Item 15 (**regulating distress**) - My boss has the emotional capacity to comfort others as they work through intense issues Item 10 (**maintaining disciplined attention**) - During organizational change, my boss challenges people to concentrate on the "hot" topics
Giving the work back to the people	Item 4 - My boss acts in a centralizing way Item 10 - My boss gives his/her staff opportunities to take the initiative Item 16 - My boss gives responsibilities to his/her staff Item 20 - My boss decides for his/her staff without considering their views	Identifying the adaptive challenge	Item 8 - When people are struggling with a value conflict, my boss uses his/her expertise to tell them what to do Item 14 - When others are struggling with intense conflicts, my boss steps in to resolve their differences for them Item 20 - My boss encourages people to discuss the "elephant in the room" **Additional items**: Item 4 (**maintaining disciplined attention**) - In complex situations, my boss gets people to focus on the issues they are trying to avoid Item 16 (**maintaining disciplined attention**) - When people try to avoid controversial organizational issues, my boss brings these conflicts into the open Item 9 (**regulating distress**) - When people begin to be disturbed by unresolved conflicts, my boss encourages them to address the issues Item 25 (**getting on the balcony**) - In a difficult situation, my boss will step out of the dispute to gain perspective on it Item 30 (**protecting leadership voices from below**) - To restore equilibrium in the organization, my boss tries to neutralize comments of out-group members

Table 81 Items influenced by six dimensions - comparison between Northouse's AL Questionnaire and the IALBQ

In both cases five factors seem to impact on the variability of the answers. In Northouse's AL questionnaire there seem to be much more overlapping than in the IALBQ: 'giving the work back to the people' seems to overlap with 'protecting leadership voices from below' and 'regulating distress'. 'Identifying the adaptive challenge' impacts on other 5 items belonging to 4 other dimensions. 'Protecting leadership voices from below' impacts on other 6 items belonging to 4 other dimensions. 'Regulating distress' impacts on other 3 items belonging to 2 other dimensions. The percentage of items influenced by their latent factor differs, as the following table shows:

Dimension	Percentage of items influenced by their latent factor in the IALBQ	Percentage of items influenced by their latent factor in Northouse's AL questionnaire
Getting on the balcony	75%	60%
Identifying the adaptive challenge	0%	60%
Regulating distress	60%	60%
Maintaining disciplined attention	66%	40%
Giving the work back to the people	100%	0%
Protecting leadership voices from below	100%	60%

Table 82 Percentage of items influenced by their latent factor - comparison between Northouse's AL Questionnaire and the IALBQ

If in Northouse's AL questionnaire, the dimension which seems to be the least represented is 'giving the work back to the people', whose items are influenced by 'regulating distress' latent factor and 'protecting leadership voices from below' latent factor, in the IALBQ it seems that 'identifying the adaptive challenge' is the least represented and the least consistent dimension, considering that the three items referring to that dimension are affected by other factors. Hence, it seems the IALBQ is suitable to measure the perception of five factors rather than six. The factors are the following:

- 'Getting on the balcony'
- 'Regulating distress'
- 'Maintaining disciplined attention'
- 'Giving the work back to the people'
- 'Protecting leadership voices from below'

The dimension which does not seem to be consistent is 'identifying the adaptive challenge'.

In comparison to Northouse's AL questionnaire, it seems that there are fewer overlapping items. In addition, approximately 80% of the items are influenced by the latent factor whose perception they are expected to measure. Hence the results are outstanding. If Northouse's AL questionnaire might not turn out to be a

sufficiently valid tool to measure the perception of the six-dimensional adaptive leadership framework when applied to the corporate context in Italy, although the IALBQ does not seem to fit the six-dimensional model in real life either, it still seems a valid tool to measure the perception of five adaptive leadership behaviors listed above.

As regards the confirmatory factor analysis, considering that the Chi Square in both cases suggested that the six-dimension model does not fit the data, as it was already clear in both cases when the exploratory factor analysis was performed, if the factor loadings are looked at and a comparison is made, it is immediately evident that in the IALBQ they are much higher than the ones in Northouse's AL questionnaire for all items. Here below the first table is related to Northouse's and the second table is related to the IALBQ where:

- AW stands for 'getting on the balcony'
- DG stands for 'identifying the adaptive challenge'
- RD stands for 'regulating distress'
- FF stands for 'maintaining disciplined attention'
- GWB stands for 'giving the work back to the people'
- PV stands for 'protecting leadership voices from below'

Latent Variables:

	Estimate	Std.Err	z-value	P(>|z|)	Std.lv	Std.all
AW =~						
AW_1	0.841	0.030	28.104	0.000	0.841	0.841
AW_2_R	0.365	0.058	6.339	0.000	0.365	0.365
AW_3_R	0.536	0.048	11.164	0.000	0.536	0.536
AW_4	0.814	0.030	27.461	0.000	0.814	0.814
AW_5	0.727	0.034	21.302	0.000	0.727	0.727
RD =~						
RD_1	0.817	0.027	29.977	0.000	0.817	0.817
RD_2	0.683	0.036	18.908	0.000	0.683	0.683
RD_3	0.889	0.023	38.045	0.000	0.889	0.889
RD_4	0.807	0.028	28.566	0.000	0.807	0.807
RD_5	0.700	0.034	20.371	0.000	0.700	0.700
FF =~						
F_1	0.803	0.032	24.998	0.000	0.803	0.803
F_2	0.724	0.038	19.049	0.000	0.724	0.724
F_3	0.628	0.042	14.797	0.000	0.628	0.628
F_4_R	0.229	0.059	3.862	0.000	0.229	0.229
F_5_R	0.373	0.054	6.868	0.000	0.373	0.373
PV =~						
PV_1	0.862	0.029	29.333	0.000	0.862	0.862
PV_2	0.916	0.023	38.995	0.000	0.916	0.916
PV_3	0.356	0.056	6.320	0.000	0.356	0.356
PV_4	0.839	0.027	30.622	0.000	0.839	0.839
PV_5_R	0.170	0.062	2.745	0.006	0.170	0.170
DG =~						
DG_1_R	0.271	0.058	4.649	0.000	0.271	0.271
DG_2_R	0.652	0.039	16.716	0.000	0.652	0.652
DG_3_R	0.611	0.042	14.692	0.000	0.611	0.611
DG_4	-0.824	0.029	-28.629	0.000	-0.824	-0.824
DG_5	-0.858	0.025	-33.671	0.000	-0.858	-0.858
GWB =~						
GWB_1_R	0.527	0.059	8.975	0.000	0.527	0.527
GWB_2	-0.485	0.051	-9.513	0.000	-0.485	-0.485
GWB_3	-0.709	0.046	-15.478	0.000	-0.709	-0.709
GWB_4_R	0.800	0.037	21.560	0.000	0.800	0.800
GWB_5	-0.786	0.032	-24.261	0.000	-0.786	-0.786

Latent Variables:

	Estimate	Std.Err	z-value	P(>|z|)	Std.lv	Std.all
AW =~						
Q12_1	0.614	0.040	15.455	0.000	0.614	0.614
Q12_6	0.709	0.029	24.512	0.000	0.709	0.709
Q12_12	0.648	0.032	20.363	0.000	0.648	0.648
Q12_15	0.678	0.034	19.982	0.000	0.678	0.678
DG =~						
Q12_7	0.722	0.027	26.649	0.000	0.722	0.722
Q12_18	0.835	0.019	44.877	0.000	0.835	0.835
Q12_21	0.850	0.017	48.779	0.000	0.850	0.850
RD =~						
Q12_2	0.838	0.018	47.531	0.000	0.838	0.838
Q12_8	0.710	0.025	28.585	0.000	0.710	0.710
Q12_13	0.823	0.018	45.398	0.000	0.823	0.823
Q12_19	0.752	0.025	30.469	0.000	0.752	0.752
Q12_23	0.748	0.023	31.932	0.000	0.748	0.748
FF =~						
Q12_3	0.808	0.022	36.352	0.000	0.808	0.808
Q12_9	0.821	0.020	42.075	0.000	0.821	0.821
Q12_14	0.814	0.024	33.295	0.000	0.814	0.814
GWB =~						
Q12_4	0.629	0.034	18.490	0.000	0.629	0.629
Q12_10	0.846	0.020	41.927	0.000	0.846	0.846
Q12_16	0.628	0.037	17.023	0.000	0.628	0.628
Q12_20	0.778	0.025	30.639	0.000	0.778	0.778
PV =~						
Q12_11	0.733	0.024	30.373	0.000	0.733	0.733
Q12_17	0.850	0.018	48.303	0.000	0.850	0.850
Q12_22	0.762	0.026	29.344	0.000	0.762	0.762

Table 83 Factor loadings - comparison between Northouse's AL Questionnaire and the IALBQ

It is evident that in the IALBQ the item with the lowest factor loading has a value of 0.614. In Northouse's AL questionnaire 9 items out of 30 have a factor loading lower than 0.614. and the lowest factor loading is 0.170. Some of these items with a low factor loading were reversed score questions related to directive and authoritative leadership. As previously mentioned, these were perceived positively by the 400 respondents and not negatively as they were supposed to do. In the IALBQ reversed score questions were perceived as such by the respondents. However, the Italian corporate context was not ignored and questions related to authoritative and directive leadership were not designed for the reason just mentioned.

As explained in chapter 4, as regards Northouse's AL questionnaire, the confirmatory factor analysis was performed three times. The second time it was performed after merging the extreme value categories with the moderated value categories ('I strongly disagree/I disagree', 'neutral' and 'I agree/I strongly agree') in order to have 3 categories and more accurate results. The third time it was performed after removing some items with very low factor loadings. This allowed the confirmatory factor analysis to improve. In the case of the IALBQ, the results of the confirmatory factor analysis in terms of factor loadings were noticeable since the beginning and no item was ever removed.

6.5 FIVE-FACTOR MODEL AND JUSTIFICATION

As the exploratory factor analysis and the confirmatory factor analysis show, it seems the IALBQ did not measure the perception of six dimensions. It seems the questionnaire recognized five dimensions as the diagram below shows: 'getting on the balcony' (PA3), 'regulating distress' (PA4), maintaining disciplined attention' (PA5), 'giving the work back to the people' (PA2), 'protecting leadership voices from below' (PA1):

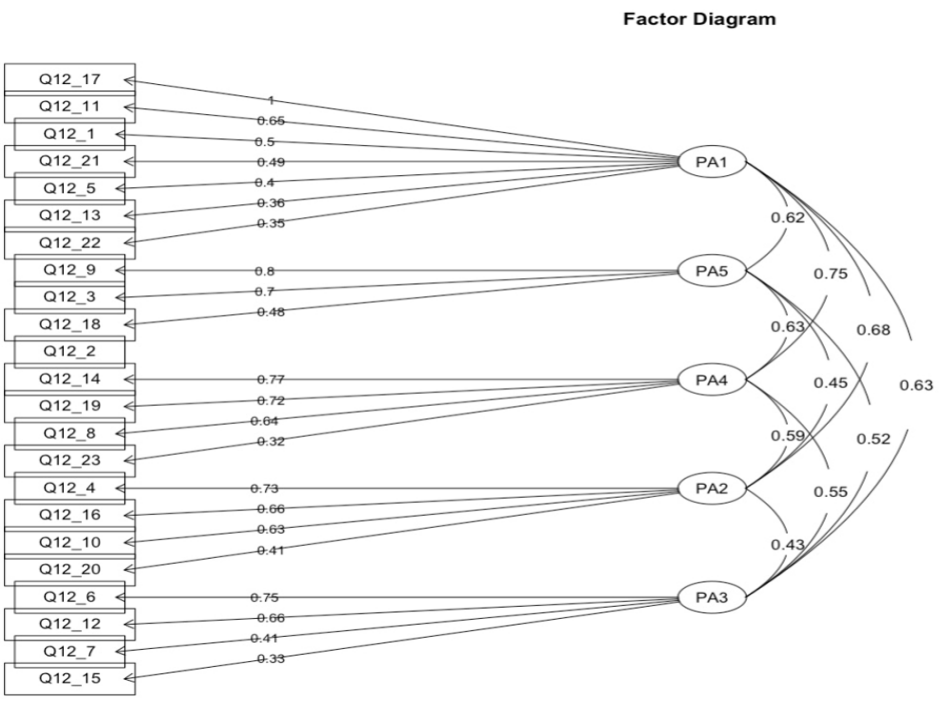

Figure 31 IALBQ - factor diagram

It seems 'identifying the adaptive challenge' is the least consistent dimension.

6.6 SUMMARY OF THE FINDINGS

In the light of all statistical tests performed on a sample of 459 respondents across the corporate sector in Italy, the IALBQ shows a high degree of reliability given the general Cronbach's alpha of 0.944 with a 99% bootstrap confidence interval of 0.931 and 0.953 and that of all dimensions which were over .70. It seems to have a high degree of validity when applied to the Italian corporate context.

As the exploratory factor analysis and the confirmatory factor analysis show, the IALBQ seems to measure the perception of five adaptive leadership dimensions rather than six:

- 'getting on the balcony'
- 'regulating distress'
- 'maintaining disciplined attention'
- 'giving the work back to the people'
- 'protecting leadership voices from below'

The 'identifying the adaptive challenge' is the least represented and consistent.

6.7 SUMMARY OF THE CHAPTER

This chapter has presented the results from the psychometric testing. The reliability and the validity of the IALBQ have been proved and a comparison has been made with the results emerging from the psychometric assessment of Northouse's AL questionnaire presented in chapter 4. In addition to the psychometric assessment, it was decided to evaluate the IALBQ with an International expert panel, composed of experts in adaptive leadership in order to get an additional validation to assess the suitability of the IALBQ. The results of this expert evaluation will be presented in chapter 8. The next chapter provides an example of the type of results emerging from the use and administration of the IALBQ.

7 RESULTS: WHAT DO ADAPTIVE LEADERSHIP BEHAVIORS LOOK LIKE IN ITALY ACROSS THE CORPORATE SECTOR?

The Italian Adaptive Leaderhsip Questionnaire (IALBQ) was designed in order to adapt Northouse's Adaptive Leadership (AL) questionnaire to the Italian corporate context, as Northouse' AL questionnaire was not sufficiently valid when applied to it, as explained in chapter 4. In chapter 6 the psychometrics of the IALBQ were assessed. The results show a high degree of reliability and a higher degree of validity than Northouse's AL questionnaire, when applied to the Italian corporate context. This chapter shows how the IALBQ would be used in order to explore the perception of adaptive leadership behaviors across the Italian corporate sector. It is contributory and it is also a good example of what sort of results the IALBQ can produce. The IALBQ was administered to a sample of 459 respondents. This chapter is structured as follows:

- Adaptive leadership behavior perception: this section presents the results of the IALBQ and highlights what the perception of each single dimension of adaptive leadership is like.
- The impact of the Italian culture on the perception of adaptive leadership behaviors: this section explores the way the Italian culture impacts on the adaptive leadership behavior perception in the light of the 459 respondents who filled in the IALBQ.
- Summary of the findings.

7.1 ADAPTIVE LEADERSHIP BEHAVIOR PERCEPTION

The psychometric assessment of the IALBQ identified that it is a reliable and a valid tool to measure the perception of adaptive leadership behaviors. Here, the focus is on what adaptive leadership behaviors are perceived across the corporate sector in Italy, based on the sample of 459 respondents described in section 6.2.

The table below shows the normalized data for each dimension and the results are commented on below:

Six dimensions	mean	SD	median	trimmed	min	max	range	skewness	kurtosis
Getting on the balcony	0.65	0.21	0.69	0.67	0	1	1	-0.66	-0.16
Identifying the adaptive challenge	0.64	0.24	0.67	0.66	0	1	1	-0.69	-0.14
Regulating distress	0.64	0.23	0.70	0.66	0	1	1	-0.65	-0.26
Maintaining disciplined attention	0.67	0.24	0.75	0.69	0	1	1	-0.84	0.14
Giving the work back to the people	0.61	0.22	0.62	0.62	0	1	1	-0.66	-0.11
Protecting leadership voices from below	0.55	0.21	0.56	0.56	0	1	1	-0.37	-0.41

Table 84 Normalized data for each dimension

In terms of perception of adaptive leadership behaviors, the one which was most perceived is 'maintaining disciplined attention' which had the highest mean of 0.67 and median of 0.75. This is very interesting because the three items 3 (In challenging situations, my boss pushes people to focus on the real problem), 9 (My boss focuses on the real problems) and 14 (My boss fights to resolve the real problem without fear of being judged) are related to a type of behavior that is very directive, hence, very common across the Italian corporate sector and strongly perceived. The second highest dimensions perceived were 'regulating distress' with a mean of 0.64 and a median of 0.70 and 'getting on the balcony' with a mean of 0.64 and a median of 0.69. 'Identifying the adaptive challenge' is positioned in the middle with a mean of 0.64 and a median of 0.67. 'Giving the work back to the people' had a lower mean of 0.61 and a lower median of 0.62 and the reason why this dimension was less perceived may well be that in Italy managers tend to act in a centralizing way without delegating. 'Protecting leadership voices from below' had the lowest mean of 0.55 and median of 0.56. All the items measuring the perception of this dimension relate to the ability to listen: item 5 (My boss allows the ideas of whoever plays the devil's advocate role to be heard by everyone), item 11 (My boss is open to people who express unusual ideas, even if that means delaying decision-making), item 17 (My boss tries to understand the ideas of those who are not aligned with the rest of the team), item 22 (In order to maintain the status quo in the organization, my boss ignores team members who have different ideas). The reason why this dimension was the least perceived of all might be because authoritative and directive leadership is spread across the Italian corporate context, and in this type of leadership little space is given to listening and involving others in the decisional process. It is more about giving orders.

In terms of data distribution of each dimension, in all cases the median was higher than the mean because there may be more outliers on the left, which means that there was a bigger number of lower values than higher values. Hence, all dimensions have a distribution with a long tail on the left, as we can also see in the picture below along the imaginary diagonal line crossing the picture from the top left angle to the bottom right angle, where:

- AW stands for 'getting on the balcony'
- DG stands for 'identifying adaptive challenge'
- RD stands for 'regulating distress'
- FF stands for 'maintaining disciplined attention'
- GWB stands for 'giving the work back to the people'
- PV stands for 'protecting leadership voices from below'

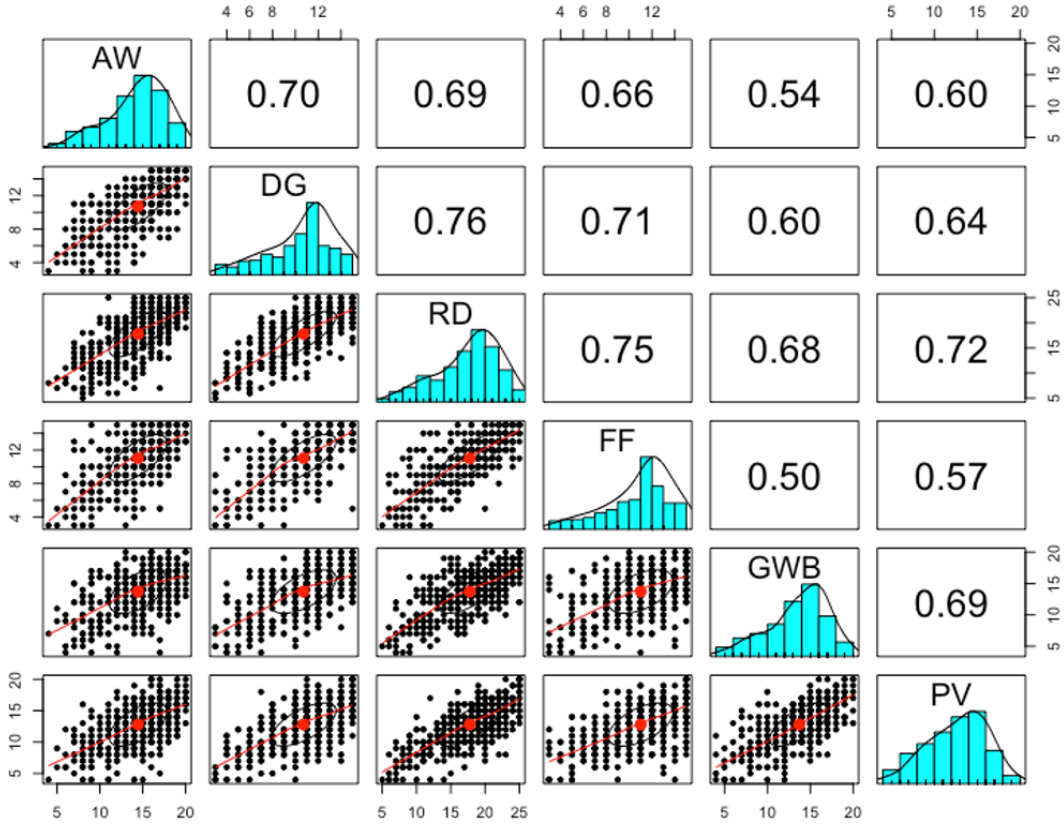

Figure 32 Dimension distribution and correlation

This picture above also shows the correlations identified by computing the Pearson correlation coefficients, as explained in section 3.3.2.2.3. All dimensions were strongly correlated with each other with a score between 0.60 and 0.76, except 'getting on the balcony' and 'maintaining disciplined attention' whose correlation was lower, 0.54. The correlation between 'maintaining disciplined attention' and 'giving the work back to the people' and the correlation between 'maintaining disciplined attention' and 'protecting leadership voices from below' were also lower, respectively 0.50 and 0.57. The high correlation among the dimensions overall may be explained by the fact that adaptive leadership behaviors are strongly interconnected. 'Getting on the balcony' had a strong correlation with all the other dimensions probably because it is the first adaptive behavior necessary to implement all the others. An explanation for the strong correlation between 'getting on the balcony' and 'regulating distress' could be that once a boss manages to step back and see the big picture, he/she may also be able to identify what the problems of the people involved are and offer his/her support to them. If a boss is 'busy on the battlefield', he/she cannot look around and may lose sight of what the people are going through. Also, another apparently positive correlation between 'getting on the balcony' and 'protecting leadership voices from below' might be given by the fact that if a boss is determined to observe and understand the situation, he/she might also have a

good attitude to listening actively to all their collaborators, he/she might need to listen to them, even to the ones who might have different opinions or perspectives. The lower correlation of 0.54 between 'getting on the balcony' and 'giving the work back to the people' could be given by the fact that the former is related to reflective behaviors, the latter is related to practical behaviors. 'Maintaining disciplined attention' seemed quite strongly correlated with 'regulating distress' probably because both tasks aim to help people face the problem, as if 'regulating distress' aimed to create the right conditions to motivate people solve the problem and 'maintaining disciplined attention' aimed to push people to do the adaptive work, without looking for a quick fix. On the contrary, it seemed to have a lower correlation with 'giving the work back to the people' and 'protecting leadership voices from below', respectively a value of 0.50 and 0.57.

7.2 THE IMPACT OF THE ITALIAN CULTURE ON THE PERCEPTION OF ADAPTIVE LEADERSHIP BEHAVIORS

An ANOVA (see section 3.3.2.2.4) was used to analyse the data with the following table presenting the significant results:

Significant differences	Dimensions	p value
Size of the company: respondents working in small companies with '11-50' employees scored the lowest in the perception of their boss' adaptive leadership behaviors	Getting on the balcony Identifying the adaptive challenge Regulating distress Maintaining disciplined attention Giving the work back to the people Protecting leadership voices from below	0.000128 0.000688 0.00011 0.00235 0.0425 0.0025
Public sector versus private sector: respondents working in the private sector scored higher than those working in the public sector in the perception of their boss' adaptive leadership behaviors	Getting on the balcony Identifying the adaptive challenge Regulating distress Maintaining disciplined attention Giving the work back to the people Protecting leadership voices from below	0.00088 0.00285 0.0003 0.00794 0.000279 0.0329
Respondents' gender: the perception of male respondents of their bosses' adaptive leadership behaviors, except 'getting on the balcony', is higher than that of female respondents	Getting on the balcony Identifying the adaptive challenge Regulating distress Maintaining disciplined attention Giving the work back to the people Protecting leadership voices from below	No significant difference 0.00358 0.00109 0.00839 0.00679 0.0203
Boss' age: respondents whose boss is between 45 and 54 years of age scored higher than the respondents whose boss is over 55 in the perception of their boss' attitude to 'identifying the adaptive challenge' and 'protecting leadership voices from below', whereas in terms of 'regulating distress' the respondents whose boss is between 25 and 34 years of age scored higher than the respondents whose boss is over 55.	Getting on the balcony Identifying the adaptive challenge Regulating distress Maintaining disciplined attention Giving the work back to the people Protecting leadership voices from below	No significant difference 0.0706 0.0609 No significant difference No significant difference 0.0274
Boss' role: respondents whose boss is an executive scored lower than the respondents whose boss is a manager or a project leader in the perception of their	Getting on the balcony Identifying the adaptive challenge Regulating distress	0.0021 No significant difference <0.0001

boss' attitude to all adaptive dimensions except 'identifying the adaptive challenge'	Maintaining disciplined attention Giving the work back to the people Protecting leadership voices from below	0.00999 0.00262 0.0196
Respondent's age: respondents who belonged to the '35-44' subcategory scored higher than older respondents (belonging to the '45-54' subcategory) in the perception of their boss' ability to 'give the work back to the people'	Getting on the balcony Identifying the adaptive challenge Regulating distress Maintaining disciplined attention Giving the work back to the people Protecting leadership voices from below	No significant difference No significant difference No significant difference No significant difference 0.0878 No significant difference
Respondents' qualifications: respondents with the lowest level of education scored lower than all the other subcategories in the perception of their bosses' ability to 'maintain disciplined attention'	Getting on the balcony Identifying the adaptive challenge Regulating distress Maintaining disciplined attention Giving the work back to the people Protecting leadership voices from below	No significant difference No significant difference No significant difference 0.00495 No significant difference No significant difference

Table 85 IALBQ - ANOVA

The most significant differences, as shown in the table, were given by the sector in which respondents work and the size of the company in which they work. In terms of private against public sector, a significant difference emerged. Respondents working in the private sector scored higher than those working in the public sector in the perception of all their boss' adaptive leadership behaviors. This may reflect the paralyzed situation the public sector faces in many cases in Italy, where changes do not take place, the *status quo* is maintained, quick fixes are implemented instead of facing the real problems. This, in turn, might hinder adaptability and this may be the reason why the perception of adaptive leadership practices in the public sector is not as strong as that in the private sector (Bull and Pasquino, 2007).

As regards the size of the company, this seems to be the other independent variable which seemed to impact the most on the perception of the biggest number of adaptive leadership behaviors. A significant difference was found between the respondents belonging to companies with 'over 251' employees and respondents belonging to companies with '11-50' employees and between the categories '51-250' and '11-50'. Respondents from bigger companies scored higher than those from smaller companies in the perception of their boss' ability to 'getting on the balcony', 'identifying the adaptive challenge', 'regulating distress', 'maintaining disciplined attention', 'giving the work back to the people', 'protecting leadership voices from below'. Respondents working in small companies with '11-50' employees scored the lowest. Also, respondents from micro companies with less than 10 employees scored higher than respondents working in companies with '11-50' employees in the perception of their boss' adaptive leadership behaviors. It seems in the small companies with 11-50 employees the perception of adaptive leadership behaviors was the lowest in general. This might reflect the greater impact of the Italian culture on small companies than on medium-sized and bigger companies. It seems this research confirms that it is not a characteristic of the Italian

management to take a step back, get the 'big picture', and challenge the *status quo*, involve subordinates in the decision-making process and listen to them (Ruggeri, 2015).

In terms of respondents' gender, the perception of male respondents of their bosses' adaptive leadership behaviors, except 'getting on the balcony', was higher than that of female respondents, probably because women tend to be more demanding than men in their expectations, considering the hard work they need to do in order to get the same as what men get (Lonati, 2020).

In terms of boss' gender there was no significant difference between the categories.

In terms of boss' age there were no significant differences as regards 'getting on the balcony', 'maintaining disciplined attention' and 'giving the work back to the people'. However, as for the perception of the other two adaptive leadership dimensions 'identifying the adaptive challenge' and 'protecting leadership voices from below', the respondents whose boss is between 45 and 54 years of age scored higher than the respondents whose boss is over 55, whereas in terms of 'regulating distress' the respondents whose boss is between 25 and 34 years of age scored higher than the respondents whose boss is over 55. In these three cases there was little difference. This might mean that over a certain age managers may care less about adaptability not only in terms of effective practices but also in terms of making these practices perceived by others.

The respondent's age seemed to impact on the perception of some of the adaptive leadership behaviors. Respondents who belonged to the '35-44' subcategory scored higher than older respondents (belonging to the '45-54' subcategory) in the perception of their boss' ability to 'give the work back to the people'. This might mean that middle-aged Italians in the corporate sector aged 45-54 have less belief in their bosses' adaptive leadership behavior than other age groups.

In terms of respondents' qualifications, there were no significant differences, except for a little variance between respondents with the lowest level of education scoring lower than all the other subcategories in the perception of their bosses' ability to 'maintain disciplined attention'. Probably this might mean that whoever has a lower level of education might also have a lower perception of adaptive leadership practices (Busato *et al*., 2000).

In terms of respondents' role there were no significant differences, while in terms of boss' role, there were some significant differences. In terms of 'identifying the adaptive challenge' there were no significant differences. The respondents whose boss is an executive scored lower than the respondents whose boss is a manager or a project leader in the perception of their boss' attitude to 'getting on the balcony', 'regulating

distress', and 'giving the work back to the people'. In the former case the difference between executives and managers was significant whereas in the latter case the difference between executives and project leaders was just a little variance. This might confirm some findings in the literature, that a project leader would be expected to be more flexible and interact closely with his/her team members because of that specific type of job itself (Ruggeri, 2015). The respondents whose boss is an executive scored lower than the respondents whose boss is a manager also in the perception of their boss' attitude to 'maintaining disciplined attention' and 'protecting leadership voices from below'. This might reflect the fact that managers might have higher expectations from their executives than employees from their managers. Across the Italian corporate sector managers and staff tend to feel more numbers than active players in the development of the business (Schneeweib, 1995; Romanowski, 2017).

7.3 SUMMARY OF THE FINDINGS

In the light of the statistical analyses performed, the use of the IALBQ based on a sample of 459 respondents highlights the following findings across the Italian corporate sector:

- The most perceived dimension of adaptive leadership is 'maintaining disciplined attention'
- The least perceived is 'giving the work back to the people'.
- All dimensions are strongly interconnected among each other.
- The impact of Italian culture on the perception of adaptive leadership behaviors is strong when it comes to public sector against private sector. Respondents working in the private sector scored much higher than those working in the public sector in the perception of their boss' adaptive leadership behaviors.
- The impact of Italian culture on the perception of adaptive leadership behaviors is strong when it comes to size of the company. Respondents working in small companies with '11-50' employees, which is the typical size of Italian companies, scored the lowest in the perception of their boss' adaptive leadership behaviors of all the other respondents working in smaller companies or bigger companies.
- The perception of male respondents of their bosses' adaptive leadership behaviors, except 'getting on the balcony', is higher than that of female respondents.
- Respondents whose boss is between 45 and 54 years of age scored higher than the respondents whose boss is over 55 in the perception of their boss' attitude to 'identifying the adaptive challenge' and 'protecting leadership voices from below', whereas in terms of 'regulating distress' the respondents whose boss is between 25 and 34 years of age scored higher than the respondents whose boss is over 55.

- Respondents whose boss is an executive scored lower than the respondents whose boss is a manager or a project leader in the perception of their boss' attitude to all adaptive dimensions except 'identifying the adaptive challenge'.
- Respondents who belonged to the '35-44' subcategory scored higher than older respondents (belonging to the '45-54' subcategory) in the perception of their boss' ability to 'give the work back to the people'.
- Respondents with the lowest level of education scored lower than all the other subcategories in the perception of their bosses' ability to 'maintain disciplined attention'.

7.4 SUMMARY OF THE CHAPTER

This chapter has presented and interpreted the findings emerging from the statistical analyses of the data collected through the administration of the IALBQ on a sample of 459 respondents. This chapter shows how the IALBQ could be used in order to explore the perception of adaptive leadership behaviors across the Italian corporate sector. It is contributory and it is also a good example of what sort of results the IALBQ can bring. These results will be discussed further in chapter 9.

8 EXPERT PANEL: RESULTS AND INTERPRETATION

In chapter 6 the psychometrics of the Italian Adaptive Leadership Questionnaire (IALBQ) were presented demonstrating that the IALBQ seems to have a high degree of reliability and validity when applied to the Italian corporate sector. This chapter focuses on evaluating the questionnaire through exploring the viewpoint of seven experts in relation to the use of the IALBQ as a measurement tool for adaptive leadership behaviors across the Italian corporate context.

The structure of the chapter is as follows:

- Panel purpose: this section presents the reason why the evaluation of the IALBQ was performed through a panel of international experts.
- Panel members: in this section the bio of each expert is provided.
- Panel responses: this section presents the answers that the experts gave to the questions and briefing.
- Additional themes emerging from the responses: this section highlights some themes which were not in the evaluation form, yet they were raised by the experts.
- Summary of the findings.

8.1 PANEL PURPOSE

The purpose of this expert evaluation is to gather expert perspectives and views of the IALBQ.

The aim of engaging with the experts as explained in sections 3.3.5 and 3.3.6 was to provide an alternative validation of the questionnaire in addition to the psychometrics. The experts selected are representative of the expected users of the IALBQ and were selected through thorough research considering their area of competence, their knowledge, their professional career with the purposive sample based on knowledge and expertise.

8.2 PANEL MEMBERS

Eleven experts were contacted with seven participating in the evaluation. Two members are American, four members are Italian, and one member is Italian American. They are all men. Two women were asked to take part in the panel, but they were unable to participate due to lack of time and excessive workload. All of the participants were experts in leadership as outlined in the following bios:

8.2.1 Adriano Pianesi

Adriano Pianesi co-founded ParticipAction Consulting, Inc. in 2009, which is a leadership and innovation practice. He is an adjunct professor at Johns Hopkins Carey Business School (where he received the Distinguished Adjunct Faculty Award) and at the Foreign Service Institute of the US State Department. He has also taught at the Miami Community College, Chicago School of Professional Psychology, Kuwait University, and Aoyama Gakuin University in Tokyo, Japan. He has lectured at Harvard Kennedy School, where he studied with Professor Ron Heifetz. He has consulted Microsoft, Amazon, Philip Morris, the US Marine Corps, the International Monetary Fund, and other businesses, for over 20 years, in different countries, addressing a variety of problems from leadership development to individual and group learning, from organizational change to business model redesign. He was a faculty member for the middle managers' leadership program at the World Bank. He has participated in leadership and OD initiatives in South America, Spain, Italy, and Switzerland. He co-authored the e-book Teachable Moments of Leadership (iBook, 2016) which featured among the top 100 e-book sellers for two years.

8.2.2 David Dunaetz

David Dunaetz (BS Harvey Mudd College, MSEE University of Southern California, MDiv Denver Seminary, Magistère Université de Paris-La Sorbonne, ThM Fuller Theological Seminary, MA, PhD Claremont Graduate University) is Associate Professor of Leadership and Organizational Psychology at Azusa Pacific University. At Azusa Pacific University, he primarily teaches statistics and research methods and supervises thesis students in the M.S. in Organizational Psychology program. He manages a popular YouTube channel which focuses on the subjects he teaches. His most popular videos are on statistics, leadership theory, research methods, and organizational behavior. He is the editor-in-chief of the Great Commission Research Journal and the book review editor for Evangelical Missions Quarterly.

8.2.3 Andrew Clesen

Andrew Clesen is a U.S. military veteran who was a member of the special warfare community, where his interest in leadership originates. After his military service he earned a B.S. from Illinois State University and subsequently earned his M.A. in Communication from San Diego State University. Most of his research has focused on leadership and its impact on organizations. Andrew has written several papers on Adaptive Leadership and analyzed this style of leadership through quantitative and ethnographic methods. More specifically, Andrew's master's thesis titled "Adapt and Overcome: Exploration of an Adaptive Leadership measure" was the first known attempt to validate an Adaptive Leadership measure. He has primarily taught courses on leadership, non-verbal communication, organizational communication, and public speaking and communication courses at numerous institutions across the United States. He worked at one the premier

Entrepreneurship Centers in the United States where he helped people create new businesses. More recently, Andrew earned his J.D. and is a practicing attorney in Chicago.

8.2.4 Stefano Zordan

Stefano Zordan, born in Ivrea, Italy, graduated in Theology and Geography in Ireland, and then completed his studies with a master's degree in Political Science at Harvard University. Here he had the chance to learn the practice of Adaptive Leadership directly from its founders and he was also able to work with them as a teaching assistant. Back in Italy, he edited the Italian edition of The Practice of Adaptive Leadership (La pratica della leadership adattiva, Franco Angeli, 2018). He is the founder of "Sistema Italia", the Italian community of the adaptive leadership network, and of OLI - Adriano Olivetti Leadership Institute, headquartered in Ivrea. This is the first Italian permanent training center dedicated to the study and practice of Leadership, understood as a posture that can be learned. Backed by the firm belief that leadership is a practice that everyone can engage in, OLI works with large companies, SMEs, public administration institutions, schools, young people, citizens, and non-profits.

8.2.5 Simone Tani

Simone Tani is a public manager, a lecturer, and a businessman. He studied economics at Firenze University and got a PhD with Sant'Anna University in Pisa. He is a senior advisor in the Foundation for the Future of the City and of the Emilia Romagna Region. He has been teaching public leadership at LUISS and he collaborates with Adriano Olivetti Leadership Institute, the first Italian permanent training center dedicated to the study and practice of Leadership, understood as a posture that can be learned. He is a professor on contract for Link Campus University and eCampus and he teaches psychology of the organizations. He has been a City Counselor and he has been involved in the management of the city of Firenze for 15 years, he has been a member of the board of companies in which a stake is held by the municipality of Florence, and he has been an Economic Counselor of the Premier.

8.2.6 Alessandro Sancino

Alessandro Sancino is Associate Professor in Management at the University of Milan-Bicocca. He also serves as Senior Lecturer at The Open University (UK) and Adjunct Professor at the University of Italian Switzerland. He is External Examiner at the University of London, SOAS. He is involved in research themes such as Leadership for Social Impact, Organizing Cities for (Grand) Societal Challenges, Citizen Participation in Public Governance, Public Value, and Technology, Ethics & Democracy. He is a member of the Executive Board of PUPOL (Public and Political Leadership Academic Network). He is a co-founder of the International Network on Place based Leadership & Governance. He is a fellow of the RSA (Regional Studies Association) and a member of the RSA Publications Committee. He is a co-chair of the Study Group on Public Network Policy

and Management, EGPA (European Group for Public Administration). He is also an incoming editor of Public Policy and Administration.

8.2.7 Roberto Fioretto

Roberto Fioretto is an organizational counselor and a communication manager in 'Cassa di Risparmio di Padova e Rovigo' Foundation. This is a non-for-profit organization promoting life quality and sustainable development for the communities living in Padova and Rovigo. This organization is inspired by a vision of an open, supportive, and innovative community. He graduated in Communication Science, and he got his PhD in Sociology of the communicative and intercultural processes in the public sector. He also got a Master of Counseling. His work across the corporate sector aims to increase the potential of human resources. He is a speaker and a co-author of LeadEretici podcast. He dedicates his speeches to generative leadership across organizations. He wrote a monography entitled 'Pubbliche fascinazioni. I rituali delle relazioni pubbliche tra scienza e arte' (Cleup) and some papers collected in the volume entitled 'Comunicare interagendo. I rituali della vita quotidiana: un compendio' (Utet). He has created and has taken care of the Counseling Post blog where he has developed reflections and experiences about leadership creating bridges between psychology and sociology of the organizations.

8.3 PANEL RESPONSES

The expert panel evaluation form was created to explore the point of view of some experts on the IALBQ and its features. The experts were provided with a briefing (see appendix H) which explained the main reasons why Northouse's AL questionnaire did not prove to be valid when applied to the Italian corporate context and, hence, should be adapted to it.

The experts were told that the main adaptation of Northouse's AL questionnaire was related to the reversed score questions on authoritative and directive leadership. These questions had impacted negatively on the Cronbach's Alpha of two specific dimensions and had very low factor loadings (see sections 4.2.1 and 4.2.2). As detailed, in Italy directive/authoritative leadership is seen positively rather than negatively. Hence, questions about directive / authoritative leadership were not included. The briefing also explained the five golden rules which were followed to design the IALBQ items. It also highlighted some characteristics of the Italian culture, namely a high degree of 'power distance', 'uncertainty avoidance' and 'masculinity', which might be impacting on the perception of leadership and the perception of phraseology used in the instrument of measure.

The experts were asked the following questions with their responses identified as positive and negative as detailed in the following table with the results for each question reported and interpreted below:

Questions	Positive	Negative	Participants' consensus
The questionnaire is useful to study adaptive leadership behaviors across the Italian corporate context	6	1	85%
The questionnaire is complete and covers all dimensions adequately	5	2	70%
The questionnaire is an effective tool to measure the perception of adaptive leadership behaviors	6	1	85%
The questionnaire will be easy to use to assess staff's perception of adaptive leadership behaviors	5	2	70%
The questionnaire could be extended with additional items	5	2	70%
Results from this questionnaire will be used to encourage adaptive leadership practices in organizations	7	0	100%
The questionnaire has characteristics that make it particularly appropriate in Italy	4	3	57%
Willingness to use the questionnaire	6	1	85%

Table 86 Expert evaluation form questions and responses

As the table shows, overall, these results were very positive, even the negative responses were constructive rather than dismissing the IALBQ. As we can see from the last column, one question received the total consensus, three questions received 85% of the participants' consensus. Other three questions received 70% of the consensus and just one question received approximately 57% of participants' consensus. The results will be detailed as follows:

8.3.1 Usefulness of the IALBQ to study adaptive leadership behaviors

In relation to the usefulness of the IALBQ to enable researchers to study the practice of adaptive leadership across the Italian corporate sector, six experts out of seven responded positively. One of them said: "*all the items of the IALBQ are relevant to what we expect adaptive leadership practices to be*". Two experts identified that the IALBQ should be integrated with qualitative research such as focus groups and self-reflective or in-depth interviews as a questionnaire alone would be insufficient to capture views. One of the experts stated: "*a more complete approach would investigate not only the bosses' behavior as viewed by the employees, but would cut across the organization, to assess the leadership posture of people in different roles and with different seniorities, which is more in line with the non-role dependent approach of Adaptive Leadership*". All experts understood the perspective of focusing on the followers. One expert added that "*the questions are interesting and help respondents reflect on some aspects of adaptive leadership which may be necessary to live nowadays*". It seems the IALBQ is a good length. One expert said: "*Creating a questionnaire that is too lengthy can be taxing on participants*".

8.3.2 Adequacy of IALBQ for covering all six dimensions

Five experts stated that the IALBQ has sufficient questions, although one expert said that "*it might be advisable to add one more question per area so there could be 5 questions to assess each dimension to increase coefficients of reliability*". One of them said: "*all dimensions seem to be covered adequately and capture the essence of adaptive leadership behaviors*". Experts also noted that questions could be added to the dimensions that are under-represented. One expert added: "*there is the dimension of 'maintaining disciplined attention' which has three items only and one or two more items could be added*". He also said: "*I would add some items to 'getting on the balcony' and 'identifying the adaptive challenge' which are the most complex dimensions to perceive*." Two experts suggested making some changes to the phraseology used, as presented below in 'getting on the balcony' section and in 'maintaining disciplined attention' section.

8.3.2.1 Getting on the balcony

Five experts stated that this dimension was dealt with appropriately. An expert questioned the way Heifetz (1994) conceived this dimension as a unique dimension, stating that: "*there seem to be two parts in this dimension: 1) removing oneself from other people and no longer receiving new information, and 2) reflecting on what one has observed*". Therefore, he would add another question to this dimension, which is reported in section 8.3.5. One expert said that "*the words 'take a step back' in item 1 [When difficulties arise in the organization, my boss takes a step back and evaluates the dynamics among the people involved] may be misunderstood and may be leading the respondent to interpret them as stepping aside in a resigned way, which is not the real meaning in the context, what Heifetz (1994) intended*". He also added "*for this reason, it might be convenient to remove them*".

8.3.2.2 Identifying the adaptive challenge

Four experts stated that this dimension was adequately covered. One expert said that "*more attention might be paid to difficult issues or 'elephants in the room'*". Another expert added that "*it is hard to face difficult issues at work and very often these difficult issues are 'adaptive challenges' that need to be taken on*". An expert was not sure that items 18 (My boss takes a 360-degree view when addressing organizational issues) and 21 (My boss analyses pros and cons of what his/her staff say) designed for measuring the perception of 'identifying the adaptive challenge' are effectively measuring this. He stated that "*these items may be related to what could happen when 'getting on the balcony'*". Another expert said that "*Item 7 [My boss takes the time to analyze challenges at work] might be part of 'getting on the balcony' since it refers to an attitude which is reflective*". In addition to this, an expert stated that "*the items measuring 'identifying the adaptive challenge' are not observable, therefore, it is not possible to verify what they measure*". Another expert recommended adding questions to this dimension since "'*identifying the adaptive challenge' is, together with 'getting on the balcony', probably the most complex to observe and measure*."

8.3.2.3 Regulating distress

Five experts stated that this dimension was dealt with properly. One expert stated that in relation to 'regulating distress' one question might be added about strategies to raise the temperature, "*keep the heat up*", since, he added, "*the items present in the questionnaire measure how supportive a boss is (perceived supervisor support)*". This was claimed by another expert who also stated that "*a better framework would focus on task and relational conflict*". He also added that "'*regulating distress' would be creating an atmosphere where there is occasional task conflict but rarely relationship conflict*".

8.3.2.4 Maintaining disciplined attention

Five experts declared that this dimension is adequately covered. One expert said that "*a reversed score question might be added for the 'maintaining disciplined attention' dimension, since there are three items only and no reversed score question*". He also suggested that in some questions the word 'problem' might be replaced with the word 'challenge' which means something more complex and important to face. Another expert stated that "*some questions might be introduced to focus on the aspect of preventing the followers from being distracted*". Though, he believes "*it is hard for staff to have access to what the boss pays attention to unless they are with the boss, or unless his or her decision involves them*".

8.3.2.5 Giving the work back to the people

Six experts stated that this dimension was appropriately dealt with. One expert stated that "*question 4 [My boss acts in a centralizing way] is not clear when looking at how the question is phrased from a cultural aspect, and it could be rephrased as 'my boss acts in a way that keeps decision making power to himself/herself*.'" He also added that "*using the words 'a centralizing way' is not specific enough to understand the fact that the boss may keep decision power for himself/herself*".

8.3.2.6 Protecting leadership voices from below

Six experts declared that this dimension was adequately covered. One expert stated that "*the items expected to measure the perception of this dimension, questions 5 [My boss allows the ideas of whoever plays the devil's advocate role to be heard by everyone], 11 [My boss is open to people who express unusual ideas, even if that means delaying decision-making], 17 [My boss tries to understand the ideas of those who are not aligned with the rest of the team] and 22 [In order to maintain the status quo in the organization, my boss ignores team members who have different ideas] seem to measure 'protecting leadership voices' not 'protecting leadership voices from below'*". However, this point was not made by any other expert. An expert stated that "*the four questions represent the dimension very well*". Another expert said: "*the dimension is rich of items developing new perspectives of top-down active listening*". Another expert appreciated that

"*these questions refer to staff who are at a lower level than the boss*". He also added that "*for this reason all questions clearly refer to 'protecting leadership voices from below'*".

8.3.3 Effectiveness of IALBQ as a tool to measure the perception of adaptive leadership behaviors

Six experts agreed that the IALBQ was an effective tool to measure the perception of adaptive leadership behaviors. Two of them stated that the IALBQ seems to be a very good quantitative tool that could be extended with qualitative research. One of them stated that "*focus groups and self-reflective interviews could be an appropriate integration*". One of the six experts who answered positively to this question said that the IALBQ should be extended with additional instruments such as those used to measure personality and communication styles to assess the impact of this on perceptions of adaptive leadership behaviors. He said "*people have different ways of communicating, whether they are vocal, reserved, etc. In instances of people who are reserved and less vocal, it might be foreseen that this type of person will be deemed as analytical and score high on 'getting on the balcony' and potentially, 'maintaining discipline'. Though the scale is much appreciated, a person's communication style could impact the answers*". The seventh expert identified that without the psychometrics it was difficult to confirm the effectiveness. He said: "*If the exploratory factor analysis reveals six factors, I would reconsider its validity*". He also added that "*people will resort to the quality of the relationship that they have with their boss to answer these questions since so many are difficult to observe. It will essentially become another measure of leader member exchange (LMX)*". However, this problem was not highlighted by any other expert. In terms of item design, one expert suggested that item 22 (In order to maintain the status quo in the organization, my boss ignores team members who have different ideas) is not effectively phrased, he said "*item 22 is a double-barreled question (1) Does my boss seek to maintain the status quo in the organization, and (2) Does my boss ignore members who have different ideas?*". Moreover, he added: "*if my boss ignores someone, I can't observe the reason for him or her doing so*".

8.3.4 Ease to use the IALBQ to assess staff's perception of adaptive leadership

Five experts were positive about the ease to use the IALBQ to assess staff's perception of adaptive leadership behaviors. One of them said that the questions are "*easy to understand*". Another expert said that the items are "*clear and understandable*". Another expert said that "*it will be easy to use the questionnaire considering that it is short, the questions are simple to understand both for the respondents and for their bosses, and relevant to what adaptive leadership practices are expected to be like*". Two of the five experts stated that qualitative tools should be also used to integrate the results. One of the two experts who responded negatively to this question said that "*it won't be easy to access a subordinate's perception of adaptive leadership behaviors without coupling the instrument with some form of personality questionnaire (possible introvert versus extrovert) or communication style instrument*". He also added that "*these two things would*

have a tremendous impact on how a staff member would view behaviors and the questionnaire could be extended with such tools when used within a company and managed internally".

8.3.5 Additional items to extend the IALBQ

Five experts responded that the IALBQ could be extended, and items could be added. Two experts suggested adding open questions. One of them said that "*open questions could explore the subjective experience of the respondents, asking them to give examples of situations or behaviors where adaptive leadership has been observed*". One expert proposed another way to rephrase items. He suggested that "*creating a comparison between the current boss of the respondent and his/her previous bosses would reduce the probability that the relationship between the respondent and his/her own boss would affect the way the respondent would answer*", hence he suggested adding the phrase "compared to other bosses I have had, my current boss…" to each item. Here are some questions suggested for each area that was considered by the experts under-represented or too complex:

8.3.5.1 'Getting on the balcony'

Four experts would add items to this dimension. One expert said that "*getting on the balcony is a very complex dimension that would deserve to be explored with more questions*". Another expert proposed two additional items for this dimension:

- Compared to other bosses I have had, my current boss understands reality far better than other people
- My boss sometimes withdraws and no longer receives input from others

8.3.5.2 'Identifying the adaptive challenge'

Four experts would add items to this dimension. One expert said that "*identifying the adaptive challenge is a very complex dimension that could be very difficult to measure, considering that on a daily basis there may not be adaptive challenges to face*". He also added that "*it might be difficult to think of which questions to extend the questionnaire with*". Another expert proposed two additional items for this dimension:

- Compared to other bosses I have had, my current boss knows what to focus on far better than other people.
- Compared to other bosses I have had, my current boss knows how to change my mind far better than other people

8.3.5.3 'Regulating distress'

Three experts would add items to this dimension. One of them proposed two additional items for this dimension:

- Compared to the ideal boss, my current boss knows how to push me to better performance without getting me upset

- My boss knows how to create an atmosphere so that when I disagree with him or her, I can freely express myself without expecting retaliation

8.3.5.4 'Maintaining disciplined attention'

Four experts identified that additional items for this dimension were needed. One of them proposed two additional items for this dimension:

- Compared to other bosses, my current boss knows how to motivate me to stay focused on the most important problems far better than other people
- Compared to other bosses, my current boss knows how to keep the team from being distracted by things that are not very important

8.3.5.5 'Giving the work back to the people'

Only two experts would add items to this dimension. The other experts all said this dimension is very well represented. An expert proposed two additional items for this dimension:

- Compared to other bosses, my current boss trusts his or her employees far more.
- Compared to other bosses, my current boss listens to his or her employees far more.

8.3.5.6 'Protecting leadership voices from below'

Only two experts would add items to this dimension. The other experts all said this dimension is very well represented. An expert proposed two additional items for this dimension:

- Compared to other bosses, my current boss takes into consideration the opinion of his or her employees far more than other people.
- Compared to other bosses, my current boss puts into practice the good ideas that come from his or her subordinates.

8.3.6 IALBQ results encouraging adaptive leadership practices in organizations

All experts recognized that the use of the IALBQ across the business sector might encourage the five adaptive leadership practices that it is expected to measure ('getting on the balcony', 'regulating distress', 'maintaining disciplined attention', 'giving the work back to the people', 'protecting leadership voices from below'). The reasons why all the experts responded positively to this question are the following:

Self-reflection: one expert said that "*the first reason could be self-reflection of a manager who is attempting to engage in leadership. The analysis of subordinates on their manager may give insight into what area the manger may focus on*".

Promotion ranking: the same expert added that "*the second reason could be promotion ranking. For companies that are attempting to be innovative and be market disruptors this could be a useful instrument for putting people into positions of power*."

Critical issue discussion: Another expert highlighted the potential of the questionnaire to "*let critical issues,*

'elephants in the room', and unpredictable situations emerge so as they could be discussed."

Change implementation: One expert said that "*it would offer the opportunity to spot some inputs, initial aspects to work on and deepen in order to make change happen*."

Adaptive Leadership Training Initiatives: An expert mentioned the fact that "*the questionnaire could also offer the opportunity to build on adaptive leadership training considering that it might be enriched with personal experiences so as to give examples pushing managers and staff to reflect on these adaptive practices.*"

8.3.7 Cultural specificity of the IALBQ to the Italian culture

Four experts responded positively to this question and three experts responded negatively. Among those who thought the IALBQ suits the Italian culture there are one American expert, the Italian American expert and three Italians, while among those who thought the IALBQ does not seem to have cultural specificity, there are two Italians and one American expert. One expert who responded positively said: "*I find it interesting that in Italian businesses the centralization of power is encouraged and assumed. From this knowledge, it seems that those engaging in adaptive leadership in Italian businesses would be seen negatively because subordinates would not expect to be made part of problem solving*." Another expert confirmed the fact that the IALBQ fits the Italian context "*considering the fact that Italian business sector seems to be dominated by authoritative and directive leadership which is seen positively and not negatively by the Italians in general*". Overall, the four experts who were positive about this feature of the IALBQ understood and supported the main adaptation of the IALBQ to the Italian context which was that of removing all items dealing with authoritative or directive leadership from the questionnaire because of high-power distance in Italian culture. One expert said "*it is fair not to include such questions in the questionnaire considering that they would be perceived positively by Italian respondents. Otherwise, it might be difficult to treat this data afterwards*." Another expert noted that "*it would not make sense to include questions about authoritative leadership assuming that they are negative, when this type of leadership is well appreciated all over Italy*." Among the experts who responded "no" to this question, one expert queried the choice mentioned above. He noted that "*just because Italians don't prefer or expect low-power people to have voice, this does not mean that giving people a voice should not be included in measuring adaptive leadership*." He also added that "*leaving this out changes the meaning of adaptive leadership*". Another expert identified that "*the Italian corporate context does not seem to be so different from that of other countries. In the corporate world dominated by big companies, there seem to be no significant differences in the way multinationals are managed across the countries where subsidiaries are present*." He also added that "*I would find enormous differences between how the public sector and how the private sector work across Italy and between the style*

populating small companies with respect to big companies". The same expert said that for this reason, "*the questionnaire could be used in other countries as well.*"

8.3.8 Willingness to use the IALBQ

Six experts out of seven stated that they would use the IALBQ. The seventh expert stated that they would want to see the psychometrics before use, reflecting their position as a quantitative researcher. The reasons why the experts responded positively to this question are the following:

Innovation: One expert said: "*I would be happy to use this questionnaire because it is innovative. At the moment there are no quantitative tools to measure the perception of adaptive leadership practices, and this is a good contribution in this direction*".

Change agent identification: Another expert would use it because "*it could be helpful in identifying people in businesses who may be good change agents.*"

Adaptive leadership behavior organizational assessment: Another expert said that he "*would use the questionnaire for an initial organizational assessment of adaptive leadership in order to have an idea of how adaptive leadership practices are perceived across an organization*."

Effective mixed-method approach: One expert would use it and integrate it with qualitative research methods. He noted that "*combining this questionnaire with in-depth interviews and focus groups would offer a wider perspective on the perception of adaptive leadership behaviors across the corporate Italian context*." Another expert would use it and reiterated that he "*would add some open questions to the questionnaire*." He explained that "*open questions would give the respondents the chance of telling their story and their experience of adaptive leadership at work*."

Awareness of adaptive leadership practices: One expert highlighted that "*this questionnaire could be a good tool to facilitate reflections on adaptive leadership behaviors*."

One expert would use it after making some improvements in the phraseology (see section 8.3.2). Another expert would use it "after the specifics made throughout [his] comments" are implemented. Just one expert would not use it straight away. He would wait to see if the results of the psychometric assessment of the IALBQ had shown it was reliable and valid. He noted that "it might not measure the perception of adaptive leadership behaviors." However, he also said: "if the exploratory factor analysis reveals six factors, I would reconsider my position."

8.4 ADDITIONAL THEMES EMERGING FROM THE RESPONSES

Experts answered all questions in the evaluation form providing open text comments about the questions. In analyzing these comments, this section presents issues and perspectives that experts raised that relate to themes not directly considered in the evaluation form. As explained in section 3.3.6, open questions in the

evaluation form gave the experts the opportunity to write freely about their reflections, give reasons for their answers, expand the concepts making associations of ideas and they came up with the following themes:

8.4.1.1 Daily practice of adaptive leadership

Three experts highlighted that adaptive leadership practices may not be necessary on a daily basis, since companies may not face adaptive challenges daily. One expert highlighted that "*most of the times the problems that companies face are technical*." He also added: "*adaptive challenges are also difficult to recognize, and we tend to approach them in the same way as we approach technical problems, but that is not the solution*." He also added that "*we may not face adaptive challenge for a long time and then all of a sudden, we come across a challenge which is adaptive and what we need to do is to deal with it differently from the way we could solve a technical problem*."

8.4.1.2 Change required in role

One of the experts stated that "*the practice of adaptive leadership may depend on the type of business, on the hierarchical level of the manager as well as on the focus of adaptive leadership to face challenges which have no technical solution. And this may not be needed in many businesses*." The same expert noted that "*in businesses such as technology companies that have to constantly reinvent things to stay profitable, adaptive leadership would most likely be higher for those in 'leadership' positions. However, in companies that do not require innovation or are not trying to disrupt the marketplace, those in managerial positions would probably be lower on the scale. As for the hierarchal level of the leader […] each level you go up the more there is less status quo of management and more change that is being attempted*."

8.4.1.3 Systemic dimension of adaptive leadership

One expert talked about the non-role dependent approach of adaptive leadership practices. He highlighted the importance of the systemic vision of adaptive leadership practices. He said that "*it is advisable not to fall into personalism, which could be reflected in the individual responses given by a given employee*". Another expert noted that "*because adaptive leadership is a practice accessible to everyone, irrespective of the position of power, it could be exercised to shake the system and provoke a change in the way things are by anyone, not only by the managers who find themselves at a higher level than their staff*."

8.4.1.4 IALBQ as a self-assessment tool

Three experts came out with the same idea that IALBQ could be used as a self-assessment tool. One of them said that "*the potential of using the IALBQ as a self-assessment tool is great in the sense that staff could be pushed to reflect on their personal experience and their daily practices*." Another expert noted: "*it could be a useful tool to use for each employee to check on how frequently he/she may have a specific adaptive leadership behavior*."

8.5 SUMMARY OF THE FINDINGS

The results of the IALBQ expert evaluation highlight that:

- The IALBQ is a suitable tool to measure the perception of adaptive leaderhsip behaviors across the Italian corporate context.
- The IALBQ adequately covered all six dimensions of the adaptive leadership framework. However, the dimension that was most problematic was 'identifying the adaptive challenge'. 'Getting on the balcony' and 'identifying the adaptive challenges' turned out to be the most complex dimensions to measure.
- All experts stated they would be willing to use the IALBQ for research purposes as a quantitative tool, though one of them would use it after the psychometric assessment proved its reliability and validity. Most experts expect to use the IALBQ within a mixed-method approach with the opportunity to combine the results of the IALBQ with qualitative data collected through focus groups, in-depth interviews, observation, case studies so as to get a wider perspective on respondents' personal experience and sensations about adaptive leadership practices.
- The IALBQ can be considered a starting point for not only assessing the perception of adaptive leadership behaviors across the Italian corporate context, but also for developing staff's awareness of adaptive leadership behaviors and encouraging these best practices with all experts agreeing with this.
- The IALBQ is easy to use, clear, and immediate to understand and to manage.
- The IALBQ does fit the Italian corporate context, however, it could be also used in other countries.

8.6 SUMMARY OF THE CHAPTER

This chapter has considered the evaluation of the IALBQ highlighting that experts were positive about it. The IALBQ seems to be a suitable quantitative tool to measure the perception of adaptive leadership behaviors across the Italian corporate sector to be used within a mixed-method approach. It seems to be easy to use, and encouraging adaptive leadership practices. The following chapter discusses these findings together with the psychometrics of the IALBQ and also considers the limitations of the research and further research developments.

9 DISCUSSION

This chapter analyzes, explores the meaning, and identifies the importance and the significance of the findings. The chapter is structured this way:

- Research aim and objectives: this section presents how research aim and objectives have been met.
- Research question and interpretation of the findings: this section presents how the research question has been further examined through three sub-questions identifying the main themes emerging from the findings; this section interprets these findings and compares them to the existing literature.
- Limitations of the study: this section lists the drawbacks of this study and suggests improvements.
- Contribution to the field: this section highlights the contribution that this doctoral research has made to the field.
- Recommendations for further research: this section shows possible developments in terms of further research in the field.
- Summary of the findings.

9.1 RESEARCH AIM AND OBJECTIVES

The aim of this research was to develop a greater understanding of followers' perception of adaptive leadership behaviors in the Italian corporate context and to investigate whether Heifetz's adaptive leadership model (1994) can apply to the Italian culture, hence, answering the research question mentioned below. This aim was met through the testing of Northouse's AL questionnaire, and through the development and the administration of the IALBQ to 459 respondents in the Italian corporate context. This not only allowed the measurement of the perception of adaptive leadership behaviors, but it also allowed the understanding of what adaptive leadership behaviors can be perceived within the Italian corporate context and whether Heifetz's model can fit the Italian context.

The objectives of this research were the following and were met:

1. To understand how adaptive leadership differentiates from other leadership theories, identify the most common approach to adaptive leadership theory and any possible gap in literature.

This objective was reached through the literature review (see chapter 2). After reading many publications about the most modern leadership theories, after a thorough and critical analysis of the authentic leadership theory, which shows weak theoretical foundations (Alvesson et al., 2019), the adaptive leadership theory

proved to bring a change in the leadership paradigm. In Mintzberg's terms (2004), a theory is chosen not because it is true, but because it is useful. In such a historical globalized period, characterized by climate change, new technology developments, economic crises, societal changes, population's ageing, immigration flows, delocalization of production units, political uncertainty, finally, a pandemic, adaptive leadership theory seems to be the right theory for the moment. Leadership is not conceived as a personality trait, or a style, or a process of influence. It is conceived as a practice (Heifetz & Linsky, 2002). Therefore, it is accessible to anyone irrespective of the power position or the authority, and it can be exercised and learnt. Its focus is on mobilizing everyone within the system. Adaptive leadership calls for a depersonalization and insists on a systemic approach to facing problems and challenges, which might benefit, in turn, the single individuals, groups, and organizations. Adaptive leadership also seems to be the only leadership theory which focuses on the fear of the loss and an analysis of all stakeholders and the reasons why each of them should resist/support change and/or fight to maintain the *status quo*, though apparently dysfunctional (Savel, *et al*. 2017). It also insists on the importance of diagnosing problems and situations before intervening (Heifetz *et al*., 2019).

In terms of adaptive leadership literature, on the basis of the review done in chapter 2, apart from the publications by Heifetz and his colleagues who built the theory, 83 publications about adaptive leadership have been counted. Only 9 studies out of 83 can be categorized as quantitative (Clesen, 2017; Raei, 2018; Jayan *et al*., 2016; Potchana *et al*., 2020; Griffin and Hesketh, 2004; Han and Williams, 2008; Charbonnier-Voirin and Roussel, 2012; Pulakos *et al*., 2000; Marques-Quinteiro *et al*., 2015), which is just approximately 10%, and out of these 9 studies, only 4 of them focus on adaptive leadership and not adaptive performance, which is approximately 5%. All the other publications can be categorized as qualitative.

In addition, if these 83 publications are categorized in relation to their purpose, as the following table shows, it is evident that:

- 7 publications have contributed to develop new adaptive leadership theories
- 2 publications have contributed to summarize / review the current adaptive leadership theory
- 12 publications have contributed to extend / link the current adaptive leadership theory
- There is a lack of studies testing the adaptive leadership framework
- 62 publications have contributed to apply the current adaptive leadership framework to practical situations

Develop new theory	De Rue (2011); Yukl et al. (2010); Griffin and Hesketh (2004); Han and Williams (2008); Charbonnier-Voirin and Roussel (2012); Pulakos *et al*. (2000); Marques-Quinteiro *et al*. (2015)
Summarize / review current theory	Northouse (2018); Miller (2017)
Extend / link current theory	Lichtenstein et al. (2006); Uhl-Bien et al. (2007); Rasmussen (2022); Reams (2022); Yaghi (2017); Raei (2022); Watanabe et al. (2022); Kenny et al. (2022); Clesen (2017); Raei (2018); Jayan *et al*. (2016); Potchana *et al*. (2020)
Test / contradict current theory	
Apply current theory to practice:	<u>Medical and healthcare sector:</u> Thygeson et al. (2010); Adams et al. (2013b); Adams et al. (2013a); Bailey et al. (2012); Corazzini et al., (2015) Anderson et al. (2015a); Song et al. (2016); Eubank et al. (2012); Dickinson (2010); Reid et al. (2010); Mantha et al. (2016); Haeusler, (2010); Snebold (2015); Shah et al. (2019); Kuluski et al. (2021); Stevenson et al. (2019); McKechnie *et al*. (2020); Fiscus *et al*. (2018); Wylie (2020); Carney and Gick (2022) <u>Social and environmental sector:</u> Hayashi & Soo (2012); O'Doherty & Kennedy (2013); Benington *et al*. (2007); Haubold, (2012); Esler *et al*. (2016); Preece (2016); Valeras *et al*. (2020); Burke (2007); Hlalele *et al*. (2015); Wong *et al*. (2018); Patrick and Lyons (2022); MacDonald Hardesty *et al*. (2022) <u>Education sector:</u> Brothers *et al*. (2015); Linsky & Lawrence (2011); Nelson *et al*. (2017); Khan (2017); Woolard (2018); Noble (2021); McLaughlin (2020); Maybaumwisniewsk (2007); Wolfe (2015); Randall and Coakley (2007); Ozen (2019) <u>Corporate sector:</u> Doyle (2017); Yaghi (2017); Jefferies (2017); Coulombe (2015); Pianesi (2019); Schroeder (2017); Ali *et al*. (2020); Coleman (2021); Akhtar *et al*. (2016); Bilal (2022); <u>Covid-19 emergency:</u> Dunn (2020); Goode *et al*. (2021); Nissim *et al*. (2021); Santra *et al*. (2021); Hawley (2021); Mukaram et al. (2021); Garavaglia et al. (2020); Le Fevre (2022); Egitim (2022)

Table 87 Adaptive leadership literature review summary

Therefore, this doctoral research is a significant contribution in adaptive leadership quantitative research and theory testing.

2. Once it was clear that few publications dealt with adaptive leadership from the quantitative point of view, the second objective was to understand whether the existing Northouse's Adaptive Leadership

(AL) questionnaire (2016), designed in an American context, could be a reliable and a valid tool to measure the perception of adaptive leadership behaviors across the corporate sector in Italy

This objective was met through the administration of Northouse's AL questionnaire across the Italian corporate sector on a sample of 400 respondents and through its psychometric assessment. Findings revealed that it seems to be reliable but not sufficiently valid when applied to the Italian context, as detailed in chapter 4 and discussed in the next section.

3. Once it was clear that Northouse's AL questionnaire was not valid enough when applied to the Italian corporate context, the third objective was to design a new questionnaire that could be suitable to the Italian corporate context for measuring the perception of the six adaptive leadership behaviors by Heifetz (1994)

This objective was met through the development of the IALBQ. As detailed in chapter 5, Northouse's AL questionnaire was adapted and extended into the IALBQ focusing on the Italian corporate context. All the items of the IALBQ, except two, were included in the IALBQ thanks to a process of validation based on a minimum of 85% participants' consensus over three rounds of a card sorting activity. The IALBQ was validated through its psychometric assessment (see chapter 6) and through the evaluation of an international expert panel (see chapter 8), as discussed in the next section.

4. The fourth objective was to throw light on the way adaptive leadership behaviors were perceived in the Italian corporate context from the followers' perspective

This objective was met. The administration of the IALBQ to 459 respondents provided an example of how it can be used across the Italian corporate sector and allowed the exploration of the perception of adaptive leadership behaviors across corporate context in Italy, as detailed in chapter 7. Results show the persistence of some characteristics of the Italian population, culture and style that have been already documented in literature and pinpoint the impact that Italian culture might have on the perception of adaptive leadership, as discussed in the next section.

5. The fifth objective was to test Heifetz's adaptive leadership model (1994) and understand if it fits the Italian corporate context.

This objective was met. An interesting result produced by the IALBQ is that the perception of five adaptive leadership behaviors ('getting on the balcony', regulating distress', 'maintaining disciplined attention', 'giving the work back to the people', 'protecting leadership voices from below') can be measured whereas the sixth adaptive leadership behavior ('identifying the adaptive challenge') is most problematic. These findings

challenge the model designed by Heifetz in 1994, as discussed in the next section, and lead to the conclusion that the model should be redesigned.

9.2 RESEARCH QUESTION AND INTERPRETATION OF THE FINDINGS

The research question "Can followers' perception of adaptive leadership behaviors be measured across the Italian corporate sector and what insights does this give for Heifetz's adaptive leadership model?" was further examined into three sub-questions:

1. Can followers' perception of adaptive leadership behaviors across the corporate sector in Italy be measured in a reliable and valid way?
2. What adaptive leadership behaviors are perceived across the corporate context in Italy from the followers' perspective?
3. Are Heifetz (1994)'s six adaptive leadership behaviors an effective model for the Italian corporate context?

The answers to these sub-questions highlighted the main themes emerging from the results of this research (see chapters 4,5,6,7 and 8):

- The IALBQ
- 'Paralyses' of the public sector in Italy and Italian orientation to authority over adaptive leadership
- 'Identifying the adaptive challenge' as a problematic dimension in the adaptive leadership framework

9.2.1 Can followers' perception of adaptive leadership behaviors across the corporate sector in Italy be measured in a reliable and valid way?

The IALBQ is the tool that allows to answer the first research sub-question just mentioned. Data suggests that the IALBQ is a reliable and valid quantitative instrument to measure the percetion of five adaptive leadership behaviors across the corporate context in Italy. This statement is backed up by the following results:

- Psychometric assessment of the IALBQ

As presented in chapter 6, the psychometric assessment of the IALBQ revealed that the IALBQ shows a high degree of reliability given the very high general Cronbach's alpha and that of all dimensions. It seems to have a high degree of validity as a five-dimensional model. Exploratory factor analysis shows that the IALBQ seems to measure the perception of five adaptive leadership dimensions rather than six: 'getting on the balcony'; 'regulating distress'; 'maintaining disciplined attention'; 'giving the work back to the people'; 'protecting leadership voices from below'. 'Identifying the adaptive challenge' seems to lose its consistency and it is the least represented factor whose items are influenced by other factors.

As shown in sections 6.4.1 and 6.4.2, the IALBQ has a higher degree of reliability and a higher degree of validity than Northouse's AL questionnaire as the tables below show:

	IALBQ		Northouse's AL questionnaire	
Dimension	**Cronbach's Alpha**	**CI**	**Cronbach's Alpha**	**CI**
Global	0.944	(0.931, 0.953)	0.864	(0.841, 0.883)
Getting on the balcony	0.701	(0.633, 0.755)	0.742	(0.688, 0.794)
Identifying the adaptive challenge	0.801	(0.747, 0.843)	-0.542	(-0.891, -0.242)
Regulating distress	0.854	(0.820, 0.880)	0.849	(0.812, 0.880)
Maintaining disciplined attention	0.754	(0.691, 0.808)	0.639	(0.547, 0.716)
Giving the work back to the people	0.777	(0.723, 0.818)	0.187	(-0.048, 0.370)
Protecting leadership voices from below	0.781	(0.728, 0.823)	0.743	(0.683, 0796)

Table 88 Comparison between Northouse's AL Questionnaire and IALBQ in terms of reliability

In relation to the Cronbach's alpha for each dimension in both questionnaires, that for 'getting on the balcony', 'regulating distress', 'maintaining disciplined attention' and 'protecting leadership voices from below' was high and similar, with confidence intervals overlapping. There was a significant difference between the IALBQ and Northouse's AL questionnaire when it came to 'giving the work back to the people' and 'identifying the adaptive challenge'. In the IALBQ, Cronbach's alpha for 'giving the work back to the people' was 0.777 CI = (0.723, 0.818), significantly higher than in Northouse's AL questionnaire, where Cronbach's alpha was 0.187 CI = (-0.048, 0.370). In the same way, in the IALBQ Cronbach's alpha for 'identifying the adaptive challenge' was 0.801 CI = (0.747, 0.843), significantly higher than in Northouse's AL questionnaire, where Cronbach's alpha was -0.542 CI = (-0.891, -0.242).

Dimension	**Percentage of items influenced by their latent factor in the IALBQ**	**Percentage of items influenced by their latent factor in Northouse's AL questionnaire**
Getting on the balcony	75%	60%
Identifying the adaptive challenge	0%	60%
Regulating distress	60%	60%
Maintaining disciplined attention	66%	40%
Giving the work back to the people	100%	0%
Protecting leadership voices from below	100%	60%

Table 89 Comparison between Northouse's AL Questionnaire and the IALBQ in terms of internal consistency and validity

In terms of exploratory factor analysis, the impact of latent factors on the items expected to measure their latent factor was significantly stronger in the IALBQ than in Northouse's AL questionnaire. Northouse's AL questionnaire was not sufficiently valid to measure the perception of adaptive leadership behaviors across the Italian corporate context with considerable overlapping of items and dimensions (see section 6.4.2). This was also confirmed by the result of the Chi Square fit index of 1,777 with 390 degrees of freedom suggesting that there is very little probability that this data refers to the six-dimensional model. Besides, as shown in section 6.4.2, also the factor loadings of many items were low and unsatisfactory, 9 items out of 30 had a factor loading lower than 0.614 and the lowest factor loading was 0.170, whereas in the IALBQ the factor loadings were all well above 0.614.

These results seem to be in line with the existing findings in literature. After performing the psychometric assessment of Northouse's AL questionnaire, Clesen (2017) stated that adaptive leadership is seen more like a unidimensional concept where adaptive behaviors are strongly interconnected. Each question seemed to have face validity, but a factor loading of one component instead of six indicated that each dimension, based on Heifetz's notion of adaptive leadership, did not have content validity.

Although Northouse's AL questionnaire was validated neither by Clesen (2017) in a US military context with a sample of 203 respondents nor by this research across the Italian corporate sector with a sample of 400 respondents, it served as a milestone indicating a gap in literature. As shown in sections 2.7 and 9.1, there seems to be a lack of validated questionnaires attempting to measure the perception of adaptive leadership behaviors. In the light of the results of this research the IALBQ can be the first good instrument to be used across the Italian corporate sector to assess the perception of adaptive leadership behaviors and encourage these best practices.

- Expert evaluation

As shown in chapter 8, the IALBQ was validated by an international panel of seven experts who were positive about the IALBQ, and even the negative responses were constructive rather than dismissing the IALBQ. The results of the expert evaluation suggest that overall it is a suitable tool to measure the perception of adaptive leaderhsip behaviors across the Italian corporate context. It is easy to use, clear, and immediate to understand and to manage and it not only fits the Italian culture but it could be used in other countries too. The experts would be willing to use it within a mixed-method approach which would include qualitative methods to go more deeply into respondents' experience and subjectivity, though one of them would use it after the psychometric assessment proved its reliability and validity. Data suggested that the IALBQ can encourage adaptive leadership practices, though a few experts underlined that 'identifying the adaptive challenge' should be extended with some additional items, given the complexity of this dimesion.

9.2.1.1 Discussion of the methodological approach

It was decided to validate the IALBQ using two methods in order to get more reliable results. Beside the psychometric assessment of the IALBQ based on statistics, the international expert evaluation was chosen as a second method for validating the IALBQ for several reasons:

- the experts selected were representative of the expected users of the IALBQ
- research has proved that expert evaluation is an effective validation method (Olson, 2010)
- the experts were selected considering their area of competence, their knowledge, their professional career
- the evaluation form was an opportunity to explore some themes related to adaptive leadership which the experts raised though they were not included in the form

The IALBQ was designed through the card sorting method. This method of validating items to be included in the IALBQ was chosen for several reasons:

- in terms of characteristics, the 25 respondents who matched each item with the expected behavior that each of the items would measure were representative of the 459-respondent sample who would fill in the IALBQ
- it was possible to explore the degree of difficulty experienced in both designing and matching each of the items with its specific behavior to measure; this made it possible to reflect on the possibility to operationalize abstract concepts and translate them into observable behaviors
- it could be repeated till a sufficient number of items would be validated with over 85% participants' consensus

The IALBQ was also built on a 5-point unipolar Likert scale (never, rarely, neutral, often, always) so as to give respondents a better chance to measure their bosses' adaptive leadership behaviors by saying how frequently they would hold a specific behavior. The unipolar Likert scale worked well for the measurement of the perception of adaptive leadership behaviors (Chyung et al., 2018) and accomplished the criteria of equidistance effectively (Lim *et al*. 2021).

9.2.2 What adaptive leadership behaviors are perceived across the corporate context in Italy from the followers' perspective?

9.2.2.1 'Paralyses' of the public sector in Italy

It seems that across the public sector adaptive leadership behaviors are perceived very little in comparison to the private sector. This statement is supported by the results emerging from statistics (see section 7.2). When performing ANOVA, the most significant differences were given by the sector in which respondents

work. Respondents working in the private sector scored much higher than those working in the public sector in the perception of all their boss' adaptive leadership behaviors.

9.2.2.2 Discussion

The fact that adaptive leadership behaviors are perceived very little, if not at all, across the public sector is quite controversial since adaptive leadership behaviors should be put in place in presence of changes (Heifetz, 2019). This result suggests that very few changes happen across the Italian public sector and that there is a tendency to maintain the status quo. This interpretation is in line with what already exists in literature. In 2007 Bull and Pasquino stated that "*the perceived need for institutional and constitutional reform has figured prominently in the Italian political debate over the past three decades, yet the outcome has been characterized by continual failure. The most recent failure – the rejection of the centre-right's proposed root and branch overhaul of the Constitution in a referendum held in June 2006 – increases the dilemma confronting the Italian political system in its quest to secure constitutional reform by precluding certain types and methods of reform while failing to quash aspirations for its achievement amongst politicians and the public*" (Bull and Pasquino, 2007, p.670). Although years have passed since then, few reforms have been made. Whether political parties have taken the lead one after the other or they have governed the country together, few significant changes have been implemented in the public sector. Few political figures have stood out over the last decades for being able to help the state progress (Caputo et al., 2019).

In the National Recovery and Resilience Plan (2021) which the European Union negotiated in response to the pandemic crisis lending billions to the countries in difficulty, it is written that Italy must envisage investments and "*a consistent reform package around three strategic axes: digitization and innovation, ecological transition, and social inclusion […] to address the structural weakness of Italian economy*". Since 2006, it seems the Italian scenario has been stagnant. Findings emerging from the administration and analysis of the IALBQ on a sample of 459 respondents across the Italian corporate sector describe the same picture as the one documented in literature.

9.2.2.3 Italian orientation to directivity over adaptive leadership

However, the paralysis of the public sector, which is given by procedures and bureaucratization slowing down all processes of change and innovation (Hattke *et al*., 2020), is not the only reason why the private corporate sector has suffered. Another very interesting theme is that of the specifically Italian characteristic to be delegating decisional power to authorities and confide in them for the solution of any problems rather than actively taking responsibility for the change. When the covid-19 pandemic emergency period started, authorities took decisions such as whether the local communities should be under lockdown or not, which personal protection equipment should be used, which counter-measures should be taken. Across the whole business sector, where possible, smart work was implemented as a solution to bankrupcy. Decision power

was delegated to authorities. Solutions were provided by the authorities. The rest of the people were just executors (Garavaglia, *et al*, 2021).

This interpretation is supported by the following results:

- ANOVA

When performing ANOVA (see section 7.2), the most significant differences were given by the size of the company in which respondents work. Overall, respondents working in small companies with '11-50' employees, which is the typical size of Italian companies, scored much lower in the perception of their boss' adaptive leadership behaviors than all the other respondents working in either smaller companies, medium-sized enterprises or bigger multinationals where the impact of Italian culture might be lower. This result is in line with another result which is transversal to the size of the company and has to do with the boss' role across the hierarchy. Respondents whose boss is an executive scored lower than respondents whose boss is a manager or a project leader in the perception of their boss' attitude to adaptive behaviors.

- Cronbach's Alpha of Northouse's AL questionnaire

When calculating Cronbach's Alpha coefficient of Northouse's AL questionnaire, it turned out that 'identifying the adaptive challenge' and 'giving the work back to the people' had very low and unsatisfactory values (see section 4.2.1). This was explained by the fact that some items composing 'identifying the adaptive challenge' and 'giving the work back to the people' were reversed score questions related to authoritative and directive leadership which Italians answered as if they were not as such, considering directivity a plus rather than a minus. In Northouse's AL questionnaire a high score in directive questions is treated as a low score in adaptivity, since the adaptive leadership framework assumes that directivity hinders adaptability. However, what for North-Europeans, Anglo-Saxons, and Americans is negative for the Italians is positive. In other words, as already explained in section 1.5, Italians consider directivity positive, whereas North-Europeans, Anglo-Saxons, and Americans consider directivity negative (Tavanti, 2012). This specific characteristic of Italian culture might have a greater impact on typically Italian small companies than on bigger companies or multinationals.

9.2.2.4 Discussion

When it comes to the comparison between executives and project leaders, this might confirm some existing literature, that a project leader is expected to be more flexible and interact closely with his/her team members because of that specific type of job itself (Ruggeri, 2015). Therefore, project leaders may have adaptive leadership behaviors more frequently than executives in the eyes of their staff.

As regards the comparison between executives and managers, the fact that executives are perceived to have adaptive leadership behaviors much less frequently than managers might reflect the fact that managers

might have higher expectations from their executives than office-workers from their managers. In Italy hierarchical corporate structures might make people feel like numbers rather than active players in the development of the business and in the management of the principal-agent relationships, hierarchical negotiations, and individual decision processes (Schneeweib, 1995; Romanowski, 2017). This research seems to confirm that Italian leadership may lack skills like taking a step back, getting the 'big picture', challenging the *status quo*, involving subordinates in the decision-making process and listening to them (Tavanti, 2012), as documented in chapter 1.

Finally, the fact that adaptive leadership behaviors are perceived very little, if not at all, across small enterprises (11-50 employees) in comparison to medium-sized enterprises (51-250 employees) or bigger companies confirms the interpretation just mentioned and leads to think again about an environment which does not promote adaptive leadership behaviors, but it tends to maintain the *status quo*.

Trianni *et al* (2013) identify and evaluate barriers to industrial energy efficiency through the investigation of 48 manufacturing small and medium-sized enterprises in Northern Italy. Their research provides interesting suggestions both for enterprises and energy policymakers. Economic and information barriers are perceived as the major obstacles to the adoption of energy-efficient technologies together with behavioral barriers such as the lack of interest in energy efficiency and the existence of other priorities. This shows that decision-makers tend to downgrade energy efficiency to a marginal issue. This general rigidity and aversion to change or tendency to adhere to procedures and processes which are outdated and old-fashioned, in turn, might hinder adaptability and may be the reason why the perception of adaptive leadership practices across small companies is so little (Tavanti, 2012). It is clear in this case that, when organizations or systems do not keep up with time, when they keep and maintain the DNA which should be dismissed, and they do not implement the DNA which should be added, they are destined to fail the process of adaptation (Heifetz *et al*., 2019).

In addition, in presence of adaptive challenges the locus of responsibility for solving problems is in the people, in the collective intelligence of all employees at all levels, who should use each other as resources and find new ways of operating. The truth is that even people across companies do not find adaptive work pleasant. They do prefer receiving answers to being asked questions; they prefer sticking to their roles rather than facing disorientation; they prefer looking for protection rather than doing adaptive work; they prefer suppressing conflicts to facing the issue; they prefer maintaining norms to questioning them. The habit of looking to executives to take problems off their shoulders is widespread across Italian employees and workers. Instead, they should learn new behaviors, create new relationships, take into consideration new

values and new approaches to work, and live new roles (Ruggeri, 2015). Hence there is a general tendency to maintain the *status quo* and avoid work that a change would require.

9.2.3 Are Heifetz (1994)'s six adaptive leadership behaviors an effective model for the Italian corporate context?

Data suggests that 'identifying the adaptive challenge is the most problematic dimension in the framework of adaptive leadership (Heifetz, 1994). The results backing up this interpretation are the following:

- Exploratory factor analysis

The IALBQ proved to have a high degree of validity when used to measure the perception of five dimensions in the adaptive leadership framework by Heifetz (1994), as detailed in chapter 6. These dimensions are the following: 'getting on the balcony'; 'regulating distress'; 'maintaining disciplined attention'; 'giving the work back to the people'; 'protecting leadership voices from below'. When performing exploratory factor analysis, 'identifying the adaptive challenge' seemed to be lost as a dimension and showed very little consistency.

- Card sorting

As it also emerged from the card sorting activity and it was explained in section 5.4.6, 'identifying the adaptive challenge' was one of the most difficult dimensions for which to design items and validate them because in order to validate 3 items, 8 statements were designed and tested, hence the ratio between items validated and items used was just 37%. One possible reason for this might be that 'identifying the adaptive challenge', together with 'getting on the balcony' refers to bosses' mental processes which staff may not have access to, whereas the other four dimensions refer to practical behaviours which may turn out to be more accessible and observable.

- Expert evaluation

As regards 'identifying the adaptive challenge', as detailed in chapter 8, three experts thought that the dimension of 'identifying the adaptive challenge' is extremely complex and, because of this reason, the IALBQ should be extended with some more items in order to catch the real sense of it.

9.2.3.1 Discussion

Heifetz et al. (2019) stated that it is very difficult to distinguish between a technical problem and an adaptive challenge. Technical problems are well-defined and have an easy solution which is provided by the authority. Adaptive challenges are not well-defined at all; they do not have an easy solution; the solution is provided by everyone involved in a group, community, system, by doing the 'adaptive work'. Hence, if an adaptive challenge is difficult to define, it might also be difficult to recognise and it might also be hard for the people to give a name to it whatever it is. The table below shows this distinction:

Type of challenge	Type of definition	Type of solution	Who will provide the solution
Technical	Clear	Clear and easy	The authority
Adaptive	Not clear	Not clear. Requires diagnosis and learning	Whoever is directly involved in the challenge

Table 90 Difference between technical problems and adaptive challenges

If an adaptive challenge does not have one easy solution, it implies the fact that whoever faces such an adaptive challenge will need to be able to think and reflect on what is going on and question the *status quo* and the assumptions beneath it. If an adaptive challenge is resolved through the participation of all those who are involved, this implies that everyone must do 'adaptive work' which very often is avoided. It is also true that within a work group, a team, a department, a company, a system, not everyone might have the same perception of an adaptive challenge. The same adaptive challenge happening within the same system might be perceived in a very personal way by all those involved.

Let us take into consideration adaptive challenges across the corporate sector such as the financial crisis of 2007-2009, the digitalisation, virtual teams, delocalisation and consequent depauperisation of the industrialised areas, corporate reorganisation, international team harmonisation, lastly the covid-19 pandemic and the impact it has had on the corporate world (Doyle, 2017). These and other adaptive challenges are problems that people have to understand first, and only then they can do the so called 'adaptive work', since the solution is neither clear nor top-down. For example, in the post-covid era, adaptive challenges with no clear-cut answers are whether to continue and implement smart work, whether to change the criteria used to measure employees' productivity, whether new working styles should continue to be implemented, once discovered, when to replace face-to-face meetings with virtual meetings, *etc.*. (Raei *et al*, 2022).

In line with literature, the results emerging from exploratory factor analysis, the card sorting and the expert evaluation back up the fact that 'identifying the adaptive challenge' is a very complex dimension both to understand and to recognise. Some experts stated that adaptive challenges may not take place on a daily basis. Hence, for this reason, they might be more difficult to understand and recognise, because people are not used to them and do not experience them so often or they just do not have the tools to understand and recognise them. If a comparison is made with the two very big adaptive challenges which reached every little spot across the world, the globalisation and the adoption of new technologies, in the 90s, at the time when adaptive leadership was coinceived, every person would feel involved in facing those adaptive challenges and radically change their own way to work. Nowadays, different challenges take place and the pace of

change is so fast that it becomes even more difficult to recognise adaptive challenges and face them (Miller, 2017).

Hence, as the results of this research also suggest, such a problematic thing as it is, 'identifying the adaptive challenge' cannot be considered a means to find a solution. Northouse (2018) highlighted the lack of specificity and conceptual clarity of certain recommended behaviors. He stated that "*adaptive leadership can be criticized for being too wide-ranging and abstract. […] Without clear conceptualizations of recommended behaviors, it is difficult to know how to analyze them in research or implement them in practice. As a result, leaders may infer their own conceptualizations of these prescriptions, which may vary widely from what Heifetz and his colleagues intended*" (Northouse, 2018, p.414).

In addition, in literature, adaptive leadership has been explored in its usability to face adaptive challenges and very little research has been done to test its theoretical bases (Northouse, 2018). Miller (2017, p.17) highlighted the fact that "*the theory presents some criticisms and for this reason it necessitates more research*". Northouse (2018, p.392) stated that "*most of the writing about adaptive leadership has been prescriptive and based on anecdotal and observational data rather than data derived from rigorous scientific inquiry. Scholars and practitioners have recognized the merits of the approach, but the theoretical underpinnings of adaptive leadership remain in the formative stages*". Although the adaptive leadership model was designed in 1994 and over two decades have passed since then, it seems the model has still little empirical validity (Dugan, 2017) and little empirical testing has occurred to validate Heifetz's claims (Daly and Chrispeels, 2008).

Hence, in this academic scenario which seems to lack theory testing publications, the conclusion emerging from the results of this research is that the adaptive leadership framework defined by Heifetz in 1994 does not seem to be composed by 6 dimensions. On the contrary, it seems to be composed by 5 adaptive leadership dimensions or behaviors whose perception can be measured by the IALBQ. These 5 adaptive leadership behaviors might help 'identify the adaptive challenge' and face it. The 5 adaptive leadership behaviors are the following:

- 'Getting on the balcony'
- 'Regulating distress'
- 'Maintaining disciplined attention'
- 'Giving the work back to the people'
- 'Protecting leadership voices from below'

‘Getting on the balcony’ is the most important of the 5 behaviors as it helps people observe, evaluate, diagnose, interpret the situation, whereas the other four dimensions have to do with intervention (Heifetz et al, 2019).

9.3 LIMITATIONS OF THE RESEARCH

As regards the methodology, this research has a predominantly quantitative multi-method approach. As a result, it did not help go deeply into respondents’ experience. This limitation could be overcome if the IALBQ were extended with open questions, as two experts suggested (see chapter 8). Experts also suggested the use of the IALBQ within a mixed-method approach in order to combine the IALBQ with qualitative methods such as interviews, focus groups, observation to get rich insights into participants’ experience of adaptive leadership.

As regards the IALBQ, a limitation is that it has been used just once and it has been designed in such a way to be general enough for applying to the Italian corporate sector. This limitation could be overcome if the IALBQ were used repeatedly and tailored to any specific business sector by changing and adapting its phraseology to the context for the purpose of greater effectiveness. This should also be done considering that Italian culture and corporate culture may influence the interpretation of a questionnaire items and phraseology. This highlights the importance of the context impacting on the outcomes of a survey and on the limitation of a measurement tool used in social science (Fox, N.J., 2008).

In terms of cause-effect relationship, it is not possible to say whether independent variables such as sector and company size impacted on the perception of adaptive leadership behaviors or vice-versa. However, it is possible to say that through statistical analyses it is evident that there is a strong correlation between these two independent variables and the way adaptive leadership behaviors are perceived by respondents.

When administering both questionnaires, the sector where respondents would work was not asked. Therefore, it was not possible to get any type of information whether a sector might promote adaptive leadership behaviors more than other sectors. This type of information might be easily introduced in the IALBQ to investigate the correlation between adaptive leadership practices and corporate sector and make comparisons at a societal level.

When designing the evaluation form to submit to the experts, they were not asked whether they would remove some items or some words. They were just asked whether the IALBQ could be extended with some items. This further question might be easily introduced, and the evaluation form might be submitted to practitioners as well as academics in order to collect feedback from two different perspectives.

The limitations related to the design of the IALBQ that the experts identified could be easily overcome by implementing all the recommended changes to the phraseology that they proposed. All these changes are highlighted in the updated version of the IALBQ here below. The added parts are written in bold and the parts to be removed are put in square brakets. Also the recommended phrase 'compared to other bosses you have had' should be added at the beginning of the questionnaire in order to reduce the risk that the leader member exchange might affect the respondents' answers. Hence, the IALBQ would turn out to be the following:

Compared to other bosses you have had, indicate how frequently your **current** boss has these behaviors on a scale from 1 (never) to 5 (always):

1	When difficulties arise in the organization, my **current** boss [takes a step back and] evaluates the dynamics among the people involved
2	My **current** boss understands the needs of his/her staff
3	In difficult situations, my **current** boss pushes people to focus on the real **challenge**
4	My **current** boss acts [in a centralizing way] **in a way that keeps decision making power to himself/herself**
5	My **current** boss allows the ideas of whoever plays the devil's advocate role to be heard by everyone
6	My **current** boss reacts impulsively without reflecting
7	My **current** boss takes the time to analyze challenges at work
8	My **current** boss defends his/her staff in front of his/her superiors
9	My **current** boss focuses on the real **challenges**
10	My **current** boss gives his/her staff opportunities to take the initiative
11	My **current** boss is open to people who express unusual ideas, even if that means delaying decision-making
12	In difficult situations my **current** boss gets carried away by events without being able to distance himself/herself from them
13	My **current** boss helps staff to learn from their mistakes
14	My **current** boss fights to resolve the real problem without fear of being judged
15	My **current** boss proposes 'quick fix' solutions without examining the situation sufficiently
16	My **current** boss gives responsibilities to his/her staff
17	My **current** boss tries to understand the ideas of those who are not aligned with the rest of the team
18	My **current** boss takes a 360-degree view when addressing organizational issues
19	My **current** boss blames his/her staff when something goes wrong
20	My **current** boss decides for his/her staff without considering their views
21	My **current** boss analyses pros and cons of what his/her staff say
22	In order to maintain the status quo in the organization, my **current** boss ignores team members who have different ideas
23	My **current** boss supports his/her staff, even when he/she is having a hard time themselves
	Additional items proposed by some experts, still to be tested and validated:
24	**My current boss knows what to focus on far better than other people** (identifying the adaptive challenge)
25	**My current boss knows how to change his/her staff's mind far better than other people** (identifying the adaptive challenge)
26	**My current boss knows how to motivate his/her staff to stay focused on the most important problems far better than other people** (maintaining disciplined attention)
27	**My current boss knows how to keep the team from being distracted by things that are not very important** (maintaining disciplined attention)
28	**My current boss knows how to push his/her staff to better performance without getting them upset** (regulating distress)

Table 91 Revised version of the IALBQ after implementing experts' changes

Items 24, 25, 26, 27 and 28 are some of the items that one expert suggested for extending the IALBQ (see chapter 8). The items related to 'identifying the adaptive challenge' and 'maintaining disciplined attention' could be accepted considering that both these dimensions are composed each by three items only. As regards 'regulating distress' the first item proposed by one expert (My current boss knows how to push me to better performance without getting me upset) could be added to the IALBQ considering that it deals with 'keeping the heat up', whereas the second item proposed by the same expert (My boss knows how to create an atmosphere so that when I disagree with him or her, I can freely express myself without expecting retaliation) is similar to one item used during the card sorting activity which was dismissed since it was not validated. Hence, this second item would not be included in the IALBQ.

Both dimensions of 'giving the work back to the people' and 'protecting leadership voices from below' were considered complete and well-represented by most of the experts and for this reason, the items proposed by one expert and presented in section 8.3.5 would not be included. As regards 'getting on the balcony' both items proposed by one expert would be dismissed because the first item (Compared to other bosses I have had my current boss understands reality far better than other people) would be difficult to observe. The second item (My boss sometimes withdraws and no longer receives input from others) does not seem to measure what Heifetz (1994) meant by 'getting on the balcony'.

9.4 CONTRIBUTION TO THE FIELD

This doctoral research has contributed to the field significantly for several reasons.

First of all, the adaptive leadership model was tested through the IALBQ. Results emerging from this research based in Italy across the corporate sector on a purposive sample of 459 respondents lead to the conclusion that the adaptive leadership framework as it was conceived in 6 dimensions by Heifetz in 1994 does not seem to be composed by 6 dimensions and that it should be redesigned. This conclusion is based on the evidence that the IALBQ does not measure the perception of 6 adaptive leadership behaviors ('getting on the balcony', 'identifying the adaptive challenge', 'regulating distress', 'maintaining disciplined attention', 'giving the work back to the people', 'protecting leadership voices from below'). It measures the perception of 5 adaptive leadership behaviors only. 'Identifying the adaptive challenge' is the most problematic and the one which is the least consistent.

As explained in sections 2.5 and 9.2.3, adaptive challenges are conceived by Heifetz et al. (2019) as complex problems that: require diagnosis and learning; cannot be defined clearly; whose solution cannot be defined clearly or be provided by the authority. Considering this conception of adaptive challenges being so difficult to understand and identify, 'identifying the adaptive challenge' cannot be a pillar of the adaptive leadership

model. On the contrary, 'identifying the adaptive challenge' could be the target that can be reached through the new five-dimensional adaptive leadership model. Therefore, also the definition of adaptive leadership should be changed into "*the activity of mobilizing people to [identify and] tackle the toughest problems and do the adaptive work necessary to achieve progress*" (Heifetz *et al*., 2004, p.24).

The graphical representation of the new five-dimensional model of adaptive leadership could be the following:

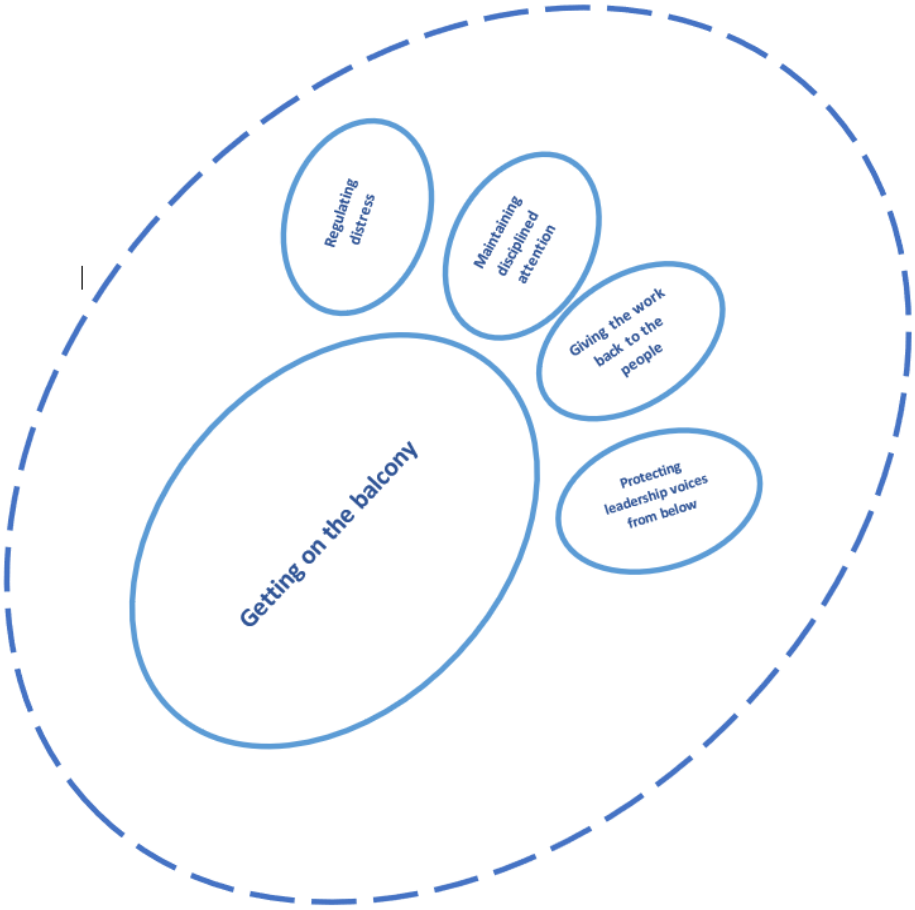

Figure 33 Representation of the five-dimensional model of Adaptive Leadership

The five-dimensional adaptive leadership model looks like a paw within the broken border of an adaptive challenge. The broken line means that an adaptive challenge is not clear-cut and well defined and that there is an unlimited number of names for it and solutions for it. Among the 5 adaptive leadership behaviors 'getting on the balcony' is the most important (Heifetz *et al*., 2019) and for this reason its circle is bigger than the others. It has to do with observation, reflection, diagnosis, interpretation which are the pillars of the adaptive work and inform intervention.

For this reason, this doctoral research is a significant contribution in quantitative research about adaptive leadership and adaptive leadership theory testing. As already explained in sections 2.6 and 9.1, the literature review shows that, apart from the publications by Heifetz and his colleagues who built the theory, out of 83 publications about adaptive leadership, only 9 studies can be categorized as quantitative (Clesen, 2017; Raei, 2018; Jayan *et al*., 2016; Potchana *et al*., 2020; Griffin and Hesketh, 2004; Han and Williams, 2008; Charbonnier-Voirin and Roussel, 2012; Pulakos *et al*., 2000; Marques-Quinteiro *et al*., 2015), which is just approximately 10%. Just 5% focus on adaptive leadership specifically, and not on adaptive performance. All the other publications can be categorized as qualitative. In addition, out of the 83 publications counted in the adaptive leadership literature review:

- Approximately 8% develop new adaptive leadership theories
- Approximately 2% summarize / review the current adaptive leadership theory
- About 15% extend / link the current adaptive leadership theory
- About 75% apply the current adaptive leadership framework to practical situations
- There is a lack of studies testing the adaptive leadership framework

This doctoral research has met the urge expressed by some scholars to give careful consideration to the model as it seems to lack evidence-based support for its core concepts, as reported here:

- In 2014 Dinh *et al.* carried out an assessment of top-tier academic journals over the period between 2000 and 2012 and came out with the result that adaptive leadership received consideration in less than 1% of the publications on leadership theories. Not only adaptive leadership is a niche sector of leadership but also almost all research focuses on theory application (Miller, 2017).
- Northouse wrote in the eighth edition of his book *Leadership: Theory and Practice* (2018) that "*adaptive leadership is based on ideas and assumptions, but not on established research. Without evidence-based support for the tenets of the model, the ideas and principles set forth on adaptive leadership should be viewed cautiously*" (Northouse, 2018, p.414).
- In 2022 Raei also stated that "*adaptive leadership scholarship has suffered from a lack of conceptual clarity and casual application of its core concepts*." (Raei, 2022, p.x).
- In general, Alvesson *et al*. (2019) warned the scholarship against the current fashion of excessive positivity in leadership studies which may well apply to adaptive leadership too. He stated that "*the intellectual foundations [modern leadership theories] stand on are too shaky to warrant the popularity they have inspired within the scientific community. They are also unhelpful in organizational practice beyond the appeal of pop-management books and inspirational talks that*

have little to do with serious academic knowledge work. More than anything, their appeal is to mass audiences eager to learn from, be inspired by, or mimic those who are perceived as successful in business. Given the popularity of these concepts borrowed from positive psychology and their persistent nature, in our view, the entire field of leadership studies risks failure as a serious scholarly enterprise. The field is strongly in need of replacing upbeat ideologies fueling fantasies of the morally grounded, ethical, good, powerful leader being the central subject creating all sorts of positive outcomes through adopting the right leadership formulae, with theoretically more solid and less ideological research" (Alvesson et al., 2019, p.383).

In this academic scenario, this doctoral research is groundbreaking in testing Heifetz's adaptive leadership model designed in 1994. It has also done this through reality testing, "*the process of weighing one interpretation of a problem and its sources of evidence against others*" (Heifetz, 1994, p.23).

Secondly, this doctoral research is an important contribution to the field because it has developed the IALBQ, a quantitative tool that has proved to be highly reliable and sufficiently valid to measure the perception of five adaptive leadership behaviors across the Italian corporate context. This is a real novelty in a field where there is a lack of validated questionnaires measuring adaptive leadership behaviors. Raei (2018) stated that "*a review of extant research revealed the absence of a reliable scale that measures adaptive leadership*" and his Adaptive Leadership with Authority Scale has a high degree of reliability, but it is not clear yet whether it has content validity. As already mentioned, Northouse's (2016) Adaptive Leadership questionnaire, though it was a steppingstone, proved to have no content validity either in Clesen's research (2017) on a sample of 203 respondents within the American military sector or in this research on a sample of 400 respondents across the Italian corporate sector.

The IALBQ was validated using two methods to corroborate findings. Beside the reassuring and positive results of the psychometric assessment, the IALBQ received an additional validation from an international expert panel. In line with their evaluations, the IALBQ is a suitable tool to measure the perception of adaptive leaderhsip behaviors across the Italian corporate context; it is easy to use, clear, and immediate to understand and to manage; it suits the Italian corporate context, however, it could be also used in other countries. It can be considered a starting point for not only assessing the perception of adaptive leadership behaviors across the Italian corporate context, but also for developing staff's awareness of adaptive leadership behaviors and encouraging these best practices, with all experts agreeing with this. Finally, the majority of the experts stated they would be willing to use the IALBQ for research purposes as a quantitative tool. One of them would use it after the psychometric assessment proved its reliability and validity. Most experts expect to use the IALBQ within a mixed-method approach with the opportunity to combine the

results of the IALBQ with qualitative data collected through focus groups, in-depth interviews, observation, case studies so as to get a wider perspective on respondents' personal experience and sensations about adaptive leadership practices.

The IALBQ allows the measurement of the perception of adaptive leadership behaviors. It was built on a 5-point unipolar *Likert* scale where 'never' would be given 1 point, 'rarely' would be given 2 points, 'neutral' would be given 3 points, 'often' would be given 4 points, 'always' would be given 5 points. Despite the drawbacks and limitations of this type of Likert scales, the unipolar Likert scale worked well for the measurement of the perception of adaptive leadership behaviors (Chyung et al., 2018) because respondents were in the condition to assess how frequently they would perceive a certain adaptive leadership behavior. The 5-point Likert scale allowed respondents to allocate a number for expressing the exact frequency of adaptive behaviors to measure them. Besides, unipolar scales accomplish the criteria of equidistance (Lim *et al*. 2021).

Thirdly, in line with what Raei *et al*. state in their publication of 2022 *Adaptive Leadership in a Global Economy: Perspectives for Application and Scholarship* the added value of the IALBQ is the fact that it approaches adaptive leadership and explores its relevance and application outside the United States, where the adaptive leadership theory was born. In this specific case, the IALBQ has highlighted two important features of Italian culture and style that need urgent improving. As explained in section 7.2, the ANOVA highlighted the almost total lack of perceived adaptive leadership behaviors among the respondents working in the public sector against those working in the private sector, and among the respondents working in small enterprises (11-50 employees) where Italian culture has a strong impact against micro enterprises, medium-sized enterprises, or bigger companies. Considering these findings, the IALBQ should be disseminated and promoted across the Italian corporate sector, as it could be a tool not only to assess perceived adaptive leadership behaviors but also to increase staff's awareness of adaptive leadership behaviors and encourage these practices. In such a culturally different context from the American one, the research findings highlighted the Italians' orientation to authority over adaptive leadership and a critical stagnation within the public sector where it seems there is a lack of changes. Hence, disseminating the IALBQ might help Italians across the corporate sector start to reflect on adaptive leadership behaviors. This could constitute a milestone for starting to change their culture.

Finally, while disseminating the IALBQ, rethinking the adaptive leadership model based on 5 dimensions could also direct respondents' attention to the importance of holding these adaptive leadership behaviors on a daily basis, not necessarily in presence of complex and unexpected challenges to identify and face. That would mean to be proactive about changes occurring. In other words, the IALBQ could be used within any

company, department, team for assessing how strong the perception of adaptive leadership behaviors is across the corporate hierarchy and encourage these adaptive leadership practices on a daily basis. An environment which promotes such an attitude will also help the company, department, team identify any possible adaptive challenge and flourish (Rasmussen, 2022). It would also mean to expect plans will change and be prepared to face any changing circumstances to face the issues even before they become complex challenges.

Differently from the other 62 publications mentioned in section 9.1, which pinpoint the adaptive leadership framework as a tool to face complex problems and challenges, this research wants to rethink the adaptive leadership model not just from an instrumental perspective. Based on Heifetz's model of adaptive leadership (1994), the IALBQ identifies specific actions, whether they belong to the 'getting on the balcony' dimension (e.g., observing, reflecting, diagnosing, interpreting) or the intervention sphere, which can be taken and noticed daily, irrespective of any urgent and complex problems to be solved. If used across companies, departments, sectors, teams, even within a 360-degree feedback system as suggested by an expert, the IALBQ can help managers and staff learn to focus on holding adaptive leadership behaviors *hic et nunc* promoting the belief that 'prevention is better than cure', within a proactive approach, and emphasizing that it is through daily best practices that it is possible to make the difference.

9.5 RECOMMENDATIONS FOR FURTHER RESEARCH

This research has contributed to create a tool measuring the perception of adaptive leadership behaviors across the Italian corporate sector which is reliable and sufficiently valid. Further research could be conducted, firstly, to validate the new items suggested by one expert (see section 8.3.5) which could be included in the IALBQ and other additional items so as to increase reliability scores. This validation process could take place through card sorting. The two new items related to 'identifying the adaptive challenge' should be validated as part of 'getting on the balcony' since the process of observation, reflection, diagnosis, and interpretation could happen 'on the balcony'. The three already existing items related to 'identifying the adaptive challenge' which have been absorbed by the other latent factors should be included in those sets of items. This further research could validate an updated version of the IALBQ with more than 23 items.

Other possible ways to test and enhance the IALBQ could be to extend its use to specific sectors with a focus on changing the terminology and making it more specific for the sector, department, industry where the IALBQ would be used. A limitation of this study is that the IALBQ has been used just once across the Italian corporate context. The IALBQ is perfectible, and it can be corroborated by being used repeatedly.

Since some experts stated that the IALBQ is suitable to be also used in other countries rather than only in Italy, it might be interesting to implement the IALBQ beyond the Italian context with the view to test whether in other countries it may produce similar results to the ones emerged in this research or different results. That could allow a reflection on the type of relationship between culture and adaptive leadership, and it could also allow a comparison between what adaptive leadership behaviors can be perceived in Italy and what adaptive leadership behaviors can be perceived in other countries.

Two experts suggested the use of the IALBQ as a self-assessment tool. It could be interesting to investigate how the IALBQ could be used within teams or groups in order to check whether a manager's perception of his/her own adaptive leadership behaviors coincides with that of his/her collaborators. The IALBQ used as a questionnaire and also as a self-assessment tool could open up improvement opportunities.

Finally, it would be worth researching whether in a corporate environment, where the IALBQ will have been implemented, adaptive leadership behaviors tend to take place more frequently than in other corporate environments, where nothing is known about adaptive leadership, and see whether in the former environments a proactive attitude to change will have been learnt.

Further research could be developed investigating the relationship between authority and adaptive leadership and how the two could be harmonized across the Italian context. Authority guarantees direction, order, protection, and it satisfies followers' expectations. On the other side, adaptive leadership promotes changes, challenges the *status quo*, does not meet others' expectations, and creates disorientation (Heifetz et al., 2019). Through a longitudinal mixed methods approach the relationship between adaptive leadership and authority could be investigated. The IALBQ could be administered at the beginning of a period of adaptive leadership training and at the end of it to check whether and how the measurement of the perception of adaptive leadership behaviors has changed over time. Qualitative methods such as in-depth interviews or observation could be used to get rich insights into people's life. This type of mixed-method research could produce results which might help the Italian population face adaptive challenges flourishing rather than getting stuck in front of any challenge and never make any change.

Additional research could be conducted exploring the impact that independent demographic variables (e.g., age, gender, level of education, role at work, sector) have on the variability of the respondents' answers and on the perception of adaptive leadership behaviors. The use of the IALBQ would allow this study from the scientific and statistical point of view and the results could be enriched through the use of qualitative research methods.

9.6 SUMMARY OF THE CHAPTER

This chapter has discussed the most important findings of the research and the methods used to produce such findings and has shown how the research question has been answered. It has emphasized the novelty and the contribution to knowledge that this research has made. In an academic scenario where very little research has been done for testing the theoretical foundations of the adaptive leadership model and few quantitative tools seem to have been validated in order to measure adaptive leadership behaviors, the IALBQ is a reliable and sufficiently valid tool for practitioners and academics to measure the perception of 5 adaptive leadership behaviors across the Italian corporate context as well as to encourage adaptive leadership practices on a daily basis, proactively, and not only in presence of adaptive challenges. The validation of the IALBQ has contributed to theory testing and theory building. Results have led to the conclusion that the six-dimensional model of adaptive leadership (Heifetz, 1994) should be redesigned as a five-dimensional model with 'getting on the balcony', 'regulating distress', 'maintaining disciplined attention', 'giving the work back to the people' and 'protecting leadership voices from below' being the 5 adaptive leadership behaviors which might allow the identification of 'the adaptive challenge'. The use of the IALBQ has also produced results highlighting some characteristics of the Italian population, culture and style which are already documented in literature, such as the paralysis of the public sector against the private sector and the fact that, across the typically Italian small enterprises, Italians seem to be inclined to authoritative and directive leadership over adaptive leadership.

This chapter has also showed the limitations of this research and it has made some practical recommendations for further research in the field. The next chapter will highlight the final remarks and conclusions.

10 CONCLUSIONS

Every historical period has generated its own leadership theory to lead economic and societal development. Nowadays, the world is characterized by a rapid pace of changes taking place, increasing globalization and international commerce, quick technological developments, changing cultural values, delocalization of production plants and activities, a more diverse workforce, new forms of social networking, new forms of interculturally composed virtual teamwork, climate changes. In such a general context more than even, adaptive leadership may well be the most useful and helpful leadership theory to refer to.

This theory conceives leadership as a practice and, as such, it is accessible to everyone, irrespective of one's own position across the corporate hierarchy. It shifts the locus of responsibility for solving complex and unexpected problems and facing challenges from authority to all individuals. It highlights the importance of adaptive work where every individual needs to get out of his/her comfort zone and learn new ways and perspectives. It also offers a systemic vision of the multifaceted dynamics and situations where the practice of adaptive leadership aims to question the *status quo* and the values and assumptions which the system is based on. Adaptive leadership also focuses on diagnosing why there are so many restraining forces when a change is proposed and points to the fear of the loss as the main cause of rejecting and opposing any change. In a world which has praised 'glorious leaders' for decades, this theory of adaptive leadership emphasizes the real meaning of the word leadership as an act of courage in the name of a *purpose*, or 'sacred fire'.

This doctoral research was shaped during the literature review phase. While reading articles and publications about adaptive leadership, it emerged that 95% of them dealt with adaptive leadership from the qualitative perspective, whereas only approximately 5% of them treated adaptive leadership from the quantitative perspective. In addition, approximately 8% of the publications developed new theories starting from adaptive leadership, 2% summarized and reviewed the adaptive leadership theory, about 14% extended it and linked it to other theories, over 74% focused on the way the adaptive leadership model can be used to face complex challenges. It seemed there was a lack of publications testing the adaptive leadership model and a lack of validated tools measuring adaptive leadership behaviors.

These premises gave birth to the idea of undertaking this doctoral research for seeking to develop a greater understanding of followers' perception of adaptive leadership behaviors in the Italian corporate context and to investigate whether Heifetz's adaptive leadership model (1994) can apply to the Italian culture. Hence, the research question "Can followers' perception of adaptive leadership behaviors be measured across the Italian

corporate sector and what insights does this give for Heifetz's adaptive leadership model?" was answered using a multi-method research design.

It was originally decided to use a tool already existing in literature, Northouse's Adaptive Leadership (AL) questionnaire (2016) to measure the perception of adaptive leadership behaviors in the Italian corporate context. However, such a questionnaire designed in an American context did not prove to be sufficiently valid when applied to the Italian corporate context on a sample of 400 respondents. For this reason, it was decided to design the Italian Adaptive Leadership Behavior Questionnaire (IALBQ), a questionnaire which could best suit the Italian culture. A card sorting method was used to design, test, and validate the items which would be included in the IALBQ. This target was reached after three rounds of card sorting which involved 25 participants each. The item validation was based on a threshold of 85% participants' consensus.

Once the IALBQ was ready, it was administered to 459 respondents across the corporate sector. It was validated using two methods. On one side, through the psychometric assessment the IALBQ proved to be a highly reliable and sufficiently valid tool to measure the perception of five adaptive leadership behaviors in the Italian corporate context. On the other side, the IALBQ was validated by an international panel of 7 experts. The research was completed analyzing the data collected with the sample of 459 respondents and exploring the impact of Italian culture on the perception of adaptive leadership.

Firstly, this doctoral research has contributed to testing the theoretical foundations and claims of the adaptive leadership model (Heifetz, 1994). The IALBQ challenges this 6-dimensional adaptive leadership model. The findings reveal that 'identifying the adaptive challenge' is a problematic dimension not only to define, as already claimed in literature, but also to measure. The IALBQ does not measure the perception of this dimension, whereas it can measure the perception of the other five adaptive behaviors ('getting on the balcony', 'regulating distress', 'maintaining disciplined attention', 'giving the work back to the people', 'protecting leadership voices from below'). Therefore, the adaptive leadership model should be redesigned as a five-dimensional model to fit the Italian corporate context. This 5-dimensional model could be used to identify adaptive challenges and face them, hence, also the definition of adaptive leadership should be changed into "the activity of mobilizing people to [identify and] tackle the toughest problems and do the adaptive work necessary to achieve progress" (Heifetz *et al*., 2004, p.24). This way, this doctoral research has also been a response to a warning in leadership studies to beware excessive positivity and uncritical approaches.

Secondly, the IALBQ goes further and leads to rethink adaptive leadership as a proactive daily practice, differently from the majority of publications which look at adaptive leadership just as a tool to face complex

and unexpected challenges. Considering how it was designed, the IALBQ points to specific observable actions related to the diagnosing sphere and the intervention sphere, which can be taken on a daily basis, irrespective of any urgent and complex problems to be solved.

Thirdly, the IALBQ can contribute to measuring adaptive leadership behaviors in the Italian corporate context. As highlighted by the findings of this research, the impact of Italian culture on the perception of adaptive leadership behaviors is strong when it comes to public sector against private sector. Respondents working in the private sector scored much higher than those working in the public sector in the perception of their boss' adaptive leadership behaviors. It seems that the public sector is stagnant with few changes occurring. The impact of Italian culture on the perception of adaptive leadership behaviors is also strong when it comes to size of company. Respondents working in small companies with '11-50' employees, which is the typical size of Italian companies where Italian culture dominates, scored the lowest in the perception of their boss' adaptive leadership behaviors of all the other respondents working in smaller companies or bigger companies. In addition, Italians seem to be oriented to authoritative and directive leadership rather than adaptive leadership. If implemented across the Italian corporate context, the IALBQ can help not only measure adaptive leadership behaviors but also increase staff's awareness of these adaptive leadership behaviors and encourage these best practices. Especially in the Italian corporate context, the IALBQ could be disseminated as a practical tool to mobilize managers and staff and initiate a process of cultural change.

These findings are another significant contribution to knowledge of this research which has brought adaptive leadership out of its country of origin, the United States, and has explored it within an Italian context. In the same way, the IALBQ, as some experts claimed, should be disseminated out of the Italian borders too.

In addition, considering the risk of excessive positivity and uncritical approaches in leadership studies, this research is an important contribution also because the IALBQ, though perfectible, seems to be among the first validated questionnaires measuring the perception of adaptive leadership behaviors. It was validated using two methods: a psychometric assessment and an international panel of experts. It can be used not only by practitioners but also by academics, scholars, and researchers to enhance the theoretical foundations of the adaptive leadership framework and build on the theory. The best practice of validating questionnaires or similar measurement tools is held in computer science and in general in scientific disciplines rather than in leadership studies. This doctoral research has also pinpointed the importance of adopting a transdisciplinary post-positivistic approach to address this methodological issue in leadership studies.

Finally, the dissemination of the IALBQ will benefit both the world of practitioners and the world of academics. As regards the former, the use of the IALBQ within a company, a department, a team, within Italy or across its boundaries, will contribute to assess perceived adaptive leadership behaviors, increase staff's awareness of these adaptive leadership behaviors, and encourage these best practices from a proactive perspective, whether there is any adaptive challenge to face or regardless of any adaptive challenges to identify or face. Such a practical and easy-to-use validated quantitative tool could contribute to disseminate the new conception of the redesigned five-dimensional model of adaptive leadership behaviors being 'getting on the balcony', 'regulating distress', 'maintaining disciplined attention', 'giving the work back to the people', 'protecting leadership voices from below'. Each of these would be measurable. For this reason, the IALBQ would benefit the world of academics and scholars too. Further research could be carried out in several directions: 1) it could refine the IALBQ validating the new items proposed by the experts so as to increase number of items and reliability scores; 2) it could take place in other countries and investigate the relationship between culture and adaptive leadership through the use of the IALBQ and explore the impact of culture on the perception of adaptive leadership behaviors; 3) it could investigate the use of the IALBQ within a 360-degree feedback system and explore whether and how it could contribute to improve staff's attitude to change; 4) research could be conducted exploring the impact that the IALBQ independent demographic variables (e.g., age, gender, level of education, role at work, sector) have on the variability of the respondents' answers and on the perception of adaptive leadership behaviors.

11 REFERENCES

Adams, J., Bailey, D., Anderson, R., & Galanos, A. (2013a) 'Adaptive leadership: A novel approach for family decision making' *Journal of Palliative Medicine*, 16, pp.326-329

Adams, J., Bailey, D., Anderson, R., & Thygeson, M. (2013b) 'Finding your way through EOL challenges in the ICU using adaptive leadership behaviours: A qualitative descriptive case study' *Intensive & Critical Care Nursing*, 29, pp.329-336

Akhtar, P., Tse, Y.K., Khan, Z., Rao-Nicholson, R. (2016) 'Data-driven and adaptive leadership contributing to sustainability: global agri-food supply chains connected with emerging markets', *International Journal of Production Economics*, 181, pp. 392–401. Available at: https://doi.org/10.1016/j.ijpe.2015.11.013.

Ali, A., Wang, H. and Johnson, R. E. (2020) 'Empirical analysis of shared leadership promotion and team creativity: An adaptive leadership perspective', Journal of Organizational Behavior, 41(5), pp. 405–423. doi: 10.1002/job.2437.

Alves, F. (2003). 'Triangulating translation'. *Triangulating Translation*, 1-173.

Alvesson, M., Einola, K. (2019) 'Warning for excessive positivity: 'Authentic leadership and other traps in leadership studies' *The Leadership Quarterly* 30, pp.383-395

Anderson, R. A., Bailey, D. E., Wu, B., Corazzini, K., McConnell, E. S., Thygeson, N. M., & Docherty, S. L. (2015a) 'Adaptive leadership framework for chronic illness: Framing a research agenda for transforming care delivery' *Advances in Nursing Science*, 38, pp.83- 95. doi:10.1097/ANS.0000000000000063

Anderson, R. A., Lepore, M., Porter, K., & Corazzini, K. (2015b) 'Applying the adaptive leadership framework to heighten person-directed care in nursing homes' *The Gerontologist Society of America*, 55

Antin, E., Lacy, S., Turner, Y.G. (2014) 'Group Think', *PAJ: A Journal of Performance and Art*, 36(2), pp. 108–115. Available at: https://search.ebscohost.com/login.aspx?direct=true&db=edsjsr&AN=edsjsr.26386694&site=eds-live&scope=site (Accessed: 6 January 2022).

Astin, H. and Leland, C, (1991). *Women of influence, women of vision: a cross generational study of leaders and social change*, San Francisco, CA Jossey-Bass

Atwater, L., & Carmeli, A. (2009) 'Leader-member exchange, feelings of energy, and involvement in creative work' *Leadership Quarterly*, 20, pp. 264-275

Audia, P. G., & Brion, S. (2007). Reluctant to change: Self-enhancing responses to diverging performance measures. *Organizational Behavior and Human Decision Processes*, 102, pp.255-269

Avolio, B.J. (2007) 'Promoting more integrative strategies for leadership theory-building.', *American Psychologist*, 62(1), pp. 25–33. Available at: https://doi.org/10.1037/0003-066X.62.1.25.

Avolio, B.J. and Gardner, W.L. (2005) 'Authentic leadership development: Getting to the root of positive forms of leadership', *The Leadership Quarterly*, 16(3), pp. 315–338. Available at: https://doi.org/10.1016/j.leaqua.2005.03.001.

Azanza, G., Gorgievski, M.J. Moriano, J.A., Molero, F. (2018) 'Influencing salespeople's work outcomes through authentic leadership' *Leadership & Organization Development Journal* Vol. 39 No.7, pp. 926-944

Baauw, E., Bekker, M.M. and Barendregt, W. (2005) 'A Structured Expert Evaluation Method for the Evaluation of Children's Computer Games', in M.F. Costabile and F. Paternò (eds) *Human-Computer Interaction - INTERACT 2005*. Berlin, Heidelberg: Springer Berlin Heidelberg (Lecture Notes in Computer Science), pp. 457–469. Available at: https://doi.org/10.1007/11555261_38

Bailey, D. E., Docherty, S., Adams, J. A., Carthron, D. L., Corazzini, K., Day, J. R., Anderson, R. A (2012) 'Studying the clinical encounter with the adaptive leadership framework' *Journal of Healthcare Leadership*, 4, pp. 83-91

Bohler, J.M., Randolph, S.D., Ritcwood, T.D., and Relf, M.V. (2022) 'Adaptive challenges, adaptive work, and adaptive leadership among women living with HIV in the Southern United States: findings from a qualitative study', *Journal of the Association of Nurses in AIDS Care***,** 33 (3), pp. 259-269. **DOI: https://**doi.org/10.1097/JNC.0000000000000288

Baker, Z. (2019) 'Reflexivity, structure and agency: using reflexivity to understand Further Education students' Higher Education decision-making and choices', *British Journal of Sociology of Education*, 40:1, 1-16 Available at: https://doi.org/10.1080/01425692.2018.1483820.

Ball J., Stephen J. (2003), 'The teacher's soul and the terrors of performativity', *Education policy*, Vol. 18, NO. 2, 215^228

Ball, S.J. (2020) 'Journal of education policy – 1985–2020', *Journal of Education Policy*, 35(1), pp. 1–2. Available at: https://doi.org/10.1080/02680939.2019.1681617

Bandura, C. T., Kavussanu, M., & Ong, C. W. (2019) 'Authentic Leadership and Task Cohesion: The Mediating Role of Trust and Team Sacrifice' *Group Dynamics: Theory, Research, and Practice* August 26 [online] Available at http://dx.doi.org/10.1037/gdn0000105 (accessed on 28th January 2020)

Bass, B. and Avolio, B, (1991) *Assessing leadership across the full range,* Paper, Society for industrial and organisational psychology

Bastardoz, N., Van Vugtb, M. (2019),'The nature of followership: Evolutionary analysis and review', *The Leadership Quarterly* 30 (2019) 81–95

Bastien, J.M.C., (2010) 'Usability testing: a review of some methodological and technical aspects of the method', *International journal of medical informatics*, 79, pp.18–23

Beddoes-Jones, F. (2011) 'Authentic Leadership: The 21st Century Imperative?', *Business Leadership Review,* April VIII:II

Belasco, J. A., Stayer, R. C. (1994) *Flight of the buffalo: Soaring to excellence, learning to let employees lead*. New York, NY: Warner Books

Bell, E., Bryman, A., Harley, B. (2018) *Business research methods*. Oxford Press

Benington, J. and Turbitt, I. (2007) 'Policing the Drumcree Demonstrations in Northern Ireland: Testing Leadership Theory In Practice', *Leadership*, 3(4), pp. 371–395. Available at: https://doi.org/10.1177/1742715007082963.

Bennis, W. (1994) *On Becoming a leader*, New York, Perseus Book

Bennis, W. (2007) 'The challenges of leadership in the modern world', *American Psychologist*, Jan Vol. 62, No. 1, 2–5

Bilal, L. (2022) 'Adaptive practices on global virtual teams' in Raei, M., Rasmussen, H.T (eds). *Adaptive Leadership in a Global Economy (Routledge Studies in Leadership Research).* Taylor and Francis Kindle Edition. p.171. doi: 10.4324/9781003099109-6

Bjugstad, D., Thach, E., Thompson, K., Morris, A. (2006) 'A fresh look at followership: A model for matching followership and leadership styles', *Journal of Behavioural and Applied Management* 7(3): 304–319.

Blake, R. and Mouton, j. (1964) *The managerial grid*, Houston, TX Gulf Publishing Company

Blake, R. R., & Mouton, J. S. (1985). *The managerial grid III*. Houston, TX: Gulf Publishing Company.

Braun, V. and Clarke, V. (2006) 'Using thematic analysis in psychology', *Qualitative Research in Psychology*, 3(2), pp. 77–101. Available at: https://doi.org/10.1191/1478088706qp063oa

Breshears, E. M., Volker, R. D. (2012) *Facilitative leadership in social work practice*. New York, NY: Springer.

Brothers, J. T., & Schnurman-Crook, A. (2015) 'Art in the dark: Using adaptive leadership pedagogy for undergraduate leadership development' *Journal of Leadership, Accountability and Ethics*, 12, 43-47. Retrieved from http://search.proquest.com/ openview/ccdba7deda6c289f193ea79bdfc0583c/1?pq-origsite=gscholar&cbl=39006

Bruni, L., and Zamagni, S. (2016) 'Civil Economy: Another Idea of the Market.' *Newcastle upon Tyne: Agenda Publishing* pp 147.

Bryman, A. (2019) *Social research methods*, Oxford University Press

Bryman, A. and Bell, E. (2019) *Business research methods*, Oxford University Press

Bull, M and Pasquino, G (2007) ' A long quest in vain: Institutional reforms in Italy.' *Politics* 30 (4), pp 670-691. **DOI:**https://doi.org/10.1080/01402380701500223

Burke, B. F. (2007) 'Adaptive leadership as a facilitator of public engagement on environmental sustainability issues', *Administrative Theory & Practice* 29, 412-431. Retrieved from https://www.jstor.org/stable/25610877?seq=1#page_scan_tab_ contents

Burns, J.M. (1978) *Leadership*. New York, Harper and Row

Busato, V., Prins, F.J., Elshout, J.J, Hamaker, C. (2000) 'Intellectual ability, learning style, personality, achievement motivation and academic success of psychology students in higher education', *Personality and Individual Differences*, Volume 29, Issue 6, pp.1057-1068

Byrne, J. (1999) 'The global corporation become the leaderless corporation' *Businessweek*, (online: Accessed July, 2022)

Calman, L. (2014) *What is Grounded Theory? School of Nursing, Midwifery and Social Work*, The University of Manchester [online] Available at https://www.coursehero.com/file/19589473/gt/ (accessed on 13th February 2020)

Cameron, S. (2011) *The MBA Handbook: Academic and Professional Skills for Mastering Management*, Pearson

Campa, P., Casarico, A., Profeta, P. (2009) *Gender Culture and Gender Gap in Employment*. Munich: CESifo.

Caputo, A., Pellegrini, M. M., Valenza, G., & Zarone, V. (2019). Conflicts and negotiations in the intergenerational succession of family firms: A literature review. *The anatomy of entrepreneurial decisions*, 145-169.

Carl D, Gupta V and Javidan M (2004) 'Power distance', in House R.J., Hanges P.J., Javidan M., Dorfman, P.W., Gupta, V. (eds) *Culture, Leadership, and Organizations: The GLOBE Study of 62 Societies*. Thousand Oaks, CA: Sage, 513–558

Carsten, M., Uhl-Bien, M., West, B., Patera, J., McGregor, R. (2010) 'Exploring social constructions of followership: A qualitative study', *Leadership Quarterly* 21: 543–562

Celeste, L.P. (2008), 'A Modified Delphi Approach to a New Card Sorting Methodology' *Journal of usability studies*, Vol4:1, pp.7-30

Chaleff I (2008) 'Creating new ways of following' in Riggio R, Chaleff I., Lipman-Blument, J. (eds) *The Art of Followership: How Great Followers Create Great Leaders and Organizations*. San Francisco: Jossey-Bass, 67–87

Chaleff, I. (1995) *The Courageous Follower: Standing up to and for our Leaders*. San Francisco: Berrett Koehler Publishers.

Chance, P. L. (2009) *Introduction to educational leadership and organizational behaviour: Theory into practice* (2nd ed.) Larchmont, NY: Eye on Education

Charbonnier-Voirin, A. and Roussel, P. (2012), 'Adaptive performance: a new scale to measure individual performance in organizations', *Canadian Journal of Administrative Sciences/ Revue Canadienne des Sciences de l'Administration*, Vol. 29 No. 3, pp. 280-293. doi: 10.1002/ CJAS.232.

Charney, R.,Gick, L. (2022) 'Leading from betwixt and between: exploring how liminal, rhizomic spaces shape, deepen, and sustain adaptive leadership mindsets within complex healthcare systems' in Raei, M., Rasmussen, H.T (eds). *Adaptive Leadership in a Global Economy (Routledge Studies in Leadership Research).* Taylor and Francis Kindle Edition. p.193. doi: 10.4324/9781003099109-7

Chyung, S. Y., Swanson, I., Roberts, K., & Hankinson, A. (2018). Evidence-based survey design: The use of continuous rating scales in surveys. *Performance Improvement*, *57*(5), 38-48.

Clark, A. M., MacIntyre, P. D., & Cruickshank, J. (2007) 'A critical realist approach to understanding and evaluating heart health programmes' *Health* (London), 11, 513-539

Clesen, A. (2017) *Adapt and overcome: exploration of an adaptive leadership measure*. San Diego State University

Cole, D., Sugioka, H., & Yamagata-Lynch, L. (2000) 'Supportive classroom environments for creativity in higher education' *Journal of Creative Behavior*, 33, pp. 277-293

Coleman, A. (2021) 'What are your "odds-of-success"? Reflecting on the role of adaptive leadership in Leicester City's (2015/16) English Football Premier League Title win', *Development and Learning in Organizations: An International Journal*, 35(1), pp. 1–3. doi: 10.1108/DLO-09-2019-0227.

Collins, J. (2001) 'Level 5 leadership', *Harvard business review*, vol 79, no.1, pp 66-76

Corazzini, K., Twersky, J., White, H. K., Buhr, G. T., McConnell, E., Weiner, M., & ColonEmeric, C. S. (2015) 'Implementing culture change in nursing homes: An adaptive leadership framework' *The Gerontologist*, 55, 616-627

Coulombe, C. (2015). Innovation, adaptive leadership and project management. *Review of integrative business and economics Research*, *4*(4), 225.

Covey, S. (1989) *Seven habits of highly effective people.* New York Simon and Schuster

Creswell, J. W. (2009) *Research design: Qualitative, quantitative, and mixed methods approaches*. Thousand Oaks, CA: Sage.

Creswell, J. W. and Poth, C. N. (2016) *Qualitative Inquiry and Research Design: Choosing Among Five Approaches*. Newbury Park, Ca: SAGE Publications.

Crossman, B., Crossman, J. (2011) 'Conceptualising followership a review of the literature', *Leadership* 7(4) 481–497

Crotty, M J (2004) *The Foundations of Social Research: Meaning and Perspective in the Research Process*, London: Sage

Csikszentmihalyi, M. (1990) *Flow: The psychology of optimal experience*. New York, NY: Harper & Row

Cuncliffe, A.L. (2011), 'Crafting qualitative research: Morgan and Smircich 30 years on', *Organizational Research Methods*, 14 (4), pp.647-673.

Curry, M. (2018) 'Essays in Economic and Business History.' *The Journal of the Economic & Business History Society* Vol 36 (1).

Daly, A.J., Chrispeels, J. (2008) 'A Question of Trust: Predictive Conditions for Adaptive and Technical Leadership in Educational Contexts', *Leadership and Policy in Schools*, 7:1, 30-63, DOI: 10.1080/15700760701655508

Dar, F., Bukhari, I., Hamid, M. (2016) 'Relationship Between Authentic Leadership, Work Engagement and Job Stress among Employees of Telecommunication Organizations' *Peshawar Journal of Psychology and Behavioral Sciences*, Vol. 2, No. 2, pp. 235-248

Dawson, C. (2019) *Introduction to research methods 5th edition: a practical guide for anyone undertaking a research project*. Little, Brown Book Group

DeRue, D.S. (2011) 'Adaptive leadership theory: Leading and following as a complex adaptive process', *Research in Organizational Behavior*, 31, pp. 125–150. Available at: https://doi.org/10.1016/j.riob.2011.09.007.

Dickinson, W. (2010) 'Leadership for change: A vital area for faculty development, continuing education, and resident education' *Family Medicine*, 42, pp.659-660

Dimovski, V., Ferjan, M., Marič, M., Uhan, M., Jovanović, M., Janežič, M. (2012) *Authentic leadership to the future* Skola Biznisa, Broj 1, pp.1-14

Dinh, J. E., Lord, R. G., Gardner, W. L., Meuser, J. D., Liden, R. C., & Hu, J. (2014). Leadership theory and research in the new millennium: Current theoretical trends and changing perspectives. *The leadership quarterly*, *25*(1), 36-62.

Dooly, M., Moore, E. and Vallejo, C. (2017) 'Research ethics', in E. Moore and M. Dooly (eds) *Qualitative approaches to research on plurilingual education / Enfocaments qualitatius per la recerca en educació plurilingüe / Enfoques cualitativos para la investigación en educación plurilingüe*. Research-publishing.net, pp. 351–362. Available at: https://doi.org/10.14705/rpnet.2017.emmd2016.634.

Dorfman PW, Hanges PJ and Brodbeck FC (2004) 'Leadership and cultural variation', in House R.J., Hanges P.J., Javidan M., Dorfman, P.W., Gupta, V. (eds) *Culture, Leadership, and Organizations: The GLOBE Study of 62 Societies*. Thousand Oaks, CA: Sage Publications, 669–719.

Douglas, F. C. G., Gray, D. A., & van Teijlingen, E. R. (2010) 'Using a realist approach to evaluate smoking cessation interventions targeting pregnant women and young people' *BMC Health Services Research*, 10, 49

Doyle, A., (2017) 'Adaptive challenges require adaptive leaders', *Performance Improvement*, vol. 56, no. 9, International Society for Performance Improvement Published online in Wiley Online Library (wileyonlinelibrary.com) • DOI: 10.1002/pfi.21735

Drucker, P. (1996) The *leader of the future: Drucker foundation future series.* Edited by Hesselbein, F. and Cohen, P., San Francisco, CA Jossey-Bass

Dugan, J. P. (2017) *Leadership theory: Cultivating critical perspectives*. Hoboken, NJ: John Wiley & Sons.

Dunaetz, D. R. (2020). *Research methods and survey applications: Outlines and activities from a Christian perspective*. 3rd ed. Claremont, CA: Martel Press.

Dunn, R. (2020) 'Adaptive Leadership: Leading Through Complexity' *ISEA* • Volume 48, Number 1

Easterby-Smith, M. Thorpe, R. Jackson, P. (2012) *Management research*, SAGE Publications

Easterby-Smith, M. Thorpe, R. Jackson, P. (2018) *Management research*, SAGE Publications

Edwards, J.R. (2020) *The Peaceful Coexistence of Ethics and Quantitative Research*. J Bus Ethics 167, 31–40 https://doi.org/10.1007/s10551-019-04197-6

Eggers, J. (2022) ‘How teaching resilience can enable adaptive leadership.’ in Raei, M., Rasmussen, H.T (eds). *Adaptive Leadership in a Global Economy (Routledge Studies in Leadership Research).* Taylor and Francis Kindle Edition. p.95. doi: 10.4324/9781003099109-3

Egitim, S. (2022) ‘Japanese universities’ response to the global pandemic crisis: harnessing collective intelligence to activate adaptive and collaborative leadership practices.’ in Raei, M., Rasmussen, H.T (eds). *Adaptive Leadership in a Global Economy (Routledge Studies in Leadership Research).* Taylor and Francis Kindle Edition. p.369. doi: 10.4324/9781003099109-13

Ellis, C. (2007) ‘Telling Secrets, Revealing Lives: Relational Ethics in Research With Intimate Others’, *Qualitative Inquiry*, 13(1), pp. 3–29. Available at: https://doi.org/10.1177/1077800406294947

Epitropakia, O., Radulovicb, A.B., Etea, Z., Thomasc, G., Martinc, R. (2020) 'Leader-follower transgressions, relationship repair strategies and outcomes: A state-of-the-science review and a way forward', *The Leadership Quarterly* 31 (2020) 101376

Esler, K., Downsborough, L., Roux, D., Blignaut, J., Milton, S., le Maitre, D., & de Wit, M. (2016) ‘Interdisciplinary and multi-institutional higher learning: Reflecting on a South African case study investigating complex and dynamic environmental challenges’ *Current Opinion in Environmental Sustainability*, 19, 76-86. doi:10.1016/j.cosust.2015.12.00

Eubank, D., Geffken, D., Orzano, J., & Ricci, R. (2012), ‘Teaching adaptive leadership to family medicine residents: What? Why? How?’, *Families, Systems, & Health*, 30, 241- 252. doi:10.1037/a0029689

Farnsworth, V., Kleanthous, I., & Wenger-Trayner, E. (2016) ‘Communities of Practice as a Social Theory of Learning: a Conversation with Etienne Wenger’, *British Journal of Educational Studies*, 64(2), 139–160

Fenwick W. (2001) ‘What paradigm shift? An interrogation of Kuhn's idea of normalcy in the research practice of educational administration’, *International Journal of Leadership in Education*, 4:1, pp. 29-38. Available at DOI: 10.1080/13603120117485

Fiscus, L. et al. (2018) ‘Adaptive Leadership in Practice Expansion’, *Physician Leadership Journal*, 5(2), pp. 39–43. Available at: https://search.ebscohost.com/login.aspx?direct=true&db=bth&AN=128015327&site=eds-live&scope=site (Accessed: 8 January 2022).

Fox, N.J. (2008) ‘Post-positivism’ in Given, L.M. (ed.) *The SAGE Encyclopaedia of Qualitative Research Methods*. London: Sage.

Freeman, E., & Moutchnik, A. (2013) ‘Stakeholder management and CSR: questions and answers’ *uwf UmweltWirtschaftsForum*, *21*(1-2), 5-9

Fulton, J., Kuit, J., Sanders, G., Smith, P. (2013) *The professional doctorate: a practical guide*, Palgrave Research Skills

Fusco, T., O’Riordan, S., Palmer, S. (2016) 'Assessing the efficacy of Authentic Leadership group-coaching' *International Coaching Psychology Review* Vol. 11 No. 2 September, pp.118-128

Gabriel, Y. (2015) 'The caring leader – What followers expect of their leaders and why?' *Leadership*, 11(3), 316-334

Gannon, MJ. and Pillai, R. (2010) *Understanding Global Cultures: Metaphorical Journeys through 29 Nations, Clusters of Nations, Continents, and Diversity*. Los Angeles, CA: Sage Publications.

Garavaglia, C., Sancino, A., & Trivellato, B. (2021) 'Italian mayors and the management of COVID-19: adaptive leadership for organizing local governance', *Eurasian geography and economics*, 62(1), 76-92 [10.1080/15387216.2020.1845222].

Gardner, W.L., Cogliser, C.C., Davis, K.M., Dickens, M.P. (2011) 'Authentic leadership: A review of the literature and research agenda' *The Leadership Quarterly*, 22, pp. 1120–1145

Gatling, A., Harrah, W.F. (2014) 'The Authentic Leadership Qualities of Business Coaches and its Impact on Coaching Performance' *International Journal of Evidence Based Coaching and Mentoring* Vol. 12, No. 1, February, pp. 27-46

Gendall, P. (1998). A framework for questionnaire design: Labaw revisited. *Marketing bulletin-department of marketing massey university*, *9*, 28-39

George, B., Bennis, W.G. (2004) *Authentic Leadership: Rediscovering the Secrets to Creating Lasting Value.* Jossey-Bass

Gerstner, C. R., Day, D. V. (1997) 'Meta-analytic review of leader-member exchange theory: Correlates and construct issues' *Journal of Applied Psychology*, 82, 827-844

Ghauri, P., Gronhaug, K., Strange, R. (2020) *Research methods in business studies*, Cambridge Uniersity Press

Goleman, D. (2000) 'Leadership that gets results' *Harvard business review*, vol 78, no.2, pp 78-90

Goleman, D., Boyatzis, R. and McKee, A. (2002) *Primal leadership* (published in UK as *The new leaders*), Cambridge, MA Harvard Business School Press

Goode, H., McGennisken, R. and Rutherford, E. (2021) 'An Adaptive Leadership Response to Unprecedented Change', *International Studies in Educational Administration* (Commonwealth Council for Educational Administration & Management (CCEAM)), 49(1), pp. 36–42. Available at: https://search.ebscohost.com/login.aspx?direct=true&db=ehh&AN=148349141&site=eds-live&scope=site (Accessed: 9 January 2022).

Goodman, C. A. (2015) *Orientation leaders: followership styles and risk-taking attitudes.* Texas A&M University

Griffin, B. and Hesketh, B. (2004), 'Why openness to experience is not a good predictor of job performance', *International Journal of Selection and Assessment*, Vol. 12 No. 3, pp. 243-251, doi:10.1111/j.0965-075X.2004.278_1.x.

Guba, E. (1990) *The paradigm dialogue*. Newbury Park, CA: Sage.

Guba, E., & Lincoln, Y. (1994) 'Competing paradigms in qualitative research' In N. Denzin & Y. Lincoln (Eds.), *Handbook of qualitative research*, Thousand Oaks, CA: Sage, pp. 105-117.

Guenter, H., Schreurs, B., Hetty van Emmerik Shuhua Sun, I.J. (2017), 'What Does it Take to Break the Silence in Teams: Authentic Leadership and/or Proactive Followership?' *Applied psychology: An international review*, 66 (1), 49–77

Guerrina R (2005) *Mothering The Union: Gender Politics in the EU*. Manchester: Manchester University Press.

Haeusler, J. (2010) 'Medicine needs adaptive leadership' *Physician Executive*, 36, 12-15. Available at http://search.proquest.com/openview/834cbee1cc6d468296c9e7dff 78556e4/1?pq-origsite=gscholar&cbl=36212

Han, T.Y. and Williams, K.J. (2008), 'Multilevel investigation of adaptive performance individual-and team-level relationships', *Group & Organization Management*, Vol. 33 No. 6, pp. 657-684. doi: 10.1177/1059601108326799

Hancil, T.,Rich-Tolsma, M. (2022) 'Application of adaptive leadership in central and eastern european contexts.' in Raei, M., Rasmussen, H.T (eds). A*daptive Leadership in a Global Economy (Routledge Studies in Leadership Research).* Taylor and Francis Kindle Edition. p.435. doi: 10.4324/9781003099109-16

Handy, C. (1992) '*The language of leadership'* in Syrett, D. (ed) Frontiers of Leadership, Oxford, Blackwell

Hanges PJ and Dickson MJ (2004) 'The development and validation of the GLOBE culture and leadership scale', in House R.J., Hanges P.J., Javidan M., Dorfman, P.W., Gupta, V. (eds) *Culture, Leadership, and Organizations: The Globe Study of 62 Societies*. Thousand Oaks, CA: Sage Publications, 122–150.

Hanson, W.E., Creswell, J.W., Plano Clark, V.L., Petska, K.S., Creswell, D.J. (2005) *Mixed Methods Research Designs in Counseling Psychology* Faculty Publications, Department of Psychology 373

Hattke, F., Hensel, D. and Kalucza, J. (2020) 'Emotional Responses to Bureaucratic Red Tape', *Public Administration Review*, 80(1), pp. 53–63. doi: 10.1111/puar.13116.

Haubold, E. M. (2012) 'Using adaptive leadership principles in collaborative conservation with stakeholders to tackle a wicked problem: Imperiled species management in Florida' *Human Dimensions of Wildlife*, 17, pp.344-356

Hawley, S.R. (2021) 'Using adaptive leadership principles to support Public Health 3.0 in multidisciplinary undergraduate education', *Leadership in Health Services*, 34(3), pp. 248–262. doi: 10.1108/LHS-07-2020-0051.

Hayashi, C., & Soo, A. (2012) 'Adaptive leadership in times of crisis' *Prism: A Journal of the Center for Complex Operations*, 4, pp.79-86

Heifetz, R. A., & Linsky, M. (2002). *Leadership on the line: Staying alive through the dangers of leading*. Boston, MA: Harvard Business School Press.

Heifetz, R. A., Grashow, A., & Linsky, M. (2019) *La pratica della leadership adattiva: strumenti e tattiche per trasformare le organizzazioni e le comunità*, translated from the English by S. Zordan., Franco Angeli

Heifetz, R. A.., & Laurie, D. (2011) 'The work of leadership' in *HBR's 10 Must Reads: On Leadership*, (pp. 57-78). Retrieved from: http://thequalitycoach.com/wpcontent/uploads/2013/05/hbr-10-must-reads-on-leadership-1.pd

Heifetz, R., & Linsky, M. (2004a) 'When leadership spells danger', *Educational Leadership*; 61 (7), 33 – 37.

Heifetz, R., Kania, J., & Kramer., M. (2004b) 'Leading boldly', *Stanford Social Innovation Review*, 21 – 31. Retrieved from: http://ssireview.com

Heifetz, R.A. (1994) *Leadership without easy answers*, Belknap Press

Heifetz, R.A., Laurie, D.L. (1997), 'The work of leadership. Leaders do not need to know all the answers. They do need to ask the right questions' *Harvard Business Review* (January-February) pp 124-134.

Hersey, P. and Blanchard, K. (1982) *Management of Organizational Behavior* (4th edn). Englewood Cliffs, NJ: Prentice-Hall.

Hlalele, D., Manicom, D., Preece, J., Tsotetsi, C.T. (2015) 'Strategies and Outcomes of Involving University Students in Community Engagement: An Adaptive Leadership Perspective Journal of Higher Education in Africa' *Revue de l'enseignement supérieur en Afrique*, Vol. 13, No. 1-2, Special Issue on Sustainable Rural Learning Ecologies: Border Crossing (2015), pp. 169-192 Published by: CODESRIA Stable URL: https://www.jstor.org/stable/10.2307/jhigheducafri.13.1-2.169

Hofstede, G.H. (2001) *Culture's Consequences: Comparing Values, Behaviors, Institutions, and Organizations across Nations*. Thousand Oaks, CA: Sage Publications

Hofstede, G.H., Hofstede, G.J. and Minkov M (2010) *Cultures and Organizations: Software of the Mind: Intercultural Cooperation and its Importance for Survival*. New York: McGraw-Hill.

Holmes, D.A.G. (2020) 'Researcher Positionality - A Consideration of Its Influence and Place in Qualitative Research - A New Researcher Guide', *Shanlax International Journal of Education*, 8(4), pp. 1–10. Available at: https://doi.org/10.34293/education.v8i4.3232.

House, R. (1977) 'A 1976 theory of charismatic leadership' in Hunt, J. and Larson, L. (eds) *Leadership the cutting edge,* Carbondale, IL, Southern Illinois University Press

Howell, J. and Costley, D. (2006) *Understanding Behaviours for Effective Leadership*. Upper Saddle River, NJ: Pearson Prentice Hall.

http://www.r-project.org (2022) (Accessed: 12 January 2022)

Ibarra, H. (2003) *Working identity: unconventional strategies for reinventing your career*, Harvard Business School Press

Ilies, R., Nahrgang, J. D., & Morgeson, F. P. (2007) 'Leader-member exchange and citizenship behaviors: A meta-analysis' *Journal of Applied Psychology*, 92, 269-277. doi:10.1037/0021-9010.92.1.269

Iszatt-White, M., Whittle, A., Gadelshina, G., Mueller, F. (2019) 'The 'Corbyn Phenomenon': Media Representations of Authentic Leadership and the Discourse of Ethics Versus Effectiveness' *Journal of Business Ethics* 15, pp. 535–549

Jafar, A.J.N. (2018) 'What is positionality and should it be expressed in quantitative studies?', *Emergency Medicine Journal*, p. emermed-2017-207158. Available at: https://doi.org/10.1136/emermed-2017-207158.

Jagacinski, C. M., Kumar, S. and Keith, M. G. (2020) 'Expanding the Nomological Network of Work Avoidance: Antecedents and Consequences Across Contexts', *Journal of Experimental Education*, 88(2), pp. 221–244. doi: 10.1080/00220973.2019.1635564.

Jayan, M., Wai Bing, K., & Musa, K. (2016) 'Investigating the relationship of adaptive leadership and leadership capabilities on leadership effectiveness in Sarawak schools' *Procedia-Social and Behavioral Sciences*, 224, 540-545. doi:10.1016/j.sbspro.2016.05.433

Jefferies, S.S. (2017) 'Adaptive leadership in a socially revolving world: a symbolic interactionist lens of adaptive leadership theory' *Performance Improvement*, vol. 56, no. 9, October 2017 © 2017 International Society for Performance Improvement Published online in Wiley Online Library (wileyonlinelibrary.com) DOI: 10.1002/pfi.21741

Jiang, X., Snyder, K., Li, C., Manz, C.C. (2021) 'How followers create leaders: The impact of effective followership on leader emergence in self-managing teams', *Group Dynamics: Theory, Research, and Practice*, 25(4), pp. 303–318. doi: 10.1037/gdn0000159.

Johnson, R.M. (2014) *Follow Me! Followership, Leadership and the Multigenerational Workforce*. Wayne Huizenga School of Business and Entrepreneurship, Nova Southeastern University

Johnson, S. (2002) *Who moved my cheese? An amazing way to deal with change in your work and in your life*. Vermilion. Available at: https://search.ebscohost.com/login.aspx?direct=true&db=cat00941a&AN=sunder.416093&site=eds-live&scope=site (Accessed: 5 January 2022).

Kaspary, M.C., Michel, R. (2022) 'The adaptive leader as a mentor- A practice from Brazil' in Raei, M., Rasmussen, H.T (eds). *Adaptive Leadership in a Global Economy (Routledge Studies in Leadership Research)* Taylor and Francis Kindle Edition. p.412 doi: 10.4324/9781003099109-15

Kellerman, B. (2008) *Followership: How Followers are Creating Change and Changing Leaders*. Boston, MA: Harvard Business School Publishing.

Kelley R (2008) 'Rethinking followership', in Riggio R, Chaleff I and Lipman-Blumen J (eds) *The Art of Followership*, New York, Doubleday.

Kelley, R. (1992) *The Power of Followership*. New York: Doubleday

Kenny, S., Four Arrows Aka Don Trent J. (2022) 'Democratic Indigenous Adaptive Leadership (DIAL): an American Indian woman leadership model' in Raei, M., Rasmussen, H.T (eds). *Adaptive Leadership in a Global Economy (Routledge Studies in Leadership Research).* Taylor and Francis Kindle Edition. p.396. doi: 10.4324/9781003099109-14

Khan, N. (2017) 'Adaptive or Transactional Leadership in Current Higher Education: A Brief Comparison', *International Review of Research in Open & Distance Learning*, 18(3), pp. 178–183. doi: 10.19173/irrodl.v18i3.3294.

Kiersch, C., Peters, J. (2017) 'Leadership from the Inside Out: Student Leadership Development within Authentic Leadership and Servant Leadership Frameworks', *Journal of Leadership Education.* January, pp.148-168

Korhonen, H., Paavilainen, J. and Saarenpää, H. (2009) 'Expert review method in game evaluations: comparison of two playability heuristic sets', in *Proceedings of the 13th International MindTrek Conference: Everyday Life in the Ubiquitous Era on - MindTrek '09*. *the 13th International MindTrek Conference: Everyday Life in the Ubiquitous Era*, Tampere, Finland: ACM Press, p. 74. Available at: https://doi.org/10.1145/1621841.1621856.

Knippenberg DV and Hogg MA (2003) *Leadership and Power: Identity Processes in Groups and Organizations*. London: Sage Publications.

Kotter, J. (1990) 'What the leaders really do?', *Harvard business review*, vol 68, no.3, pp 103-11

Kouzes, J. and Posner, B. (1987) *The leadership challenge: hoe to get extraordinary thing done in organisations,* San Francisco, CA Jossey-Bass

Kouzes, J. and Posner, B. (2003) *The leadership challenge,* San Francisco, CA Jossey-Bass

Krantz, J. and Maltz, M. (1997) 'A framework for consulting to organisational role', *Consulting Psychology Journal: Practice and Research, v*ol 49, no 2, pp. 137-51

Krosnick, J. A. (2018) 'Questionnaire design' in *The Palgrave handbook of survey research* (pp. 439-455). Palgrave Macmillan, Cham.

Kuluski, K., Reid, R.J., Baker, G.R. (2021) 'Applying the principles of adaptive leadership to person-centred care for people with complex care needs: Considerations for care providers, patients, caregivers and organizations', *Health Expectations*, 24(2), pp. 175–181. doi: 10.1111/hex.13174

Laguna, M., Walachowska, K., Gorgievski-Duijvesteijn, M. J., Moriano, J.A. (2019) 'Authentic Leadership and Employees' Innovative Behaviour: A Multilevel Investigation in Three Countries' *International Journal of Environmental Research and Public Health* 16

Lancaster, G. (2005) *Research methods in management*, Elsevier Butterworth-Heinemann

Lantz, E., Keeley, J.W., Roberts, M.C., Medina, M.E., Sharan, P., Reed, G.M. (2019) 'Card Sorting Data Collection Methodology: How Many Participants Is Most Efficient?' *Journal of Classification*, 36, pp.649-658

Lave, J. & Wenger, E. (1991) *Situated learning: legitimate peripheral participation*, Cambridge University Press

Lawton, S., Collie, J., Bird, J., Macfarlane, W., Milne, C., Paul, M., & Peace, S. (2009) 'Use of an adapted problem-based learning approach to aid the development of clinical audit skills in a palliative care setting' *International Journal of Palliative Nursing*, 15, pp. 300-303

Le Fevre, D.M. (2022) 'Leading Through crisis: the adaptive leadership of Jacinda Ardern' in Raei, M., Rasmussen, H.T (eds). *Adaptive Leadership in a Global Economy (Routledge Studies in Leadership Research).* Taylor and Francis Kindle Edition. p.283. doi: 10.4324/9781003099109-10

Levinson, M.H. (2004) ‘Linked: The New Science of Networks Albert-László Barabási’, *ETC: A Review of General Semantics*, 61(1), p. 170. Available at: https://search.ebscohost.com/login.aspx?direct=true&db=edsjsr&AN=edsjsr.42580228&site=eds-live&scope=site (Accessed: 6 January 2022).

Li, J., Masterson, S.S., Gales, L.M., Blume, B.D. (2018), 'Leader-member exchange and leader identification: comparison and integration' *Journal of Managerial Psychology,* Vol. 33 No. 2, pp. 122-141

Lichtenstein, B. B., Uhl-Bien, M., Marion, R., Seers, A., Orton, J. D., & Schreiber, C. (2006) *Complexity leadership theory: An interactive perspective on leading in complex adaptive systems* University of Nebraska

Lim, D., Hohne, F., Li, X., Huang, S. L., Gupta, V., Bhalerao, O., & Lim, S. N. (2021). Large scale learning on non-homophilous graphs: New benchmarks and strong simple methods. *Advances in Neural Information Processing Systems*, *34*, 20887-20902.

Lincoln, Y. S., and Guba, E.G. (1985) *Naturalistic inquiry* Beverly Hills, CA: Sage.

Linsky, M., & Lawrence, J., (2011) ‘Adaptive challenges for school leadership’ in H. O’Sullivan & J. West-Burnham (Eds.), *Leading and managing schools* (pp. 3-15). Thousand Oaks, CA. Sage.

Liu, H., Cutcher, L., Grant, D. (2015) 'Doing Authenticity: The Gendered Construction of Authentic Leadership', *Gender, Work and Organisation*. Vol. 22 No. 3 May

Liu, Y., Fuller, B., Hester, K., Bennett, R.J., Dickerson, M.S. (2018) 'Linking authentic leadership to subordinate behaviors' *Leadership and Organization Development Journal* Vol. 39 No. 2 pp. 218-233

Lohr, K., Bonatti, M., Homem, L.H.I.R., Schlindwein, S.L. and Sieber, S. (2018), "Operational challenges in collaborative research projects: Addressing conflict multidimensionality", *Kybernetes*, Vol. 47 No. 6, pp. 1074-1089. https://doi-org.ezproxy.sunderland.ac.uk/10.1108/K-04-2017-0124

Lonati, S. (2020) ‘What explains cultural differences in leadership styles? On the agricultural origins of participative and directive leadership’, *The Leadership Quarterly*, 31(2). doi: 10.1016/j.leaqua.2019.07.003.

Luthans, F. (1988) ‘Successful vs. effective real managers’, *Academy of management executive*, vol 2, pp. 127-32

Luthans, F. *et al.* (2007) ‘Positive psychological capital: measurement and relationship with performance and satisfaction’, *Personnel Psychology*, 60(3), pp. 541–572. Available at: https://doi.org/10.1111/j.1744-6570.2007.00083.x

MacDonald Hardesty, J.,Boyce, M.C., Rasmussens, H.T. (2022) ‘Activism has lost its way: the case for micro-activism’ in Raei, M., Rasmussen, H.T (eds). *Adaptive Leadership in a Global Economy (Routledge Studies in Leadership Research).* Taylor and Francis Kindle Edition. p.255. doi 10.4324/9781003099109-9

Maguire, M. and Delahunt, B. (2017) ‘Doing a Thematic Analysis: A Practical, Step-by-Step Guide for Learning and Teaching Scholars.’, 8(3), p. 14.

Mantha, A., Coggins, N., Mahadevan, A., Strehlow, R., Strehlow, M., & Mahadevan, S. V. (2016) ‘Adaptive leadership curriculum for Indian paramedic trainees’ *International Journal of Emergency Medicine*, 9, 1-7

Marques-Quinteiro, P., Ramos-Villagrasa, P. J., Passos, A. M., & Curral, L. (2015) 'Measuring adaptive performance in individuals and teams' *Team Performance Management*.

Martin, S.L., Liao, H., Campbell, E.M. (2013) 'Directive Versus Empowering Leadership: A Field Experiment Comparing Impacts on Task Proficiency and Proactivity', *Academy of Management Journal*, 56(5), pp. 1372–1395. doi: 10.5465/amj.2011.0113

Maximo, N. Stander, M.W., Coxen, L. (2019) 'Authentic leadership and work engagement: The indirect effects of psychological safety and trust in supervisors' *SA Journal of Industrial Psychology*/SA Tydskrif vir Bedryfsielkunde, 45(0), a1612 [online] Available at https://doi.org/10.4102/sajip.v45i0.1612 (accessed on 15th December 2019)

Maxwell, J. A., & Mittapalli, K. (2010) 'Realism as a stance for mixed methods research' in A. Tashakkori & C. Teddlie (eds) *Sage handbook of mixed methods in social and behavioral research*. Thousand Oaks, CA: Sage, pp. 145-167.

Maybaumwisniewsk, S., DiPasquantonio, M., & Stern, J. D. (2007). *A Workshop Conceptualizing Leadership*. Center for Public Administration & Policy, School of Public & International Affairs, Virginia Polytechnic Institute and State University.

McGregor, D. (1960), *The human side of enterprise*. New York: McGraw Hill.

McKechnie, A. C, Johnson, K.A., Baker, M.J., Docherty, S.L., Leuthner, S.R., Thoyre, S. (2020) 'Adaptive Leadership in Parents Caring for their Children Born with Life-Threatening Conditions', *Journal of Pediatric Nursing*, 53, pp. 41–51. doi: 10.1016/j.pedn.2020.03.018

McLaughlin, C. P. (2020) 'Holding on in Moments of Not Knowing: Disequilibrium, Reflective Judgment, and Practicing Adaptive Leadership', *New Directions for Student Leadership*, 2020(168), pp. 53–62. doi: 10.1002/yd.20408.

Miao, C., Humphrey, R.H., Qian, S. (2018) 'Emotional intelligence and authentic leadership: a meta-analysis' *Leadership & Organization Development Journal* Vol. 39 No. 5, pp. 679-690

Miller, A. (2017) *Leadership Theory Analysis: Adaptive Leadership*, Azusa Pacific University

Miller, K. (2012). *Organizational communication: Approaches and processes* (6th ed.). Boston, MA: Wadsworth.

Mintzberg, H. (1973) *The nature of managerial work.* New York, Harper and Row

Mintzberg, H. (2004) *Managers not MBAs: a hard look at the soft practice of managing and management development*, San Francisco, CA Berrett-Koehler Publisher

Mira, M.S., Odeh, K. (2019) 'The mediating role of authentic leadership between the relationship of employee training and employee performance' *Management Science Letters* 9, pp. 381–388

Modell, S. (2009) 'In defense of triangulation: A critical realist approach to mixed methods research in management accounting' *Management Accounting Research*, 20, pp. 208-221.

Moen, D. (2017) ‘The Leader-Investigator: Using Leadership Studies as a Model for Conscientization Through Adaptive Leadership, the Four Frames Approach, Giving Voice to Values, and the Competing Values Framework’, *Journal of Thought*, *51*(3–4), 22–37. https://www.jstor.org/stable/90017077

Morgan, D. L. (2007) ‘Paradigms lost and pragmatism regained methodological implications of combining qualitative and quantitative methods’ *Journal of mixed methods research* no. 1 (1):48-76.

Morgan, G. (1986), *Images of organization*. Newbury Park, CA: Sage.

Mubarak, F., Noor, A. (2018) 'Effect of authentic leadership on employee creativity in project-based organizations with the mediating roles of work engagement and psychological empowerment', *Cogent Business & Management* 5, pp.1-14

Mukaram, A. T., Rathore, K., Khan, M. A., Danish, R. Q., & Zubair, S. S. (2021) ‘Can adaptive–academic leadership duo make universities ready for change? Evidence from higher education institutions in Pakistan in the light of COVID-19’ *Management Research Review*, *44*(11), 1478-1498.

Mukherjee, S. and Mulla, Z. R. (2021) ‘Empowering and Directive Leadership: The Cost of Changing Styles’, *Business Perspectives & Research*, p. 1. doi: 10.1177/22785337211008321

Murnighan, J. K. (1981) ‘Group decision making: What strategies should you use?’, *Management Review*, 70(1), p. 55. Available at: https://search.ebscohost.com/login.aspx?direct=true&db=bth&AN=6032983&site=eds-live&scope=site (Accessed: 6 January 2022).

Myran, S., & Sutherland, I. (2016) ‘Problem posing in leadership education’ *Journal of Cases in Educational Leadership*, 19, 57-71. Available at http://journals.sagepub.com.libproxy.sdsu.edu/doi/pdf/10.1177/1555458916664763

Nasab, A.H., Afshari, L. (2019) 'Authentic leadership and employee performance: mediating role of organizational commitment' *Leadership & Organization Development Journal* Vol. 40 No. 5, pp. 548-560

Nawaz, A. (2012) ‘A Comparison of Card-sorting Analysis Methods’ in APCHI '12. *Proceedings of the 10th Asia Pacific Conference on Computer-Human Interaction* (Vol. 2, pp. 583-592)

Nelson, T. and Squires, V. (2017) ‘Addressing Complex Challenges through Adaptive Leadership: A Promising Approach to Collaborative Problem Solving’, *Journal of Leadership Education*, 16(4), pp. 111–123. doi: 10.12806/V16/I4/T2.

Nielsen, J. (2004). *The myth of leadership: Creating leaderless organizations*. Palo Alto, CA Davies- Black Publishing.

Nissim, Y. and Simon, E. (2021) ‘Flattening the Hierarchy Curve: Adaptive Leadership during the Covid-19 Pandemic - A Case Study in an Academic Teacher Training College’, *Review of European Studies*, 13(1), pp. 103–118. Available at: https://search.ebscohost.com/login.aspx?direct=true&db=edshol&AN=edshol.hein.journals.rveurost13.10&site=eds-live&scope=site (Accessed: 9 January 2022).

Noble, A. (2021) ‘Fostering Character Development through Adaptive Leadership’, *Journal of Character Education*, 17(2), pp. 1–12. Available at: https://search.ebscohost.com/login.aspx?direct=true&db=ehh&AN=153778798&site=eds-live&scope=site (Accessed: 9 January 2022).

Noble, H., Mitchell, G. (2016) *What is grounded theory?* [online] Available at https://ebn.bmj.com/content/19/2/34 (accessed on 12th February)

Northouse, P.G. (2016) *Leadership: theory and practice*, Thousand Oaks SAGE

Northouse, P.G. (2018) *Leadership: theory and practice*, Thousand Oaks SAGE

O’Doherty, H., & Kennedy, D. (2013) ‘On the similarities of peace of mind and peace in the valley’ *International Journal of Group Psychotherapy*, 63, pp.206-232

Olson, K. (2010) ‘An Examination of Questionnaire Evaluation by Expert Reviewers’, *Field Methods*, 22(4), pp. 295–318. Available at: https://doi.org/10.1177/1525822X10379795.

Oncken, J.W., Wass, D.L. and Covey, S.R. (1999) ‘Management Time: Who’s Got the monkey?’, *Harvard Business Review*, 77(6), p. 178. Available at: https://search.ebscohost.com/login.aspx?direct=true&db=bth&AN=2434961&site=eds-live&scope=site (Accessed: 5 January 2022).

Owens, B.P., Kay, C.Y., Bednar, J., S., Mao, J., Hart, D.W. (2019) 'The Impact of Leader Moral Humility on Follower Moral Self-Efficacy and Behavior', *Journal of Applied Psychology*, 104(1) pp. 146-163

Ozen, H. (2019) ‘Educational Challenges of Syrian Refugees in Turkey: Through the Lenses of Complex Adaptive Leadership Theory’, *Educational Planning*, 26(4), pp. 41–56. Available at: https://search.ebscohost.com/login.aspx?direct=true&db=eric&AN=EJ1234902&site=eds-live&scope=site (Accessed: 9 January 2022).

Panhwar, A.H., Ansari, S., Shah, A.A. (2017) ‘Post-positivism: an effective paradigm for social and educational research’, *International research journal arts and humanities* (IRJAH) vol 45, no 45

Parfitt, J. (2013) ‘Questionnaire design and sampling’, in *Methods in human geography* (pp. 78-109). Routledge.

Patel, H. R., & Joseph, J. M. (2016). Questionnaire designing process: A review. *Journal of Clinical Trials*, *6*(2), 2-7.

Patrick, C.B.,Lyons, L. (2022) ‘Modifyng the stories we tell: discourse as racial justice capacity building in the helping professions’ in Raei, M., Rasmussen, H.T (eds). *Adaptive Leadership in a Global Economy (Routledge Studies in Leadership Research).* Taylor and Francis Kindle Edition. p.226. doi: 10.4324/9781003099109-8

Pianesi, A. (2019) ‘Design Thinking plus Adaptive Leadership: Leading Organizational Change with the Change Canvas’, *Organization Development Journal*, 37(3), pp. 45–58. Available at: https://search.ebscohost.com/login.aspx?direct=true&db=bth&AN=139880354&site=eds-live&scope=site (Accessed: 3 January 2022).

Ponterotto, J. G. (2005) 'Qualitative research in counseling psychology: A primer on research paradigms and philosophy of science', *Journal of Counseling Psychology*, 52, 126–136.

Potchana, R., Sanrattana, W. and Suwannoi, P. (2020) 'Indicators of Adaptive Leadership for Teachers in Boromarajonani College of Nursing under Boromarachanok Institute: Developing and Testing the Structural Relationship Model', *Journal of Education and Learning*, 9(3), pp. 92–98. Available at: https://search.ebscohost.com/login.aspx?direct=true&db=eric&AN=EJ1255425&site=eds-live&scope=site (Accessed: 9 January 2022).

Potter, E. and Rosenbach, W. (2006) 'Followers as partners: The spirit of leadership' in Rosenbach, W. and Taylor, R. (eds) *Contemporary Issues in Leadership. Boulder*, CO: Westview Press

Preece, J. (2016) 'Negotiating service learning through community engagement: Adaptive leadership, knowledge, dialogue and power' *Education as Change*, 20, 104-125. doi:doi:10.17159/1947-9417/2016/562

Pulakos, E.D., Arad, S., Donovan, M.A. and Plamondon, K.E. (2000) 'Adaptability in the workplace: development of a taxonomy of adaptive performance', *Journal of Applied Psychology*, Vol. 85 No. 4, pp. 612-624, http://dx.doi.org/10.1037/0021-9010.85.4.612

Racher, F. E., Robinson, S. (2002) 'Are Phenomenology and Post-positivism Strange Bedfellows?', *Western Journal of Nursing Research*, 2002, 25(5), 464-481.

Raei, M. (2018) *Development and Validation of the Adaptive Leadership with Authority Scale*. Antioch University https://aura.antioch.edu/etds/446

Raei, M. (2022) 'Adaptive leadership in the Chinese context: can adaptive leadership be applied in China?' in Raei, M., Rasmussen, H.T (eds). *Adaptive Leadership in a Global Economy (Routledge Studies in Leadership Research).* Taylor and Francis Kindle Edition. p.311. doi: 10.4324/9781003099109-11

Raei, M., Lemaster, C. (2022) 'Adaptive and complexity leadership: stronger together' in Raei, M., Rasmussen, H.T (eds). *Adaptive Leadership in a Global Economy (Routledge Studies in Leadership Research)* Taylor and Francis Kindle Edition. p.45. doi: 10.4324/9781003099109-1

Randall, L. M., Coakley, L. A. (2007) 'Applying adaptive leadership to successful change initiatives in academia' *Leadership & Organization Development Journal*, 28, 325- 335. doi:10.1108/01437730710752201

Raney, A. (2014) 'Agility in adversity: Integrating mindfulness and principles of adaptive leadership in the administration of a community mental health center' *Clinical Social Work Journal*, 42, 312-320. doi:10.1007/s10615-014-0487-0

Rasmussen, H.T., Boyce, M.C. (2022a) 'Giving credits where it's due: the theories that support adaptive leadership.' in Raei, M., Rasmussen, H.T (eds). *Adaptive Leadership in a Global Economy (Routledge Studies in Leadership Research).* Taylor and Francis Kindle Edition.p.72 doi: 10.4324/9781003099109-2

Rasmussen, H.T., Hawkins, J., Crow, R. (2022b) 'Adaptive leadership and improvement science: natural bedfellows.' in Raei, M., Rasmussen, H.T (eds). *Adaptive Leadership in a Global Economy (Routledge Studies in Leadership Research).* Taylor and Francis Kindle Edition. p.122. doi 10.4324/9781003099109-4

Rattray, J. and Jones, M.C. (2007) ‘Essential elements of questionnaire design and development’, *Journal of Clinical Nursing*, 16(2), pp. 234–243. Available at: https://doi.org/10.1111/j.1365-2702.2006.01573.x.

Reams, J. (2022) ‘Soul space for adaptive work.’ in Raei, M., Rasmussen, H.T (eds). *Adaptive Leadership in a Global Economy (Routledge Studies in Leadership Research).* Taylor and Francis Kindle Edition. p.146. DOI: 10.4324/9781003099109-5

Rego, A., Sousa, F., Marques, C., Pina e Counha, M. (2011) 'Authentic leadership promoting employees' psychological capital and creativity' *Journal of Business Research*, 65, pp. 429-437

Reid, R. J., Coleman, K., Johnson, E. A., Fishman, P., Hsu, C., Soman, M. P., & Larson, E. B. (2010) ‘The group health medical home at year two: Cost savings, higher patient satisfaction, and less burnout for providers’ *Health Affairs*, 29, 835–843

Robbins, S. P., Judge, T. A. (2016) *Essentials of organizational behavior* (13th ed.). New York, NY: Pearson.

Rogers, M., Sims, M., Bird, J. & Elliott, S., (2020), 'Organizational narratives vs the lived neoliberal reality', *Australian Universities' review*, vol. 62, no. 1, 2020

Romanowski, M.H. (2017), 'Neoliberalism and Western accreditation in the Middle East A critical discourse analysis of Educational Leadership Constituent Council standards', *Journal of Educational Administration* Vol. 55 No. 1, 2017 pp. 70-84

Rost, J. (1995) ‘Leadership: A discussion about ethics’, *Business Ethics Quarterly* 5(1): 129–142.

Roth, W. M., & Unger, H. V. (2018) ‘Current perspectives on research ethics in qualitative research’, *Forum qualitative sozialforschung/forum: Qualitative social research* (Vol. 19, No. 3, p. 12). DEU.

Ruggeri, P. (2015) *I nuovi condottieri. Un manuale sulla leadership per i manager del terzo millennio*, Mind Consulting Engage

Sackrule, A.A. (2020) *50 Riflessioni per la vita*, Armando Editore

Saeed, S., Ali, R. (2019) 'Relationship Between Authentic Leadership and Classroom Management in Public and Private Sector Universities' *Journal of Education and Educational Developemen*t June, Vol 6. No. 1, pp. 171-187

Sanders, M. G. (2010) ‘The Practice of Adaptive Leadership: Tools and Tactics for Changing Your Organization and the World by Ronald Heifetz, Alexander Grashow, and Marty Linsky’, *Personnel Psychology*, 63(1), pp. 255–258. doi: 10.1111/j.1744-6570.2009.01168_4.x

Santra, S. and Alat, P. (2021) ‘Adaptive leadership of doctors during COVID-19’, *Leadership in health services* (Bradford, England), ahead-of-print(ahead-of-print). doi: 10.1108/LHS-08-2021-0073.

Sarkar, A. (2019) 'Authentic leadership: the influence of work and non-work domain contextual factors' *Leadership & Organization Development Journal* Vol. 40 No. 4, 2019 pp. 520-531

Sarwar, H., Ishaq, M. I., Amin, A., & Ahmed, R. (2020) ‘Ethical leadership, work engagement, employees’ well-being, and performance: a cross-cultural comparison’*, Journal of Sustainable Tourism*, 28(12), pp. 2008–2026. doi: 10.1080/09669582.2020.1788039.

Saunders, M. Lewis, P. and Thornhill, A. (2015) *Research Methods for Business Students*, Pearson Education Ltd, Harlow

Savel, R. H. and Munro, C. L. (2017) 'Facing Change: When to Embrace, When to Resist', *American Journal of Critical Care,* 26(3), pp. 178–180. doi: 10.4037/ajcc2017845.

Schein, E. (1992) '*Organizational culture and leadership'* (2nd edn) San Francisco, CA Jossey-Bass

Schneeweiβ, C. (1995) 'Hierarchical structures in organizations: A conceptual framework', *European Journal of Operational Research*, Volume 86, Issue 1, Pages 4-31

Schroeder, J. (2017) 'Leadership Development Spectrum Tool: Applications for Designing Non-Linear Adaptive Leadership Training at an NYSE Financial Services Firm', *Performance Improvement*, 56(9), pp. 12–17. Available at: https://search.ebscohost.com/login.aspx?direct=true&db=edb&AN=125743424&site=eds-live&scope=site (Accessed: 9 January 2022).

Schyns, B., Meindl, J.R., (2005) *Implicit Leadership Theories: Essays and Explorations*. Greenwich, CT: Information Age.

Seifter, H, (2001) 'The conductor less orchestra', *Leader to leader*, vol.21, pp. 38-44

Semedo, A.S., Cohelo, A., Ribeiro, N. (2019) 'Authentic leadership, happiness at work and affective commitment. An empirical study in Cape Verde' *European Business Review* Vol. 31 No. 3, pp. 337-351

Shah, H., Ladhani, Z., Morahan, P. S., & Wells, R. (2019) 'Addressing Complex Problems: Using Authentic Audiences and Challenges to Develop Adaptive Leadership and Socially Responsible Agency in Leadership Learners', *Journal of Leadership Education*, 18(2), pp. 193–200. doi: 10.12806/V18/I2/A2.

Shannon-Baker, P. (2016), 'Making Paradigms Meaningful in Mixed Methods Research', *Journal of Mixed Methods Research*, Vol. 10(4) 319–334

Sharma, A., Agrawal, R., Khandelwal, U. (2019) 'Developing ethical leadership for business organizations A conceptual model of its antecedents and consequences' *Leadership & Organization Development Journal* Vol. 40 No. 6, pp. 712-734

Sharma, D. (2020), *Business research methods*, Globe

Sidani, Y.M., Rowe, W.G. (2018) 'Are conceptualization of authentic leadership: Leader legitimation via follower-centered assessment of the moral dimension' *The Leadership Quarterly* 29, pp. 623-636

Simon, G. (2018) 'Eight Criteria for Quality in Systemic Practitioner Research', *Murmurations: Journal of Transformative Systemic Practice*, 2(1), pp. 40–62. Available at: https://doi.org/10.28963/1.2.5.

Sivilevičius, H. (2011) 'Application of Expert Evaluation Method to Determine the Importance of Operating Asphalt Mixing Plant Quality Criteria and Rank Correlation', *The Baltic Journal of Road and Bridge Engineering*, 6(1), pp. 48–58. Available at: https://doi.org/10.3846/bjrbe.2011.07.

Snebold, L. (2015), 'Public health transformation: Helping local health departments navigate change through adaptive leadership' *Journal of Public Health Management and Practice*, 21, 310-312. doi:10.1097/PHH.0000000000000251

Song, Y., Scales, K., Lepore, M., Anderson, R., Lou Weiqun, V., McConnell, E., & Corazzini, K. (2016) 'Residents' challenges from different stakeholders' perspectives: An adaptive leadership framework' *The Gerontologist*, 56

Spector, P.E. and Fox, S. (2002) 'An emotion-centered model of voluntary work behavior Some parallels between counterproductive work behavior and organizational citizenship behavior', *Human Resource Management Review*, p. 24.

Spillane, J. (2005), 'Distributed leadership', *The Educational Forum*, 69 (2), 143-150. DOI: 10.1080/00131720508984678

Stevenson, E.L., Kevin, R. McEleny, Moody, E., Bailey, D.E., (2019) 'Applying the Adaptive Leadership Framework for Chronic Illness to understand how American and British men navigate the infertility process' *Health Psychology Open* July-December Available at: https://doi.org/10.1177/2055102919871647

Stoner, J. and Wankel, C. (1986) *Management* (3rd ed). Englewood Cliffs, NJ Prentice Hall

Tashakkori, A. and Teddlie, C. (2003) *Handbook of Mixed Methods in Social and Behavioral Research*, Thousand Oaks, CA: Sage.

Tavanti, M. (2012), 'The cultural dimensions of Italian leadership: Power distance, uncertainty avoidance and masculinity from an American perspective', *Leadership*, 8 (3), 287-301

Thanh, N. C. and Thanh, T. T. L. (2015) 'The Interconnection Between Interpretivist Paradigm and Qualitative Methods in Education', *American Journal of Educational Science*, 1(2), pp. 24–27.

The National Recovery and Resilience Plan (NRRP) - Ministry of Economy and Finance (mef.gov.it) (2021) (Accessed: 18 April 2022)

The Open University Business School (2012) *Managing People and Organizations*, The Open University.

The Open University, School of Law (2016) *Study Guide 3*, The Open University

Thiel, C.E., Hardy, J.H. III, Peterson, D.R., Welsh, D.T., Bonner, J.M. (2018) 'Too Many Sheep in the Flock? Span of Control Attenuates the Influence of Ethical Leadership'*, Journal of Applied Psychology*, 103 (12), pp. 1324-1334

Thompson, B. (2007) *Effect sizes, confidence intervals, and confidence intervals for effect sizes* doi: https://doi.org/10.1002/pits.20234

Thornhill, A., Lewis, P., Saunders, M.N.K, (2019) *Research methods for business students*, Pearson Education

Thygeson, M., Morrissey, L., & Ulstad, V. (2010) 'Adaptive leadership and the practice of medicine: A complexity-based approach to reframing the doctor–patient relationship' *Journal of Evaluation in Clinical Practice*, 16, pp. 1009-1015

Townsend, P. and Gebhart, J. (1997) *Five-Star Leadership*. New York: John Wiley and Sons Inc.

Traquandi L and Castellucci P (2002) Leadership Italian style. In: Derr CB, Roussillon S and Bournois F (eds) *Cross-cultural Approaches to Leadership Development*. Westport, CT: Quorum Books, 109–120

Treviño, L.K., Hartman, L.P., & Brown, M. (2000) 'Moral person and moral manager: How executives develop a reputation for ethical leadership', *California Management Review*, 42, 128–142.

Trianni, A. *et al.* (2013) 'Empirical investigation of energy efficiency barriers in Italian manufacturing SMEs', *Energy*, 49, pp. 444–458. Available at: https://doi.org/10.1016/j.energy.2012.10.012.

Tullis, T., & Wood, L. (2004) *How many users are enough for a card-sorting study? Paper presented at the usability professional association.* MN: Minneapolis

Uhl-Bien, M., Marion, R., & McKelvey, B. (2007) 'Complexity leadership theory: Shifting leadership from the industrial age to the knowledge era', *The Leadership Quarterly*, 18(4), 298-318. doi:10.1016/j.leaqua.2007.04.002

Vaill, P. B. (1996) *Learning as a way of being: Strategies for survival in a world of permanent white water*. San Francisco, CA: Jossey Bass

Valeras, A. S. and Cordes, C. C. (2020) 'Adaptive leadership: Becoming the change', *Families, Systems, & Health*, 38(4), pp. 495–497. doi: 10.1037/fsh0000574.

Walumbwa, F.O., Mayer, D.M., Wang, P., Wang, H., Workman, K., Christensen, A.L. (2011) 'Linking ethical leadership to employee performance: The roles of leader–member exchange, self-efficacy, and organizational identification', *Organizational Behavior and Human Decision Processes*, 115(2) 2011, 204-213

Watanabe, R.L.,Watanabe R.R. (2022) 'Kabuki leadership: cultivating adaptive leadership in a hierachical collectivist culture in Japan' in Raei, M., Rasmussen, H.T (eds). *Adaptive Leadership in a Global Economy (Routledge Studies in Leadership Research)* Taylor and Francis Kindle Edition. p.337. doi: 10.4324/9781003099109-12

Watson, D., Clark, L. A., & Tellegen, A. (1988) 'Development and validation of brief measures of positive and negative affect: The PANAS scales' *Journal of Personality and Social Psychology, 54*(6), 1063–1070. https://doi.org/10.1037/0022-3514.54.6.1063

Wolfe, K. (2015) 'Curriculum reform as adaptive leadership challenge. Change' *The Magazine of Higher Learning*, 47, 62-65. doi:10.1080/00091383.2015.1040713

Wong, G.K.W., Chan, D.L.H. (2018) 'Adaptive leadership in academic libraries'*, Library Management*, 39(1/2), pp. 106–115. doi: 10.1108/LM-06-2017-0060.

Wood, J.R. & Wood, L.E. (2008) 'Card Sorting: Current Practices and Beyond'*, Journal of usability studies*, Vol 4:1, pp.1-6

Woolard, N.A. (2018), 'Rethinking management group projects with the adaptive leadership model: The lesson is the process', *Journal of Education for Business*, 93:8, 392-402, DOI: 10.1080/08832323.2018.1496895

Wortman, M. (1982) 'Strategic management and changing leader-follower roles', *The Journal of Applied Behavioural Science* 18(3): 371–383

Wylie, D.A. (2020) 'Foot protection service redesign: an adaptive leadership approach', *Wounds* UK | Vol 16, No 2

Xiong, H.B., Fang, P. (2014) 'Authentic leadership, collective efficacy, and group performance: an empirical study in China' *Social behaviour and personality* 42(6), pp. 921-932

Xu, N, Ghahremani, H., Lemoine, G.J., Tesluk, P.E. (2021) 'Emergence of shared leadership networks in teams: An adaptive process perspective', *The Leadership Quarterly*. doi: 10.1016/j.leaqua.2021.101588.

Yaghi, A. (2017) 'Adaptive organizational leadership style. Contextualizing transformational leadership in a non-western country', Department of Political Science, United Arab Emirates University, Al Ain, *United Arab Emirates International Journal of Public Leadership* Vol. 13 No. 4, pp. 243-259 DOI 10.1108/IJPL-01-2017-0001

Yukl GA (2010) *Leadership in Organizations.* Upper Saddle River, NJ: Prentice Hall.

Yukl, G., & Mahsud, R. (2010) 'Why flexible and adaptive leadership is essential', *Consulting Psychology Journal: Practice and Research*, 62(2), 81–93. https://doi.org/10.1037/a0019835

Zaleznik, A. (1998 [1977]) 'Managers and leaders: are they different?' *Harvard business review on leadership*, Boston, MA Harvard Business School Press

Zhou, J. Ma, Y., Cheng, W., Xia, B. (2014) 'Mediating role of employee emotions in the relationship authentic leadership and employee innovation' *Social behaviour and personality* 42(8), pp. 1267-1278

Zyphur, M.J., Pierides, D.C. 'Is Quantitative Research Ethical? Tools for Ethically Practicing, Evaluating, and Using Quantitative Research' *J Bus Ethics* **143,** 1–16 (2017)https://doi.org/10.1007/s10551-017-3549-8

APPENDIX A: ETHICAL APPROVAL LETTERS FOR SURVEYS, CARD SORTING, EXPERT PANEL EVALUATION

University of Sunderland

Downloaded:
31/01/2022 Approved:
26/01/2022

Paola Novellini
Sunderland Business
School Programme:
PhD

Dear Paola

PROJECT TITLE: How can adaptive leadership behaviors be effectively measured in the corporate sector and what do they look like in Italy from the perspective of the followers?
APPLICATION: Reference Number 011237

On behalf of the University ethics reviewers who reviewed your project, I am pleased to inform you that on 26/01/2022 the above-named project was **approved** on ethics grounds, on the basis that you will adhere to the following documentation that you submitted for ethics review:

- University research ethics application form 011237 (form submission date: 17/01/2022); (expected project end date: 17/05/2022).
- Participant information sheet 1018676 version 1
- (17/01/2022). Participant consent form 1018677 version 1 (17/01/2022).

If during the course of the project you need to deviate significantly from the above-approved documentation please email ethics.review@sunderland.ac.uk

For more information please visit: https://www.sunderland.ac.uk/more/research/research-governance-integrity/researchethics/

Yours sincerely

Veronique
Laniel
Ethics
Administra
tor
University of Sunderland

University of Sunderland

Downloaded:
29/07/2022 Approved:
24/08/2020

Paola Novellini
Sunderland Business School
Programme: PROFESSIONAL DOCTORATE

Dear Paola

PROJECT TITLE: AUTHENTIC LEADERSHIP: A QUALITATIVE PERSPECTIVE THROUGH THE FOLLOWERS' LENS
APPLICATION: Reference Number 006489

On behalf of the University ethics reviewers who reviewed your project, I am pleased to inform you that on 24/08/2020 the above-named project was **approved** on ethics grounds, on the basis that you will adhere to the following documentation that you submitted for ethics review:

- University research ethics application form 006489 (form submission date: 16/07/2020); (expected project end date: 22/02/2022).
- Participant information sheet 1012680 version 2
- (16/07/2020). Participant information sheet
- 1011830 version 3 (19/04/2020). Participant consent form 1012681 version 1 (29/06/2020).
- Participant consent form 1011831 version 2 (19/04/2020).

If during the course of the project you need to deviate significantly from the above-approved documentation please email ethics.review@sunderland.ac.uk

For more information please visit:

https://www.sunderland.ac.uk/research/governance/researchethics/ Yours sincerely

Dr John
Fulton
Ethics
Administ
rator
University of Sunderland

University of Sunderland

Downloaded:
29/07/2022 Approved:
05/10/2021

Paola Novellini
Sunderland Business
School Programme:
PhD

Dear Paola

PROJECT TITLE: How can adaptive leadership behaviors be effectively measured in the corporate sector and what do they look like in Italy from the perspective of the followers?
APPLICATION: Reference Number 010107

On behalf of the University ethics reviewers who reviewed your project, I am pleased to inform you that on 05/10/2021 the above-named project was **approved** on ethics grounds, on the basis that you will adhere to the following documentation that you submitted for ethics review:

- University research ethics application form 010107 (form submission date: 21/09/2021); (expected project end date: 21/05/2022).
- Participant information sheet 1016965 version 1
- (21/09/2021). Participant consent form 1016966 version 1 (21/09/2021).

If during the course of the project you need to deviate significantly from the above-approved documentation please email ethics.review@sunderland.ac.uk

For more information please visit:

https://www.sunderland.ac.uk/research/governance/researchethics/ Yours sincerely

Veronique
Laniel
Ethics
Administra
tor
University of Sunderland

APPENDIX B: LETTER ACCOMPANYING NORTHOUSE'S AL QUESTIONNAIRE

Caro/a partecipante,
ho iniziato questa ricerca di dottorato con l'Università di Sunderland sulla leadership adattiva perchè, in questi ultimi decenni, gli sviluppi tecnologici, la globalizzazione, ed ora il covid-19 hanno portato dei forti cambiamenti nell'ambito lavorativo con la conseguente necessità di adattarsi prontamente a nuovi modelli e stili di lavoro. Se tu volessi e potessi dedicarmi 15 minuti del tuo tempo compilando questo questionario, te ne sarei molto grata. Dovresti compilarlo avendo come riferimento il tuo responsabile / capo diretto. Attenzione, non è un giudizio sul tuo capo e sulla sua leadership in generale, ma una valutazione di alcuni suoi comportamenti e modi di agire connessi specificatamente alla leadership adattiva. Heifetz, l'iniziatore di questa teoria, dice che la leadership adattiva è una pratica trasversale che può essere esercitata da tutti noi, a tutti i livelli, ed è totalmente indipendente dall'autorità. E' una pratica in grado di portare le persone al di fuori delle loro zone di comfort e affrontare le sfide più difficili. Con questa prima indagine vorrei capire, anche grazie al tuo sguardo, quanto la leadership adattiva sia diffusa e come sia percepita nelle nostre aziende.

Puoi scrivermi a pnovellini@yahoo.it se desideri ulteriori informazioni riguardo alla ricerca.
Sebbene tu personalmente possa non ricevere benefici diretti dalla partecipazione a questo studio, i risultati ottenuti potrebbero offrire una più ampia e profonda comprensione della leadership adattiva in ambito lavorativo e, perchè no, magari potrebbero aiutare ad implementare migliorie nelle nostre aziende italiane in futuro. L'indagine è totalmente anonima e la privacy è totalmente garantita.
Oltre al tempo richiesto per rispondere alle domande, non ci sono rischi percepiti nella partecipazione a questo studio. Se comunque tu dovessi sentirti a disagio nel rispondere a qualche domanda, in qualsiasi momento puoi fermarti, non sei tenuto/a a continuare. La partecipazione è totalmente volontaria. Anzi, se alla fine del questionario tu scoprissi di essere interessato/a all'argomento e volessi partecipare anche alla seconda parte di questo studio, che è un'intervista online, ti prego di contattarmi via email scrivendo a pnovellini@yahoo.it.
Il completamento del questionario implica il fatto che tu abbia letto quanto appena scritto e che tu acconsenta a partecipare allo studio.
I risultati dello studio saranno conservati nel Repository dell'Università di Sunderland. Se consoni agli standard, potrebbero anche essere presentati a conferenze accademiche e/o riportati in pubblicazioni.
Lo studio è stato esaminato dal Presidente del 'University of Sunderland Research Ethics Committee' che puoi contattare per ulteriori informazioni:
Dr John Fulton
Email: john.fulton@sunderland.ac.uk
Phone: +44 0191 515 2529

Grazie ancora e buon questionario!

Paola

APPENDIX C: NORTHOUSE'S AL QUESTIONNAIRE TRANSLATED FROM ITALIAN BACK INTO ENGLISH

1. When difficulties emerge in your work place your boss is able to take a step back and evaluate the dynamics of the people involved.
2. When the events initiate strong emotive reactions between colleagues your boss uses his/her authority to resolve the problem.
3. When you and your colleagues feel insecure with regards to some organizational changes your boss is able to support you through the changes.
4. In difficult situations, your boss helps colleagues to concentrate their attention on some problems that they try to avoid.
5. When colleagues are in difficulty in making a decision, your boss tells them what he thinks they should do.
6. During difficult moments of change, your boss accepts the point of view of those that have a lower job position
7. In some difficult situations your boss loses a general vision on things
8. When conflicts regarding ethics occur between colleagues your boss uses his professionalism to tell them what to do
9. When there are conflicts between colleagues that create problems, your boss encourages them to resolve them
10. During moments of organizational change, your boss pushes colleagues to face the more critical problems
11. When your colleagues expect to receive answers from your boss, instead he/she pushes them to reason with their own minds
12. Your boss listens with attention also to colleagues with extreme ideas/views
13. When your boss does not agree with colleagues, he/she finds it difficult to listen to what they are really saying.
14. When some of your colleagues are in complete conflict, your boss intervenes to resolve things
15. Your boss is able to support you an your colleagues in difficult moments
16. When your colleagues try to avoid critical organizational contrast, your boss tries to bring these conflicts to the surface and in the open
17. Your boss encourages you and your colleagues to take initiative and resolve the problem
18. Your boss accepts those that have particular ideas and that could put obstacles in the way in group work
19. In difficult situations your boss tends to observe who is involved and tries to understand what is really happening
20. Your boss encourages people to speak about real problems that exist in the workplace and does not consider them taboo.
21. My colleagues recognise that my boss has the capability to deal with difficulties and serious problems
22. My boss thinks that it is reasonable to let people avoid facing problematic situations
23. When colleagues refer to your boss to resolve problems, your boss is ready to propose a solution
24. Your boss tends to listen to people that seem not to be in line with other colleagues
25. In a situation of conflict your boss is able to keep his distance and see things from another perspective
26. Your boss tries his /her best to help people to find new ways to face organizational problems
27. Your colleagues have the perception that your boss is a strong person that remains solid during difficulties
28. With the intent to bring things forward your boss allows people to avoid affronting difficult problems
29. When colleagues are unsure about what to do, your boss empowers them and helps them make a decision
30. To re-establish a balance inside the workplace your boss tries to neutralize comments from members with different ideas from the dominant ones

APPENDIX D: LETTER ACCOMPANYING THE CARD SORTING ACTIVITY

Caro/a partecipante,

ho iniziato questa ricerca di dottorato con l'Università di Sunderland sulla leadership adattiva perchè, in questi ultimi decenni, gli sviluppi tecnologici, la globalizzazione, ed ora il covid-19 hanno portato dei forti cambiamenti nell'ambito lavorativo con la conseguente necessità di adattarsi prontamente a nuovi modelli e stili di lavoro. Se tu vuoi e puoi dedicarmi 20 minuti del tuo tempo compilando questo file, te ne sono molto grata. Dai risultati emersi dall'analisi del questionario di Northouse (2016) compilato da 400 rispondenti italiani, sembra che questo strumento sia affidabile, e cioè abbia una coerenza e consistenza interna, ma sembra che non sia sufficientemente valido, e cioè non misuri ciò che dice di voler misurare. Dal momento che in letteratura ci sono pochissime pubblicazioni che approcciano la leadership adattiva da una prospettiva quantitativa, sto cercando di apportare dei cambiamenti e delle migliorie a questo questionario, che possa diventare uno strumento valido di misurazione della leadership adattiva.

Puoi scrivermi a questo indirizzo email se desideri ulteriori informazioni riguardo alla ricerca.
Sebbene non credo tu personalmente possa ricevere benefici diretti dalla partecipazione a questo studio, i risultati ottenuti potrebbero offrire una più ampia e profonda comprensione della leadership adattiva in ambito lavorativo e, perchè no, magari potrebbero aiutare ad implementare migliorie nelle nostre aziende italiane in futuro. L'indagine è totalmente anonima e la privacy è totalmente garantita.
Oltre al tempo richiesto per compilare la scheda allegata di card sorting, non ci sono rischi percepiti nella partecipazione a questo studio. Se comunque tu dovessi sentirti a disagio nel fare questo lavoro, in qualsiasi momento puoi fermarti, non sei tenuto/a a continuare. La partecipazione è totalmente volontaria.

Il completamento del card sorting file implica il fatto che tu abbia letto quanto scritto sopra e che tu acconsenta di partecipare allo studio.

I risultati dello studio saranno conservati nel Repository dell'Università di Sunderland. Se consoni agli standard, potrebbero anche essere presentati a conferenze accademiche e/o riportati in pubblicazioni.
Lo studio è stato esaminato dal Presidente della Commissione Etica per la Ricerca dell'Università di Sunderland che puoi contattare per ulteriori informazioni:
Dr John Fulton
Email: john.fulton@sunderland.ac.uk
Phone: +44 0191 515 2529

Grazie ancora!

Paola

APPENDIX E: LETTER ACCOMPANYING THE IALBQ

Caro/a partecipante,
sono arrivata all'ultima fase della mia ricerca di dottorato sulla leadership adattiva, che, nei termini di Heifetz, il suo iniziatore, è una pratica accessibile a tutti, a tutti i livelli, indipendentemente da ruolo o autorità. E' una pratica in grado di portare le persone al di fuori delle loro zone comfort e ad affrontare le sfide più difficili. Nella letteratura scientifica sembra non ci siano ancora strumenti che la possano misurare. Questo è il mio intento, creare un questionario affidabile e valido per misurare la percezione della leadership adattiva in ambito lavorativo.

Se puoi dedicarmi 10 minuti del tuo tempo compilandolo, te ne sono grata. Quando lo compili pensa al tuo capo diretto. Attenzione, non è un giudizio sul tuo capo, è solo una valutazione di alcuni suoi comportamenti legati alla leadership adattiva.

Sebbene non penso tu possa ricevere benefici diretti dalla partecipazione a questo studio, i risultati ottenuti potrebbero offrire una più ampia e profonda comprensione della leadership adattiva in ambito lavorativo. L'indagine è totalmente anonima e la privacy è totalmente garantita. Non ci sono rischi percepiti nella partecipazione allo studio. Se comunque tu dovessi sentirti a disagio mentre stai compilando il questionario, in qualsiasi momento puoi fermarti, non sei tenuto/a a continuare. La partecipazione è totalmente volontaria ed implica il fatto che tu abbia letto quanto sopra e che tu acconsenta a compilare il questionario.

I risultati dello studio saranno conservati nel Repository dell'Università di Sunderland. Se consoni agli standard, potrebbero anche essere presentati a conferenze accademiche e/o riportati in pubblicazioni.
Lo studio è stato esaminato dal Presidente della commissione etica per la ricerca dell'Università di Sunderland che puoi contattare per ulteriori informazioni:
Dr John Fulton Email: john.fulton@sunderland.ac.uk
Phone: +44 0191 515 2529

Puoi riscrivermi a pnovellini@yahoo.it se desideri ulteriori informazioni riguardo alla ricerca. Buon questionario!
Grazie infinite,
Paola

APPENDIX F: THE ITALIAN VERSION OF THE IALBQ

1) Quando delle difficoltà emergono nella nostra organizzazione, il mio capo fa un passo indietro e valuta le dinamiche tra le persone coinvolte
2) Il mio capo comprende le esigenze dei suoi collaboratori
3) In situazioni complesse, il mio capo spinge le persone a focalizzarsi sui problemi reali
4R) Il mio capo agisce in modo accentratore
5) Il mio capo permette che le idee di chi gioca il ruolo dell'avvocato del diavolo possano essere ascoltate da tutti
6R) Il mio capo reagisce in modo impulsivo senza riflettere
7) Il mio capo si prende il giusto tempo per analizzare i problemi al lavoro
8) Il mio capo prende le difese dei suoi collaboratori di fronte ai superiori
9) Il mio capo concentra la sua attenzione sui problemi reali
10) Il mio capo dà la possibilità ai suoi collaboratori di prendere l'iniziativa
11) Il mio capo è aperto alle persone che esprimono idee insolite, anche se questo implica il ritardare il prendere decisioni
12R) In situazioni difficili il mio capo si lascia trascinare dagli eventi senza essere in grado di prenderne le distanze
13) Il mio capo aiuta i collaboratori ad imparare dai propri errori
14) Il mio capo si batte per risolvere il problema reale senza paura di metterci la faccia
15R) Il mio capo propone soluzioni sbrigative e comode senza esaminare a sufficienza la situazione
16) Il mio capo dà delle responsabilità ai suoi collaboratori
17) Il mio capo cerca di comprendere anche le idee di chi non è in linea con il resto del gruppo
18) Il mio capo pensa a 360 gradi quando ci siano questioni organizzative da affrontare
19R) Il mio capo fa ricadere la responsabilità sui collaboratori quando qualcosa va storto
20R) Il mio capo decide al posto dei suoi collaboratori
21) Il mio capo analizza i pro e contro di ciò che i collaboratori gli/le dicono
22R) Al fine di consolidare lo status quo nell'organizzazione, il mio capo ignora le idee di membri del gruppo che hanno idee diverse
23) Il mio capo offre assistenza ai collaboratori nonostante lui/lei sia in difficoltà

APPENDIX G: LETTER ACCOMPANYING THE EXPERT EVALUATION FORM

Dear Expert,

Here attached you will find the questionnaire in English and in Italian, the briefing and the questionnaire evaluation form to be completed and sent back, if possible, by Mon 14th February 2022.

Participation is entirely voluntary. If you change your mind about taking part in the study, you can withdraw at any point during the session without giving a reason and without any penalty.

There are no risks or disadvantages in participating in this study. Anonymity and confidentiality of data are guaranteed, unless you are happy with the idea of your views being disclosed. In this case, please let me know about it.

If you are also happy with your name being mentioned in the PhD, please let me know. I will be grateful if you allow me to do so.

If you change your mind about participation, please contact me by email to cancel your participation. If you feel dissatisfied with the conduct of the study, please contact me or the Chairperson of the University of Sunderland Research Ethics Group, whose contact details are given below.

The results of this study will be filed in the University of Sunderland Repository. If suitable, the results may also be presented at academic conferences and/or written up for publication in peer reviewed academic journals.

I am a self-funding researcher. The University of Sunderland Research Ethics Group has reviewed and approved the study. For further information contact: Doctor John Fulton (President of the University of Sunderland Research Ethics Group, University of Sunderland) Email: john.fulton@sunderland.ac.uk Phone: +44 0191 515 2529

I thank you very much in advance and look forward to receiving your evaluation form by Monday 14th February 2022, if possible.

Best wishes
paola

APPENDIX H: BRIEFING ACCOMPANYING THE EXPERT EVALUATION FORM

PhD – Paola Novellini – University of Sunderland Business School

'How can adaptive leadership behaviors be effectively measured in the corporate sector and what do they look like in Italy from the perspective of the followers?'

In the last 20 years the academic literature benefitted from a number of publications about adaptive leadership, many of which were qualitative research studies and a few that dealt with it through the quantitative lens (Northouse, 2016). This PhD project aims to contribute to literature from a quantitative perspective, specifically by improving the measurement of the perception of adaptive leadership behaviors in the corporate context in Italy.

The research has a multi-method quantitative design. During the first stage of the research data was collected by circulating Northouse's (2016) adaptive leadership questionnaire to a sample of 400 Italian respondents. An interesting aspect that came to surface is that Italian respondents did not consider reversed score questions as such because in Italy directive/authoritative leadership is seen positively (Tavanti, 2021) rather than negatively. In the light of the data analysis results, it was necessary to design a new questionnaire which could be used specifically in the Italian context considering some features of the Italian culture which might be impacting on the perception of leadership and the perception of phraseology used in the instrument of measure.

The Italian corporate context seems to be characterized by widespread directive leadership and highly hierarchical structures (Bruni, 2016). This PhD project aims to measure the perception of adaptive leadership behaviors across this context. Adaptive leadership within this research is defined as "the activity of mobilizing people to tackle the toughest problems and do the adaptive work necessary to achieve progress" (Heifetz *et al*., 2004, p.24).

The perspective is that of the followers. This term has no philosophical implications within this research, but it is just used to mean all those who have a boss to report to, all those who are at a lower level in the corporate hierarchy than their superior whose adaptive leadership behaviors will be assessed. Hence, the perspective is bottom up across the Italian corporate hierarchy.

The reference adaptive leadership theory is that by Heifetz (1994), which is based on six dimensions:

- 1) getting on the balcony, which means being able to step back and observe reality
- 2) identifying the adaptive challenge, which means understanding what problems need to be solved by implementing a change of habits, assumptions, values, and perspectives
- 3) regulating distress, which means 'keeping the heat up without blowing up the vessel'
- 4) maintaining disciplined attention, which means directing attention to the real problem and counteracting work avoidance mechanisms, without getting drifted away by stress-reducing distractions

- 5) giving the work back to the people, which means trusting coworkers, empowering them, and making them responsible for the adaptive work they must do
- 6) protecting leadership voices from below, which means to take into consideration the voice of coworkers who are not in power positions

Since this PhD project aims to measure the perception that followers have of their bosses' adaptive leadership behaviors, referring to this model was considered necessary. The reason is because this framework is based on six latent dimensions which could be ideally measured if translated into observable behaviors i.e., the items of the questionnaire (Saunders *et al*., 2012).

All items included in the newly designed questionnaire were validated using the participants' consensus (Easterby-Smith *et al*., 2012). This consensus was obtained during a card sorting activity. 21-25 participants on a voluntary basis were asked to match each statement with one of the six dimensions of the adaptive leadership framework. Every time 85% of the respondents would match a statement with the correct dimension, this statement would be considered eligible to express that dimension, hence it would become an item of the questionnaire. Out of 90 statements, 23 were validated. The 23-item questionnaire was circulated to 459 Italian respondents who were asked to assess how frequently their boss would demonstrate certain behaviors on a scale from 1 (never) to 5 (always). The data is being analyzed by performing some statistical tests and using statistical methods (*i.e*., Cronbach's Alfa, Exploratory Factor Analysis, Confirmatory Factor Analysis, Pearson Correlation Coefficient, ANOVA, *etc*.).

The questionnaire was designed in line with 5 good rules (Easterby-Smith *et al*., 2012): 1) reversed score questions were introduced with the view to monitor the answers' variability; 2) each item expresses only one idea, therefore, each statement does not ask more than one thing at the same time; 3) no jargon or colloquialism is present in the questionnaire items to avoid communication problems and the language used is plain and simple; 4) the use of negatives is avoided; 5) leading questions are avoided.

In order to reduce the possibility for the specific boss-respondent relationship to impact on the variability of the answers, each questionnaire item was designed focusing on the boss' behavior in relation to the respondent's colleagues, in general, so that the respondent would not need to refer to his/her own personal experience and relationship with his/her boss. Moreover, the newly designed questionnaire has a 5-point unipolar Likert scale (never, rarely, neutral, often, always) to allow respondents to think about how frequently a specific behavior takes place and perceive the dynamism of adaptive leadership conceived as a practice, and not as a style or a personality trait (Heifetz, 2009). In this respect, with the view to guarantee the highest level of accuracy possible, the observations were considered eligible to be part of the sample only if they did not have more than 8 'neutral' answers out of 23 (which is one third of the total for each observation).

While designing the statements for the questionnaire, some characteristics of the Italian culture were kept in consideration. Italy seems to score very highly in 'power distance', 'uncertainty avoidance' and 'masculinity' (Hofstede et al., 2001).

As regards 'power distance' Italians, in general, not only those in position of power but also those who are not in position of power, seem to expect that some individuals and groups in the community are more powerful than others and that power is distributed unequally. The Italian culture seems to accept and

encourage authority, power differences and status privileges. As a result, people who are not in power positions do not expect to be asked what to do, but they expect to be told what to do. They consider centralization popular whereas decentralization seems to be less desirable (Tavanti, 2021).

As regards 'uncertainty avoidance' Italians seem to perceive what is different as dangerous and seem not to tolerate ambiguity and uncertainty. Research showed that they tend to avoid risk and opt for friends over strangers and familiar situations over new ones (Gannon and Pillai, 2010).

As regards 'masculinity', Italy seems to have a very masculine society. It seems that Italian companies expect men and not women to reach the top of the hierarchy and at the same time women do not have the ambition to. Such a division of roles is considered natural both by men and women (Traquandi and Castellucci, 2002).

For this reason, during the preparation of the new questionnaire, statements referring to authoritative and directive leadership were avoided, since this type of leadership is considered positive by the Italians. Statements referring to open conflict management were also avoided, considering that adaptive leadership should be exercised in a Zone of Productive Disequilibrium (Heifetz *et al.*, 2009) where stress and pressure for the people involved should be perceived acceptable.

I would kindly ask you to assess the questionnaire, considering some features of the Italian culture reported above and trying to think about how adaptive leadership behaviors might be perceived, put in practice, and harmonized within the Italian cultural context.

APPENDIX I: PROF NORTHOUSE'S PERMISSION TO USE THE ADAPTIVE LEADERSHIP QUESTIONNAIRE

Peter G Northouse <peter.northouse@wmich.edu>
A: pnovellini@yahoo.it

lun 14 dic alle ore 17:51

Dear Paola,

Thank you for contacting me regarding your research. You have my permission to use the Adaptive Leadership Questionnaire for research purposes only. Please send me a summary of your findings when your study is completed.

Best of luck with your work.

Sincerely,

Peter G. Northouse, PhD

Re: Permission

Yahoo/In arrivo

Peter G Northouse <peter.northouse@wmich.edu>
A: Paola Novellini

lun 14 dic alle ore 18:32

Dear Paola,

I created the questionnaire as a self-assessment instrument. I do not know of others who have used the questionnaire for research. I do think you could test the psychometric properties of the questionnaire as a part of your research study.

All the best,

Peter G. Northouse, PhD