DOCTORAL PhD DISSERTATION

Effective leadership in crisis situation

Thomas Solderits

University Sopron
Sopron
2023

Abstract

The background of this dissertation is a fundamental question that the author, a leader in the automotive industry, asked himself at the beginning of the COVID-19 pandemic, "How much is this crisis affecting his employees and he as a leader take measures to positively influence the behavior of his employees?" To investigate this question, it is important to research the reasons why employees leave the company at the beginning of a big crisis like the COVID-19 pandemic. Hence hypothesis I was developed

H1: Money is not the main reason why employees from the high-performance culture in the automotive industry are leaving the company in the first year of the COVID-19 crisis in 2020.

Based on the results out of hypothesis I from the first year of the crisis in 2020, another questions and assumptions arose regarding the further course of the COVID-19 pandemic in the following years 2021 and 2022 and hypothesis II was formed

H2: The longer the COVID-19 crisis lasts, the more money becomes the reason why employees from the high-performance culture leave the company in the automotive industry.

With the knowledge from hypothesis I and hypothesis II and that a large part of the leavings can be influenced by appropriate leadership methods, the last and decisive hypothesis III

H3: "PESSOA leadership" can be a crisis-resilient leadership method for the highperformance culture in the automotive industry.

The acronym "PESSOA" is derived from the Portuguese word for "human", emphasizing the importance of people and relationships in this leadership method, newly invented in this dissertation, that combines approaches of the following elements:

- **P** stands for positive leadership
- **E** stands for empowerment
- S stands for strength-based leadership
- S stands for strength-based workstyle
- O stands for ownership
- A stands for agile work style

This leadership style values the strengths and potential of individuals and their cooperation in the teams and aims to create a supportive and empowering work environment that allows them to reach their full potential. The focus is on people and relationships (Pessoa), with an emphasis on promoting positivity, collaboration, and adaptability in the workplace. The goal is to boost job satisfaction, reduce turnover, and increase productivity by creating a culture of trust, ownership, and innovation.

The methodology in this dissertation focuses on both, quantitative and qualitative methods. Based on the grounded theory model and the resulting intensive economic-philosophical literature research why employees leave the company in the COVID-19 crisis, a survey was developed to analyse these reasons and to test hypotheses I and II.

In order to test hypothesis III in the subsequent step, further literature research on state-of-the-art leadership methods, agile workstyle, empowerment and ownership was carried out, checked using the "PESSOA experiment" and the results were discussed as well as the efficiency rated by experts in an interview.

The results are unequivocally positive, and all hypotheses were confirmed. Indeed, PESSOA leadership, a model developed in this thesis based on six pillars, has proven to be a crisis-resilient leadership tool.

Contents

Li	st of	Figure	5
Li	st of	Table	5
1.		Introduction	6
	1.1.	Background of the research	7
	1.2.	Research gap, research questions and hypotheses	8
	1.3.	Methodical approach	10
2.		Reasons why automotive employees leave during COVID-19	13
	2.1.	Answering research questions I with hypotheses I and II	13
3.		PESSOA Leadership	17
	3.1.	The PESSOA experiment	18
	3.2.	Answering research question II with hypothesis III	20
4.		Conclusion	22
5.		New scientific findings	26
6.		References	. 31

List of Figure

- Figure 1. Reasons employees left the company during COVID-19 in 2020 [%]
- Figure 2. Reasons employees left the company during COVID-19 in 2022 [%]
- Figure 3. Basic TEAMS KANBAN board design, used in the experiment
- Figure 4. Top three reasons employees left the company from 2020 to 2022
- Figure 5. The PESSOA car including the 6 values for PESSOA leadership

List of Table

- Table 1. Leaving the company 2020 to 2022 all employees, female and male
- Table 2. Ranking of the reasons why employees left the company in 2020
- Table 3. Reasons employees left the company during COVID-19 in 2021
- Table 4. Reasons employees left the company during COVID-19 in 2022
- Table 5. The six pillars of PESSOA leadership and the associated references
- Table 6. Research question and hypotheses conclusion

1. Introduction

At the beginning of 2020, the corona virus had already spread worldwide and on January 11, China reported the first Corona-related death. At first only China was affected and other countries still thought they were safe. After it became known that the virus can be transmitted from person to person, the World Health Organization (WHO) was involved and shortly afterwards the virus arrived in Europe.

Even before the virus has reached Europe, the financial market on the stock exchange already collapsed – daily price declines fueled fears of the economic consequences and the enormous and lasting impact on the capital market became clear very quick. Institutions such as schools and universities were closed overnight and children were taught online at home for months. Companies switched to home office within days and implemented government-backed short-time work. Especially at the beginning, when people still believed in a short crisis and not in a global pandemic, shops and all non-essential facilities were also closed, only grocery stores, pharmacies, hospitals and gas stations were allowed to remain open - that was the first lock down; and countless more lockdowns worldwide have followed since.

Crises have existed as long as humanity has existed and the effects of a crisis are diverse, but the impact of the COVID-19 pandemic affects all areas, the political, economic, social, technical, environmental and legal areas (PESTEL) and has lasted for three years at the time this paper was written, making this crisis unique and very destructive. From the social perspective, the micro level, that of the individual and the family, to the meso level, the work area, groups and companies, to the macro level, under which institutions or governments are classified - everyone has been affected on a global scale.

Of course, crises always have an impact on leadership, or rather on the leadership methods that are used, especially in crises (crisis management), but the developments necessitated by the COVID-19 pandemic are so drastic that nobody could expect the effects. In addition, after three years of the pandemic, one can no longer speak of crisis management - crisis management has become the new standard. Since the world is currently changing very quickly in addition to the COVID-19 pandemic there is a war in the Ukraine, in the middle of Europe, the so-called VUCA world (volatility, uncertainty, complexity, ambiguity), a world where crises are happening more and more often at shorter intervals, makes it essential for leaders to find the right leadership approach for active countermeasures. It must be asked what this constant crisis management looks like and how this crisis management can be

sustainable in the future, despite a constantly changing VUCA world. This is where this dissertation comes into play with the answer: "PESSOA leadership".

Old management methods for leading people can no longer be applied and decision making must take place at the working level in order to be able to react to changes more quickly. If possible, the optimum is that the company acts proactively to make suggestions for new products and services to the customer before they even knows that they might need them in the future. In this constantly changing situation and with the currently most modern leadership methods, this work starts on the basis of Seligman's (2006) PERMA model of positive psychology. With these models, including the further development of the PERMA model by Markus Ebner (2020) to the PERMA lead model, the author orientates himself and combines the modern approaches of ownership and empowerment, with strength-based leadership and agile work methods and develops the new, crisis-resistant and sustainable method which he calls "PESSOA leadership", the Portuguese acronym for "human".

1.1. Background of the research

The anchor and, thus, the basis of the background of the research is a fundamental question that the author, a leader in the automotive industry, asked himself at the beginning of the COVID-19 pandemic, "How much is the COVID-19 crisis affecting his employees and can a leader do something to positively influence the behavior of the employees?"

The first priority and most important motivation behind this question is to keep the personal well-being and quality of life of his employees at a good level (Pessoa), even in a crisis like the COVID-19 pandemic. Other reasons take a back seat, but arise automatically, such as increased performance of a satisfied team and, thus, increased competitiveness in the automotive industry, which was already badly hit by the crisis.

To answer the question, the social behavior in a crisis must first be studied and analyzed. The focus is on the micro and meso level, which means in particular the individual, the employee, and their environment in the area of work. In a further step, it is important to know how strongly an in what way the employees are affected by the crisis. Are they "only" stressed, or does it goes as far as the point of depression with the result of quitting the company?

Once the effects and their background have been clarified, the next step is to find possible influencing factors from scientific studies based on current literature research in order to influence the employees positively.

1.2. Research gap, research questions and hypotheses

In the course of a professional life one hears the statement "money is not everything" again and again. And in fact, scientific studies very rarely find money as a reason among the top three reasons why employees quit.

In addition to this gap, the results go in different directions and none of these studies examines the reasons in the high-performance culture in the automotive industry for a longer period of time in a crisis like the COVID-19 pandemic, in order to analyze not only the motivation why employees leaving, but also if this reason possibly changes in the course of the crisis.

The author formulates the research gap of this dissertation:

• The investigation of the reasons why employees from the high-performance culture in the automotive industry quit during the COVID-19 crisis and whether these reasons change or remain the same from January 2020 to December 2022

The reason why there is still a research gap here is not surprising, since there has never been such a long-lasting pandemic as the COVID-19 crisis with the lasting impact on the entire world economy.

Out of this research gap, the author develops the first research question:

• Q1: Why do employees from high-performance culture in the automotive industry quit their job during the COVID-10 pandemic and these reasons remain the same during the crisis (comparison of the first year 2020 with the years 2021 and 2022)?

A psychological-economic analysis is needed, to understand the influence and the associated behavior of employees of a high-performance culture in the automotive industry in the COVID-19 crisis. The most severe action of an employee triggered by a crisis is to resign and leave the company. It must, therefore, be understood why employees in the automotive industry quit during the crisis, resulting in the first research question which revolves around

the subject of the background why employees leave. The author developed two hypotheses, H1 and H2 to be able to fully answer the research question Q1. To get to the bottom of the first part of the research question Q1, the author formulates the hypothesis I:

• H1: Money is not the main reason why employees from the high-performance culture in the automotive industry are leaving the company in the first year of the COVID-19 crisis in 2020.

Once the different reasons for the resigning of employees in the automotive industry has been clarified for 2020 with H1, the second part of the research question Q1 is: "Is the reason why employees in the COVID-19 crisis resign the same as in 2020 over the entire course of the crisis or does the reason change?" Here the development for hypothesis H2 starts.

From a psychosocial point of view, it can certainly be the case that in major crises such as the COVID-19 crisis, people initially resign without much consideration due to bounded rational reasons or for rationally incomprehensible reasons. It is, therefore, quite possible that after some time of such a severe crisis, people will weigh the decision to quit very carefully and make decisions more rational e.g. about the financial impact of the crisis on the individual, but also on the entire family. Against this background, the second research question is formulated hypothesis II as follows:

H2: The longer the COVID-19 crisis lasts, the more money becomes the reason why
employees from the high performance culture in the automotive industry leave the
company.

On the one hand, the economic-psychological behavior of employees in the automotive industry in a crisis, has been clearly proven to be possibly influenced by appropriate leadership methods in a wide variety of literature research and previous publications by the author. On the other hand, by analyzing the reasons why employees quit, a large part can be traced back to leadership or, at least, can also be strongly influenced by appropriate leadership methods.

The knowledge gained from research question Q1 by answering hypotheses H1 and H2 creates another research gap, which can be covered by the second research question:

• Q2: Which crisis-resistant management methods need to be used in this VUCA world and the resulting constant and rapid changes for high-performance cultures in the automotive industry for the COVID-19 endemic?

The COVID-19 pandemic not only has an impact on the global health system and the global economy. With the almost forgotten problems such as global warming, refugee crises all over the world and the Ukraine war in Europe that has been raging since February 2022 (in which the whole world is meantime involved), the entire area that can be described by a PESTEL analysis is affected - and that consistently and sustainably.

In the area of high-performance culture in the automotive industry, standard leadership methods are therefore not applicable in this constantly changing VUCA world. Even crisis management fails because the world is in constant crisis and constant change.

From the research gap, the research question and the circumstances described, resulting hypothesis III:

• H3: "PESSOA leadership" can be a crisis-resilient leadership method for the highperformance culture in the automotive industry.

1.3. Methodical approach

This work is intended to provide a detailed insight into the background of the behavior of employees in the automotive industry during a crisis. In order to be able to react to these effects and take countermeasures with appropriate leadership methods, a deep understanding is required.

For this reason, extensive literature research is carried out on scientific work, primarily from publications and books, but also online from e-books and works published online, such as from journals and, of course, from various libraries of universities and institutes.

The basis for further research and for this dissertation was the author's own publication entitled "Leadership influence on employee's behavior in the automotive industry in the Corona crisis" (Solderits, 2021). The work is based on the grounded theory model to confirm the hypothesis that leadership can influence the behavior of employees in the automotive industry in the COVID-19 crisis. The result of this research paper showed a clear connection between leadership and employee behavior in the crisis.

Based on that scientifically proven influence of leadership on employees' behavior in a crisis by the author, hypothesis H1 of this dissertation was developed:

• H1: Money is not the main reason why employees from the high-performance culture in the automotive industry are leaving the company in the first year of the COVID-19 crisis in 2020.

The methodology to test this hypothesis involves a survey of employees from the high-performance culture in the automotive industry who quit during the COVID-19 pandemic. The first step was the development of a survey detailing the reasons why employees leave. In a further step, it had to be ensured that every employee who left the company also took part in this survey and also completed it correctly. The survey was conducted during the first year of the COVID-19 pandemic from January 2020 to December 2020 in the automotive industry among a business unit of almost 1,800 employees worldwide, where nearly 100 employees left the company in 2020.

Since the pandemic has lasted a very long time, in contrast to other crises, another question is interesting - the development of the reasons why employees quit and whether these reasons are changing, formulated in hypothesis:

H2: The longer the COVID-19 crisis lasts, the more money becomes the reason why
employees from the high performance culture in the automotive industry leave the
company.

This hypothesis is based on the same research question. Therefore, the same survey design was used as in hypothesis H1 but with the data from the second and third year of the pandemic (January 2021 to December 2021 as well as January 2022 to December 2022) as a comparison to the first year of COVID-19 (January 2020 till December 2020).

For the second hypothesis H2 the author developed and conducted in addition to the quantitative analysis of the survey, a qualitative method in the form of an interview with an executive in the automotive industry, leading employees who took part in the survey, who could confirm the result with his own observations.

In addition to the hypothesis H1 and H2, comparisons between female and male are made in order to use the information contained in the data. Even if these data cannot show the high

statistical significance, a very interesting trend can be seen that can be used as a basis for further research.

After the reasons why employees quit in the various phases of the COVID-19 crisis are clear and the majority of the resignation have been proven by the author to be clearly influenced by leadership, the final question is of course, "Which leadership method to use in such a constantly changing VUCA World?" This leads directly to hypothesis:

• H3: "PESSOA leadership" can be a crisis-resilient leadership method for the highperformance culture in the automotive industry.

A literature review about the state-of-the-art leadership method, as well as further development of positive psychology and the PERMA model by Martin Seligman (1998) was done to test this hypothesis.

In addition to that, the author concluded an experiment in one of the top 5 companies of the automotive industry in global sales (Kords, 2021) about leadership methods in an agile work environment. Based on the grounded theory, with the experience of leadership during COVID-19 of over 100 employees at 8 locations in Europe, the author sees the solution in the "positive psychology approach with the PERMA model, in combination with strength-based leadership elements and agile working, empowered employees who make decisions, based on implemented ownership methods, already at the working level"—which the author summarized in chapter 4. as his own, newly developed model - the PESSOA leadership.

2. Reasons why automotive employees leave during COVID-19

Below is the overview of the leavings, visualized for the COVID-19 pandemic from 2020 to 2022, overall as well as individual for female and male.

Table 1. Leaving the company 2020 to 2022 – all employees, female and male

Gender	Leaving in 2020	Leaving in 2021	Leaving in 2022
all employees	n=98	n=154	n=137
male	n=63	n=111	n=105
female	n=35	n=43	n=32

Source: author's analysis

2.1. Answering research questions I with hypotheses I and II

In this section, the two hypotheses H1 and H2 are answered in detail, using the data analyzed based on the survey. For this reason the chapter is divided into two parts, corresponding to the two hypotheses.

• Hypothesis H1: Money is not the main reason why employees from the highperformance culture in the automotive industry are leaving the company in the first year of the COVID-19 crisis in 2020.

To interpret the analysis why employees quit their job in the first year of the COVID pandemic in 2020, a ranking of the reasons was done in table 2:

Table 2. Ranking of the reasons why employees left the company in 2020

Reason to leave	Percentage [%]
Maternity	30 %
Leadership	29 %
Money	26 %
Personal	13 %
Other reason	3 %

Source: author's analysis

In a first view it is visible, that the reasons employees left the company can be summarized just by three reasons, each about a third division – Maternity/Leadership/Money.

Another interesting step is to check the gender, to see whether there is a difference between males and/or females or an entirely different result can be found. The results of this analysis are summarized in the diagram below.

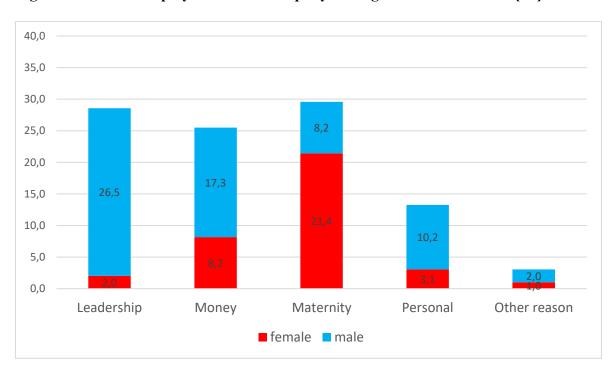


Figure 1. Reasons employees left the company during COVID-19 in 2020 [%]

Source: author's analysis

The results also support the trend that, for the individual group of females and males, money is not the main reason why they left the company in the automotive industry in the first year of the COVID-19 crisis in 2020 – for females it is maternity and for males it is leadership, which are by the way the reason no. 1 and no. 2 in the ranking in table 2. above.

Knowing, that money is not the reason why employees quit in the first year of the pandemic, the focuses will change now on the analysis of the second COVID-19 year from January to December in 2021 with the aim of analyzing possible changes of reasons to leave the company in the automotive industry, based on different behavior and decision making when a crisis lasts longer.

 Hypothesis H2: The longer the COVID-19 crisis lasts, the more money becomes the reason why employees from the high-performance culture leave the company in the automotive industry. Considering the results obtained throughout the period of three years from January 2020 to December 2022, the hypothesis H2 is supported already in 2021 with 35% leafing's because of money.

Table 3. Reasons employees left the company during COVID-19 in 2021

Reason to leave	Percentage [%]
Money	35 %
Personal	31 %
Leadership	23 %
Maternity	10 %
Other reason	1 %

Source: author's analysis

Even money is the main reason in 2021, but just with small distance of 4% to personal reason and 12% to leadership, one year later, the result is shockingly clear. In 2022, 49%, this means every second employee, left the company because of money, visible in the table below:

Table 4. Reasons employees left the company during COVID-19 in 2022

Reason to leave	Percentage [%]	
Money	49 %	
Leadership	21 %	
Personal	20 %	
Maternity	7 %	
Other reason	3 %	

Source: author's analysis

To be able to see a trend if this is also valid for the individual group of females and males, the following diagram present the result of the analysis of gender for 2022:

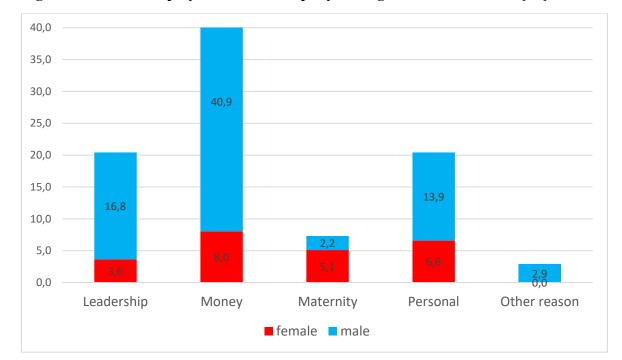


Figure 2. Reasons employees left the company during COVID-19 in 2022 [%]

Source: author's analysis

In the table 4. is the result, that every second employee left the company in 2022 (all employee, females and males together), but also in the diagram 2 above, the result why females and males left the company is also clearly visible.

- For men, money is by far the top reason with 41% followed by leadership with 17%, which is less than half of the importance of money
- For females, money is also the main reason with 8%, but the distance to the second reason, which is personal reason with 6,6%, as well as maternity with 5,1% is closer, compared to men's data.

However, the author's idea is satisfied and a clear trend for further, future investigations in the field of gender is clearly recognizable.

3. PESSOA Leadership

The increasing and constant change in the VUCA world not only causes a change in the requirements of customers and users, but also requires a transformation of work style. A high degree of flexibility, the ability to act quickly and productivity are most important to be able to follow those quick changes.

The agile method focuses on flexible, but efficient cooperation, quick reaction to changes and qualitatively better work results. The typical top-down approach, rigid hierarchies and inflexible processes have to be broken up and new work approaches implemented in order to create the transformation into a modern organization. Agility must be implemented at all levels - the self-organization of all team members, the leadership style of the leader and the collaboration of all.

The strength-based approach focuses on building on individual and team strengths, rather than solely addressing weaknesses. This not only helps to boost confidence and motivation, but also leads to better performance and results. The agility aspect of the PESSOA style recognizes the need for adaptability and flexibility in today's rapidly changing work environment.

The PESSOA leadership style also promotes an open and collaborative work culture, encouraging effective communication, teamwork, and mutual support. This results in higher levels of job satisfaction, reduced turnover, and increased productivity. Overall, the PESSOA leadership style offers a unique and effective approach to leadership that prioritizes people, their strengths and potential, and creates a supportive and empowering work environment.

The PERMA model invented by the psychologist Martin Seligman (2011) and applied to leadership by Markus Ebner (2020) is the basis for PESSOA leadership and, thus, the cornerstone to support hypothesis H3, since positive leadership - under certain conditions - can be applied to the agile work style in the rapidly changing automotive industry. Exactly these "certain conditions" had to be found and tested by an experiment in order to have the PESSOA leadership's efficiency confirmed by experts and to form the basic pillars of this crisis resilient leadership method.

3.1. The PESSOA experiment

The methodology in this chapter is not only the experiment, but also a qualitative method based on several interviews with the head of department who carried out the experiment, as well as with other department heads who did not take part in the experiment, but cooperate with this group in Romania. In this way, not only the efficiency and effectiveness of the experiment within the group in Romania can be assessed, but also the feedback regarding a possible influence on other locations can then gradually convert to a more agile way of working as well.

The experiment was carried out in one of the top 5 companies automotive industry in terms of global sales (Kords, 2021) in a development team in Romania. The team consists of a total of 27 employees, divided into 3 teams, led by 3 leaders.

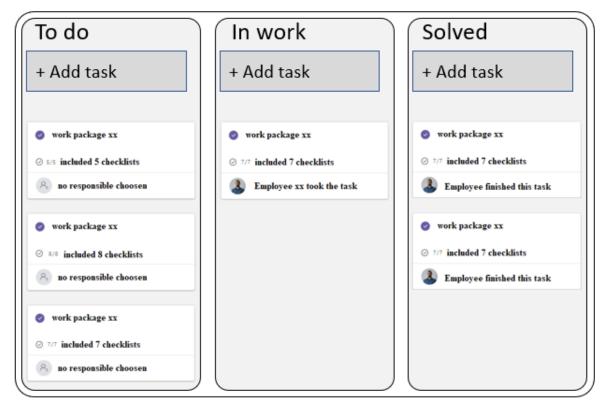
This team in the Romanian location also works together with 6 locations and a total of 80 employees in Europe and around 110 in the USA and Asia who work in the traditional way. All three team leaders were not only trained in the agile working methods of a KANBAN board, but also in positive leadership methods, empowerment and ownership, and the background and goal of this experiment were described in detail. The second phase of the experiment was also discussed in detail with the team leaders in order to focus not only on increasing efficiency and motivation in the team, but also on the possible impact on cooperation with members of traditional working methods in other global locations.

The period of observation of this experiment corresponds to 2 years, in detail the period of the introduction of the agile working method lasted from January 2021 to December 2022. Since the experiment has proven to be successful, this working method will be continued, but the end of the observation for this research was December 2022 as the data can be easily and practically compared with the results of why employees left the company.

The design of the PESSOA experiment includes a KANBAN board, which is very simple and the standard design by Microsoft TEAMS. In figure 9. an example of a KANBAN board, used in the experiment in Romania, with just three different areas of the work progress can be seen:

- To do these are all new tasks which have not been started yet
- In work –these are the tasks employees have already chosen and started working on
- Solved –these are the tasks which are already finished

Figure 3. Basic TEAMS KANBAN board design, used in the experiment



Source: author's design

Without the appropriate training in the area of ownership and the activation of empowerment to be able to make their own decisions at work level, the employees will not be able to use agile working methods correctly. Conversely, it was observed that without the new agile methods, the empowered employees would take ownership, but not be able to implement them with this efficiency. It did not seem important which of these methods it is, SCRUM, KANBAN, Unified Process, Agile-Enterprise or other tools and methods available on the market, the key factor is that the empowered employees take ownership, work in an agile way and make decisions already at the working level.

I see empowered employees who live ownership and use agile tools to make decisions in the company as the only way through our continuous changing VUCA world in the automotive industry (Group leader, interview December 16, 2022).

If the employee has trust, is empowered, he will be automatically take ownership and is ready to use his strengths and to take tasks on by himself according to his strengths (pull principle) in the agile working methods. In this way, the employee delivers the optimal performance – quickly, with good quality and he also has the opportunity to get into the

flow, because he can play to his strengths, is proud because he has taken on responsibility (ownership) and can achieve quick wins within his team by agile work.

Of course it is the responsibility of the leader as the servant to support the team not only with the management methods described in the first part of the first three pillars, but also to support the employees to find individual strengths, to workshops for ownership and general concepts to find and implement the topic of ownership and also to provide the tools and methods for agile work.

3.2. Answering research question II with hypothesis III

The testing of hypothesis H3 consists of a wide variety of methodologies. On the one hand a detailed literature research, already at the beginning of this work, with additional research and scientific investigations within this chapter was conducted.

On the other hand, the author did an experiment with conducting interviews of experts and a detailed analysis regarding the evaluation of the increase in efficiency.

The hypothesis H3, as well as the experiment, is based on the following six important pillars of the leadership method, researched and newly invented by the author here in this dissertation called "PESSOA leadership":

PESSOA is not just the combination of the initials of these six leadership approaches, is also the acronym from the Portuguese word for "human", emphasizing the importance of people and relationships in this new leadership approach.

At its core, the PESSOA leadership style values the strengths and potential of individuals and teams and aims to create a work environment that empowers them to reach their full potential. This is achieved through the use of positive leadership practices, such as recognizing and reinforcing good work, and empowering individuals to take ownership of their work and make decisions, visualized with the scientific references for each leadership approach in the table below:

Table 5. The six pillars of PESSOA leadership and the associated references

The 6 pillars of	Scientific references
PESSOA leadership	referring to the 6 pillars
P stands for: Positive leadership	Seligman 2011, Ebner 2020, Blickhan 2015, Fook and Sidhu 2010, Brcic et al. 2018, Cartwright and Holmes 2006, de Vries, Bakker-Pieper and Oostenveld 2009, Dowling 2002, Fredrickson 2013, Greenleaf 2008, Kotter 1996, Zaleznik 2004, Zvarych and Tysh 2020
E stands for: Empowerment	Bachmair, Metz and Zacher 2022, Behnke at al. 1993, Kotter 1996, Selten 1999, Simons 1997, Thomas 2014, Tseo, G. and Ramos 1995, Zaleznik 2004, Zvarych and Tysh 2020
S stands for: Strength-based leadership	Blickhan 2015, Drucker 1967, Greenleaf 2008, Kayode, Mojeed and Fatai 2014, Niemic 2017, Zvarych and Tysh 2020
S stands for: Strength-based workstyle	Blickhan 2015, Greenleaf 2008, Harrison 1967, Javed 2018, Kayode, Mojeed and Fatai 2014, Michie, Oughton and Bennion 2022, Selten 1999, Simons 1997
O stands for: Ownership	Greenleaf 2008, Harrison and Mühlberg 2014, Harrison 1967, Javed 2018, Kayode, Mojeed and Fatai 2014, Michie, Oughton and Bennion 2022, Park, Kruse and James 2004, Tseo and Ramos 1995, Zaleznik 2004
A stands for: Agile work style	Beta and Owczarzak-Skomra 2019, Greenleaf 2008, Harrison 1967, Kayode, Mojeed and Fatai 2014, Michie, Oughton and Bennion 2022, Park, Kruse and James 2004

Source: author's analysis

4. Conclusion

The result and the conclusion of this scientific work from the first year of the COVID-19 crisis shows:

Hypothesis H1 is supported: Money is not the main reason why employees from the high-performance culture in the automotive industry are leaving the company in the first year of the COVID-19 crisis in 2020.

It seems that this decision was made more emotionally by men, since they mainly quit the company because of unsatisfactory leadership with 27%. Women who left the company used the crisis to look after the family - 21% remain on maternity leave.

Hypothesis H2 is supported: The longer the COVID-19 crisis lasted, the more money became the reason why employees from the high-performance culture in the automotive industry left the company.

This is unfortunate, because the employees seem to have great existential fears after a long crisis and its global impact on the health system and the global economy and change jobs if they get more money elsewhere.

The survey also clearly shows that the longer the crisis lasted, the fewer mothers went on maternity leave. In 2020 there were 21%, in 2021 only 8% and in the third COVID-19 year only 5% of the females went on maternity leave - only about a quarter compared to 2020. The trend for men is similar. In the first COVID-19 year of 2020 there were still a strong 8% of men who went on parental leave, but in the years 2021 and 2022 hardly any men stayed at home and took care of the offspring. There were only 1-2% who went on parental leave.

The decline in terminations among males because of leadership is good at first glance, but at second glance the background and the big picture have to be seen. It has to be admitted that men actually only stay because, like the women, they have existential fears after such a long-lasting crisis and would rather endure the unsatisfactory state of poor management and stay in the company than the risk of quitting and, thus, steer towards an unforeseeable future.

Whatever the attitude of the males when making the decision to stay in the company despite bad leadership, it is extremely unsatisfactory, just as unsatisfactory when mothers cannot look after their children. PESSOA leadership can influence both behaviors and give the females, as well as the males, the security, motivation and freedom to act and decide and, thus, the trust in the company and the leadership, so that the males are satisfied with the leadership and stay in the company and the women go on a satisfactory maternity leave and then come back to work motivated because at work they will find a place where they can see their own contribution and the opportunity for flourish.

The fact that the number of time "personal reasons" was chosen increased over the years 2020 to 2022 also shows that the crisis claimed its victims. It is confirmed by supervisors in interviews, who asked the employees to give the reasons for "personal reasons" in more detail, that the reason behind "personal" can be divided according to the economical areas and, thus, to different cultures: Asians had the main justification that they take care of their family. For the Europeans it was more of a reason to move back to their home city and for the Americans mainly to get further education. So it seems that the longer the crisis lasted, Asians, like Europeans, focused on family values and caring for the family, while NAFTA staff resigned in order to continue their education - which does not necessarily exclude the same motive, but can support it since they are at home and can do both.

For all the conclusions based on hypothesis I and hypothesis II and the associated dissatisfaction related to leadership and the existential fears caused by the effects of the crisis, the only remedy was to develop a crisis-resilient leadership method to counteract these negative effects, which ended in hypothesis III.

Hypothesis H3 is supported: PESSOA leadership can be a crisis-resilient leadership method for the high-performance culture in the automotive industry.

PESSOA leadership is a new, innovative leadership method, invented by the author, that combines the already very successfully applied methods of:

- Positive leadership
- Empowerment
- Strength-based leadership
- Strength-based workstyle
- Ownership
- Agile work style

PESSOA leadership is not just a summary of different leadership methods. It is the implementation of these methods by already empowered employees from the high-performance culture, who are proficient at taking ownership, always supported by the leader as a servant.

All hypotheses H1 to H3 are presented in the following table and acceptance is explicitly highlighted. This not only answers the research questions Q1 "Why employees from high-performance cultures in the automotive industry quit during the COVID-19 pandemic and whether this reason changes over the duration of the pandemic" and Q2 "What leadership method can be crisis-resilient for the high-performance culture in the automotive industry".

Table 6. Research question and hypotheses conclusion

Research questions	Hypothesis	Hypothesis accepted or denied
21: Why employees from high- performance cultures in the automotive industry quit during the COVID-19 pandemic and whether his reason changes over the auration of the pandemic?	H1: Money is not the main reason why employees from the high-performance culture in the automotive industry are leaving the company in the first year of the COVID-19 crisis in 2020.	H1 accepted
	H2: The longer the COVID-19 crisis lasts, the more money becomes the reason why employees from the high-performance culture leave the company in the automotive industry	H2 accepted
Q2: What leadership method can be crisis-resilient for the high-performance culture in the automotive industry"?	H3: PESSOA leadership can be a crisis- resilient leadership method for the high-performance culture in the automotive industry.	H3 accepted

Source: author's analysis

In the table above, the research questions have been answered and the hypotheses accepted. With that, the author has shown why employees from the high-performance culture in the automotive industry leave the company in the first year of the COVID-19 pandemic, but also that this reason changes during the pandemic, as well the newly developed PESSOA leadership method to counteract leavings.

The two hypotheses I and II lead to hypothesis III, resulting in a new developed leadership method in this dissertation, the PESSOA leadership method.

This means that the novelty, the contribution to the development of the science, is clearly associated with the result of this dissertation - PESSOA leadership, a crisis-resilient leadership method for the high-performance culture in the automotive industry.

Another not that obvious and great contribution as the new PESSOA leadership method, but important for further research is the fact that the reasons why employees quit change in a longer-lasting crisis and money becomes the main reason the longer the crisis lasts. Using the example researched and analyzed from the survey in this dissertation from high-performance culture in the automotive industry, only every fourth employee quits the job in the first year, already every third employee in the second year and in the third year of the COVID-19 pandemic every second employee quits the job because of money. This is a very clear trend and a novelty with statistically significant data from an unprecedented pandemic and can therefore serve as a basis for future research in the ever-changing VUCA world with the COVID-19 endemic, Ukraine war, global warming, refugee crisis all over the world, ...

5. New scientific findings

A large-scale, three-year study from the first part of the empirical study with the participation of 400 employees from the high-performance culture in the automotive industry shows that leadership is always in the top three reasons why employees leave. For a compressed overview is the history of the top three reasons employees left for the years 2020 to 2022 in figure 4. below.

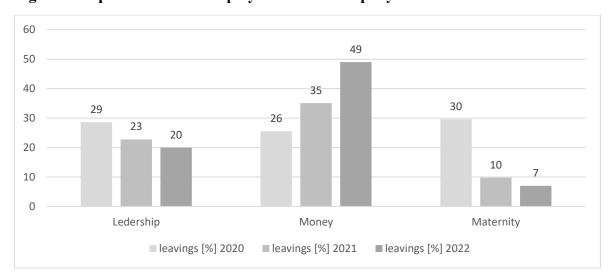


Figure 4. Top three reasons employees left the company from 2020 to 2022

Source: author's analysis

The overview also shows a clear trend why employees leave the company over the history of the COVID-19 pandemic:

- leadership decrease
- money increase
- maternity decrease

The author concludes that this behavior of the employees does not suggest that leadership has suddenly improved within short time or that there are no more children why those reasons decrease. It is much more a clear indication, that after three years of pandemic and the war that has been raging in Ukraine since February 2022, people are afraid of their existence. This is also supported by the fact, that in 2022 every second person is leaving because of money.

This background is even worse, because it means that the employees, although they are not satisfied with the leadership, "endure" the situation, or that almost no employee "dares" to go to maternity anymore.

However, with a range of 20% to 30% is leadership a large lever to improve the situation in the automotive industry - directly not to quit the company because of leadership reasons, but also indirectly to feel safe and trust the company to get through the crisis successfully and they do not need to be afraid of their existence.

Based on this result, the first new scientific finding is that: Leadership has the greatest impact on employees in the high-performance culture in the automotive industry in the COVID-19 crisis - directly so that employees do not quit because of bad leadership, or indirectly to have the security and confidence to get through a crisis successfully. These scientific findings can be used to derive "recommendations for action based on leadership methods" for the automotive industry in order to be successful in the constantly changing VUCA world through crisis-resilient leadership.

Since this approach was already visible at the beginning of the crisis from the first data collection in 2020 (29% quit because of leadership), the research question Q2 and the hypothesis H3 were formulated in this dissertation in addition to research question Q1 with hypotheses H1 and H2 and the author goes one step further:

Based on the research question Q2 and the hypothesis H3 as well as the results from the study, the author developed a new, crisis-resilient leadership method - PESSOA leadership, which is the second scientific contribution, the novelty from this dissertation.

After the success story of the experiment in Romania, this department has maintained the PESSOA leadership method as a standard. Since summer 2022 the worldwide organization, to which the Romanian group belongs, started PESSOA leadership - with all the pillars ownership and empowerment, as well as the agile working methods - in 18 locations worldwide to a total of over 2000 employees (status February 2023) using a detailed rampup plan.

The success of the new PESSOA leadership method has already been confirmed by several locations.

At its core, the PESSOA leadership style values the strengths and potential of individuals and teams and aims to create a work environment that empowers them to reach their full potential. This is achieved through the use of positive leadership practices, such as recognizing and reinforcing good work, and empowering individuals to take ownership of their work and make decisions. The strength-based approach focuses on building on individual and team strengths, rather than solely addressing weaknesses. This not only helps to boost confidence and motivation, but also leads to better performance and results. The agility aspect of the PESSOA style recognizes the need for adaptability and flexibility in today's rapidly changing work environment.

This new leadership method has already been used by the author and confirmed in an experiment and interviews with experts in the empirical part of this dissertation – the advantages are shown again as follows:

- 20% efficiency increase
- Increase of transparency
- Increase of Motivation and the possibility to get into the "flow" (pos. psychology)
- Increase of teamwork
- Accelerated know-how increase
- Focus on employee development

The PESSOA leadership style also promotes an open and collaborative work culture, encouraging effective communication, teamwork, and mutual support. This results in higher levels of job satisfaction, reduced turnover, and increased productivity.

Overall, the PESSOA leadership style offers a unique and effective approach to leadership that prioritizes people, their strengths and potential, and creates a supportive and empowering work environment.

- Positive leadership: based on the PERMA model, there are positive emotions for
 motivation and getting into the flow, engagement to focus 100% on the task,
 relationship with trust, giving meaning to the work and to the big picture,
 accomplishing tasks and celebrating success
- Empowerment: is the basis for employees to make decision already at working level and to be able to take ownership all that in combination is required for a successful agile work style

• Strength-based leadership: knowing the own strengths and getting the chance to use them, in combination with empowerment, is the basis for an employee to take ownership and work in an agile way

Transitioning to the topic strength orientation, from this point on, the PESSOA leadership method changes from the leader to the employees.

Based on the leadership style previously described and provided by the leader as a servant to the employees, the employees are now able to implement the following methods:

- Strength based workstyle
- Ownership
- Agile work style

If the employee has trust, is empowered, he will be automatically take ownership and is ready to use his strengths and to take tasks on by himself according to his strengths (pull principle) in the agile working methods. In this way, the employee delivers the optimal performance — quickly, with good quality and he also has the opportunity to get into the flow, because he can play to his strengths, is proud because he has taken on responsibility (ownership) and can achieve quick wins within his team by agile work.

Of course it is the responsibility of the leader as the servant to support the team not only with the management methods described in the first part of the first three pillars, but also to support the employees to find individual strengths, to workshops for ownership and general concepts to find and implement the topic of ownership and also to provide the tools and methods for agile work.

For a better understanding, especial for the application in the automotive world, the author developed the PESSOA car, to show how the six pillars that gave PESSOA leadership its name interact and are connected in a visual and simplified way.

POSITIVE LEADERSHIP

strength-based strength-based leadership workstyle

EMPOWERMENT

AGILE WORK STYLE

Figure 5. The PESSOA car – including the 6 values for PESSOA leadership

Source; author's design

The left side with the steering wheel is the leadership part (marked in blue) with positive leadership and empowerment to "steer" the employees. The author wants to show that the leader sets the direction with the steering wheel and the two tires on the steering axle: The vision, mission and strategy of the company, broken down from the central board members to the business units to the individual departments, so that each area contributes to the success of the company.

The middle part with strengths orientation is the part where strengths-oriented leadership from the leader meshes with the strengths-oriented way of working of the employees - the gear (here the areas for the leader and the employee overlap and also the colors blue and grey). This area, where both components, steering and engine, form a unit, is so important in the automotive industry that the moment of combination of drive train and engine in production is also called "the marriage".

On the right side of the illustrations (marked with grey color) the engine that moves the whole car and can thus reach all targets is shown - this part represents the employees. Ownership and agile working methods are located here, with just one target - to go forward together.

6. References

Ebner, M. (2020). *Positive Leadership: Leading successfully with PERMA-Lead: The five keys to high performance.* Facultas.

Kords, M. (19.04.2021). *Top 100 automotive supplier industry in global sales from 2018 to 2019*. https://de-1statista-1com-10018eca406ce.digibib.fh-

 $burgenland. at/statistik/daten/studie/261918/umfrage/umsatzstaerkste-automobil zulie fererweltweit/.\ statista$

Seligman, M. (2006). Learned optimism, How to change your mind and your life. Vintage

Seligman, M. (2011). Flourish. ATRIA paperback

Solderits, T. (2021). *Leadership influence on employee's behavior in the automotive industry in the Corona crisis.*

https://fhburgenland.contentdm.oclc.org/digital/collection/p16083coll2/id/3669/rec/1 University of Applied Science Burgenland