

Routledge Studies in Management, Organizations and Society

MANAGEMENT, CONFLICT RESOLUTION AND STRATEGY

COPING WITH STRESS AT WORK

Magdalena Kraczlą and Anna Wziątek-Staśko



Management, Conflict Resolution and Strategy

Managers are key people in building the success of any organization. Business results depend on their efficiency in the implementation of the power entrusted to them. This efficiency, on the other hand, largely depends on psychosocial competences and personality predispositions. One of the main factors affecting destructively on managers is stress, destroying the level of their motivation to work, the level of commitment and ultimately resulting in premature professional burnout and a significant reduction in the level of efficiency. Ultimately, instead of efficient and motivated specialists, companies are struggling with employees suffering from depression. Exploration of the issue of identifying the sources of stress draws attention to conflict as one of the main research categories that are closely related to the category of stress. It is worth emphasizing that this relationship is two-way: conflict determines the level of stress, stress may determine the scale of conflict situations. This recommended monograph provides the latest knowledge on what contemporary managers use conflict resolution styles and what strategies they choose to deal with in stressful situations. A particular advantage of the study is the presentation of the links between both research categories, which are so paramount nowadays.

Magdalena Kraczla – dr hab., Associate Professor at the Institute of Management at the Faculty of Management of the WSB Merito University, Business and Health Psychologist at SMG/KRC Poland HR, certified Trainer and Coach, licensed Mental Resilience Consultant and lecturer of MBA studies. She gained her experience as an HR Director and Consultant in international consulting companies. Currently, she conducts trainings and consultations for companies in the field of HR, stress management and building mental resilience. She specializes in diagnosis of occupational stress and burnout and personality predispositions. She is author and co-author of monographies and many Polish and foreign scientific publications.

Anna Wziętek-Staśko – dr hab., Associate Professor at the Institute of Economics, Finance and Management at the Faculty of Management and Social Communication of the Jagiellonian University in Krakow. She is author, co-author and editor of monographies and many Polish and foreign scientific articles devoted to the issues of management, especially human capital management, diversity management, leadership and organizational behaviour. She is passionate about neuromanagement issues and the role of artificial intelligence and emotions in this process. She is a reviewer and member of the Editorial Board of many recognized scientific journals and scientific conferences in Poland and in the world (Scopus, Web of Science).

Routledge Studies in Management, Organizations and Society

This series presents innovative work grounded in new realities, addressing issues crucial to an understanding of the contemporary world. This is the world of organized societies, where boundaries between formal and informal, public and private, local and global organizations have been displaced or have vanished, along with other nineteenth century dichotomies and oppositions. Management, apart from becoming a specialized profession for a growing number of people, is an everyday activity for most members of modern societies.

Similarly, at the level of enquiry, culture and technology, and literature and economics, can no longer be conceived as isolated intellectual fields; conventional canons and established mainstreams are contested. *Management, Organizations and Society* addresses these contemporary dynamics of transformation in a manner that transcends disciplinary boundaries, with books that will appeal to researchers, students and practitioners alike.

Recent titles in this series include:

Social Impact, Organisations and Society

The Contemporary Role of Corporate Social Responsibility

*Edited by Katarzyna Bachnik, Magdalena Kaźmierczak,
Magdalena Rojek-Nowosielska, Magdalena Stefańska and
Justyna Szumniak-Samolej*

Innovation Management and the Law

An Institutional Approach

Alexander Styhre

Strategic Management and Drivers of Success

The Growth, Adaptation, Resilience, and Competition Framework

Surja Datta and Tobias Kutzewski

Management, Conflict Resolution and Strategy

Coping with Stress at Work

Magdalena Kraczla and Anna Wziątek-Staśko



Taylor & Francis

Taylor & Francis Group

<http://taylorandfrancis.com>

Management, Conflict Resolution and Strategy

Coping with Stress at Work

**Magdalena Kraczla and
Anna Wziątek-Staśko**



ROUTLEDGE

Routledge

Taylor & Francis Group

NEW YORK AND LONDON

First published 2025
by Routledge
605 Third Avenue, New York, NY 10158

and by Routledge
4 Park Square, Milton Park, Abingdon, Oxon, OX14 4RN7

Routledge is an imprint of the Taylor & Francis Group, an informa business

© 2025 Magdalena Kraczkla and Anna Wziątek-Staško

The right of Magdalena Kraczkla and Anna Wziątek-Staško to be identified as authors of this work has been asserted in accordance with sections 77 and 78 of the Copyright, Designs and Patents Act 1988.

The Open Access version of this book, available at www.taylorfrancis.com, has been made available under a Creative Commons Attribution-Non Commercial-No Derivatives (CC-BY-NC-ND) 4.0 license.

Any third party material in this book is not included in the OA Creative Commons license, unless indicated otherwise in a credit line to the material. Please direct any permissions enquiries to the original rightsholder.

Trademark notice: Product or corporate names may be trademarks or registered trademarks, and are used only for identification and explanation without intent to infringe.

Library of Congress Cataloging-in-Publication Data

Names: Kraczkla, Magdalena, author. | Wziątek-Staško, Anna, author.

Title: Management, conflict resolution and strategy : coping with stress at work / Magdalena Kraczkla and Anna Wziątek-Staško.

Description: New York, NY : Routledge, 2025. |

Series: Routledge studies in management, organizations and society |

Includes bibliographical references and index.

Identifiers: LCCN 2024018949 | ISBN 9781032587721 (hardback) |

ISBN 9781032595535 (paperback) | ISBN 9781003455127 (ebook)

Subjects: LCSH: Conflict management. | Job stress. | Psychology, Industrial.

Classification: LCC HD42 .K73 2024 | DDC 658.4/053–dc23/eng/20240531

LC record available at <https://lcn.loc.gov/2024018949>

ISBN: 978-1-032-58772-1 (hbk)

ISBN: 978-1-032-59553-5 (pbk)

ISBN: 978-1-003-45512-7 (ebk)

DOI: 10.4324/9781003455127

Typeset in Times New Roman

by Newgen Publishing UK

The electronic version of this book was funded to publish Open Access through Taylor & Francis' Pledge to Open, a collaborative funding open access books initiative. The full list of pledging institutions can be found on the Taylor & Francis Pledge to Open webpage.

Contents

<i>List of illustrations</i>	x
<i>Introduction</i>	xvii
1 Management and leadership in the circle of challenges of the modern world	1
1.1 <i>Manager and leader – terminological dilemmas</i>	1
1.2 <i>In the thicket of classic leadership concepts and leadership styles</i>	8
1.3 <i>Personal and situational leadership styles and their evolution</i>	22
1.4 <i>From leadership to neuroleadership – reflections in the era of digitalization and the development of artificial intelligence</i>	27
2 Multidimensionality of stress in the work environment	46
2.1 <i>Stress – operationalization of the term and leading concepts</i>	46
2.2 <i>Occupational stress – essence, sources and consequences</i>	53
2.3 <i>Specificity of stress in a manager's work</i>	64
2.4 <i>Tools and methods for dealing with professional stress</i>	70
3 Faces of conflict in the organization	87
3.1 <i>Conflict as a research category – in the thicket of different perspectives</i>	87
3.2 <i>Conflict – essence and types</i>	91
3.3 <i>Multi-faceted sources of conflict</i>	99
3.4 <i>Emotions as a key category in the conflict management process</i>	104

4	Styles of conflict resolution and strategies of coping with stress in the case of people occupying managerial positions – research methodology	117
4.1	<i>The subject of the research and the problem of the paper</i>	117
4.2	<i>Formulation of the paper problem and research hypotheses</i>	118
4.3	<i>Psychological measurement methods (research tools)</i>	119
4.3.1	<i>Coping Inventory for Stressful Situations questionnaire (CISS) by N.S. Endler and J.D.A. Parker</i>	119
4.3.2	<i>Thomas-Kilmann Questionnaire (T-K Questionnaire) by K. Thomas and R. Kilmann (Schaubhut 2007)</i>	120
4.4	<i>Method of conducting research</i>	122
4.5	<i>Characteristics of the research group</i>	122
5	Styles of conflict resolution and strategies of coping with stress in people in the case of people occupying managerial positions – presentation of the research results	127
5.1	<i>Analysis of managerial behaviour in stressful situations – research using the Coping Inventory for Stressful Situations questionnaire (CISS) by N.S. Endler and J.D.A. Parker</i>	128
5.2	<i>Analysis of managerial behaviour in the face of conflict situations – research using the Thomas-Kilmann Questionnaire (T-K Questionnaire) by K. Thomas and R. Kilmann</i>	132
5.3	<i>Analysis of managerial behaviour in stressful situations and in conflict situations due to demographic variables</i>	136
5.3.1	<i>Differences between groups distinguished on the basis of the gender variable</i>	136
5.3.2	<i>Differences between groups distinguished on the basis of the age variable</i>	148
5.3.3	<i>Differences between groups distinguished on the basis of the education variable</i>	160
5.3.4	<i>Differences between groups distinguished on the basis of the company size variable</i>	170
5.4	<i>Relationships between the methods of coping with stress and conflict resolution strategies used by managers</i>	183
5.4.1	<i>Correlational relationships between the CISS scale and the T-K scale</i>	183
5.4.2	<i>Differences between conflict resolution techniques (T-K) and qualitative variables</i>	189
5.5	<i>Discussion of the results</i>	215

5.6	<i>Verification of the research hypotheses</i>	231
5.6.1	<i>Verification of hypothesis H1</i>	232
5.6.2	<i>Verification of hypothesis H2</i>	232
5.6.3	<i>Verification of hypothesis H3</i>	234
6	Application of research results for science and business practice	236
	Conclusion	241
	<i>Index</i>	245

Illustrations

Figures

1.1	Managing people in a dual world	33
4.1	Distribution of the research group in terms of the following variable: gender	123
4.2	Distribution of the research group in terms of the following variable: age	123
4.3	Distribution of the research group in terms of the following variable: education	124
4.4	Distribution of the research group in terms of the following variable: company size	124
5.1	Differences between TASK OC, Emotion OC, and Avoidance OC measurements in terms of the Measurement Intensity variable	130
5.2	Differences between Competing, Collaborating, Compromising, Avoiding, Accommodating measurements in terms of the Measurement Intensity variable	133
5.3	Differences between groups distinguished on the basis of the gender variable in terms of the level of the TASK OC variable	141
5.4	Differences between groups distinguished on the basis of the gender variable in terms of the level of the Emotion OC variable	141
5.5	Differences between groups distinguished on the basis of the gender variable in terms of the level of the Avoidance OC variable	142
5.6	Differences between groups distinguished on the basis of the gender variable in terms of the level of the Avoidant Distracted variable	143
5.7	Differences between groups distinguished on the basis of the gender variable in terms of the level of the Avoidant Social Coping variable	144
5.8	Differences between groups distinguished on the basis of the gender variable in terms of the level of the Competing variable	144

5.9	Differences between groups distinguished on the basis of the gender variable in terms of the level of the Collaborating variable	145
5.10	Differences between groups distinguished on the basis of the gender variable in terms of the level of the Compromising variable	146
5.11	Differences between groups distinguished on the basis of the gender variable in terms of the level of the Avoiding variable	147
5.12	Differences between groups distinguished on the basis of the gender variable in terms of the level of the Accommodating variable	147
5.13	Differences between groups distinguished on the basis of the age variable in terms of the level of the TASK OC variable	152
5.14	Differences between groups distinguished on the basis of the age variable in terms of the level of the Emotion OC variable	152
5.15	Differences between groups distinguished on the basis of the age variable in terms of the level of the Avoidance OC variable	153
5.16	Differences between groups distinguished on the basis of the age variable in terms of the level of the Avoidant Distracted variable	154
5.17	Differences between groups distinguished on the basis of the age variable in terms of the level of the Avoidant Social Coping variable	155
5.18	Differences between groups distinguished on the basis of the age variable in terms of the level of the Competing variable	155
5.19	Differences between groups distinguished on the basis of the age variable in terms of the level of the Collaborating variable	156
5.20	Differences between groups distinguished on the basis of the age variable in terms of the level of the Compromising variable	157
5.21	Differences between groups distinguished on the basis of the age variable in terms of the level of the Avoiding variable	158
5.22	Differences between groups distinguished on the basis of the age variable in terms of the level of the Accommodating variable	159
5.23	Differences between groups distinguished on the basis of the education variable in terms of the level of the TASK OC variable	164
5.24	Differences between groups distinguished on the basis of the education variable in terms of the level of the Emotion OC variable	164
5.25	Differences between groups distinguished on the basis of the education variable in terms of the level of the Avoidance OC variable	165
5.26	Differences between groups distinguished on the basis of the education variable in terms of the level of the Avoidant Distracted variable	166

5.27	Differences between groups distinguished on the basis of the education variable in terms of the level of the Avoidant Social Coping variable	166
5.28	Differences between groups distinguished on the basis of the education variable in terms of the level of the Competing variable	167
5.29	Differences between groups distinguished on the basis of the education variable in terms of the level of the Collaborating variable	168
5.30	Differences between groups distinguished on the basis of the education variable in terms of the level of the Compromising variable	168
5.31	Differences between groups distinguished on the basis of the education variable in terms of the level of the Avoiding variable	169
5.32	Differences between groups distinguished on the basis of the education variable in terms of the level of the Accommodating variable	170
5.33	Differences between groups distinguished on the basis of the company size variable in terms of the level of the TASK OC variable	175
5.34	Differences between groups distinguished on the basis of the company size variable in terms of the level of the Emotion OC variable	175
5.35	Differences between groups distinguished on the basis of the company size variable in terms of the level of the Avoidance OC variable	176
5.36	Differences between groups distinguished on the basis of the company size variable in terms of the level of the Avoidant Distracted variable	176
5.37	Differences between groups distinguished on the basis of the company size variable in terms of the level of the Avoidant Social Coping variable	177
5.38	Differences between groups distinguished on the basis of the company size variable in terms of the level of the Competing variable	178
5.39	Differences between groups distinguished on the basis of the company size variable in terms of the level of the Collaborating variable	178
5.40	Differences between groups distinguished on the basis of the company size variable in terms of the level of the Compromising variable	179
5.41	Differences between groups distinguished on the basis of the company size variable in terms of the level of the Avoiding variable	180

5.42	Differences between groups distinguished on the basis of the company size variable in terms of the level of the Accommodating variable	180
5.43	Visualization of the relationship between the following variables: Competing, Collaborating, Compromising, Avoiding, Accommodating, TASK OC, Emotion OC, Avoidance OC, Avoidant Distracted, and Avoidant Social Coping	185
5.44	Estimation results for Model 1	191
5.45	Estimation results for Model 2	196

Tables

1.1	Five levels of leadership according to J.C. Maxwell	7
1.2	Typology of managerial situations according to F.E. Fiedler	17
4.1	Behaviour in conflict situations according to K. Thomas and R. Kilmann	121
5.1	Descriptive statistics of the differences between TASK OC, Emotion OC, Avoidance OC measurements in terms of the Measurement Intensity variable	129
5.2	Descriptive statistics of the differences between the Competing, Collaborating, Compromising, Avoiding, Accommodating measurements in terms of the Measurement Intensity variable	133
5.3	Basic descriptive statistics of the distributions of the following variables: TASK OC, Emotion OC, Avoidance OC, Avoidant Distracted, Avoidant Social Coping, Competing, Collaborating, Compromising, Avoiding, Accommodating	137
5.4	Normality tests and measures of symmetry of the distributions of the following variables: TASK OC, Emotion OC, Avoidance OC, Avoidant Distracted, Avoidant Social Coping, Competing, Collaborating, Compromising, Avoiding, Accommodating	138
5.5	Normality tests and measures of symmetry of the distribution of the following variables: TASK OC, Emotion OC, Avoidance OC, Avoidant Distracted, Avoidant Social Coping, Competing, Collaborating, Compromising, Avoiding, Accommodating, in groups distinguished on the basis of the gender variable	139
5.6	Differences between groups distinguished on the basis of the Gender variable in terms of the level of the following variables: TASK OC, Emotion OC, Avoidance OC, Avoidant Distracted, Avoidant Social Coping, Competing, Collaborating, Compromising, Avoiding, Accommodating	140
5.7	Basic descriptive statistics of the distributions of the following variables: TASK OC, Emotion OC, Avoidance OC, Avoidant	

	Distracted, Avoidant Social Coping, Competing, Collaborating, Compromising, Avoiding, Accommodating	149
5.8	Normality tests and measures of symmetry of the distributions of the following variables: TASK OC, Emotion OC, Avoidance OC, Avoidant Distracted, Avoidant Social Coping, Competing, Collaborating, Compromising, Avoiding, Accommodating	149
5.9	Normality tests and measures of symmetry of the distribution of the following variables: TASK OC, Emotion OC, Avoidance OC, Avoidant Distracted, Avoidant Social Coping, Competing, Collaborating, Compromising, Avoiding, Accommodating, in groups distinguished on the basis of the Age variable	150
5.10	Differences between groups distinguished on the basis of the Age variable in terms of the level of the following variables: TASK OC, Emotion OC, Avoidance OC, Avoidant Distracted, Avoidant Social Coping, Competing, Collaborating, Compromising, Avoiding, Accommodating	151
5.11	Basic descriptive statistics of the distributions of the following variables: TASK OC, Emotion OC, Avoidance OC, Avoidant Distracted, Avoidant Social Coping, Competing, Collaborating, Compromising, Avoiding, Accommodating	160
5.12	Normality tests and measures of symmetry of the distributions of the following variables: TASK OC, Emotion OC, Avoidance OC, Avoidant Distracted, Avoidant Social Coping, Competing, Collaborating, Compromising, Avoiding, Accommodating	161
5.13	Normality tests and measures of symmetry of the distribution of the following variables: TASK OC, Emotion OC, Avoidance OC, Avoidant Distracted, Avoidant Social Coping, Competing, Collaborating, Compromising, Avoiding, Accommodating, in groups distinguished on the basis of the Education variable	162
5.14	Differences between groups distinguished on the basis of the Education variable in terms of the level of the following variables: TASK OC, Emotion OC, Avoidance OC, Avoidant Distracted, Avoidant Social Coping, Competing, Collaborating, Compromising, Avoiding, Accommodating	163
5.15	Basic descriptive statistics of the distributions of the following variables: TASK OC, Emotion OC, Avoidance OC, Avoidant Distracted, Avoidant Social Coping, Competing, Collaborating, Compromising, Avoiding, Accommodating	171
5.16	Normality tests and measures of symmetry of the distributions of the following variables: TASK OC, Emotion OC, Avoidance OC, Avoidant Distracted, Avoidant Social Coping, Competing, Collaborating, Compromising, Avoiding, Accommodating	172

5.17	Normality tests and measures of symmetry of the distribution of the following variables: TASK OC, Emotion OC, Avoidance OC, Avoidant Distracted, Avoidant Social Coping, Competing, Collaborating, Compromising, Avoiding, Accommodating, in groups distinguished on the basis of the Company Size variable	173
5.18	Differences between groups distinguished on the basis of the Company Size variable in terms of the level of the following variables: TASK OC, Emotion OC, Avoidance OC, Avoidant Distracted, Avoidant Social Coping, Competing, Collaborating, Compromising, Avoiding, Accommodating	174
5.19	Results of Pearson correlation analysis between the following variables: Competing, Collaborating, Compromising, Avoiding, Accommodating, TASK OC, Emotion OC, Avoidance OC, Avoidant Distracted, Avoidant Social Coping	184
5.20	Structural estimation results: Model 1	190
5.21	Estimates of coefficients of explained variance: Model 1	192
5.22	Structural estimation results: Model 2	195
5.23	Estimates of coefficients of explained variance: Model 2	196
5.24	Comparative analysis of differences in fitting data to models tested in the male group and the female group determined by the gender variable	198
5.25	Analysis of differences between model estimates for the male group and the female group determined by the gender variable	199
5.26	Comparative analysis of differences in fitting data to models tested in the 41–60 group and the 20–40 group determined by the age variable	200
5.27	Analysis of differences between model estimates for the 41–60 group and the 20–40 group determined by the age variable	201
5.28	Comparative analysis of differences in fitting data to models tested in the higher education group and the secondary education group determined by the education variable	202
5.29	Analysis of differences between model estimates for the higher education group and the secondary education group determined by the education variable	203
5.30	Comparative analysis of differences in fitting data to models tested in the large group (over 250 emp) and the medium group (50–250 emp) determined by the company size variable	204
5.31	Analysis of differences between model estimates for the large group (over 250 emp) and the medium group (50–250 emp) determined by the company size variable	205
5.32	Comparative analysis of differences in fitting data to models tested in the male group and the female group determined by the gender variable	206

5.33	Analysis of differences between model estimates for the male group and the female group determined by the gender variable	207
5.34	Comparative analysis of differences in fitting data to models tested in the 41–60 group and the 20–40 group determined by the age variable	208
5.35	Analysis of differences between model estimates for the 41–60 group and the 20–40 group determined by the age variable	209
5.36	Comparative analysis of differences in fitting data to models tested in the higher education group and the secondary education group determined by the education variable	210
5.37	Analysis of differences between model estimates for the higher education group and the secondary education group determined by the education variable	211
5.38	Comparative analysis of differences in fitting data to models tested in the large group (over 250 emp) and the medium group (50–250 emp) determined by the company size variable	213
5.39	Analysis of differences between model estimates for the large group (over 250 emp) and the medium group (50–250 emp) determined by the company size variable	214

Photos

1.1	Humanoid robot called “Ameca”	30
1.2	Humanoid robot called “Kopernik”	31

Introduction

Issues related to human capital management, including stress and conflict management, presented in contemporary global literature on the subject, expose a specific theoretical and cognitive gap. The lists of publications include items on stress and conflicts. However, most of them refer to employees in non-managerial positions or they do not concern the work environment at all. Managerial staff and their problems, including those related to psychosocial burdens experienced at work, including stress or conflict, are still treated in a rather marginal way. Meanwhile, contemporary market circumstances, characterized by unpredictability of different phenomena, speed of change, complexity of activities, numerous fears and the resulting employment uncertainty, result in increased stress. Occupational stress is becoming an increasingly common phenomenon, and its indicators are increasing alarmingly, and they exceed levels that used to be acceptable. This state of affairs has a direct impact on the expectations placed on modern employees that show that their ability to cope with stress is one of the most desired and sought-after features. The group of employees facing particularly increasing demands predominantly includes managerial staff. The ability to deal with psychological burdens (experiencing and overcoming them) is one of the key managerial competencies. Analysing various dimensions of the managerial role, it can be clearly stated that experiencing stress in this professional role seems inevitable, and it is even associated with greater intensity and scope in relation to other organizational work positions. The stress experienced by managers is particularly burdensome due to its multidimensionality. On the one hand, it is related to the existence of personal sources of stress for the manager, and on the other, it refers to stress experienced by their subordinates. The lack of managerial skills in this area means that unmanaged stress becomes a problem for the entire organization, and, in a broader sense, it is a social problem. The issue of stress in the manager's profession requires precise analyses and practical recommendations for people performing managerial functions. Ignorance in the above respect creates the risk of many unfavourable phenomena, including

reduction in the level of motivation and commitment of managers, deterioration of their work efficiency, increase in frustration and, ultimately, their burnout, often ending with depression. The group of undesirable phenomena that are closely related to the category of stress includes “conflict”. Exploring the essence and role of both categories inevitably draws attention to the bilateral relationship identified between them: conflict determines the level of stress; stress may determine the scale of conflict situations. This monograph provides the latest knowledge on what conflict resolution styles are used by modern managers and what strategies they choose to deal with stressful situations. A particular advantage of the research is attributed to presentation of connections between both research categories that are so important today.

The research material consists of the introduction, six chapters and the conclusion with appropriate lists of bibliographic items, tables and charts. Three of the five chapters are theoretical. Two of them are empirical and they describe in detail the research methodology and present the research results. The last chapter draws attention to the practical implications resulting from the considerations undertaken in the monograph, with particular reference to its empirical part.

Chapter 1 contains an overview of the definition of “manager” but also “leader” in the world literature. This part was devoted to explaining the essence of the manager’s role in the organization, the operationalization of the “leadership style” category and the presentation of classic and modern typologies of leadership styles. Particular attention was paid to considerations devoted to the evolution of the people management process, including the role of neuroleadership and artificial intelligence in the era of digitalization.

Chapter 2 is devoted to explaining the essence of stress and presenting its various concepts. This chapter presents the causes of stress in the work environment, its types and consequences. Special place is devoted here to the specificity of stress at work of people employed in managerial positions. Some attention is paid to various methods of dealing with professional stress.

Chapter 3 is focused on the discussion of the very essence of the conflict. Conflict causes, types and effects are presented in relation primarily to the working environment. An important role of this part of the monograph is to expose the sources of conflict and its consequences in relation to the manager, with particular attention to conflict resolution styles.

Chapter 4 presents the characteristics of the subject of the research and research tools along with the characteristics of the research sample.

Chapter 5 is devoted to presenting the results of original empirical research. The key part of this chapter is focused on the presentation of managers’ preferences regarding the strategies of coping with stress and conflict resolution styles they use at work. There is also some indication of the relationships

identified between the two research categories. The consequence of the presentation of the collected factual material include the authors' recommendations addressed to theoreticians and practitioners interested in the discussed issues, presented in the last, Chapter 6 of the monograph.

The final part of the research is the conclusion along with the appropriate lists of tables, charts, figures and annexes.



Taylor & Francis

Taylor & Francis Group

<http://taylorandfrancis.com>

1 Management and leadership in the circle of challenges of the modern world

The contemporary reality is a huge challenge for organizations. They must dynamically, innovatively and flexibly approach constantly changing rules of operation. Ubiquitous complexity, ambiguity, variability and uncertainty require providing innovative solutions, overcoming obstacles and threats and acquiring new management competencies, such as “cognitive flexibility”. People holding managerial positions, their competence models and the shape of leadership in the new business realities remain particularly challenged. Managers are defined differently, they are assigned different functions and scopes of activities, but one thing remains unchanged – they are always expected to build the organization’s success based on their substantive and psychosocial competencies. This chapter attempts at operationalizing the concepts of “manager” and “leader”, explaining in detail the differences between them. Attention was paid to the richness of the concept of “leadership” and “leadership styles”. An important place in this part of the monograph is occupied by considerations on the evolution of leader in the era of digitalization and the development of artificial intelligence.

1.1 Manager and leader – terminological dilemmas

Terminology related to management and leadership actually dates back to antiquity. For a long time, during history lessons, we have been taught about how representatives of various nations shaped their descendants in order to assume the role of a future ruler, pharaoh or leader. We find references to this issue, for example, in the considerations of Sophocles or Marcus Aurelius. We have been able to read about leaders, commanders and rulers continuously, especially when referring to religious, military and heads of state authorities. Among the exposed figures, a particularly important place is occupied by people heading the authorities of business organizations, who are commonly called managers, leaders or bosses. The rich nomenclature introduces not only some terminological confusion but also often substantive general confusion, causing difficulties in the practical implementation of the above-mentioned roles.

2 Management and leadership

Nowadays, both in everyday and scientific language, there are many terms used to define a managerial position and to describe managerial work. The analysis of publications dealing with this topic leads to the conclusion that the following terms are used: *manager*, *leader* or simply *boss*, and that there is no clear understanding of their practical meaning. In the literature on the subject, many researchers advocate distinguishing the characterized concepts and applying different criteria to the terms in question. However, those terms are often treated as synonyms (Shackleton and Wale 2002). Allowing for the interchangeability of names may also result from organizational practice, where the terms *manager* or *leader* are most often freely interchanged and the expectations towards people referred to by those terms are the same. The lack of order in the above-mentioned area, and even the prevailing chaos in the discussions, will certainly not lead to final decisions quickly, but it is worth taking a closer look at the genesis of the use of the indicated terms and the currently emerging trends in the area of the issue under discussion.

In the traditional approach, the term *boss*, referring to people holding managerial positions, indicated that the person is “appointed by the authorities of the organization, [and] is the superior of a given human team, having appropriate decision-making and control rights due to the position held” (Encyklopedia Organizacji i Zarządzania 1981, 207). Additionally, it is emphasized that the factor that distinguishes managerial work from non-managerial work is the need to make decisions about the behaviour of others and being responsible for their accuracy. Consequently, the element of responsibility also significantly distinguishes the work of manager from the work of advisors and experts. In Encyklopedia Zarządzania (2004), a *manager* is defined as a person who performs all management functions: planning, organizing, motivating and controlling and is the superior of a given human team. Their role is to ensure that the team achieves its goals. These goals are set to the team from outside or a manager takes part in their formulation. Taking into account the above-mentioned definitional characteristics, one may get the impression that the essence of managerial and supervisory work is the same, and the scope of tasks of a *boss* and *manager* is limited to the effective implementation of assigned tasks by the subordinate team of employees. In this context, the terms *boss* and *manager* could be used interchangeably, since the measure of evaluation of their work is the same results, which was also emphasized by the classics of organization studies in their job descriptions, defining a *boss* as a person who is responsible for subordinates and other organizational resources, and who must be aware of their role, rights and obligations (Stoner and Wankel 1992). Many authors, however, express a different view and believe that today the term *manager* more accurately reflects the reality represented in modern organizations operating in a free market economy by a person holding a managerial position than the term *boss*. *Boss* is a semantically broader concept and may also refer to other types of organizations (Johnson 2006). Moreover, as T. Oleksyn (1997) points out,

the shift in scientific decisions from bosses to *managers* is not just a sign of fashion but an expression of the need for creative and independent superiors, often referred to today as a *leader*. Researchers of the problem emphasize that “a manager is a boss who demonstrates entrepreneurship and creativity, who, regardless of the level of management, manages the part of the organization entrusted to them in an active, courageous and intelligent way, and is independent and competent” (Gach and Pietruszka-Ortyl 2005, 207). In this sense, the *manager*, as the superior of a given team of employees, is obliged to achieve specific results (Burlton 2001). Although it is difficult to indicate the qualities of an effective manager and create a model of an ideal boss, such an attempt was made by the creator of the concept of a *diverse manager*, qualifying their figure as one of the key factors guaranteeing the transformation of a *good* company into an *excellent* one. This is the manager who:

- understands their leadership role well, especially in the area of managing people,
- is able to determine their capabilities and competencies necessary to manage people,
- knows how they can influence employees,
- can increase employee commitment and build their job satisfaction,
- can improve relationships between people and build their satisfaction with the results achieved,
- knows how to integrate contradictions and how to influence flexibility in decision-making,
- can counteract unbalanced and extreme attitudes in people management,
- is able to diversify communication in the team and increase its effectiveness,
- knows how to increase their effectiveness in cooperation with people (Włodarski 2012, 129).

The set of competencies distinguished above allows for the emergence of a paradigm of a manager with leadership characteristics, who combines social and personal skills, who is able to motivate a team to achieve common goals and build an environment conducive to commitment, self-motivation and a sense of contribution and fulfilment. To achieve this, they should have a high level of social intelligence and personal competencies, including awareness of their strengths and weaknesses, care for their own development, self-esteem and optimism and flexibility. They should also develop their team, for example using individual and group coaching (Małota 2012, 151–152).

When undertaking further considerations aimed at solving interpretation difficulties regarding the nomenclature of managerial positions and the roles assigned to them, it is worth referring to those publications whose authors point out that contemporary requirements for managerial positions require the emphasis on the term *leader*, omitting the term *manager*, which is often identified with an

4 *Management and leadership*

“ordinary boss”, not a superior of the highest rank. It is in this approach, especially in psychological literature, that the figure of a person holding a managerial position is most often exposed. It is sometimes assumed that the term *leadership* is reserved for informal groups, while the term *management* refers to formalized groups (Bańka 2003). As T. Oleksyn (1997) emphasizes, a *leader* is a professional and pragmatist who has a clearly defined vision of the goal, is able to solve problems, influence others and lead to positive changes. At the same time, the leader supports development of subordinates’ competencies, increasing their commitment, independence and responsibility. According to I. Majewska-Opielka (2013), a leader is a person who can stimulate the process of achieving goals, arouse enthusiasm in themselves and others and build their own character and that of their subordinates. So who is a “*leader*” and what does “*leadership*” actually mean? As noted by J.M. Burns (1978) “leadership is one of the most observed and least understood phenomena on earth”. B.M. Bass and R. M. Stogdill (1990) express a similar view, stating that there are as many definitions of leadership as there are many people who try to define it. According to W. Bennis (1985), leadership is a function of knowing oneself, having a well-communicated vision, building trust among colleagues and taking effective actions to realize one’s leadership potential. R. Bolden (2004) points out that leadership is a complex phenomenon that touches many other important organizational, social and personal processes. J.M. Kouzes and B.Z. Posner (1995) refer to leadership as the art of “mobilizing others to fight for common aspirations”. For P.G. Northouse (2010) “leadership is a process in which an individual influences a group of people to achieve a common goal”, while J.C. Rost (1997, 4) posits that “leadership is a relationship of influence between leaders and colleagues who intend to make real changes that reflect their mutual goals”. The authors who emphasize the group theme in the process of defining the essence of leadership include M. Van Vugt et al. (2008), for whom leadership is influencing individuals to contribute to the achievement of group goals and coordinating the implementation of these goals, and for V.H. Vroom and A.G. Jago (2007), it is the process of motivating people to work together to achieve great things, which is also confirmed by G. Yukl (2010). An interesting view on the essence of leadership was expressed by P.F. Drucker (2001) claiming that effective leadership is responsibility, not position and privilege, consistency, not cleverness and hard work. The above view is confirmed by P. Hersey (2009, 12) who claims that: “the true mission of a leader is to focus special attention on employees (their competencies, self-confidence, motivation to work), not on themselves”. As noted by J.C. Maxwell (1998, 15) “everyone talks about leadership; few people understand what it is. Most people want to lead, few can”. The author emphasizes that the probable reason for the lack of the above skills may be that “there are few books on leadership; most of them is about management”. Meanwhile, in his opinion, these are not the same concepts, and he explains that

... management is a process intended to ensure the implementation of the program and the achievement of organizational goals; leadership is about creating a vision of development and stimulating human motivation. People don't like management; people want leadership. Has anyone ever heard of global managers? Nobody. However, we all know the names of world leaders. Scientific leader, political leader, religious leader, youth leader, social leader, labour leader, business lobby leader, etc.

(Maxwell 1998, 13–14)

The above author tries to point out the difference between a manager and a leader in a rather unique way, putting it as follows:

skilful performance of work is the domain of the worker. Demonstrating the way of working is the domain of the teacher. Supervising the work of others is the domain of manager. Inspiring others to do better is the domain of the leader.

(Maxwell 1998, 14)

Other researchers also write about the significant role of inspiration in a leader's work (Carvalho et al. 2022). Unfortunately, not all authors clearly agree with the thesis expressed above and point out that inspiring employees is not only the domain of the *leader*. To illustrate the indicated tendency, it is worth referring to the term *inspiring manager* described in the literature, which includes the characteristics of a modern attitude of a superior towards subordinates and means "helping other people to grow and discover their strengths and talents" (Leary-Joyce 2010, 41). Inspiring managers are not only able to equip their subordinates with substantive information and professional knowledge, but above all, they inspire trust, are able to build strong relationships, provide others with a lot of encouragement and support by recognizing the importance of other people, willpower and humility. According to P. Smółka (2007), supporting the development of employees is intended to help them acquire specific attitudes and trigger the process of identification with the values of the company's organizational culture. This means that development should ultimately support the quality, efficiency and effectiveness of activities. A similar approach is represented by M. Adamiec (2011) who introduces the term of *potential manager* that is to emphasize that the main task of a modern manager is to release and activate the potential of employees. The author clearly emphasizes that the manager is an important social person in the organization, the so-called a social model that "demonstrates certain behaviours to subordinates, shows them, consciously or unconsciously, certain patterns of action (...) which may be, for example, ways of realizing their possibilities" (Adamiec 2011, 212). When attempting a synthetic approach to operationalizing the essence of a *leader* and *leadership*, the category of "persuasion and influence" is particularly highlighted (Northouse

6 Management and leadership

2019). This understanding opens a wide field of exploration, directing attention to tools for exerting influence, including manipulation in the human capital management process.

In the psychology of leadership, it is assumed that a true leader has certain characteristics that distinguish him from the average manager. The measure of leadership is not the ability to manage a company based on scientific principles and algorithms, but – the attitude towards others. J. Penc (2000, 344) defines a leader as a person “who, by words and personal example, significantly influences the thoughts and feelings of their followers, and who comes to power by choice, not force”. Nowadays, the concept of *boss* is giving way to concepts considered more modern, i.e. *manager* or *leader*. The need for *bosses*, who use their formal authority to order others and exert control over them – is disappearing. Organizations no longer expect management to be based on force and a sharp division between those managing and those being managed (Penc 2010). The latest leadership concepts emphasize the figure of a *good leader* as an *effective manager* (Adamiec 2011; Avery 2009; Bacon 2013; Kaplan 2013; Kouzes and Posner 2010). Therefore, modern managers must realize themselves more as leaders and have appropriate skills in cooperation with people and the willingness to build an organizational community to achieve common results. Referring to the above suggestions, the figure of the manager-coach appears promising, as this occupies a prominent place in the realities described by the coaching model of human capital management. An interesting picture of leadership, described through the prism of a certain kind of evolution, was presented by J.C. Maxwell (1998, 28). The author emphasized that managing subordinates (*leadership*) is a process; therefore, its different levels should be indicated, generating different types of results. The assumptions of the concept described above are presented in Table 1.1.

Featured by J.C. Maxwell’s levels of leadership attitude provide clear information that the essence of the managerial role is the permanent development and improvement of the ability to influence subordinates. The path from “formal leadership” to leadership related to the manager’s personal qualities requires a lot of effort, commitment, creative energy and imagination, as well as taking the risk of bold experimentation. M. Kraczla (2013) formulates the view that without constant personal development, no manager will be able to create the leadership charisma characteristic of the highest level, which is confirmed by A. Kozak (2011, 9) claiming that “the key to being a mature manager is to be a mature person – the potential revealed in self-image is a predictor of a manager’s success”. Without strengthening and improving personal potential, it is difficult to act effectively, even using adequate managerial tools. In this sense, “leadership excellence” will be intensified in each of the subsequent ones identified by J.C. Maxwell’s levels, constituting a path for managerial development and growth of the entire organization.

Table 1.1 Five levels of leadership according to J.C. Maxwell

<i>Leadership level name</i>	<i>Specificity of the activities undertaken</i>	<i>Consequences resulting from the use of actions within a given level of leadership</i>
Level 1 <i>Position</i>	<i>Entitlements</i> People follow orders because they have to.	The leader's influence does not go beyond the scope of official powers. The longer a leader stays at this level, the greater the effort they will have to demonstrate to raise the low morale of their subordinates.
Level 2 <i>Consent</i>	<i>Connections</i> People follow a leader because they want to follow someone.	People follow a leader to a greater extent than is required by leader's positional powers. At this level, work begins to be a pleasure for the leader.
Level 3 <i>Production</i>	<i>Production</i> People follow a leader because of what the leader has done for their organization.	Most subordinates feel a sense of success. They like the leader and their actions. Problems are solved with little effort, thanks to effective actions.
Level 4 <i>Shaping people</i>	<i>Reproduction</i> People follow a leader because of what the leader has done for them.	Long-term growth occurs at this level. A leader's involvement in leadership education ensures constant development of the organization and the people associated with it. Leader should strive to reach and stay at this level.
Level 5 <i>Personage</i>	<i>Respect</i> People follow a leader because of who the leader is and what they represent.	This level is reserved for leaders who have spent years of shaping people and organizations. Few leaders achieve it. Those who succeed are "great people".

Source: Own elaboration based on: Maxwell, J.C. (1998). *Być liderem, czyli jak przewodzić innym*. Warszawa: Wydawnictwo MEDIUM, p. 28.

The above considerations indicate that the differences in the content of the terms *manager* and *leader* and *boss* concern the effectiveness in encouraging people to achieve common goals. It can be assumed that while the term *boss*, which is essentially based on the implementation of command and control functions, seems to be an outdated term and incompatible with the requirements of modern business environments, the remaining terms: *manager* or *leader* are not characterized by clear boundaries and distinctions in the literature on the subject. Therefore, it seems that it is a matter of convention that they are used interchangeably in selected contexts, and the condition for validity is the load of content specified in a given approach.

1.2 In the thicket of classic leadership concepts and leadership styles

The management process can be implemented by managers in many different ways (Yukl and Lepsinger 2005). When attempting to operationalize the concept of *management style*, it is worth paying attention to the fact that the very concept of style contains, in its essence, information about the work method or behaviour, the configuration of which makes up its uniqueness (Kopaliński 1994, 482). The world's literature in the field of organization and management provides numerous definitions of “*management styles*” and “*leadership styles*”. In the simplest and most general terms, *management style* is understood as “the way the manager influences their subordinates” (Strzelecki 1995, 91). R. Tannenbaum et al. (1961, 24) define *management style* as: “the manager’s interpersonal influence on those they manage and thus directing them to achieve a specific goal”. In the opinion of another classic – D. McGregor (1967, 68) – “management style is a manager’s way of dealing with organizational reality, resulting from trial and error”. G. Bartkowiak (1977, 65–70) emphasizes that “management style is the entirety of the manager’s behaviour and their interactions with subordinates in the action process. Leadership style characterizes a manager, distinguishes them from others and creates a series of behavioural patterns. J. Zieleniewski (1982, 378) draws attention to yet another aspect, emphasizing that “a management style is a method of management used with the belief that it can be repeated in similar circumstances with a similar effect”. An important aspect of the relationship between *management style* and the *personality* category is highlighted by Cz. Sikorski (1986, 113) in the definition he recommends. In the author’s opinion, “management style is a way of exercising managerial power, i.e. a set of methods of managing people established in practice, closely related to the personality traits of managers”. The above view is confirmed by D. Nusche (2020, 15) who claims that “management style is the manager’s attitude towards subordinates and work organization, determined by a set of their unique personality traits”, also referred to by M. Kraczla (2016, 2022). When defining a management style, the view expressed by O. Demitras (2020, 5) is important, as he explains that a management style is an individual set of tools and techniques used by a manager to influence a team of employees to achieve the goals of the organization for which they work.

Attempts to explain the essence of *management style* and *leadership style* presented in world literature indicate great diversity in the understanding of both concepts, treated by some authors as synonyms, by others as completely different terms, and do not allow the creation of a clearly understood definition of both research categories. This fact extremely complicates the development of a typology of management styles that are also characterized by a high degree of diversification. When fulfilling managerial functions, managers differ in the

way they influence their subordinated employees. It is then said that they use a *different or characteristic management style*. Within the style used by the manager, it is possible to characterize the manager's behaviour, distinguish it from the behaviour of other superiors and define a set of behaviours specific to a given manager (Bartkowiak 1994). A manager in an organization plays a dual role. They significantly contribute to the creation of the organizational climate prevailing there, by applying a specific style of managing the organization, and at the same time, they are the subject of the influence of this climate, which they themselves contributed to a significant extent (Wziątek-Staško and Krawczyk-Antoniuk 2020, 176). For 500 years, i.e. since the time of N. Machiavelli, scientists have been considering which organization *management style* is optimal, whether a manager should be liked by employees or whether it is more important for them to arouse fear. In 1513, N. Machiavelli concluded that "however, since it is very difficult for one person to evoke both these feelings at once, it is much safer to be feared than to be loved" (Cuddy et al. 2008). This approach is also often visible in modern business. Many managers still prefer to show their employees strength and their competencies and professional qualifications instead of kindness, the ability to establish close relationships and being trustworthy. Putting competencies at the forefront discredits the manager who wants to be perceived as strong before they can gain trust, causing fear in employees and, as a result, numerous dysfunctional behaviours. Employees begin to feel stress, which weakens their intellectual potential and problem-solving ability, reduces creativity and causes them to stop caring about their work, which is, in turn, reflected in their low level of commitment. Modern scientific research confirms that "leadership begins with trust. To influence people effectively, a balance must be maintained between demonstrating professional competence and cordiality" (Cuddy et al. 2015, 38–45). If the manager's position is not built on trust, employees will follow their orders for fear of punishment or in the hope of reward but will not selflessly support them or the organization's value system, culture and mission. Even though most managers' strive to show strength, cordiality or lack thereof has a much greater impact on what employees think of them, which is noticed and assessed before competence (Wziątek-Staško and Krawczyk-Antoniuk 2020, 177).

Exploring issues related to leadership and leadership styles is not easy. The first factor that significantly complicates the discussion is the previously mentioned difficulty in clearly determining the essence of both concepts. The second reason is the extremely large diversity of classifications of leadership styles presented by numerous researchers, resulting in the creation of many concepts and models of leadership (Aramovich and Blankenship 2020). The analysis of extensive literature studies allows us to identify the following three key trends through the prism of which we can analyse leadership styles. They are as follows:

10 Management and leadership

- *qualification approach (trait theories)* – includes the analysis of personality traits of managers and striving to develop a set of characteristics typical of outstanding managers,
- *behavioural approach (behavioural theories)* – concerns the description of the dimensions of behaviour represented by superiors and the search for “model ways of behaving”,
- *situational approach (situational theories)* – refers to emphasizing the role of group and environmental factors (for instance: Gibb 1954; Kostera et al. 1999; Pietrasiński 1994).

By reviewing the literature on the subject, it is possible to identify concepts of leadership styles that fit into each of the above-mentioned dimensions separately but also constitute a view that combines them (Khan and Adnan, 2014; Solaja and Ogunola 2016).

According to the assumptions of one of the most famous classifications, we distinguish *static and dynamic leadership styles* (Griffin 2000, 502).

The group of *static leadership styles* includes:

- typology of leadership styles by R.L. Lippitt and R. White.
- X and Y theory by D. McGregor,
- R. Likert's concept,
- managerial grid by R. Blake and S. Mouton,
- management style box by W.J. Reddin,
- the leadership triangle by P. Lebel.

The group of *dynamic leadership styles* includes:

- continuum of managerial behaviour by R. Tannenbaum and W. Schmidt,
- contingency model by F.E. Fiedler,
- participatory leadership model by V. Vroom, P. Yetton and A. Jago,
- the concept of evolutionary leadership by P. Hersey and K.H. Blanchard,
- R. House's path-to-goal theory.

Of the leadership style theories mentioned above, some have gained particular popularity. This group includes the typology of management styles developed in the late 1930s by *R. Lippitt* and *R.K. White*. This concept is an example of theories focusing on the characteristics of a superior. The authors distinguished three types of management style: autocratic style, democratic style and liberal style (*laissez-faire*), also known as the non-interfering or indifferent style (Chukwusa 2018; Durmus-Kirca 2019; Singh 2021; Zhao et al. 2016):

- *autocratic style* – it involves the superior independently setting tasks for a group of subordinates, as well as the methods of their implementation. The

manager does not participate in the activities undertaken by the group but performs a controlling function. They maintain a large distance from the employee team and influences their subordinates primarily through orders and punishments. This type of management facilitates the performance of a large amount of work, with low quality and originality. The lack of freedom and independence of group members while performing work causes dissatisfaction, apathy and leads to aggressive behaviour.

- *democratic style* – based on real cooperation between the superior and members of the employee team. The manager encourages subordinates to set goals and ways of achieving them, as well as to divide work. The manager is focused on cooperation, participates in group work and willingly consults with their employees. Implementing this style requires extensive substantive knowledge, a strong personality, empathetic abilities and the willingness to support others. Democratic management, compared to autocratic management, involves less work, but the results achieved are of higher quality and are often more original. This type of management is most widely accepted by employees.
- *liberal style* – assumes a “free hand” of employees in planning and organizing activities. The manager does not undertake any control activities towards the group and the activities it performs. They strive to make as few decisions as possible. They also do not motivate the team. This type of management contributes to low volume and low quality of work. Employees directed in this way are deprived of professional support and often experience a sense of loneliness. This leads to strong frustration among subordinates and ultimately promotes the creation of an informal group structure.

Another example of a well-known concept of management styles that fits into the static approach is *the X and Y theory, developed by D. McGregor* in 1961, based on the beliefs about human nature represented by the superior, determining the management philosophy professed and applied to subordinates. D. McGregor claimed that a superior’s behaviour towards their subordinates is determined by their beliefs, especially assumptions about man and human nature. Although they are often not realized, they significantly shape the manager’s beliefs about the reactions they can expect from the people they report to. In the developed concept, D. McGregor presented the following two models of people management, described as theory X and theory Y:

- *theory X* – is based on the manager’s belief that the average person is lazy by nature, reluctant to undertake work and does everything to avoid it or engage in it as little as possible. Moreover, the manager believes that the average person has a low level of ambition and is reluctant to take responsibility, so they try to avoid challenges, making decisions and taking risks. In this context, the only way to “encourage” people to work is control, supervision and the threat of punishment from their superior.

12 *Management and leadership*

- *theory Y* – perceives a human in positive terms. It is based on the manager's belief that work, like entertainment or recreation, is a similar form of activity for people. The manager believes that the average person is ambitious and capable of making decisions and taking responsibility and directs their behaviour towards achieving goals. They are also able to think imaginatively and creatively, solve problems and show initiative. In this approach, external control and the threat of punishment are not the primary tools for encouraging employees to make an effort at work (Adamiec and Kożusznik 2000).

It is commonly accepted that theory X underlies the use of an autocratic style, while theory Y corresponds to democratic approaches.

Another well-known and still popular concept of leadership styles, also contributing to the static trend, refers to the typology proposed by R. Likert (after: Kożusznik 1992, 1997, 1998; Penc 2000). R. Likert distinguished and described the following four leadership styles:

- *authoritarian-despotic style* (oppressive-autocratic or exploitative-autocratic) – a superior using this management style works mainly by issuing orders and demanding their immediate execution. They have a precisely established system of rewards and penalties. They do not allow subordinates' ideas to be implemented. There is an atmosphere of fear in the employee team, resulting in a lack of free communication with the superior. They remain convinced that people, by nature, are lazy and unwilling to do work. Hence, according to the assumptions of D. McGregor's X theory, employees must be carefully monitored to ensure that they put sufficient effort into work and complete the tasks assigned to them.
- *authoritarian-benevolent style* (paternalistic) – a manager using an authoritarian-benevolent style adopts the same attitude towards subordinates as an autocrat-despot manager, with the difference that they try not to reveal this attitude. Such a manager tries to be perceived as a good colleague. They apply an "open door policy" because they want to be perceived by their subordinates as kind and friendly persons. This is intended to trigger employee satisfaction and the desire to act effectively. In reality, however, the manager does not strive for cooperation and partnership. They are also not interested in how the orders given are received, what people think and feel. In practice, the superiors make decisions themselves but try to give some impression that they meet the expectations and wishes of their subordinates.
- *consultative style* (manager-consultant) – is sincerely interested in what people think and feel about the problems being solved and the orders given. They willingly ask subordinates for their opinion and listens to their opinions. When making decisions, they often use the insights of their employees. The attitude of such a manager is closely related to the belief in D. McGregor's Y

theory. The manager remains confident that people are willing to take action and like to work without the threat of punishment. They are also able to control their own behaviour and willingly accept responsibility for the work they do.

- *democratic style* (manager-democrat) – is deeply convinced of the validity of the assumptions of D. McGregor's Y theory. They not only ensure that team members can participate in decision-making but also strive to create situations in which the group works together and is truly committed to the goals of the organization.

Another popular typology of management styles is provided by the concept derived from large-scale empirical research by R. Blake and J. Mouton (Blake and Mouton 1982; Holstein-Beck 1996; Makin et al. 2000). The authors of this approach based their considerations on the following two dimensions: people orientation and task orientation. In this way, they developed the so-called managerial grid on the basis of which the scale of managerial behaviour can be determined. Both parameters (*focus on people and focus on tasks*) are placed on one graph, where the vertical axis shows the increasing concern for people, and the horizontal axis – the increasing concern for the implementation of tasks. These axes, numbered from 1 to 9, create a total of 81 combinations that constitute 81 variations of management styles. The leadership styles most frequently presented in the literature on the topic and distinguished in the model include (Bednarski 1998):

- *Style 1.1* (impoverished management) – the manager shows little concern for both people and tasks, tries to maintain distance and neutrality and focuses mainly on compliance with organizational procedures. This type of management is also called *laissez-faire*.
- *Style 1.9* (club management) – the manager shows great concern for people but little interest in the task sphere, tries to build a friendly and open atmosphere and satisfy the needs of employees but attaches little importance to the implementation of tasks. This type of management is also called *liberal*.
- *Style 9.1* (authoritarian management) – the manager's behaviour is characterized by great concern for tasks and poor interest in relations within the employee group. Therefore, the manager focuses primarily on achieving goals on time and efficiently but does not care about people. This type of leadership is called a *task-oriented style*.
- *Style 5.5* (balanced management) – the manager shows moderate concern for both people and tasks, and their goal is to find the “golden mean” in behaviour.
- *Style 9.9* (team or democratic management) – a manager “combines maximum concern for tasks with maximum concern for people”. Such a superior is sometimes referred to as a *manager-integrator* who is “able to actually

interact with people, lead, make decisions and bear responsibility towards the company and their ‘team’”.

The presented typology clearly shows that style 9.9, in the opinion of the authors of the style grid, is a model, somewhat ideal: the use of which allows for reconciling the interests of the organization with the interests of employees. It turns out, however, that not all researchers share this view. J.W. Reddin is one of those who considered the criteria adopted by R. Blake and J. Mouton to be incomplete. The author supplemented and developed the concept of R. Blake and J. Mouton, creating a three-dimensional concept of management styles. The two criteria they stressed (i.e. *people orientation and focus on tasks*) were complemented by him by adding a third one – *management effectiveness*. Analysis of the proportions between the distinguished factors allowed the researcher for identifying the following eight leadership styles (Dworzecki 1981; Zieleniewski 1981):

- *Deserter* (minimum level of all variables) – the manager is ineffective, remains passive towards the function they perform and towards employees; they are characterized by clearly poor commitment,
- *Bureaucrat* (low orientation towards tasks and people, high efficiency) – the manager is focused mainly on efficiency, does not care about the quality of work performed or social relations in the workplace; however, they focus on precisely fulfilling organizational orders, following strictly established rules and formal procedures,
- *Missionary* (low orientation towards tasks and efficiency, high orientation towards people) – a manager strongly focused on building harmonious interpersonal relationships, with low interest in tasks; tries to prevent conflicts and maintain a good atmosphere in the team, at the expense of poor work efficiency,
- *Developer* (low orientation towards tasks, high orientation towards efficiency and people) – a manager for whom work is closely related to the professional and personality development of people and meeting their needs, assuming that the tasks themselves are not the essence of work,
- *Autocrat* (low orientation towards people and quality of workmanship, high orientation towards efficiency) – manager focused solely on tasks; in interpersonal contacts, they are assessed as unfriendly and unkind,
- *Benevolent autocrat* (low orientation towards people, high orientation towards tasks and effectiveness) – a manager focused on tasks and the effects of undertaken activities; with low people orientation, however, they strive for the acceptance and trust of their subordinates, trying not to alienate them,
- *Compromiser* (low orientation towards efficiency, high orientation towards tasks and people) – a manager who has difficulty reconciling multiple points

of view and views; focuses on solving current problems, often ignoring the long-term perspective,

- *Executive* (high level of all variables) – a manager is involved in the implementation of tasks and in the matters of the employee team and has a strong influence on others, “thanks to this, they achieve excellent results and is considered a person able to persuade people to act”.

With the development of knowledge and the expansion of the scope of research on the effectiveness of management styles, it was being noticed that the effectiveness of a management style was determined by the broad context of the entire organizational situation, i.e. a number of variables involved in it, and not only determined by the characteristics and behaviour of the superior. That way, a dynamic trend in defining management styles was initiated. An interesting approach in the dynamic trend is provided by the typology proposed by R. Tannenbaum and W.H. Schmidt (Penc 2000), based on the assumption that the manager must each time choose the scope of exercising power and determine what area of power they leave for themselves and what space of power they can entrust to their subordinates. In the developed concept, the authors took into account *the variable of the manager’s authority and the variable of subordinates’ freedom*. Combinations based on one’s own share of power and sharing power with subordinates created six variants of managerial behaviour (Kožusznik 1998, 48):

- *recommending* – a situation in which the superior analyses the problem themselves, considers various solution options, makes the decision themselves and then communicates it to their subordinates,
- *selling* – the manager considers the problem themselves and decides on its solution, but they want the group to accept their choice, so they make efforts to convince the team of the correctness of their decision, most often in relation to the benefits of its implementation,
- *testing* – the manager presents a proposed solution, “testing” the group’s reaction; after listening to the opinions and suggestions submitted, they make their own choice, not necessarily taking into account the ideas submitted by the group,
- *consulting* – the manager presents the problem to the group and asks to discuss it. In this way, they create an atmosphere of consultation of all ideas and selection of the optimal option, but ultimately makes the final choice themselves,
- *cooperation* – the manager formulates the problem and transfers the responsibility to develop a decision to the team, defining the framework within which the decision must be made,
- *delegation* – the group receives complete freedom from the superior to find a solution to the problem, and the manager themselves somehow “gives up”

their own authority and participates in decision-making on an equal footing with their subordinates.

The presented variants of management styles, taking into account the decision-making independence of the manager and the decision-making freedom of subordinates, create a kind of continuum of leadership styles – from a situation in which the manager makes decisions themselves to situations in which employees become the decision-making entity and the manager's influence is minimized. Extreme styles can be described as: *autocratic* (manager-centred) and *participative* (employee-centred). The *democratic* style of management is in the middle. The typology proposed by the authors is an interesting approach due to the possibility of observing different proportions in the distribution of task, personal and effectiveness-related factors. The following can provide some illustration of the relationship: superior – employee team makes it much easier to describe the manager's preferred method of behaviour towards subordinates and also becomes a tool of influence through the ability to choose the most appropriate decision-making mode in specific problem situations.

Another example of a dynamic approach is given by the concept of management styles developed by F.E. Fiedler who called it contingency theory (Fiedler 1967; Fiedler and Chemers 1984). The author developed a set of the most typical situations in which managers could participate and assign each of them the management style that was most desirable in the given circumstances. According to F.E. Fiedler, the following three main factors should be taken into account when assessing the specificity of the organizational situation (Makin et al. 2000; Mika 1988):

- emotional contacts in the relationship between the manager and the members of the employee team,
- structure of the task to be performed,
- scope of the manager's authority.

A manager's contacts with employees can be positive when subordinates recognize the superior's authority and value them. However, the team's lack of positive feelings for the superior or lack of acceptance of their working methods will lead to negative relationships and thus make it difficult for the superior to influence their subordinates. According to F.E. Fiedler, the strength of the managerial position shapes the conditions for using a specific management style. A manager's not very strong position in the power hierarchy tends to favour a democratic management style, while a strong position enables the use of autocratic management styles.

The tasks performed in the work process can be divided into the so-called simple tasks and complex tasks. Simple tasks are characterized by one easy method of implementation, while complex tasks require numerous difficult and

Table 1.2 Typology of managerial situations according to F.E. Fiedler

<i>Situation</i>	<i>Emotional contacts between manager and group</i>	<i>Type of task</i>	<i>Scope of the manager's authority</i>
I	Good	Simple	Wide
II	Good	Simple	Narrow
III	Good	Complex	Wide
IV	Good	Complex	Narrow
V	Wrong	Simple	Wide
VI	Wrong	Simple	Narrow
VII	Wrong	Simple	Wide
VIII	Wrong	Simple	Narrow

Source: Kożusznik, B. (1997). *Podstawy organizacji i zarządzania*. Białystok: Uniwersytet w Białymstoku, p. 169.

complex actions. According to the author, it is easier to lead a team that has simple tasks to perform.

Managerial authority may be characterised by its narrow or broad scope. A wide scope of authority means greater decision-making opportunities for the manager in many areas of the organization's functioning, e.g. in the field of hiring, promoting or demoting employees. The manager also has a wide system of rewards and penalties, and they are given great opportunities to influence subordinates. Power with such a wide scope makes it easier for a manager to effectively influence the employee team (Kożusznik 1997).

Based on the characterized criteria, F.E. Fiedler distinguished eight typical managerial situations and ranked them in terms of difficulty: from the easiest to the most difficult one. The summary presented below (Table 1.2) illustrates the adopted typology of managerial situations.

Situation I is the most friendly and beneficial situation for the superior. Their subordinates like and appreciate them, which is reflected in their acceptance of their work style and the orders they give. Simple tasks do not cause difficulties for subordinates, so the assigned duties are carried out quickly and without any reservations. Situation VIII is the most complicated situation from the management perspective. This situation is characterized by tense emotional contacts in the superior-subordinate relationship and a complex structure of tasks to be performed. Moreover, the narrow scope of managerial authority does not provide the manager with enough reinforcement to help them influence employees. As a result, attempts at democratic leadership are risky and likely to fail due to the disrespectful attitude of subordinates towards their superior. In such conditions, only authoritarian management is possible, which means individual decision-making, imposing the method of carrying out tasks and exercising strict control over the course of work activities and enforcing the final results. According to Fiedler, situations I, II, III and VIII favour autocratic leadership, and this type

of exercise of power brings the best results. However, in situations IV, V, VI and VII, characterized by an average degree of difficulty, democratic leadership is the most effective.

The presented approach allows us for formulating the final conclusion that accurate identification of the conditions of the organizational situation, taking into account the human (relationship), task (type of task) and organizational (scope of authority) factors, creates a potential possibility of selecting and implementing the optimal management style to achieve the maximum level of effectiveness.

In this line of research, many classifications have been created, which have expanded the knowledge and views on situational management, providing a multi-level perspective on managerial behaviour, taking into account various determining factors. One of such approaches is the concept of P.W. Yetton from 1975.

Kożusznik (1992) shows the influence of the *degree of stress of the organizational situation* on the shape of the leadership style. The author wanted to answer the following question: “What leadership style should be used in situations with low, medium and high stress?” In this way, considerations about leadership styles in the situational context were expanded to include further variables. This approach was developed and supplemented by the concept developed by P.H. Yetton and V.H. Vroom (Vroom and Jago 2007, 17–24). Exploring the area of leadership styles, the authors asked another question: “How does the manager’s behaviour affect the quality of decisions and their acceptance by subordinates?” The developed model of management styles took the form of a so-called decision tree diagram, and considerations on the effectiveness of management were narrowed down to the area of decision-making (Jex and Britt 2015, 388–389).

In the thicket of considerations carried out above, the concept by P. Hersey and K. Blanchard called *the evolutionary theory of leadership*, in which investigations on adapting the leadership style to a specific organizational situation are supplemented with the dimension of the level of maturity of subordinates, is also worth attention (Blanchard et al. 1993; Hersey et al. 2015; Makin et al. 2000). The authors of this approach assumed that the basis for choosing a management style should be the maturity of employees, most generally explained as the desire to achieve the company’s goals (Mroziewski 2005). The concept distinguishes *social maturity and technical maturity*. *The social maturity of subordinates* is determined by their felt need for achievement and motivation to take responsibility for their actions. However, *technical maturity* is determined by the scope of competencies and skills required when carrying out assigned tasks. Depending on the level of maturity represented by subordinates in both dimensions, the manager should use one of four management styles (Makin et al. 2000):

- *authoritarian style* – is dedicated to groups of subordinates with a low level of maturity, applies to situations requiring teaching employees how to perform tasks and familiarizing them with applicable regulations and procedures;
- *integrating style* – it is recommended for groups of moderate maturity with increasing trust of the manager in their subordinates; subordinates, although they are already familiar with the essence of the tasks performed, are not yet fully ready to accept and bear responsibility, hence the superior must support them and encourage them to make further efforts;
- *participatory style* – refers to situations in which employees' maturity ranges from moderate to high, which results in subordinates' willingness to accept responsibility; by showing kindness and supporting subordinates, the manager can strengthen and develop this willingness;
- *delegating style* – applies to work teams characterized by a high degree of maturity; employees do not expect detailed guidelines from the manager; the manager can delegate tasks and assign authorizations and exercise control only occasionally.

The creators of the concept of situational leadership, currently also known as *situational leadership II* (Blanchard 1993, 21–26), supplemented the theoretical area of considerations on the application of the discussed model with a practical aspect and developed a questionnaire about the effectiveness and adaptability of managers managing employee teams (Leadership Effectiveness and Adaptability – LEAD). The research tool (Bogert 1986, 1) was developed to measure the parameters of employee management styles. In this way, the authors presented a situational leadership model, which in practice can be used to diagnose the current management style and select the most appropriate one in a given situation.

Another example of distinguishing situational leadership styles, depending on the level of employee participation in decision-making processes, is the path-to-goal model developed by M. Evans and R. House (House 1971, 321–338). The core of the concept is based on the motivational expectancy theory, which assumes that employee motivation depends on the expected benefit and the value it brings. The manager's role is to show the employee how to achieve the set goal. The manager determines the course of action to be performed by the employee and informs them what behaviours will lead to achieving the intended effect and, therefore, the expected benefits. The evolution of the path-to-goal model has led to the distinction of four leadership styles, depending on the given situation, such as (Schriesheim and Neider 1996, 317–321):

- *directive* – the manager explains to the employee the relationship between the effort they should put in to achieve the set goal and the benefits that will result from it; precisely indicates and explains in detail to the employee what they should do to complete the planned tasks,

- *supportive* – the manager shows concern for meeting the subordinate’s needs,
- *participatory* – the manager seeks the subordinate’s opinion, appreciates their suggestions and allows them to participate in decision-making,
- *task-oriented* – the manager encourages the employee to achieve ambitious goals in an inspiring way, shows trust and appreciates commitment.

A group of very popular and widely discussed topics in the field of organization and management models includes *the transactional leadership model* and *the transformational leadership model*. Both models are based on the concept of the multi-factor leadership model developed by B.M. Bass (Bass et al. 2003; Howell and Avolio 1993).

The transactional leadership model bases employee motivation mainly on the exchange of work performed for various types of goods (rewards, money, status) but also clearly defines the roles of employees, rewards and punishes them and meets their social needs. This model is based on two main elements: conditioned reward and management through criticism. Contingent reward involves appreciation in return for the effort put into work. It is the leader who precisely defines the task to be performed and rewards only when it is performed in accordance with the adopted standard. The purpose of management through criticism is to detect and correct errors. If errors are found, the leader may take corrective actions, e.g. reprimanding the employee. If no errors are found, the leader may take no action. Managing through criticism causes employees to fear making mistakes, which is why they are less active in searching for independent solutions, introducing changes and taking responsibility. It is not recommended during a crisis or increased competition on the labour market.

A leadership model, based on the use of completely different tools than *the transactional leadership model*, is *the transformational leadership model*. The role of transformational leaders is to make subordinates aware of what tasks are priority for them, the team and the organization. It is based on building commitment and arousing enthusiasm, especially by inspiring one’s own achievements and personal development (Huber 2017; Robbins and Davidhizar 2020). The transformational leadership model is based on four elements:

- individual treatment,
- intellectual stimulation,
- inspiring motivation,
- idealized example.

Individual treatment involves a superior’s work style similar to the role of a coach or mentor. The manager’s task is to create an appropriate climate that helps employees develop their potential. The leader focuses on the individual needs and achievements of each of their subordinates.

Intellectual stimulation by the leader involves encouraging subordinates to make intellectual efforts, to look creatively and innovatively at current situations and tasks, to reformulate problems into goals for implementation and to deliberately question and undermine the solutions used so far. Employees are involved in the process of finding solutions, and the leader does not publicly criticize them for their mistakes.

Inspiring motivation is based on defining challenges for employees; showing the meaning of their work; building optimism, enthusiasm and awareness of teamwork. By spreading attractive but realistic visions of the future, the leader encourages their subordinates to take similar actions, thus motivating them to make greater efforts in carrying out the assigned tasks.

An idealized example is also known as a leader – a role model. Leader is a person worth following, a person who is respected and trusted and subordinates, because they identify with them, want to follow them. Such leader is able to put the needs of individual team members ahead of their own and behaves in accordance with the set goals and adopted values and ethical standards (Bass 1990; Bass et al. 2003). B.M. Bass (1985), describing the transformational and transactional leadership styles, assumed that these are two separate styles, but they are not mutually exclusive and may even be complementary processes. Each of the mentioned styles is intended to motivate you to achieve your goals but using a completely different methodology (Fletcher et al. 2019; Hamilton 2020; Purwanto et al. 2020; Richards 2020; Shamir et al. 1993).

An interesting concept, which is a continuation of the considerations of researchers focused on the trend of transformational leadership (also called: charismatic, inspiring, symbolic), is the concept of *authentic leadership* (Fladerer and Braun 2020; Gill and Caza 2018; Jiang and Shen 2023; Maunz and Glaser 2023; Oh et al. 2018; Petersen and Youssef-Morgan 2018; Phuong and Takahash 2021).

The model of this type of leadership is based on the following four components:

- self-awareness,
- transparency,
- openness to feedback,
- ethics, morality (Walumbwa et al. 2008, 89–126).

According to the authors of the *authentic leadership* model, an authentic leader is a role model and example of high self-awareness and self-regulation (i.e. balanced information processing, honest behaviour, transparency in relationships and high internal moral standards), encourages employees to develop these very features in themselves, which will ultimately lead to the development of subordinates, building trust, commitment and higher efficiency. In the *authentic leadership* model, trust, understood as transparency in relationships,

plays an important role. According to the model's assumption, each party, i.e. both the superior and the subordinate, know what they can expect from each other (Avolio and Gardner 2005, 315–338). Results of research conducted by M. Bamford, C.A. Wong and H. Laschinger showed that managers using the authentic leadership model better matched employees to the tasks performed in areas, including task load, control, reward, justice, values, sense of community, which translated into greater commitment to work (Bamford et al. 2013, 520–540; Hassan and Ahmed 2011, 750–756; Eagly 2005).

Perceiving leadership styles through the prism of situational conditions has certainly led to the development of many important concepts of leadership models and typologies of leadership styles. However, a deeper analysis and an attempt to operationalize the essence of the concepts in an advanced way implies the need to identify some of their weaknesses and raises significant dissatisfaction (Akers 2018; Allio 2018; Andersen 2019; Mahmood et al. 2020; Nangoli et al. 2020; Thomas and Bendoly 2009; Trainor and Velotti 2013). It results mainly from a rather marginal approach to understanding the influence of individual human characteristics on the shape of leadership, including temperament, character, personality and gender (Bass et al. 1996; Eagly 2007; Eagly and Johannesen-Schmidt 2001; Kraczla 2016, 2022), cultural difference (Holt et al. 2009; Dorfman and Howell 1997) or self-attractiveness. It is worth noting that each person holding a managerial position is always, first of all, a person with specific potential and personality predispositions, and only secondly – a manager who analyses organizational situations and selects ways and methods of working with subordinates. The latest research reports on the impact of neuroscience achievements on the shape of the management process, including human capital management, open a new, inspiring field of exploration.

1.3 Personal and situational leadership styles and their evolution

Researchers' efforts aimed at moving away from the primacy of situational leadership models have gradually begun to highlight concepts that put some spotlight on those elements that have been called diversity categories in the world's literature on management topics, including leadership and organizational behaviour.

The author of one of the first concepts representing the situational-personality approach is D. Goleman (2013), who, together with R. Boyatzis and A. McKee, proposed a concept of leadership called *primal leadership* (Goleman et al. 2013). A category that has a special place in the authors' considerations is referred to as *emotional intelligence*. The six *emotional leadership* styles are as follows:

- *prescriptive* – based on continuous monitoring and control of employees and giving them orders that must be implemented in accordance with the leader's requirements. There is no room for the employee's initiative and ingenuity, creativity, development.

- *coaching* – the leader focuses on the strengths and weaknesses of each team member and supports their development. They delegate tasks and encourage work taking into account each person's competencies. They try to link employee's personal goals with goals of the organization.
- *affiliate* – manager supports their team, praises them, gives positive feedback, helps. Manager rewards activity and creativity of employees. This style results in greater cooperation, commitment, trust and loyalty to the boss and the team.
- *democratic* – the manager respects opinions of their employees and listens to their ideas. Thanks to this, each employee feels important and takes responsibility for development of their company and effects of the changes introduced.
- *visionary* – the primary value of this style is to present goals; each team member knows why they are doing a given thing. Thanks to this, they not only feel important but also know how and based on what criteria their work is assessed.
- *processual – normative* – the manager focuses here on standards and how to perform the task, teaches and shows how to achieve the goal, and, if necessary, gets to work themselves to prove to employees the effectiveness of the selected method.

Managing people, using knowledge about their emotions, is certainly a valuable method of learning about their characteristics, predispositions, needs and, above all, reactions in a turbulent reality, which is certainly important in the context of improving effectiveness of, for example, the process of motivating each individual. In the modern world, and especially in the context of the latest trends in management, but also economics and marketing, human emotions and knowledge about them are beginning to take precedence over other factors determining the effectiveness of the management process. *Emotional leadership* is a concept that has many advantages, but there are also weaknesses to be considered. Its application requires special competencies, especially in the field of psychology, and great caution, the lack of which may result in the risk of manipulation, excessive burden on the manager resulting from the lack of empathy in themselves, etc.

Another approach, representing the personality-situational trend, is the concept developed by T. Alessandro (Alessandra and O'Connor 1998), known as *The Platinum Rule*. This concept highlights two dimensions illustrating the continuum of managerial behaviour. The first dimension is described as *orientation towards people – orientation towards tasks*. It allows for the description of the range of managerial behaviour, from high concentration on task implementation to high concentration on shaping appropriate relationships with employees. The second dimension refers to the degree of managerial openness, availability and commitment in interpersonal contacts and is defined as *directness (open*

attitude) – *secrecy (closed attitude)*. Both parameters placed on one chart create a scale of managerial behaviour. In the presented concept, the description of the reality of management is made by determining the proportions between the poles of the distinguished dimensions. This means that the predominance of interest in interpersonal relationships in the work environment comes at the expense of reduced concentration on tasks, and vice versa. The same connection applies to the dimension of directness – secrecy. Taking into account the above assumptions, T. Alessandra distinguished four management styles, taking into account the principle of proportionality in recognizing the poles of individual dimensions and four types of business personalities emerging from them:

- *Relationship Builder/Relater Style* – characterized by a positive attitude towards people and teamwork. They are able to listen to others, willingly give advice and provide support. They are focused on cooperation and collaboration with others but avoid conflict situations. They prefer a consultative approach when making decisions. Their demeanour is relaxed and gentle, so they create an atmosphere of peace and relaxation in the work team. Life and professional demands motivate them to take action. However, due to a high level of fear of sudden and unexpected changes, they maintain a distance from ambiguity and innovation. They also show clear oversensitivity and are prone to submissive behaviour in stressful situations. As a consequence, they act slowly and cautiously, using protective strategies, which translates into weakness in setting and achieving goals.
- *Socializer/Socializer Style* – a socializer is characterized by spontaneity of reaction both in action and decision-making. They can effectively influence others and convince others to their visions. In this way, they motivate their co-workers and subordinates to work as a team and achieve goals. They feel a great need for attention, which is expressed in seeking approval and recognition. They win the sympathy of those around them through their great sense of humour and spontaneity. Approval and sympathy from others provide them with the greatest satisfaction. However, seeking recognition requires little caution and a willingness to make popular decisions. Additionally, the aversion to routine and perfectionism speeds up the pace of their work, and poor organization causes some chaos in the proceedings. As a result, this may lead to inaccurate decisions and may manifest itself in initiated and unfinished actions.
- *Thinker/Thinker Style* – They are described as a serious and prudent type of thinkers. They are characterized by good work organization, great planning skills and precision and systematicity in action. They are prudent and prefer functionality in their actions. In interpersonal contacts, they adopt a formal attitude, maintaining a large distance from others. They are focused on fulfilling tasks and achieving set goals. In cooperation with others, they value reliability and intellect. Conscientiousness and solid substantive preparation

make them feel that their duty is well fulfilled. Thus, they want to reduce the risk of critical evaluation of their actions, which is the main source of the Thinker's concerns. As a consequence, they fulfil their duties in a slow but persistent and systematic, even perfectionistic way, while remaining indifferent or demanding and critical towards others.

- *Director/Director Style* – is described as a firm and decisive type, focused on managing and controlling others. They like giving instructions. They work well in settings requiring quick and immediate decisions. They have great administrative skills; hence, they prefer self-determination and complete independence in making choices. Therefore, they do not leave any freedom to their subordinates, and they are irritated by others' indecision and ineffectiveness. In interpersonal relationships, they may show impatience and lack of understanding towards others. Oriented to high productivity, they work quickly and decisively, showing little tolerance for the weaknesses of others and even demonstrate some lack of interest in others. Winning is a strong motivating factor for them to take further action.

T. Alessandra, recognizing personality determinants in the choice of management style, does not deny the possibility of considering them in the situational context and acquiring the ability to adapt individual behaviour to organizational conditions. However, the “starting basis” in fulfilling managerial functions is personality, and awareness of individual predispositions to “submit” to specific behaviours can only enable the manager to open up to the situational context and start the process of improving themselves in adapting their managerial activity to current requirements and task-organizational conditions.

Management 3.0, created by J. Appelo, is one of the youngest management concepts. It is based on the Agile methodology, which is dedicated to agile team management. Initially, the Agile methodology was developed with software development teams in mind. Its popularity is also gradually growing in other industries. J. Appelo presented various aspects of agile management, basing them on the following six leading perspectives (Appelo 2016, 43):

- motivating people,
- validation of teams,
- defining constraints,
- developing competencies,
- creating structure,
- making everything better.

J. Appelo pays special attention to team values and personal values. In his opinion, many initiatives to introduce company values may end in failure because they are imposed on teams by the company's management, while the list of values usually has its source in the team and its environment (Appelo 2016,

108). The author also indicates ten needs of team members that, in his opinion, are of key importance to them. These include the following: curiosity, honour, acceptance, mastery, power, freedom, relationships, order, purpose and status (Appelo 2022, 200). Management 3.0 is about managing the system, not people. It is the ability to organize company life, processes and organizational culture so that they support human potential, effectiveness and commitment. It also means building trust in employees and empowering them to make decisions.

The evolution of leadership presents it to us in a multi-coloured way, one could say metaphorically that it “has many faces”. Classic leadership, directive, supportive, participation-oriented, achievement-oriented, visionary, organic and *intergroup leadership* have already been created (Hogg et al. 2012, 232–255). We know the essence of K. Blanchard’s situational leadership model, the transactional, transformational and authentic leadership model (Cooper 2015; Cowan 2014; Nazir et al. 2014; Platow 2015; Zhou 2014). In the opinion of A.K. Koźmiński, there is also *limited leadership* (Koźmiński 2013). The author believes that absolute leadership in its pure form does not exist due to the multitude of limitations determining the shape and course of the leadership process. According to R.S. Covey’s model, principles-based, or *compass-based*, leadership is effective. The author emphasizes that the right rules are like a compass – they always show the way. If we know how to interpret them, we will not get lost, we will not fall into disorientation, we will not be deceived by contradictory signals and values (Covey 1997). A.C. Decrane JR, in turn, claims that the future model of leadership is the *constitutional model*.

...True leaders are fair and honest – and not just because of laws and regulations – they are ethical, open and trustworthy. These foundations of character – perhaps more than any other factor – constitute the respect that is necessary for an individual to be called a leader.

(Decrane 1997, 247–253)

The importance of *ethical and moral leadership* is also emphasized by other authors (Huhtala et al. 2021; Javed et al. 2018; Skubinn and Herzog 2016; Vullingsh et al. 2020; Zhu et al. 2016).

The Web 2.0+ era brings new solutions. The ubiquitous virtualization of business space minimizes the need for direct contact between managers and employees, which favours the creation of new people management methodologies, with all their advantages and weaknesses. Official IT and technological system of *remote management* unofficially is called *stealth control*. However, while the use of *remote management* tools and methods in business practice is less and less controversial, *remote leadership* seems to be a controversial issue, especially considering the effectiveness and efficiency of this method of management, in particular of human capital. In the opinion of Ź. Leduchowska and B. Wujec and other authors (Leduchowska and Wujec 2010; Neufeld et al.

2010), the weakness of virtual teams primarily refers to the low level of social interactions, numerous misunderstandings resulting from cultural differences, revealed in the style of communication, way of working and hierarchy of values; different time zones making it difficult to arrange meetings, teleconferences or videoconferences; inconvenience of travel; limited personal contact and the scope of using the benefits of non-verbal communication, and consequently, a limited level of trust. The authors emphasize that managing a virtual team requires managers to use new leadership methods. In their opinion, virtual team members should maintain a high degree of independence and autonomy at work, performing multiple roles at the same time and taking on managerial functions interchangeably. This pattern of action enables action typical of the concept of *shared leadership* or *distributed leadership*. The leadership style is quite controversial, although inspiring and, it must be admitted, innovative. However, several problems require deeper analysis and important questions. How does an employee cope as a chameleon, assuming team roles that change depending on the situation? What competencies must employees have in order to meet expectations created by the “new” reality? How to verify the required competencies in practice, who should do it and how? What verification tools should be used? What criteria for the division of power should be adopted? Is *deinfluencing of power* even possible? How to model such flexible teams? Does *shared leadership* mean the end of the era of hierarchical organizational structures and traditional governance? The models of holacratic and turquoise organizations seem to confirm the beginning of the era of another modification in the way of understanding the essence of leadership and inspire to ask further, important questions related to it. When showing the values of *shared leadership*, leadership flexibility is not mentioned, but this skill is crucial to the success of the entire project. Era 2.0 opened an inspiring area of speculation, confirming that management and leadership are non-obvious concepts, and their exploration is extremely demanding. The modern world, which has been called the 4.0+ era, raises this bar even higher.

1.4 From leadership to neuroleadership – reflections in the era of digitalization and the development of artificial intelligence

Exploring the reality surrounding us today exposes a number of highly inspiring, new directions of scientific considerations. The digital revolution and the related development of modern technologies, including artificial intelligence (AI), are categories of particular interest to increasingly insightful researchers. Being the subject of investigation, as separate scientific categories, they remain in dynamic interaction with many others, including specificity of the organization management process or human capital management. They also raise a number of new problems that are important in the process of exploring issues related to stress and conflict management, which is the authors’ interests in the further pages of

this monograph. Equally inspiring is the aspect of transformation of the *management process into neuromanagement*, exposing *neuroleadership* in place of traditionally understood *leadership*.

According to J. Pieriegud (2016), digitalization in the sphere of economy and society is one of the most dynamic changes of our times, which opens up new opportunities in creating business models, while bringing with it uncertainty and various types of threats related, among others, to the social effects of process automation production or broadly understood security. Digitalization, as a continuous process of convergence of the real and virtual worlds, is becoming the main driver of innovation and changes in most economic sectors (Abdulhakovna and Gulomovna 2020; Broccardo et al. 2023). K. Schwab (2016) points out that the digital revolution creates radically new approaches that change the way individuals and organizations cooperate and collaborate. This issue is clarified by L. Royakkers and colleagues (Royakkers et al. 2018), noting that the growing use of ICT influences greater digitalization of interactions between people, as well as between people and organizations, which is implemented by augmented and virtual reality and digital platforms. Digitalization permeates the modern socio-cultural world – more and more often, users in the virtual space do shopping, make transactions, listen to music, contact friends and even take other activities, such as looking for a new life partner. Services provided via computer networks have become increasingly important in culture and identity formation. A significant example can be provided by the use of smartphones that create a kind of connection for the user between the real and virtual worlds and have a huge impact on their life. T. Hess and colleagues (2017) emphasize the significant difference between the essence of digitalization and the essence of digital transformation. Digitalization, according to the authors, refers to the conversion of information from the analogue world to the digital world or to the automation of processes using ICT. Digital transformation can cause changes in a company's business model, products, processes and organizational structure. They can be observed in individual and organizational contexts. S. Denecken (2015) points to four necessary, key components of digital transformation: cloud, mobile technology, data and networks. C.J. Hamelink (1997) adds that one of the most important properties of digital technologies is their ubiquity, and B. Owczarczyk (2017) concludes that digitalization cannot be avoided at all. S. Łobejko (2018) emphasizes that nowadays new technologies, resulting from the high pace of scientific and technical progress, have an increasing impact on the economy, in particular they favour creation of new solutions based on the use of AI. These solutions are increasingly influencing the process of managing organizations, including shaping employee behaviour (Amla and Malhotra 2017; Dethine et al. 2020; Feliciano et al 2023; Merlin and Jayam 2018; Yawalkar 2019).

The term “artificial intelligence” was first proposed and defined in 1955 by J. McCarthy. As K. Rózanowski (2007) notes, this concept, despite its widespread use, is not easy to specify, and this is primarily due to the lack of a

clear and precise definition of the essence of “intelligence” itself. Its essence is explained as the ability to adapt to new conditions and perform new tasks, the ability to perceive dependencies and relationships, the ability to learn or process information at the level of abstract concepts. “Artificial intelligence” is a branch of computer science that deals with construction of machines and algorithms whose operation is characterised by some hallmarks of intelligence. This means the ability to spontaneously adapt to changing conditions, make complex decisions, learn, perform abstract reasoning, etc. AI is revolutionizing the modern world. Solutions based on its use are already present in almost every area of our lives. Ubiquitous chatbots, voicebots, conducting conversations with customers (e.g. Emma, acting as a virtual consultant at the Singaporean OCBC bank, professionally providing information on loans but also estimating their costs), virtual teachers, learning path personalization, recommendation systems, object recognition programs (very useful for blind people), software that diagnoses condition of properties, software that writes plays or paints pictures. The reality around us presents many spectacular examples of AI applications. The most famous is a robot called ROBOCOP, which received a police badge and was officially included in the list of Dubai Police officers. The humanoid machine measures 170 cm and weighs almost 100 kg, orients itself in the area using a GPS navigator, can recognize facial expressions and gestures and identify suspicious people through a photo database. The robot can communicate in six languages and is able to issue and enforce tickets (IHFI 2019). Another famous example of a humanoid robot can be provided by SOFIA – a robot produced by Hanson Robotics, imitating human gestures and facial expressions, having the ability to visually process data and a facial recognition system and using voice recognition technology. In October 2017, SOFIA received a citizenship from the King of Saudi Arabia. This fact became an epoch-making event, inspiring deep reflection on the real capabilities of humanoid robots, the level of their intelligence, the added value they create, their role in the process of creating organizational behaviour and finally in the management process. SOFIA’s entry into the human world created a completely new, fascinating area of scientific inquiry. It is now necessary to answer the following question: in the third decade of the 21st century, should we only talk about the analysis of people’s behaviour in organizations, or perhaps, there is something more? (Wziątek-Staško 2022).

The significant pace of change is confirmed by the creation of SOFIA’s competitor – a robot called AMECA, created by Engineered Arts in 2021 (Photo 1.1).

AMECA can smile, frown, blink and open and close its mouth. The robot may also show surprise, frustration or amusement. This is not the only recent breakthrough in robotics. Ameca was quickly replaced with another, even more advanced discovery in the field of robotics – MIKOŁAJ KOPERNIK (Photo 1.2).

Equipped with complex software, the robot can recognize human faces, follow them with its eyes, understands human speech, recognizes language and converts the words it hears into text, provides answers, has the ability to

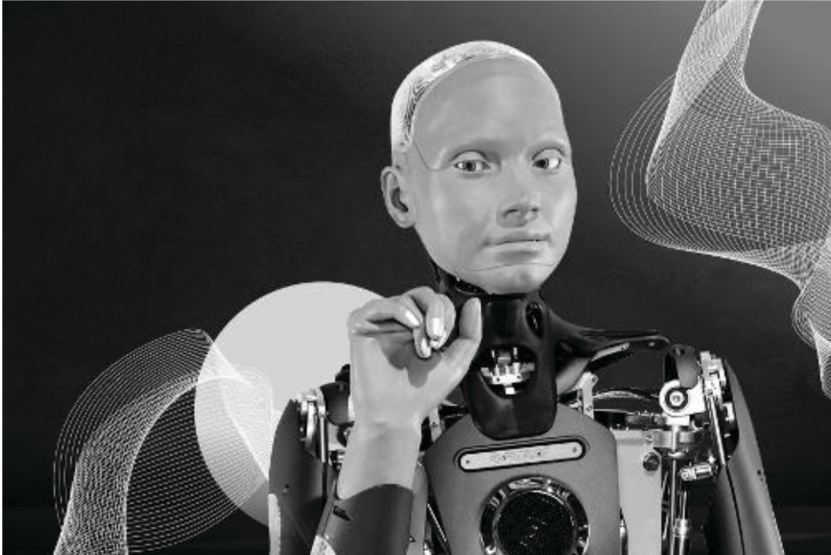


Photo 1.1 Humanoid robot called “Ameca”.

Source: www.kopernik.org.pl/wystawy/roboty-na-wystawach (access date: 31.05.2024).

move, make movements imitating breathing and gently move its head, hands and mouth. Although the world saw Mikołaj Kopernik in February 2023, its competitor has already appeared – MIKA. An advanced AI named Mika became the official CEO of the beverage company Dictador in Poland. It is a luxury rum producer that previously caused a sensation by selling the most expensive bottle of rum in the world, worth \$1.5 million per bottle. This is the first AI human robot in the company structure, which is intended to revolutionize the business world. The mentioned machine not only serves as the managing director but is also a member of the management board and runs the Dictador’s Arthouse Spirits DAO project and the company’s communications. DAO is an innovative management structure that uses blockchain technology.

Companies see many benefits associated with the use of AI, including speed and continuity of operation and minimization of the risk related with irregularities. Systems based on AI learn from their mistakes. Hence, they do not make the same mistake twice. Robots do not get sick, do not take sick leave and can work 24 hours a day throughout the week. The observed trends make us aware of the transience and often archaic nature of knowledge regarding people management in organizations and create a clear need to engage in a fascinating discussion on its new shape, not only in the context of the present but above all in the future. Proper understanding of the essence of people management seems



Photo 1.2 Humanoid robot called “Kopernik”.

Source: www.kopernik.org.pl/wystawy/roboty-na-wystawach (access date: 31.05.2024).

to be a much more complicated process than many people think. Superficiality in this area creates effects that harm both employees and their teams, and, of course, organizations as systems.

Observing the development of scientific thought devoted to the analysis of the role and place of a human being in an organization, one can notice certain distinct stages of this process. Starting from the simplest formula of “*human resources administration*”, through the particularly popular one called “*human resources management*”, to its improved version: “*human capital management*”, already noticed by some organizations, still not noticed by others. Unfortunately, the common practice of using the above terms interchangeably does not help to effectively organize managers’ knowledge about what is actually hidden behind them and what implications they have for the practice of people management. The level of difficulty is increased with the following new terms entering the scientific and business language: “*human potential management*”, “*talent management*”, “*competence management*”, “*knowledge management*”. Superficiality in

interpreting the essence and role of a person in an organization is a leading shortcoming in the process of effective management. Popular definitions of the concept of “*human resources management*”, such as the one that explains that this process includes “organizational activities related to the acquisition, development and maintenance of an effective workforce” (*Encyklopedia Zarządzania*), are somewhat confusing, especially since they are presented by the creators of *Encyklopedii Zarządzania*. The conservative nature of this understanding of the people management process in some organizations fortunately gave way to a more innovative approach, which includes the concept of “*diversity management*” (Wziątek-Staśko 2012).

Searching for a way to optimize organizational effectiveness by taking an authentic (and not just fashion-based) look at the factors that determine employee differences is indeed the right path. Failure to notice the individuality of people in the sphere of key values, attitudes, way of perceiving reality, illusions that distort their way of thinking, perspective that significantly distorts the image of the world and the way of making decisions and, finally, differences in characteristics and ways of thinking and acting resulting from differences in gender, age, personality, temperament, level of empathy and so on, is an expression of serious ignorance and at the same time a lack of professionalism. When exploring the topic of the highest standards in the area of people management in the digital world dominated by AI, we cannot stop at the stage of thinking evolution called “*diversity management*”. It is followed with a stage or stages. The author’s concept of the discussed evolution is presented in Figure 1.1.

The discussions on people management presented in this research have become a kind of journey from ancient times, when activities appropriate to “*human resources administration*” were at the forefront, through the period when the concept of “*human resources management*” was the only correct one, and further, we reached the stage when it was noticed that a person was not just a resource but capital generating added value. Finally, attention was paid to the fact that each employee is an individual, unique, multi-faceted and diverse. Strenuous efforts to understand the sources and dimensions of human differences lead us to the path of our considerations about the human brain, the key creator of all human activities and the author of all the decisions made. Until recently, the brain was something of a black box. Much of what was going on inside was unknown. Although it is still the most mysterious organ in the human body, today we can say much more about it than a few years ago. But do we willingly use this knowledge when managing organizations? Do our managers know what goes on in their employees’ brains when they praise, criticize or burden them with monotonous tasks? Do they know how their brains react to different situations and how they can manage neurotransmitters? If leaders started looking through this prism, companies would gain a lot (...). True leadership begins and ends in the brain (Koprowska 2020). In the pursuit of being a leader of the highest calibre, understanding the essence and importance of *neuroleadership* becomes

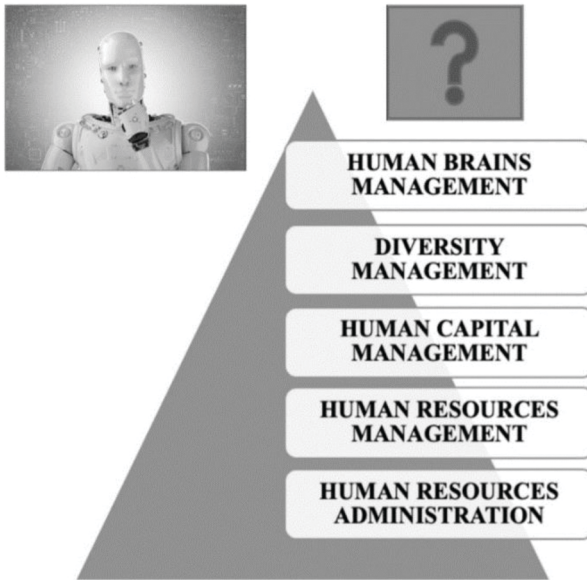


Figure 1.1 Managing people in a dual world.

Source: Wziątek-Staško- own elaboration.

a dominant issue. According to A. Wawrzyniak and B. Wąsikowska (2016), it is one of the disciplines falling within the scope of neuromanagement, an interdisciplinary field of knowledge combining management, neurobiology, cognitive neuroscience, psychology, philosophy and others, aiming to explain the neural basis for making management decisions. According to the above-mentioned authors, the more knowledge we have about the brain, the better we realize how many reactions, behaviours and errors result not from a given person's fault, but from the very structure of their brain and physiology. If we know how something works and what causes it, we can shape it, influence it and manage it. N. Kuhlmann and Ch. Kadgien (2018, 4) emphasize that neuroleadership plays a particularly important role in considerations regarding the way paths for improving managerial competencies are shaped, especially in the context of implementing changes in the organization. The key role of neuroleadership in improving the change management process is also emphasized by other authors (Rock and Schwartz 2007). Neuroleadership promotes better understanding of employees, which enables more accurate selection of change implementation strategies. This is not an easy category to explore, as it has recently begun to inspire researchers (Becker et al. 2011), but it is an area with significant potential (Balconii and Venturella 2017). An important achievement resulting from

knowledge about the brain is attributed to the ability to diagnose the causes of human behaviour but also, which is extremely important, to predict them in the future. This aspect becomes particularly important in the era of digitalization and the development of AI, the specificity of which opens unlimited possibilities for the human brain. This unlimitedness became the inspiration to distinguish the next stage of evolution in Figure 1.1 and to ask further questions. Will the development of solutions based on the use of AI and the constant improvement of robots, including humanoid ones, which is the result of the work of human brains, soon introduce us to another dimension of reality, in which the world of machines will complement the world of people on a universal scale? Will the location of a humanoid robot at the top of the pyramid remain only a hypothetical figment of the imagination, or perhaps a reflection of the organizational model of the future in which our boss or teammate will be a smiling humanoid robot, like Sofia, Ameca or Mika? There are no limits for the human brain, but what about the robot brain? Neuromorphic systems, i.e. those that are modelled on how the brain works, are the future of AI (...) machines are now starting to learn based on experience, i.e. what they are shown. Robots and AI of the future – and not so distant – will behave in the same individual way as humans (Zdziebłowski 2019).

Functioning in an increasingly dynamically developing cyberspace clearly exposes the phenomenon of “impermanence”, which concerns both objects that age faster and faster but also interpersonal relationships. New streams of information are constantly flowing from cyberspace, which on the one hand opens us to previously unknown cognitive fields, and on the other, causes disorientation. The reaction to an excessive number of stimuli reaching us on the affective, cognitive and decision-making levels often results in mental chaos, physical and mental exhaustion and finally a number of pathological phenomena and behaviours initiated by the internal compulsion to be online, escape from the real world to the virtual one, access to toxic cultural groups, isolation, alienation, network addiction, etc. Regardless of the identified negative phenomena, the attractiveness of many solutions presents in the world of digitalization, especially those equipped with AI, arouses delight, intrigues and undoubtedly creates new fields of exploration. The leading group includes the human brain and its little-recognized impact on the shape of management, especially management in the era of digitalization.

The new projects that are constantly emerging make a stunning impression on us, but at the same time, they force us to ask many important questions about the shape of the organization of the future, the people management process, the model of organizational behaviour, the model of competencies, the role of people and their values. The suggested direction for further exploration is to follow the path of fascinating searches for new areas of management, among which neuroleadership seems to be particularly inspiring. It has already left a trace, as evidenced by the innovative leadership concept called “*business*

tandems". As B.J. Feder (1999) notes, "two types of minds are needed for the efficient and dynamic functioning of an organization. A manager's mind for developing work procedures and regulations, and a leader's mind for inspiring and motivating people". The author notes that, in fact, relatively recently we have learned the truth about the source of the differences between a manager and a leader, which is (as already emphasized earlier) the human mind. A manager and leader are two different minds in one organization. If we like to plan, organize, arrange procedures and schedules, we think logically, and we consider matters "from detail to generality", then we are most likely dominated by the types of consciousness specific to our left hemisphere of the brain, i.e. logical, linear, symbolic, verbal. This is also where the social attitude, memory and speech centre are located, and here impressions and tasks are analysed in a logical order. With a better developed left hemisphere of the brain, we are better candidates for managers than leaders. However, if we can look into the distant future, if our spatial imagination is better developed, if we appreciate the importance of visualizations and colours, if shapes appeal to us, if we have the ability to empathize and create visions, the right hemisphere is better developed. Visual and spatial thinking, intuition, creativity, sense of rhythm and proportion, as well as fear and negative feelings, such as depression and even chaos, are realized. With a better developed right hemisphere of the brain, we are better candidates for leaders than for managers. People with a more developed left hemisphere are rational individuals, while people with a more developed right hemisphere are emotional individuals. It is rather rare for information to be processed exclusively by one hemisphere; both participate in almost all thought processes. However, they do it in a different way, which causes people to have very different thought preferences (Rigby et al. 2009). There may be one goal, but the ways of solving it in the opinion of right- and left-brained people are completely different. As mentioned earlier, an efficient and effective organization needs both types of minds. Knowledge about the different features of both brain hemispheres is an extremely valuable achievement of modern times, opening up new opportunities for improving the management process of organizations operating in the Web 2.0+ era. Some business leaders have already started to use it, creating famous tandems, perfectly selected taking into account the discussed criterion. Let us mention such famous business duos as: C. Klein and B. Schwartz, M. Jacobs and R. Duffy, Y. S. Laurent and P. Berge, M. Prada and P. Bertelli, V. Garavani and G. Giammetti, P. Wertheimer and C. Chanel, J. Walker and B. Bird or D. Packard and B. Hewlett. Why were the companies they led successful? Precisely because their competencies were complementary. You cannot trust only creative people in business – they usually fall in love with their idea and never know when to give up. Typical businessmen also do not achieve their goals on their own, most often they do not even know where to start. However, the idea of managing in a duo is not everything, it is important to select the

right people. History knows cases of tandems whose cooperation failed, such as S. Jobs and J. Sculley.

Many organizations make the cardinal mistake of allowing left-brained analysts to validate ideas at various stages of the innovation process. People lacking creativity have an irritating tendency to kill good ideas, support bad ones, and, when what they see does not meet their expectations, demand endless improvements.

(Rigby et al. 2009, 100)

Such people are often innovation killers. The need to conduct a thorough and comprehensive assessment of people employed in organizations at all levels is not a whim of modern times, it is an absolute necessity and a condition for its effective management! This applies to both new hires and those already employed. The lack of reliable knowledge in this area means that the company is managed blindly. Unfortunately, companies constantly allow themselves to make too many mistakes in the management process, and the discussed leadership remains a meaningless phrase.

Bibliography

- Abdulhakovna, Z. S., & Gulomovna, Z. U. (2020). Information technologies in management. *International Journal on Integrated Education*, 3(1), 19–22.
- Adamiec, M. (2011). *Potencjał ludzki w organizacji*. Warszawa: Difin SA.
- Adamiec, M. & Kożusznik B. (2000). *Zarządzanie zasobami ludzkimi. Aktor-Kreator-Inspirator*. Kraków: Wydawnictwo AKADE.
- Akers, K.L. (2018). Leading after the boom: developing future leaders from a future leader's perspective. *The Journal of Management Development*, 37(1), 2–5. <https://doi.org/10.1108/jmd-03-2016-0042>
- Alessandra, T. & O'Connor, M. I. (1998). *The Platinum Rule*. New York: Warner Books.
- Allio, R. J. (2018). Becoming a leader – first, take charge of your own learning process. *Strategy and Leadership*, 46(3), 21–28. <https://doi.org/10.1108/SL-02-2018-0013>
- Amla, M. & Malhotra, P. M. (2017). Digital transformation in HR. *International Journal of Interdisciplinary and Multidisciplinary Studies (IJIMS)*, 4(3), 536–544.
- Andersen, J. A. (2019). On 'followers' and the inability to define. *The Leadership and Organization Development Journal*, 40(2), 274–284. <https://doi.org/10.1108/LODJ-11-2018-0414>
- Appelo, J. (2016). *Zarządzanie 3.0. Kierowanie zespołami z wykorzystaniem metod Agile*. Gliwice: Wyd. Helion, 43.
- Appelo, J. (2022). *Zarządzanie szczęśliwym zespołem*. Gliwice: Wyd. Helion, 200.
- Aramovich, N. P. & Blankenship, J. R. (2020). The relative importance of participative versus decisive behavior in predicting stakeholders' perceptions of leader effectiveness. *The Leadership Quarterly*, 31(5), 101387. <https://doi.org/10.1016/j.leaqua.2020.101387>
- Avery, G. C. (2009). *Przywództwo w organizacji*. Warszawa: PWE.

- Avolio, B. J. & Gardner, W. L. (2005). Authentic leadership development: getting to the root of positive forms of leadership. *The Leadership Quarterly*, 16, 315–338. <https://doi.org/10.1016/j.leaqua.2005.03.001>
- Bacon, T. R. (2013). *Sztuka skutecznego przywództwa*. Sopot: GWP.
- Balconi, M. & Venturella, I. (2017). Neuromanagement: what about emotion and communication? *Neuropsychological Trends*, 21(1), 9–21. <https://doi.org/10.7358/neur-2017-021-balc>
- Bamford, M., Wong, C. A. & Laschniger, H. (2013). The influence of authentic leadership and areas of worklife on work engagement of registered nurses. *Journal of Nursing Management*, 21(3), 529–540. <https://doi.org/10.1111/j.1365-2834.2012.01399.x>
- Bańka, W. (2003). *Zarządzanie personelem. Teoria i praktyka*. Toruń: Wydawnictwo Adam Marszałek.
- Bartkowiak, G. (1977). *Psychologia zarządzania*. Poznań: Wydawnictwo Akademii Ekonomicznej w Poznaniu, 65–70.
- Bartkowiak, G. (1994). *Psychologia zarządzania*. Poznań: AE.
- Bass, B. M. (1985). *Leadership and Performance Beyond Expectation*. New York: Free Press.
- Bass, B. M. (1990). From transactional to transformational leadership: learning to share the vision. *Organizational Dynamics*, Winter, 19–31. [https://doi.org/10.1016/0090-2616\(90\)90061-S](https://doi.org/10.1016/0090-2616(90)90061-S)
- Bass, B. M. & Stogdill, R. M. (1990). *Bass & Stogdill's Handbook of Leadership: Theory, Research, and Managerial Application*. New York: Simon and Schuster, Free Press.
- Bass, B., Avolio, B. & Atwater, L. (1996). The transformational and transactional leadership of men and women. *Applied Psychology: An International Review*, Vol. 45, 5–34. <https://doi.org/10.1111/j.1464-0597.1996.tb00847.x>
- Bass, B. M., Avolio, B. J., Jung, D. I. & Berson, Y. (2003). Predicting unit performance by assessing transformational and transactional leadership. *Journal of Applied Psychology*, 88(2), 207–218. <https://doi.org/10.1037/0021-9010.88.2.207>(Not accessible as of [2024/06/14])
- Becker, W. J., Cropanzano, R. & Sanfey, A. G. (2011). Organizational neuroscience: taking organizational theory inside the neural black box. *Journal of Management*, 37(4), 933–961. <http://doi.org/10.1177/0149206311398955>
- Bednarski, A. (1998). *Zarys teorii organizacji i zarządzania*. Toruń: TONiK “Dom Organizatora”.
- Bennis, W. & Nanus, B. (1985). *Leaders: The Strategies for Taking Charge*. New York: Harper and Row.
- Blake, R. R. & Mouton, J. S. (1982). *The Managerial Grid*. Houston: Gulf Publishing.
- Blanchard, K., Zigarmi, D. & Nelson, R. B. (1993). Situational leadership after 25 years: a retrospective. *The Journal of Leadership Studies*, 1(1), 21–36. <https://doi.org/10.1177/107179199300100104>
- Bogert, S. (1986). The Use of Situational Leadership Theory, to Enhance learning in higher education, Rapport de recherche, Saint-Lambert, Champlain Regional College, 1986, 1.
- Bolden, R. (2004). *What Is Leadership?* (Research Report 1.) Exeter, United Kingdom: Leadership South West.
- Broccardo, L., Zicari, A., Jabeen, F. & Bhatti, Z. A. (2023). How digitalization supports a sustainable business model: A literature review. *Technological Forecasting and Social Change*, 187, 122–146. <https://doi.org/10.1016/j.techfore.2022.122146>

- Burlton, R. T. (2001). *Business Process Management: Profiting from Process*. Indianapolis: Sums Publishing.
- Burns, J. M. (1978). *Leadership*. New York: Harper Torchbooks.
- Carvalho, A., Alves, H. & Leitão, J. (2022). What research tells us about leadership styles, digital transformation and performance in state higher education? *IJEM*, 36(2), 218–232. <https://doi.org/10.1108/IJEM-11-2020-0514>
- Chukwusa, J. (2018). Autocratic leadership style: obstacle to success in academic libraries. *Library Philosophy and Practice*, 1, 1–11.
- Cooper, D. (2015). Effective safety leadership. Understanding types & styles that improve safety performance. *Professional Safety*, 60, February, 49–53.
- Covey, S. R. (1997). *Zasady działania skutecznego przywódcy*. Warszawa: Wydawnictwo Medium, 13–14.
- Cowan, L. D. (2014). E-leadership: leading in a virtual environment-guiding principles for nurse leaders. *Nursing Economics*, November/December, 32(6), 312–322.
- Cuddy, A. J. C., Fiske, S. T. & Glick, P. (2008). Warmth and competence as universal dimensions of social perception: the stereotype content model and the BIAS map. *Advances in Experimental Social Psychology*, 40, 62–137. [https://doi.org/10.1016/S0065-2601\(07\)00002-0](https://doi.org/10.1016/S0065-2601(07)00002-0)
- Cuddy, A. J. C., Kohut, M. & Neffinger, J. (2015). Przywództwo zaczyna się od zaufania. *Harvard Business Review Polska*, 146, 38–45.
- Decrane, A. C. Jr. (1997). *Konstytucyjny model przywództwa*. [In]: F. Hesselbein, M. Goldsmith, R. Beckhard (eds.) *Lider przyszłości*. Warszawa: Wyd. Business Press, 247–253.
- Demitras, O. (2020). *A handbook of leadership styles*. Cambridge: Cambridge Scholars Publishing, 5.
- Denecken, S. (2015). *Conquering Disruption Through Digital Transformation*. New York: SAP White Paper, New York 9 (www.digitaleschweiz.ch/wp-content/uploads/2016/05/SAP-Conquering-disruption-through-Digital-Transformation.pdf.)
- Dethine, B., Enjolras, M. & Monticolo, D. (2020). Digitalization and SMEs' export management: impacts on resources and capabilities. *Technology Innovation Management Review*, 10(4). <https://timreview.ca/article/1344>
- Dorfman, P. & Howell, J. (1997). Leadership in Western and Asian countries: commonalities and differences in effective leadership processes across cultures. *Leadership Quarterly*, 8, 233–275. [https://doi.org/10.1016/S1048-9843\(97\)90003-5](https://doi.org/10.1016/S1048-9843(97)90003-5)
- Drucker, P. F. (2001). *Myśli przewodnie Druckera*. Warszawa: MT Biznes, 397–402.
- Durmuş, S. Ç. & Kirca, K. (2019). Leadership styles in nursing. In Nursing-new perspectives. *IntechOpen*. <https://doi.org/10.5772/intechopen.89679>
- Dworzecki, Z. (1981). *Style zarządzania*. Warszawa: SGPiS.
- Eagly, A. H. (2005). Achieving relational authenticity in leadership: does gender matter? *The Leadership Quarterly*, 16, 459–474. <https://doi.org/10.1016/j.leaqua.2005.03.007>
- Eagly, A. H. (2007). Female leadership advantage and disadvantage: resolving the contradictions. *Psychology of Women Quarterly*, 31, 1–12. <https://doi.org/10.1111/j.1471-6402.2007.00326.x>
- Eagly, A. H. & Johannesen-Schmidt, M. C. (2001). The leadership styles of men and women. *Journal of Social Issues*, 57, 781–797. <https://doi.org/10.1111/0022-4537.00241>
- Encyklopedia Organizacji i Zarządzania* (1981). Warszawa: PWE.

- Encyklopedia Zarządzania* (2004) (<https://mfiles.pl/pl/index.php/Kierownik>).
- Feder, B. J. (1999). *Dwa umysły w organizacji*. *Home&Market*, 15(89), 25.
- Feliciano-Cestero, M. M., Ameen, N., Kotabe, M., Paul, J. & Signoret, M. (2023). Is digital transformation threatened? A systematic literature review of the factors influencing firms' digital transformation and internationalization. *Journal of Business Research*, 157, 113546. <https://doi.org/10.1016/j.jbusres.2022.113546>
- Fiedler, F. E. (1967). *A Theory of Leadership Effectiveness*. New York: McGraw-Hill.
- Fiedler, F. E. & Chemers, M. M. (1984). *Improving Leadership Effectiveness: The Leader Match Concept*. New York: Wiley.
- Fladerer, M. P. & Braun, S. (2020). Managers' resources for authentic leadership – a multi-study exploration of positive psychological capacities and ethical organizational climates. *British Journal of Management*, 31, 325–343. <https://doi.org/10.1111/1467-8551.12396>
- Fletcher, K. A., Friedman, A. & Piedimonte, G. (2019). Transformational and transactional leadership in healthcare seen through the lens of pediatrics. *The Journal of Pediatrics*, 204, 7–10. <https://doi.org/10.1016/j.jpeds.2018.10.007>
- Gach, D. & Pietruszka-Ortyl, A. (2005). *Przywództwo i style kierowania*. [In]: A. Potocki (ed.) *Zachowania organizacyjne*. Warszawa: Difin Sp. z o.o., 204–246.
- Gibb, C. A. (1954). *Leadership*. [In]: G. Lindzey & E. Aronson (eds.) *The Handbook of Social Psychology*. Massachusetts: Addison-Wesley, 877–920.
- Gill, C. & Caza, A. (2018). An investigation of authentic leadership's individual and group influences on follower responses. *Journal of Management*, 44(2), 530–554. <https://doi.org/10.1177/0149206314566461>
- Goleman, D., Boyatziz, R. & McKee, A. (2013). *Prima Leadership. Unleashing the Power of Emotional Intelligence*. Boston: Harvard Business Review Press.
- Griffin, R. W. (2000). *Podstawy zarządzania organizacjami*. Warszawa: Wydawnictwo Naukowe PWN, 502.
- Hamelink, C. J. (1997). *New Information and Communication Technologies, Social Development and Cultural Change*, 86. Geneva: United Nations Research Institute for Social Development, 4–5.
- Hamilton, T. B. (2020). *Cosmetologists: A Practical Career Guide*. Maryland: Rowman & Littlefield Publishers.
- Hassan, A. & Ahmed, F. (2011). Authentic leadership, trust and work engagement. *World Academy of Science, Engineering & Technology*, 80, 750–756. <http://doi.org/10.5281/zenodo.1075160>
- Hersey, P. (2009). Situational leaders. *Leadership Excellence*, 26(2), 12.
- Hersey, P., Blanchard, K. & Johnson, D. E. (2015). *Management of Organizational Behavior*, 10th edition. Englewood Cliffs, NJ: Pearson.
- Hess, T. (2017). Options for formulating a digital transformation strategy. *MIS Quarterly Executive*, 15, 105. https://www.researchgate.net/publication/291349362_Options_for_Formulating_a_Digital_Transformation_Strategy#fullTextFileContent.
- Hogg, M. A. Knippenberg, D. V. & Rast III, D. E. (2012). Intergroup leadership in organizations: leading across group and organizational boundaries. *The Academy of Management Review*, 37(2), 232–255. <https://doi.org/10.5465/amr.2010.0221>
- Holstein-Beck, M. (1996). *Jak być menedżerem?* Warszawa: CIM.
- Holt, S., Bjorklund, R. & Green, V. (2009). Leadership and culture: examining the relationship between cultural background and leadership perceptions. *Journal of Global Business Issues*, 3, 149–164.

- House, R. (1971). A path-goal theory of leader effectiveness. *Administrative Science Quarterly*, 16(3), 321–338. <https://doi.org/10.2307/2391905>
- Howell, J. M. & Avolio, B. J. (1993). Transformational leadership, transactional leadership, locus of control and support for innovation: key predictors of consolidated-business-unit performance. *Journal of Applied Psychology*, 78, 891–902. <https://doi.org/10.1037/0021-9010.78.6.891>(Not accessible as of [2024/06/14])
- Huber, D. (2017). *Leadership and Nursing Care Management-e-Book*. London, UK: Elsevier Health Sciences.
- Huhtala, M., Fadjukoff, P. & Kroger, J. (2021). Managers as moral leaders: moral identity processes in the context of work. *Journal of Business Ethics*, 172, 639–652. <https://doi.org/10.1007/s10551-020-04500-w>
- IHFI (2019). Raport “Pracownik przyszłości”. Gdańsk: Infuture Hatalaska Foresight Institute.
- Javed, B., Rawwas, M., Khandai, S., Shahid, K. & Tayyeb, H. (2018). Ethical leadership, trust in leader and creativity: the mediated mechanism and an interacting effect. *Journal of Management and Organization*, 24(3), 388–405. <http://doi.org/10.1017/jmo.2017.56>
- Jex, S. & Britt, T. (2015). *Organizational Psychology: A Scientist-Practitioner Approach*. Hoboken, NJ: Wiley, 388–389.
- Jiang, H. & Shen, H. (2023). Toward a relational theory of employee engagement: understanding authenticity, transparency, and employee behaviors. *International Journal of Business Communication*, 60(3), 948–975. <https://doi.org/10.1177/2329488420954236>
- Johnson, P. (2006). *Business & Management Research Methodologies*. Thousand Oaks, CA: Sage Publications.
- Kaplan, R. S. (2013). *O co zapytasz człowieka w lustrze?* Gliwice: Helion SA.
- Khan, A. Z. & Adnan, N. (2014). Impact of leadership styles on organizational performance. *International Journal of Management Sciences*, 2(11), 501–515.
- Kopaliński, W. (1994). *Słownik wyrazów obcych i zwrotów obcojęzycznych z almanachem*. Warszawa: Wydawnictwo Wiedza Powszechna, 482.
- Koprowska, J. (2020). *Dlaczego liderzy powinni znać się na mózgu?* ICAN Management Institute, Warszawa. Pobrane z: www.ican.pl/b/dlaczego-liderzy-powinni-znac-sie-na-mozgu/P19szvbec.
- Kostera, M., Kownacki, S. & Szumski, A. (1999). *Zachowania organizacyjne: motywacja, przywództwo, kultura organizacyjna*. [In:] A. K. Koźmiński, W. Piotrkowski (eds.) *Zarządzanie. Teoria i praktyka*. Warszawa: PWN, 81–90.
- Kouzes, J. M & Posner, B. Z. (1995). *The Leadership Challenge*. San Francisco: Jossey-Bass.
- Kouzes, J. M. & Posner, B. Z. (2010). *Przywództwo i jego wyzwania*. Kraków: Wydawnictwo Uniwersytetu Jagiellońskiego.
- Kozak, A. (2011). *Dojrzałość menedżerska*. Warszawa: Difin SA.
- Kożusznik, B. (1992). *Człowiek i zespół. Psychologiczna problematyka autonomii*. Katowice: Uniwersytet Śląski.
- Kożusznik, B. (ed.) (1997). *Podstawy organizacji i zarządzania*. Białystok: Uniwersytet w Białymstoku.
- Kożusznik, B. (1998). *Psychologia zespołu pracowniczego*. Katowice: Uniwersytet Śląski, 48.

- Koźmiński, A. K. (2013). *Ograniczone przywództwo, Studium empiryczne*, Warszawa: Wydawnictwo Poltext.
- Kraczła, M. (2013). *Osobowościowe uwarunkowania przywództwa. Menedżerowie a specjaliści*. Dąbrowa Górnicza: Wydawnictwo WSB w Dąbrowie Górniczej.
- Kraczła, M. (2016). *Stres w pracy menedżera*. Warszawa: Wydawnictwo CeDeWu Sp. z o.o., Wydanie II uzupełnione.
- Kraczła, M. (2022). The Personality Maturity of Managers and Their Effectiveness in Performing Their Role. *Scientific Papers of Silesian University of Technology – Organization and Management Series. No.158*, 295–315. <http://dx.doi.org/10.29119/1641-3466.2022.158.20>.
- Kuhlmann, N. & Kadgien, C. A. (2018). Neuroleadership: themes and limitations of an emerging interdisciplinary field. *Healthcare Management Forum*, 31(3), 103–107. <https://doi.org/10.1177/0840470417747004>
- Leary-Joyce, J. (2010). *Inspirujący menedżer*. Kraków: Wolters Kluwer Polska Sp. z o.o.
- Leduchowska, Ż. & Wujec, B. (2011). Zespół w cyberprzestrzeni. *Personel i zarządzanie*, nr 7(256), 28.
- Lobejko, S. (2018). *Strategie cyfryzacji przedsiębiorstw*. [In:] W. R. Knosala (ed.) *Innowacje w Zarządzaniu i inżynierii produkcji. Tom 2*. Opole: Oficyna Wydawnicza Polskiego Towarzystwa Zarządzania Produkcją, Opole, 641–644.
- Mahmood, M., Uddin, M. A., Ostrovskiy, A. & Orazalin, N. (2020). Effectiveness of business leadership in the Eurasian context: empirical evidence from Kazakhstan. *The Journal of Management Development*, 39(6), 793–809, <https://doi.org/10.1108/JMD-05-2019-0154>
- Majewska-Opielka, I. (2013). *Liderowanie z wnętrza*. [In:] L. D. Czarkowska (ed.) *Leadership Coaching jako odpowiedź na wyzwania współczesnego świata*. Warszawa: Wydawnictwo Poltext Sp. z o.o., 45–64.
- Makin, P., Cooper, C. & Cox, C. (2000). *Organizacja a kontrakt psychologiczny*. Warszawa: PWN.
- Małota, W. (2012). *Nowy paradygmat przywództwa – inteligencja emocjonalna głównym czynnikiem efektywności. Model "kapitału emocjonalnego" nowym narzędziem coachingowym rozwoju pracownika*. [In:] L. D. Czarkowska (ed.) *Coaching jako wskaźnik zmian paradygmatów w zarządzaniu*. Warszawa: Wyd. Poltext sp. z o.o., 151–152.
- Maunz, L. A. & Glaser, J. (2023). Does being authentic promote self-actualization at work? Examining the links between work-related resources, authenticity at work, and occupational self-actualization. *Journal of Business and Psychology*, No. 38, 347–367. <https://doi.org/10.1007/s10869-022-09815-1>
- Maxwell, J. C. (1998). *Być liderem, czyli jak przewodzić innym*. Warszawa: Wydawnictwo Medium, 15.
- McGregor, D. (1967). *The Professional Manager*. New York: MacGraw-Hill, 68.
- Merlin, P. R. & Jayam, R. (2018). Artificial intelligence in human resource management. *International Journal of Pure and Applied Mathematics*, 119(14), 1891–1895. <https://doi.org/10.4018/978-1-7998-8497-2.ch015>
- Mika S. (1988). *Style kierowania i ich skutki*. [In:] Z. Gałdżicki (ed.) *Socjologia pracy*. Wrocław: Politechnika Wroclawska, 131–138.
- Mroziewski, M. (2005). *Style kierowania i zarządzania*. Warszawa: Difin.

- Nangoli, S., Muhumuzi, B., Tweyongyere, M., Nkurunziza, G., Namono, R., Ngoma, M. & Nalweyiso, G. (2020). Perceived leadership integrity and organisational commitment. *The Journal of Management Development*, 39(6), 823–834, <https://doi.org/10.1108/JMD-02-2019-0047>
- Nazir, A., Akram, M. S. & Arshad, M. (2014). Exploring the mediating role of CSR practices among leadership styles and job satisfaction. *Pakistan Journal of Science*, December, 66(4), 351–355.
- Neufeld, D. J., Van, Z. & Fang, Y. (2010). Remote leadership, communication effectiveness and leader performance. *Group Decision & Negotiation*, 19(3), 227–246. <https://doi.org/10.1007/s10726-008-9142-x>
- Northouse, P. G. (2010). *Leadership: Theory and practice*, 5th edition. Thousand Oaks, CA: SAGE Publications.
- Northouse, P. G. (2019). *Leadership. Theory and Practice*. Thousand Oaks, CA: Sage Publications.
- Nusche, D. (2020). *Improving School of Leadership*. Cambridge: University of Cambridge, 15.
- Oh, J., Cho, D. & Lim, D. (2018). Authentic leadership and work engagement: the mediating effect of practicing core values. *Leadership and Organization Development Journal*, 39(2), 276–290, <https://doi.org/10.1108/LODJ-02-2016-0030>
- Oleksyn, T. (1997). *Sztuka kierowania*. Warszawa: Wyższa Szkoła Zarządzania i Przedsiębiorczości.
- Owczarczyk, B. (2017). *Cyfryzacja edukacji na przykładzie szkoły wiejskiej w świetle badań własnych*. Prace Naukowe Wyższej Szkoły Zarządzania i Przedsiębiorczości z siedzibą w Wałbrzychu, 43.
- Penc, J. (2000). *Menedżer w uczącej się organizacji*. Łódź: Wydawca Menadżer.
- Penc, J. (2010). *Humanistyczne wartości zarządzania w poszukiwaniu sensu menedżerskich działań*. Warszawa: Difin SA.
- Petersen, K. & Youssef-Morgan, C. M. (2018). The “left side” of authentic leadership: contributions of climate and psychological capital. *Leadership & Organization Development Journal*, 39, 436–452. <https://doi.org/10.1108/LODJ-06-2017-0171>
- Phuong, T. H. & Takahashi, K. (2021). The impact of authentic leadership on employee creativity in Vietnam: a mediating effect of psychological contract and moderating effects of subcultures. *Asia Pacific Business Review*, 27(1), 77–100. <https://doi.org/10.1080/13602381.2021.1847467>
- Pieriegud, J. (2016). *Cyfryzacja gospodarki i społeczeństwa – szanse i wyzwania dla sektorów infrastrukturalnych*. [In:] J. Gajewski, W. Paprocki, J. Pieriegud (eds.) *Cyfryzacja gospodarki i społeczeństwa – szanse i wyzwania dla sektorów infrastrukturalnych*. Gdańsk: Wyd. Europejskiego Kongresu Finansowego, 11.
- Pietrasinski, Z. (1994). *Znakomici szefowie i ich podwładni*. Warszawa: First Business College.
- Platow, M. J., Haslam, S. A., Reicher, S. D. & Steffens, N. K. (2015). There is no leadership if no-one follows: why leadership is necessarily a group process. *International Coaching Psychology Review*, 10(1), 20–37. <https://doi.org/10.53841/bpsi.cpr.2015.10.1.20>
- Purwanto, A., Bernarto, I., Asbari, M., Wijayanti, L. M. & Hyun, C. C. (2020). The impacts of leadership and culture on work performance in service company and

- innovative work behavior as mediating effects. *Journal of Research in Business, Economics, Education*, No. 2, 283–291. <https://doi.org/10.13140/RG.2.2.20095.36001>
- Richards, A. (2020). Exploring the benefits and limitations of transactional leadership in healthcare. *Nursing Standard*, 35(12), 46–50. <https://doi.org/10.7748/ns.2020.e11593>
- Rigby, D. R., Gruver, K. & Allen, J. (2009). Innowacje w czasach zawirowań. *Harvard Business Review Polska*, 81, 96.
- Robbins, B. & Davidhizar, R. (2020). Transformational leadership in health care today. *The Health Care Manager*, 39(3), 117–121. <https://doi.org/10.1097/HCM.00000000000000296>
- Rock, D. & Schwartz, J. (2007). The neuroscience of leadership. *Reclaiming Children and Youth*, 16(3), 10–17. <https://doi.org/10.1111/ijmr.12071>
- Rost, J. C. (1997). Moving from individual to relationship: a postindustrial paradigm of leadership. *Journal of Leadership & Organizational Studies*, 4. <https://doi.org/10.1177/107179199700400402>
- Royakkers, L., Timmer, J., Kool, L. & Van Est, R. (2018). Societal and ethical issues of digitization. *Ethics and Information Technology*, 20, 128. <https://doi.org/10.1007/s10676-018-9452-x>
- Różanowski, K. (2007). *Sztuczna inteligencja: rozwój, szanse i zagrożenia*. Zeszyty Naukowe. Warszawska Wyższa Szkoła Informatyki, 2, 2. (http://zeszyty-naukowe.wswi.edu.pl/zeszyty/zeszyt2/Sztuczna_Inteligencja_Rozwoj_Szansy_I_Zagrozenia.pdf).
- Schriesheim, C. & Neider, L. (1996). Path-goal leadership theory: the long and winding road. *Leadership Quarterly*, 7(3), 317–321. [https://doi.org/10.1016/S1048-9843\(96\)90023-5](https://doi.org/10.1016/S1048-9843(96)90023-5)
- Schwab, K. (2016). *The Fourth Industrial Revolution*. New York: Crown Business.
- Shackleton, V. & Wale, P. (2002). *Przywództwo i zarządzanie*. [In:] N. Chmiel (ed.) *Psychologia pracy i organizacji*. Gdańsk: Gdańskie Wydawnictwo Psychologiczne, 307–332.
- Shamir, B., House, R. J. & Arthur, M. B. (1993). The motivational effects of charismatic leadership: a self-concept based theory. *Organization Science*, 4(4), 577–594. <https://doi.org/10.1287/orsc.4.4.577>
- Sikorski, C. (1986). *Sztuka kierowania. Szkice o kulturze organizacyjnej*. Warszawa: Instytut Wydawniczy Związków Zawodowych, 113.
- Singh, A. (2021). Leadership styles and its impact on organization performance: a study on women. Entrepreneurs leadership style in India. *Turkish Journal of Computer and Mathematics Education*, 12(11), 3152–3157. <https://doi.org/10.1016/j.jclepro.2022.134600>
- Skubinn, R. & Herzog, L. (2016). Internalized moral identity in ethical leadership. *Journal of Business Ethics*, 133(2), 249–260. <https://doi.org/10.1007/s10551-014-2369-3>
- Smółka, P. (2007). *Generator charyzmy. Kreowanie osobowości menedżera*. Gliwice: Wydawnictwo Helion.
- Solaja, O. M. & Ogunola, A. A. (2016). Leadership style and multigenerational workforce: a call for workplace agility in Nigerian public organizations. *International Journal of African and Asian Studies Journal*, 21(01), 46–56.
- Stoner, J. A. F. & Wankel, C. H. (1992). *Kierowanie*. Warszawa: PWE.

- Strzelecki, T. (1995). *Organizacja pracy*. Warszawa: Oficyna Wydawnicza Politechniki Warszawskiej, 91.
- Tannenbaum, R., Weschler, F. & Masserik, F. (1961). *Leadership and Organization*. New York: MacGraw-Hill, 24.
- Thomas, D. & Bendoly, E. (2009). Limits to effective leadership style and tactics in critical incident interventions. *Project Management Journal*, 40(2), 70–80. <https://doi.org/10.1002/pmj.20118>
- Trainor, J. E. & Velotti, L. (2013). Leadership in crises, disasters, and catastrophes. *Journal of Leadership Studies*, 7(3), 38–40. <https://doi.org/10.1002/jls.21295>
- Van Vugt, M., Hogan, R. & Kaiser, R. B. (2008). Leadership, followership, and evolution: some lessons from the past. *American Psychologist*, 63(3), 182–196. <https://doi.org/10.1037/0003-066X.63.3.182>(Not accessible as of [2024/06/14])
- Vroom, V. H. & Jago, A. G. (2007). The role of situation in leadership. *American Psychologist*, 62(1), <http://doi.org/10.1037/0003-066X.62.1.17>(Not accessible as of [2024/06/14])
- Vullingsh, J. T., De Hoogh, A. B. H., Den Hartog, D. N. & Boon, C. (2020). Ethical and passive leadership and their joint relationships with burnout via role clarity and role overload. *Journal of Business Ethics*, 165, 719–733. <https://doi.org/10.1007/s10551-018-4084-yS>(Not accessible as of [2024/06/14])
- Walumbwa, F. O., Avolio, B. J., Gardner, W., Wernsing, W. & Peterson, S. (2008). Authentic leadership: development and validation of the theory-based measure. *Journal of Management*, 34(1), 89–126. <https://doi.org/10.1177/0149206307308913>
- Włodarski, W. (2012). *Różnorodny menedżer – realny ideał*. [In:] L. D. Czarkowska (ed.) *Coaching jako wskaźnik zmian paradygmatów w zarządzaniu*. Warszawa: Wyd. Poltext sp. z o.o., 129.
- Wziątek-Staśko, A. (2012). *Diversity Management- narzędzie skutecznego motywowania pracowników*. Warszawa: DIFIN.
- Wziątek-Staśko A. (2022). Neuroprzywództwo – nowy wymiar zarządzania w erze cyfryzacji. *Zarządzanie Zasobami ludzkimi, No. 146–147(3–4)*, 10–22. <https://doi.org/10.5604/01.3001.0015.9571>
- Wziątek-Staśko, A. & Krawczyk-Antoniuk, O. (2020). *Klimat organizacyjny jako narzędzie (de)motywowania pracowników*. Warszawa: CeDeWu sp. z o.o.
- Yawalkar, V. V. (2019). A Study of artificial intelligence and its role in human resource management. *International Journal of Research and Analytical Reviews*, 6(1), 20–24. <https://doi.org/10.1016/j.dajour.2023.100249>
- Yukl, G. (2010). *Leadership in Organizations*, 7th edition. Upper Saddle River, NJ: Prentice Hall. Northwestern University.
- Yukl, G. & Lepsinger, R. (2005). Why integrating the leading and managing roles is essential for organizational effectiveness. *Organizational Dynamics*, 34(4), 361–375. <https://doi.org/10.1016/j.orgdyn.2005.08.004>
- Zdziebłowski, S. (2019). Kognitywista: przyszłością sztucznej inteligencji są systemy wzorowane na mózgu. Pobrane z: <https://naukawpolsce.pl/aktualnosci/news%2C76897%2Ckognitywista-przyszloscia-sztucznej-inteligencji-sa-systemy-wzorowane-na>, data dostępu: 02.04.2022
- Zhao, X., Hwang, B. G. & Lee, H. N. (2016). Identifying critical leadership styles of project managers for green building projects. *International Journal of Construction Management*, 16(2), 150–160. <https://doi.org/10.1080/15623599.2015.1130602>

- Zhou, J. (2014). Mediating role of employee emotions in the relationship between authentic leadership and employee innovation. *Social Behaviour & Personality*, 42(8), 1267–1278. <https://doi.org/10.2224/sbp.2014.42.8.1267>
- Zhu, W., Treviño, L. K. & Zheng, X. (2016). Ethical leaders and their followers: the transmission of moral identity and moral attentiveness. *Business Ethics Quarterly*, 26(1), 95–115. <https://doi.org/10.1017/BEQ.2016.11>
- Zieleniewski, J. (1981). *Organizacja i zarządzanie*. Warszawa: PWN, Warszawa.
- Zieleniewski, J. (1982). *Organizacja zasobów ludzkich. Wstęp do teorii organizacji i kierownictwa*. Warszawa: PWN, 378.

2 Multidimensionality of stress in the work environment

The reality known as the Web 4.0+ era has entered the history of humanity, exposing many unfavourable phenomena. The growing level of alienation in the work environment (and not only), the deepening atrophy of feelings and empathy in mutual contacts, the reduction to a minimum of personal contacts (replaced, unfortunately very effectively, by contacts in the cloud), the growing number of depressions and suicides (often resulting from the lack of dealing with problems at work, e.g. the so-called “rat race”, chronic injustice, corruption, nepotism, increasing pressure, etc.), increasing levels of anxiety among employees, their dissatisfaction and work overload, the ubiquity of various dysfunctions in the management process, selfishness and mutual indifference, toxic leadership – these are just selected examples of so many phenomena observed today. They are reprehensible, disturbing, destructively affecting people and their families, and unfortunately, also determining the increase in the number of conflicts and even crime. In the presented chapter, great care was taken to explain the essence of *stress* and *occupational stress*, highlighting the leading concepts and consequences of both phenomena, at the same time paying attention to the specificity and importance of stress in a manager’s work and indicating methods and tools for dealing with this multidimensional problem.

2.1 Stress – operationalization of the term and leading concepts

The phenomenon of stress, although known and popular for hundreds of years, appeared on the pages of scientific literature relatively recently. Some believe that it happened only in the 1940s (Fletcher and Payne 1980; Łosiak 2008), others point to the French physiologist Claude Bernard (1813–1878) as the forerunner of the issue of stress, who in the 19th century expressed the view that there are defence mechanisms in the body, the cooperation of which allows the body to fight threats and thus stay alive (Borucki 1991). Before it became the subject of research by a global group of researchers, in the colloquial sense, it was intuitively sensed by people earlier. When thinking about stress, people

have always pointed to something unpleasant, obnoxious or even harmful that a person experiences and has to face (Christianson 1992, 284–309; Keller et al. 2012, 677–684; Łosiak 2008).

Using essentially the same concept of stress, people describe both moving, traumatic events as well as those relating to mundane situations of everyday life (Amirkhan 2012; Amirkhan et al. 2015; Ogińska-Bulik and Juczyński 2008). This view significantly complicates the process of operationalizing the concept. The characteristics attributed to it are very diverse, come from many sources and represent different levels and types of experiences. Scientific research on stress is undertaken in many disciplines, including psychology, sociology, anthropology and broadly understood medical sciences. An attempt to explain the essence of stress, considered in the context of individual disciplines, provides slightly different definitions, because researchers dealing with the phenomenon of stress adopt different points of view. Depending on the approach represented, importance is attached to selected aspects of stress and, to facilitate analyses, they are often treated separately to some extent. “The same episode of stress can be considered from a psychological, physiological, sociological, or other perspective” (Arnetz and Wiholm 1997; Brod 1984; Chlap and Brown 2022; Heszen 2013, 22; Khuntia et al. 2015; Rauch et al. 2018). It is worth emphasizing, however, that the indicated perspectives are integrally related to each other and constitute different elements of the same phenomenon.

It was assumed that the noun stress comes from the Latin word *stringere*, meaning “to tighten” (Celińska-Nieckarz and Konieczny 2014; Rudland and Wilkinson 2018, 692–693). Also in English, originally, the term *stress* had its equivalents, such as: injure, molestation or constraint, and it did not apply only to medical sciences or psychology. It was used more willingly and more often in physics, meaning the resistance of a material to external physical forces and referred to testing metals or glass for their resistance to possible loads (Litzke and Schuh 2007; Terelak 1999). Therefore, the original meaning of the word *stress* was taken from engineering and, by analogy to physical force, referred to the external pressure that acts on a given person and causes the tension that appears in them. Like many other research categories, it is not a clear concept, and the multitude of interpretations makes it difficult to explore.

The tradition of research on stress in the biological field was initiated by the work of W. Cannon and his concept called *the Theory of Homeostasis*. The author assigned stress the function of the so-called emergency state (Dolińska-Zygmunt 2001). He concluded that stress is the result of a disturbance in homeostasis, and stress resistance means the body’s ability to maintain the stability (homeostasis) of the internal environment in conditions shaped by various external stimuli (Ogińska-Bulik 2008). Therefore, stress was treated by W. Cannon as the body’s reaction to a threat, the function of which was to restore the body’s balance as a result of the action of various aggravating stimuli.

Another researcher whose name is inextricably linked with the category of “*stress*” is H. Selye. *Stress*, as defined by H. Selye, means any non-specific reaction of the body that occurs as a result of the action of various harmful stimuli (Selye 1974). To define such stimuli, H. Selye introduced the concept of *stressors* into science, pointing out that these are all factors leading to a state of stress, and described the so-called *General Adaptation Syndrome*, presenting a number of symptoms occurring when experiencing stress (Sapolsky 2012). The three leading stages identified in a stressful situation are, according to the researcher:

- *alarm phase* – the initial stage in which the stressful stimulus is noticed by the body and all the body’s resources are activated to cope with the threat. At this stage, a distinction is made between the shock phase, in which the first signals of the body’s mobilization (excitation) to defend itself appear (e.g. a drop in blood pressure or lower body temperature), and the shock counteraction phase, during which defensive reactions occur, with accompanying changes in physiological functions (e.g. increase in blood pressure, increase in body temperature);
- *resistance (adaptation) phase* – concerns the relative adaptation of the body to the effects of stress, to harmful factors, as well as the mobilization of the body and activation of the stress response system. At this point, energy resources are activated and the body switches from normal functions to defensive functions, which may result in the depletion of energy reserves;
- *exhaustion phase* – stage resulting from long-term stress; occurs when the threat does not subside or repeats itself and the body’s defence capabilities are lost, which in turn leads to stress-related diseases and may even lead to death due to dysregulation of physiological functions (Selye 1963, 168).

H. Selye, often prone to creating new names and concepts, although not always fully consistent in their use, introduced the terms *distress* and *eustress* in the early 1970s to distinguish stress initiated by negative-unpleasant stressors from that triggered by positive-pleasant stimulating factors (Hangrove et al. 2013; Le Fevre et al. 2003, 726–744; Selye 1974; 1978, 125; Tavakoli 2010).

Distress is associated with the body’s reaction to the feeling of direct threat, demands placed on it or difficulties in achieving goals and tasks. This type of stress is described as negative, which a person must learn to deal with and, at worst, minimize its effects. It can disorganize life and become a destructive force. However, *eustress* (so-called good stress) refers to stimuli that positively mobilize a person to act. It is a motivating force, provides a person with positive tension and increases the subjectively understood “quality of life”. As a result, it provides a sense of joy, fulfilment and satisfaction. According to the researcher, stress is not what happens to you, but how you react to what happens to you

(Selye 1963, 168). This approach introduced a new value into the area of considerations devoted to explaining the essence of stress.

While H. Selye considered the definition of *eustress* and *distress* to be key discoveries throughout his scientific career, since then little attention has been paid to distinguishing the essence of both concepts in the scientific literature. Although there is much evidence about suffering and its impact on human health, articles focusing on the effects of *eustress* are rare, as are articles on the distinction between *eustress* and *distress*. Some authors believe that the attention paid to the definitions of *eustress* and the application of theoretical knowledge resulting from them in practice is completely insufficient and the entire concept should be considered incomplete and requiring revision (Perrewe and Gangster 2006, 265).

Since the times of W. Cannon and H. Selye, the physiological approach to stress has undergone significant evolution. The concept of homeostasis has been significantly modified in recent years by P. Sterling and J. Eyer and then continued and expanded by B. McEwen (Sapolsky 2012). The above-mentioned authors have developed new theoretical assumptions that modernize the concept of homeostasis and allow for a more precise understanding of the phenomenon of stress in this research perspective. Researchers introduced the concept of *allostasis* understood as “constancy through change”. It is the basic assumption that something that is ideal under neutral conditions will differ from ideal under stress. A feature of allostatic thinking is the belief that “the body does not activate all of its complex regulatory mechanisms to correct one setting that has gone beyond the optimal range. It can make allostatic changes, anticipating a specific parameter that is likely to become dysregulated” (Sapolsky 2012, 18). In this expanded theoretical perspective, a stressor will be anything that throws the body out of allostatic balance, and the stress response (which will be the same regardless of the type of stressor) will be an attempt to restore allostasis (Sapolsky 2012).

The path of thinking adopted by the researchers described above inevitably began to move in a new direction, opening space for research on psychological stress. The views of researchers focused on this trend began to highlight three approaches to understanding the essence of stress:

- *stress as a stimulus* – unpleasant, disturbing and distracting from activity (this category describes various unpleasant situations causing stress, e.g. noise in the workplace, unpleasant event of dismissal from work or illness);
- *stress as a reaction to an unpleasant stimulus* from the external environment (this category describes reactions that appear in the human body and mind in response to unpleasant situations, e.g. poorer performance of a task);
- *stress as a dynamic relationship between a person and the environment*, which may be assessed by the individual as either requiring a specific adaptation effort or exceeding the ability to cope with it (Łodzińska 2013).

Attempts to define the phenomenon of *stress* through a single-factor explanation (taking into account internal factors or external circumstances) turned out to be unsuccessful and insufficient. Further searches were therefore directed towards analysing the relationships (interactions, transactions) between the individual and its environment (Heszen 2013). In modern psychology, this interaction is understood as a mediating process in which individual factors are not considered but “focuses on the cognitive, evaluative and motivational processes that mediate between a stressful stimulus and the reaction (response) to this stimulus” (Le Blanc et al. 2000). Some psychologists also include the subject’s assessment of the situation among the specific components of stress that define it. This means that stress occurs when an individual notices an imbalance between requirements and possibilities and considers the situation threatening or difficult (Heszen 2013). The lack of clarity and diversity of approaches aimed at explaining the essence of stress and its determinants contributed to the creation of several important concepts.

The theory of R. Lazarus and S. Folkman, which is an example of the transactional model, is a classic approach to the approach emphasizing the phenomenon of stress as the relationship between the individual and the environment (Molek-Winiarska 2011, 312). Researchers define stress as: “a particular relationship between a person and the environment that the person perceives as taxing their resources and threatening their well-being” (Lazarus and Folkman 1984, 253). They emphasize that coping with a stressful situation is actually a process that depends on the context and other variables. Stress results from the subjective assessment of the situation, which is associated with different responses to the stressful stimuli. From this perspective, stress can be understood as a kind of internal state, which is a system of mental processes (Terelak 2001). Based on observations of people’s behaviour in stressful situations, R. Lazarus and S. Folkman (1984) indicated three key categories, inextricably related to their understanding of stress:

- *load* – understood as an external stimulus;
- *stress* – defined as an internal reaction triggered by a stimulus;
- *strain* – understood as a disorder of the subject.

In this way, the authors gave stress a highly individualized dimension and thus set a difficult scope for its analysis and description. The multiplicity and diversity of stressful stimuli and the subjective assessment of each of them made by individual people require that stress be considered individually and in the context of the individual potential of each person. In this process, the most important thing is the interaction between a person and the environment, taking into account both the requirements of the environment and the very person’s ability to cope with the circumstances (Farne 2006).

Famous Polish researchers exploring the transformational approach to the stress model include T. Tomaszewski (1975). The researcher defined the psychological situation through the following three factors: tasks, conditions and opportunities. These elements create a complex system that covers all the relationships between a person with specific constitutional and personality features and the environment that surrounds them. The author conducted analyses in relation to the type of situation an individual may find themselves in, distinguishing between a stabilized (normal) situation and a difficult situation. A stabilized situation is one in which the adequacy of the components can be observed. However, a difficult situation occurs when there is a discrepancy between those elements – needs and tasks and the possibilities of meeting those needs or completing the task, as well as the conditions in which the activity takes place and the characteristics of the entity. Additionally, the author distinguished *subjective stress* and *objective stress*. *Objective stress* is related to the characteristics of the task itself and the external conditions in which the task is performed. However, *subjective stress* occurs when the disturbance of the balance between the components results from the characteristics of the subject, and the inability to achieve goals is related to the condition of the body. The most typical difficult situations included tasks beyond strength, excessively complex tasks with unclear structure, performed in changing conditions, as well as obstacles, conflicts and pressure. Additionally, T. Tomaszewski indicated situations of deprivation, overload, threats and difficulties as the most important difficult situations.

An original and coherent concept of psychological stress was developed by another Polish researcher, J. Reykowski (1966), who took as his starting point the concept of a human being as an individual focused on organized, directed and purposeful activity. The author defined *psychological stress* as a set of factors that disrupt a specific course of activity and thus endanger a person or prevent them from meeting their needs. The factors responsible for psychological stress include information that burdens the regulatory system, such as tasks, difficulties and failures. Therefore, in order to determine whether a given factor is a stressful stimulus for a person, it is necessary to know the direction of the person's aspirations and their personal characteristics.

Another psychologist, J. Strelau, developed a definition of stress that combines the physiological approach (focused on biological reactions to stress) and the interactional approach (emphasizing the body's reactions to external stimuli). The author proposed that stress be defined as "a state consisting of strong negative emotions and accompanying physiological and biochemical changes that exceed the normal state of arousal" (Strelau 1985, 58). J. Strelau considered the leading cause of stress to be the lack of balance between requirements (subjective and objective) and the possibilities of meeting them.

Among the newer concepts of stress, two are worth paying attention to: *the salutogenic concept of stress* by A. Antonovsky (1980) and *the concept of*

conservation of resources by S. Hobfoll (Łosiak 2008; Sęk 2002). A. Antonovsky analysed the phenomenon of stress in the context of health processes and in relation to socioeconomic conditions related to health. He assumed that stressful stimuli triggered the body's adaptive response, enriching the immune resources, and the health consequences, in the form of maintaining or deteriorating health, depended on the transaction between the body's load of stressors and the level of immune resources. The concept of *salutogenesis* has its origins in two words: the Latin *salus* (health) and the Greek *genesis* (origin). Unlike the commonly existing pathogenic model, this concept emphasizes maintaining health rather than treating disease (Heszen and Sęk 2007, 463). A. Antonovsky developed this term based on his research on coping with stress (Antonovsky 1987, 15). He conducted this research in Israel on a group of women who survived concentration camps during the Second World War. He noted that stress was ubiquitous, but not all people experienced negative health effects in response to stress. Instead, some people achieve health despite exposure to potentially disabling stressors (Lindstrom and Eriksson 2006, 238). The factual material he collected allowed him to diagnose three personality traits that distinguished the respondents:

- sense of comprehensibility;
- sense of manageability;
- sense of meaning.

Combined, he called the above-mentioned features a *sense of coherence*. A. Antonovsky rejects the traditional medical-model duality, separating health from disease. He describes the relationship as a continuous variable, what he calls the health-illness continuum (Antonovsky 1980). Referring to both the physical and mental spheres, this promotes a holistic approach.

The second of the indicated concepts refers to *the Conservation of Resources Theory (COR)*. Its author – S.E. Hobfoll focused on searching for general principles that set the direction of human behaviour – purposeful, aimed at maintaining, protecting and multiplying one's own resources. Resources are understood as objects, personal properties or circumstances valued by an individual. According to the author, a person is constantly trying to obtain resources that they do not yet have, makes efforts to maintain the resources they have and tries to protect those resources that are in some sense threatened. Consequently, the source of stress is a disturbance in the balance in the exchange of resources between the individual and the environment. The author of the concept distinguishes the following four types of resources:

- items that meet objective needs (e.g. food, clothing, shelter);
- personal characteristics (e.g. self-esteem, knowledge or skills);

- social support (e.g. practical or emotional help from family, friends, neighbours or strangers);
- services (e.g. medical or psychological care, law enforcement agencies, schools, shops) (Hobfoll 2006, 61).

Numerous authors conducting research on stress emphasize that stress is an inherent element of human life, and a person will be subject to its consequences throughout their life. Regardless of the source of stress, the body's reactions will always be the same. P.G. Zimbardo and F. Ruch, analysing the process of creating and experiencing stress, confirmed that the causes of stress might be different, and what is more, they might be both pleasant and unpleasant events. Their essence comes down to the fact that regardless of the sign accompanying them, they all require change and, consequently, re-adaptation to the situation. In this sense, life will always place new demands on people, and stress itself will be a factor activating human activities and their potential (Zimbardo and Ruch 1999).

Physical, psychological, organizational, mental, physiological, somatic, emotional, adaptive, interpretative, oxidative, post-traumatic, moral, acute, short-term, chronic, traumatic, distress, eustress, neustress – these are just some of the types of stress highlighted in the world's literature on the subject. A phenomenon that is both a cause and an effect, which can inspire you to achieve great things or effectively lead to a catastrophe. Omnipresent in the life of modern humans (but also animals) of all ages. Cognitively interesting in terms of non-professional life but also very intriguing in relation to the work environment.

2.2 Occupational stress – essence, sources and consequences

In the modern world, work is a natural form of life activity for humans. A significant part of the working-age population devotes one third of their adult life to work and allocates a large part of their personal energy, physical and mental resources to it (Cieślak and Łuszczynska-Cieślak 2001). Numerous studies on the value of work in human life indicate that professional work ranks among the first in the hierarchy of human values, and the main competitive value is only family life (Karney 2007). *Work* is an extremely inspiring research category that is constantly changing in the history of humanity. Already in antiquity, two opposing positions emerged on the issue of the relationship between work and rationality (the ability to evaluate): Anaxagoras' position (work – rationality) and Aristotle's position (rationality – work). Aristotle's position became popular in popular thinking along with his philosophy. In this approach, work is not treated as the source of the mind but only as its partial implementation. Anaxagoras' position, contrary to the Aristotelian tradition, emphasized the role of work in creating human and therefore their rationality. The philosophy of

work is the starting point for perceiving it as an ethical value. In this approach, work is perceived in terms of not biological but anthropological necessity. It is not only a necessity of individual existence, but it determines the creation of man in an increasingly fuller dimension. It is the self-creation of a human individual, shaping their personality and character. It is also considered as a duty and moral obligation (Kaszyński 2009, 55). Analysing the history of work allows us to highlight very different ways of perceiving it. Slavery and the feudal system were characterized by a deep contempt for work and working people. In the mentality of some part of society, it was perceived as a degrading and disgraceful activity to well-born people. In capitalism, work was treated as a useful activity, where the main motive was to obtain a living, multiply goods and become rich: both individually and socially. The contemporary perception of work is not clear. Originally intended to affirm humanity, being the basis of social order and a tool for creating a sense of dignity and subjectivity, unfortunately, in the modern world, it is increasingly becoming the subject of processes leading to its degradation (Lewandowski 2021, 162; Younghwan and Jia 2020, 2649–2667). Work can be a source of both positive and negative emotions, it can give satisfaction, satisfy the need for belonging and security; it can motivate, give a sense of joy, enable development and guarantee a high social and material status. On the other hand, it may be a highly pathogenic factor, a source of emotional tension, diseases and disorders in social and family functioning (Bańka 2001; Caesens and Stinglhamber 2019, 699–703; Kim and Jung 2022; Knani et al. 2018; Meurs and Perrewé 2011; Sonnentag and Frese 2012). Many jobs are devastating, both for physical and mental health (Leary and Miller 2021). Even those that seem “ordinary” can potentially be a source of various types of stressful stimuli. At every level of the organization and regardless of the position held, one may experience threats, frustrations or failures at work, causing mental discomfort in the form of fear, anxiety and even panic.

Starowicz (2003) and his team of researchers are considered one of the forerunners of research on organizational stress. Organizational stress was considered a consequence of problems in communicating requirements to an individual employee, as well as difficulties in assuming and playing a specific role in the organization (Starowicz 2003, 371–372). However, stress related to *the challenges* posed by the work environment (e.g. a large number of tasks, responsibilities, projects to be implemented) affects employees in a different way than stress related to *obstacles* (e.g. bureaucracy, unclear division of responsibilities, intra-organizational competition). Initial results of research in this area indicate that stress associated with challenges produces significantly fewer negative consequences than stress associated with obstacles (Robbins and Judge 2012).

Work-related stress, the so-called *occupational stress*, becomes a very serious problem not only for the individuals subject to stress but also for the organizations themselves and, ultimately, for entire societies. Many independent

studies on stress in the workplace have already found that work has an adverse impact on the physical and mental health of employees. The results of those studies lead to justified concern because occupational stress is a very common phenomenon, and in addition, the rates of work-related stress are constantly and significantly increasing. It is reported that over the last few decades, the level of occupational stress has increased alarmingly, mainly in highly industrialized countries, and this is reflected in the rapidly growing rates of sickness absence and increasingly stress-related inability to work. According to Gallup's latest report (Report: *State of the Global Workplace 2023*, 5), 44% of employees said they experienced a lot of stress the previous day, repeating the record high in 2021 and continuing a trend of elevated stress that began almost a decade earlier (39% percent was in 2009).

The attempt to operationalize the concept of *stress* in this research allowed us to highlight three leading ways of understanding its essence: stress as a stimulus (cause), stress as a reaction (effect) and stress as a relationship (mediating process). Referring this categorization to the concept of *occupational stress*, it should be stated that on the basis of experimental psychology and in terms of ergonomics, stress is understood primarily as a stimulus, i.e. "an unfavourable situation or harmful event that affects the individual and most likely leads to negative consequences" (Le Blanc et al. 2000). Stress is often treated as a result of external influence, and people feel exposed to external burdens (Litzke and Schuh 2007).

In psychophysiology and occupational psychology, stress is understood as "the psychological and/or physiological reaction of the body to some threat" (Le Blanc et al. 2000). This understanding of stress includes the general adaptation syndrome (GAS), described by H. Selye and presented in detail in the earlier part of this monograph. This approach assumes that "different types of stressful stimuli evoke the same, non-specific reaction pattern, and the individual's thoughts and emotions do not influence the type of this reaction". These assumptions, however, turned out to be incomplete, as it has been proven that different stressors can trigger different physiological and hormonal reactions in people, and this depends on the type and interpretation of the stimulus and the emotions it arouses in a given individual (Heszen 2013; Le Blanc et al. 2000; Ogińska-Bulik and Juczyński 2008). In both approaches to stress indicated above – as a stimulus and as a reaction, directly measurable factors (environmental circumstances or stress reactions) are emphasized. Meanwhile, in the interactional (transactional) approach, "the approach to stress as a mediating process focuses on the cognitive, evaluative and motivational processes that mediate between a stressful stimulus and the reaction (response) to this stimulus" (Le Blanc et al. 2000). Consequently, stress reactions are the result of interactions between the person and the environment.

Work-related stressors constitute an endless list of categories and are classified in many different ways in the literature. There is quite a lot of freedom

in this respect, and the qualifications created most often do not refer to any specific theory, although many of them fall within a specific trend. Any stimulus or situation that constitutes an obstacle or intentional disruption of an activity, any loss, damage or ailment or even the very signal of a threat may become a stressor (Kocowski 1993).

An interesting arrangement of work-related stressors is made by P. Le Blanc, J. de Jonge, W. Schaufeli (2000), assigning them to the following four main categories:

- *content of the work* (overload/underload of work, complex work/monotonous work, too much responsibility, dangerous work, conflicting/ambiguous demands);
- *working conditions* (toxic substances, noise, vibration, lighting, radiation, temperature, work position, work requiring great physical effort, hazardous situations, lack of hygiene/lack of protective equipment);
- *conditions of employment* (shift work, low pay, little chance for career development, lack of a permanent employment contract, job uncertainty);
- *social relations at work* (wrong leadership, little social support, little participation in decision-making, limited freedoms, discrimination).

The authors emphasized that the amount of stress experienced by an individual depends on the degree to which they are exposed to a harmful stimulus. For example: the faster the pace of work, the higher the stress level. It is therefore assumed that there is a linear relationship between the stimulus (stressor) and its negative effects. This relationship in the research context therefore concerns “the stressful impact of specific work characteristics” (Le Blanc et al. 2000).

A slightly older, although very interesting, classification of stressors is presented by I. Razumov and Z. Gubachev (Szostak 2009), dividing stressors occurring in a work situation into the following four groups:

- *stressors related to active activities* – involve situations of risk, bearing too much responsibility or situations of competition;
- *stressors related to the assessment situation* – refer to situations of expectation of success or failure;
- *stressors of incompatible activity* – concern conflict situations, isolation, deprivation, monotony;
- *physical and natural stressors* – refer to factors such as trauma, noise and temperature.

The classification of stressors proposed by K. Levin and M. Frankenhaeuser is also worth attention. The authors distinguished the following groups of stressors in the organization:

- *working environment* (scope of duties and their excess, time pressure, punctuality, working conditions, shift work, rapid changes, technological changes);
- *social relations with staff* (inability to comply, lack of employee support, defective social policy);
- *organizational structure and emotional environment* (lack of shared responsibility, feeling of loneliness, poor interpersonal communication);
- *place in the organization* (role ambiguity, conflicts, responsibility for things and people, high dependence on middle management);
- *organizational sources* (family problems, life crises, financial difficulties, conflicts related to low credibility and company policy, conflicts at work and at home, lack of institutional support);
- *career* (current professional status inconsistent with qualifications and aspirations, no development prospects) (Jurgielewicz 2017).

D. Fontana also presented his proposal (Szaban 2007, 367), qualifying the following to the group of stressors at work:

- *organizational problems* (lack of support for the employee, long and inconvenient working hours, low prestige, low wages and no promotion prospects, inappropriate rituals and procedures, uncertainty and lack of a sense of stability);
- *work-related problems* (difficult clients or subordinates/colleagues, insufficient substantive preparation, work-related responsibility, inability to act effectively, work overload or underwork);
- *specific causes of stress* (role ambiguity, role conflict, perfectionism, lack of influence on decision-making, conflicts with superiors, lack of support from colleagues, monotonous, routine work, ineffective communication, inappropriate management, conflicts among employees).

Another classification of stressors was made by researcher Z. Ratajczak, distinguishing the following:

- physical overload from work,
- excessively burdening the employee with too many tasks at one time,
- general mental overload, the most important indicator of which is a lower level of functioning of attention, memory, thinking processes and excessive simplification of performed activities,
- performing tasks that are too complex, unclear or conflicting, leading to qualitative work overload,
- time pressure,
- monotony,
- lack of fairness in the treatment of employees by superiors, in particular favouring only certain employees of the company,

- inability to co-decide on the fate of the company,
- lack of clear achievements in professional work,
- lack of social recognition in the work environment (Ratajczak 1994).

Among the classifications of stressors at work, the approach proposed by H. Walter (Litzhe, Schuh 2007) is also important. The author highlighted the following:

- *organizational burden* (degree of work difficulty, pace of work, scope of work, size of the workplace, flexible working time, productivity standards, shift and night work, overtime);
- *social burden* (independent work, group work, social density – “overpopulation”, social isolation – “too few social contacts”, conflicts, mobbing);
- *physical burden* (general muscle load, unilateral muscle load, static muscle load, lighting, air conditioning, noise, harmful substances, technical equipment, processed items);
- *mental burden* (fear, failure, reprimands and negative consequences of one’s own behaviour, workplace uncertainty, lack of recognition and support, lack of relaxation and rest, lack of independence, lack of information, work atmosphere, competitive pressure, disruptions, time and deadline pressure, unclear, contradictory recommendations none challenges, monotony, unambitious work, pressure of responsibility).

Based on the examples of classifications of stressors that may occur at work presented above, it can be concluded that the source of stress is created by factors from various areas of a person’s professional functioning (Hogue et al. 2017; Idrees et al. 2018, 103–116; Kung and Chan 2014; Nazareno and Schiff 2021; Olynick and Li 2020; Oruh and Dibia 2020; Syed et al. 2021, 168–191; Z. Wang et al. 2021, 172–187). Regardless of the divisions used, stressful stimuli concern the broadly understood organizational context (work environment, working conditions, employment conditions, rules of formal presence in the organization) and the sphere of interpersonal relations carried out at various levels of the organizational hierarchy (employee-employee, superior-subordinate, employee-client) (Antrade and Neves 2022; Kraczla 2013a, 2016; Markovic and Jovic, 2023; Onesti 2023; Sonwane et al. 2021). It is worth noting here, based on the analysis of the literature on the subject, that initially most research on stress focused on factors related to the work environment. Currently, the most frequently explored area refers to interpersonal relations (Le Blanc et al. 2000).

The discussions so far have proven that both *stress* and *occupational stress* are very serious and important problems identified in the modern world. The observed, disturbing increase in the scale of this phenomenon forces us to take a closer look at its sources but also undoubtedly at its consequences.

The effects of occupational stress should be considered taking into account three or even four key perspectives, i.e. the effects experienced directly by the employee (as a person experiencing stress), the effects determining relationships in the team and the resulting consequences, the effects on the organization and the effects affecting the employee's relationships with their family and other people from outside the organizational environment. A separate analysis requires a relationship, equally important in the opinion of the authors of this monograph, regarding the impact of stress experienced in life outside the organization on stress in the workplace. As has been noted many times, the way stress is experienced and the susceptibility to stress depend on the person experiencing stress. The same factors may be very stressful and disorganizing behaviour for some people, for others, they will be completely harmless (neutral), and for still others, they may even have a motivating effect (so-called positive effects of stress). Positive stress is stress that affects our body but has positive effects, including some increase in energy and a launchpad for overcoming obstacles. It is believed that moderate stress can motivate you to work, is a driving force, releases energy to take on difficult challenges, allows you to act faster and accomplish things that would not be possible without stress. This type of stress may also motivate you to take on new challenges, which will result in new perspectives or improvement of your current standard of living. (Rudland et al. 2020, 40–45). Although in the literature, *positive stress* has its rightful place next to *negative stress*, the authors question whether the emotions that trigger positive effects of action, called *positive stress*, are justified in being classified as “stressors” and not, for example, “motivators”, which makes a significant difference. This aspect requires a much more extensive discussion, which, however, will not be the subject of a special presentation in this monograph. However, attention will be paid to “*negative stress*”, causing changes in mood and behaviour, deterioration of contacts with other people, failure to fulfil obligations and multiple physiological reactions of the body, such as: increase in blood pressure, accelerated or irregular heartbeat, muscle tension, headache, neck and shoulders pain, depressions, neuroses, etc. As a result of excessive strain on the nervous system, not only does one's well-being deteriorate, but the ability to work also decreases, and as a result, there is a real danger of accidents. Various types of conflicts may appear, both in the course of work, as well as at home and in the process of social relationships.

The variety of consequences of stress experienced in the workplace is very large. The most common classifications are those that distinguish the consequences of stress experienced individually by the employee and the consequences experienced by the organization. Among those that highlight individual stressors, the division proposed by M. Młokosiewicz (2018, 239) deserves attention. The author listed the following four levels of stress-related consequences:

- *physiological* – concern changes occurring primarily in the stimulation of the hormonal and nervous systems (e.g. sweating, increased blood pressure, insomnia, headaches, indigestion, heart rhythm disturbances), and an increase in the risk of psychosomatic diseases (e.g. allergies, ulcers of the nervous system, cancer, infections, skin diseases);
- *cognitive* (e.g. disorders related to concentration, memory processes, difficulty making decisions, reduced level of creativity);
- *emotional* (e.g. anger, fear, increased anxiety, impatience, agitation, irritability);
- *behavioural* (e.g. reluctance to act, tendency to engage in accident-prone behaviour, aggression, addictions, withdrawal).

Similar consequences were distinguished by A. Pocztowski (2003), pointing out the following factors:

- *physiological* – e.g. circulatory system disorders, hypertension, digestive system diseases, headaches, muscle tension, breathing problems, etc.;
- *psychological* (emotional) – e.g. states of tension, anxiety, irritation, reduced self-esteem, problems with concentration, depression;
- *behavioural* – e.g. increase in absenteeism, increase in the number of accidents, decrease in work efficiency, increase in conflict, aggressive behaviour, etc.

D. Merez (2011) who represents the Institute of Occupational Medicine is one of the authors attempting to systematize the individual consequences of stress. The list of stressors she proposed includes the following:

- *decrease in the quality of work performed* (loss of control over work, loss of motivation and commitment, instability, lack of decision, forgetfulness, increased time spent at work, failure to use holidays, lack of holiday plans);
- *withdrawal* (coming to work later, leaving work earlier, extending breaks, absenteeism, attitude of resignation, submission, acceptance, limiting contacts with other people, elusiveness, avoiding contact);
- *regression* (crying spells, quarrels, arguments, excessive sensitivity, excessive tendency to irritation, frequent moodiness, sulking, immature behaviour);
- *aggressive behaviour* (malicious spreading of gossip, criticizing others, vandalism, shouting, mobbing, bad relations with other employees, explosive mood);
- *physical signals* (difficulty speaking, nervous way of speaking, excessive sweating, fatigue, apathy, stomach problems, tension headaches, hand tremors, rapid weight loss or gain, constantly feeling cold).
- *other behaviours* (visible changes in behaviour, inability to relax, increased alcohol consumption, increased number of cigarettes smoked, unkempt

appearance, failure to follow personal hygiene rules, accidents at home or work, careless, reckless driving, unjustified risk-taking).

The consequences of stress symptoms include disturbed processes in the body, which contributes to development of the so-called stress-related diseases, often called psychosomatic diseases. According to research by the Centre for Disease Control and Prevention at Stanford University, stress is the main cause of various diseases, including cancer (Białek 2012). The devastating effects of stress on physical and mental health were proven in many studies (Białek 2012; Caillier 2021, 159–182; Michie and Sapolsky 2012; Ogińska-Bulik and Juczyński 2008).

In addition to the health effects resulting from experiencing stress, an important factor related to stress includes the psychological burden that stress causes on employees. It is a factor commonly considered to be the cause of increased absenteeism, high employee turnover and reduced work productivity, lower people's morale, increased tension and anxiety and the number of conflicts (Gangster and Rosen 2013, 1085–1122; Hyang 2014, 269–287; Jung et al. 2023; Michael et al. 2009, 266–288; Nappo 2020; Noblet and LaMontagne 2006; Parslow et al. 2004, 231–244; Y. Wang et al. 2021).

Many studies have also shown that the more an employee experiences occupational stress, the less satisfaction they feel from their job and the greater the dissatisfaction with its performance (Terelak 1995). This fact opens a wide space for discussion on the impact of stress on the level of employee motivation (Wziątek-Staško 2016a, 2016b). Often, such a person experiences a sense of inadequacy and incompetence at the same time, which in turn lowers their self-esteem and self-worth and triggers a feeling of lack of personal professional usefulness (Bańka 2001). People who function in intensely stressful conditions on a daily basis also experience impaired ability to relax and rest after the end of the working day (Ogińska-Bulik and Juczyński 2008; Salanova et al. 2016, 228–242).

A significant place in the literature dealing with stress is occupied by the strong relationship between professional life and private life (Clausen et al. 2021; Moreira et al. 2023; Rubio et al. 2015). It is assumed that stress factors from both spheres of human activity, i.e. private and professional, interpenetrate each other, which means that a modern employee faces the constant need to develop some balance between professional work and private life (Nguen and Nguen 2012, 87–95; Rabenu et al. 2017, 875–887; Thanki and Pestonjee 2022, 774–788; Yong et al. 2017). The lack of resolution in this area leads to a conflict of roles performed at work and in private life, becoming a significant source of further tension and frustration (Bliese et al. 2017, 389–402; Poczowski 2003).

J. H. Greenhaus and N. J. Beutell (1985) emphasize that work-family conflict occurs when time devoted to the requirements of one role makes it difficult to

fulfil the requirements of another role. The authors distinguished the following three forms of conflict between private and professional roles:

- *conflict in the area of time* – concerns the need to be so involved in work (e.g. numerous business trips) that it constitutes an obstacle to family life;
- *conflict in the area of loads* – means transferring the effects of professional problems, e.g. low mood, irritation or the need for isolation, to the space of private life;
- *conflict in the sphere of behaviour* – concerns the need to reveal different behaviours in professional and private roles, generating behaviour inappropriate for one of the roles performed (Łosiak 2008).

If the stress does not go away, the physiological and psychological symptoms described above intensify, causing minor ailments at first, which may eventually transform into psychosomatic, stress-related disease complications, such as: sleep disorders, stress-related depression, traumatic stress syndrome, chronic fatigue syndrome, anorexia nervosa. Possible somatic effects also include obesity, type 2 diabetes, atherosclerosis, essential hypertension, metabolic syndrome, irritable bowel syndrome, gynaecological syndromes (e.g. anovulatory cycles, infertility, menstrual disorders), impotence, reduced semen quality in men, dermatological problems (Liu et al. 2017, 573–580; Merez 2011; Ortego et al. 2016, 70–81).

Nowadays, it is believed that one of the most serious psychological consequences of experiencing stress in the workplace is attributed to *burnout syndrome*. The phenomenon of burnout was first described by H.I. Freudenberg in 1974, defining the burnout syndrome as a condition that develops slowly, over a longer period of experiencing long-term stress and engaging all life energy in the undertaken activity, which ultimately has a negative impact on a person's motivation, beliefs and behaviour (Huang et al. 2016; Jamal 1997, 18–57; Litzke and Schuh 2007). At the same time, C. Maslach (2006) worked on the analysis of the phenomenon of burnout. She defined burnout as “a syndrome of emotional exhaustion, depersonalization and a reduced sense of personal achievement that may occur in people working with other people in a certain way”. The presented definitions show that burnout is a state characterized by frustration and exhaustion, loss of emotional energy and decline in physical strength, a negative attitude in the perception of oneself and others and, consequently, a decline in motivation to continue working at the current level of mobilization, activity and commitment (Kraczla 2013b, 2016; Pines and Keinan 2005). M. Kraczla draws attention to the existence of a special relationship between long-term, chronic stress and the possibility of professional burnout (Kraczla 2013b). However, chronic stress should be distinguished from incidental stress, and in the literature on the subject, a clear distinction is made between incident stressors and chronic stressors. These two types of stressors form the ends of a continuum

that reflects the level of persistence of stress factors. The main feature of an incidental stressor is its discontinuity, in terms of duration and the beginning and end of the action. Another characteristic of incidental stressors is that they most often disappear on their own. However, stressors called chronic stressors concern “problems and issues that either appear regularly while playing everyday roles and performing everyday activities or result from the nature of these roles and activities, so that the individual perceives them as constant” (La Blanc et al. 2003, 176; Sonnentag and Fritz 2015). When characterizing chronic stressors, it should be emphasized that they rarely go away on their own, they last for an arbitrary long time and lead to the exhaustion of an individual’s personal resources. In the case of chronic stress, the essence of which is long-term contact with significant stressors, conditions arise that favour the culmination of these experiences in the form of the burnout syndrome.

Currently, researchers of the burnout phenomenon believe that it is one of the most important individual and social problems related to a person’s professional functioning. Hence, the relationship between a stressful work environment and the possibility of burnout seems particularly up to date. It is also interesting (Kraczla 2013b). Nowadays, the phenomenon of burnout is intensifying as a result of the development of civilization, technical progress, technological changes, changes in the transmission of information (increase in the amount and speed of its transmission), the increasing complexity of work processes and the constantly increasing requirements to be faced by employees. In this sense, the burnout syndrome is perceived as “a set of disorders affecting a person who is an element of the person-work system” (Wilsz 2009, 439). It is a syndrome consisting of emotional exhaustion (feeling of emptiness and loss of strength to work), depersonalization (feeling of impersonality and loss of sensitivity towards others) and lower evaluation of one’s own professional achievements (feeling of wasting time and energy).

The costs of burnout burden not only the individuals experiencing this condition but the entire organization burnt-out people work for. When the burnout process begins, motivation to work weakens, and over time – as the degree of burnout increases – people distance themselves from tasks and adopt a minimalist attitude, thus disintegrating the work of the team and even demoralizing the team, up to complete resignation from work (Dursun 2021, 412–417; Maslach 2010; Tucholska 2009). Therefore, the state of burnout is not desirable either from the point of view of the individual or from the point of view of the interests of the organization. The lack of meaning in the work performed, loss of interest in professional activities, and often revealed cynicism and antisocial attitudes have an unfavourable impact both for the burnt-out employee and for the broadly understood clients of the organization. Ultimately, this leads to a decrease in the efficiency of the entire organization (Heo et al. 2015, 542–552; Lagrosen and Lagrosen 2022, 113–126; Poczowski 2003; Salami 2010, 486–492; Thomas et al. 2022, 222–238; Wang and Seifert 2021, 1178–1193).

Increased absenteeism and related disorganization, risk of disturbance/extension of task completion time, decrease in the quality of customer service, additional workload on other employees, increased number of accidents, increasing level of fluctuation, compensation costs, costs of recruitment and training of new employees, disruption of team relations, growing scale of organizational pathologies (mobbing, sexual harassment) – these are just some of the organizational consequences of experiencing stress in the work environment. It is worth emphasizing that organizational stress is not only a phenomenon commonly occurring among employees in non-managerial positions. An interesting cognitive issue is also relating the explored issues to the managerial professions, which is the subject of considerations in the subsequent part of this monograph.

2.3 Specificity of stress in a manager's work

The issue of stress is the subject of considerations presented in many studies around the world. Although it commonly refers to “employees”, it is relatively rarely used in relation to people employed in managerial positions. Meanwhile, managers frequently experience stress, as indicated by the results of the latest report by the Gallup Institute (*Report: State of the Global Workplace 2023*). The data published in this report shows that 41% of managers participating in the research currently experience stress at work.

A manager is not only a figure occupying a prominent position, not only someone who has the opportunity to satisfy the need for power and prestige and earns more money than others. They are also individuals who have many responsibilities, people who are responsible for others and should lead by example. They embody a special model of competence. It is common knowledge that the employee's motivation level is directly proportional to the manager's motivation level. The analysis of stress indicators seems to confirm this relationship also in relation to stress experienced at work, both by people employed in non-managerial and managerial positions. Working in an environment where a stressed manager manages stressed employees raises a lot of concern and inspires many questions.

In the context of various dimensions and areas of a manager's functioning, experiencing stress in this professional role seems inevitable. In an organization, a manager is primarily responsible for implementing the management process. In this process, they plan activities and organize resources, make decisions, direct activities and control people along with financial, material and information resources (Griffin 2000). In general, managers are responsible for strategic activities of their companies through their operational implementation. This requires considering many development paths, choosing different variants of action and combining decisions made in various areas of the enterprise (Romanowska 2009). The activity carried out by managers is about managing all processes in such a way as to achieve the organization's goals (Stoner

et al. 1997). As P. Drucker (2004, 15) pointed out, regardless of the industry in which a manager works (business, healthcare, army or university), they are always expected to “get the right thing done”. Therefore, managers must constantly control events and processes that take place in their organizations. The problem is that these events are increasingly dynamic, unpredictable, uncertain, and ambiguous (Mack and Khare 2016, 5–6). T.O. Davenport and S.D. Harding (2012) emphasize that economic changes taking place in the world force a modification of the employer-employee relationship, also drawing attention to the need to change the approach to work of managers themselves.

Functioning in an increasingly dynamically developing cyberspace clearly exposes the phenomenon of “impermanence” that affects objects that age faster and faster, but also interpersonal relationships. New streams of information are constantly flowing from cyberspace, which on the one hand opens us to previously unknown cognitive fields, and on the other causes disorientation. The reaction to an excessive number of stimuli reaching us on the affective, cognitive and decision-making levels often results in mental chaos, physical and mental exhaustion, and finally a number of pathological phenomena and behaviours initiated by the internal compulsion to be online, escape from the real world to the virtual one, access to toxic cultural groups, isolation, alienation, network addiction, etc. Regardless of the identified negative phenomena, the attractiveness of many solutions observed in the world of digitalization, especially those equipped with artificial intelligence, arouses delight, intrigues and undoubtedly creates new fields exploration. The leading group includes the human brain and its little-recognized impact on the shape of management, especially management in the era of digitalization. The new projects that are constantly emerging make a stunning impression on us, but at the same time they force us to ask many important questions about the shape of the organization of the future, the people management process, the model of organizational behaviour, the model of competencies, the role of people and their values. The suggested direction for further exploration is to follow the path of fascinating searches for new areas of management, among which neuroleadership seems to be particularly inspiring (Wziątek-Staško 2022). However, this path is full of countless turns, leads to secret corners, and sometimes leads astray. Following it, especially by top-class managers, is an exciting journey, but also very dangerous and demanding, and therefore stressful.

Today, professional managers are assigned various desirable features and skills. Attempt to define the competence profile of a modern manager are made by both scientists and business practitioners. Based on this knowledge, it is worth emphasizing that a modern manager has to take the following priorities into consideration while functioning: being flexible and resistant to a huge number of stimuli, calculating risk skillfully, making good decisions, facing consequences of choices made, and most importantly, cooperating with other people in the organization in a professional manner and based on new, partnership principles

(Kraczla 2022). “Patterns of cooperation built on previous experiences often do not bring the desired results, because stress concerns not only the “hard” aspects of goal achievement (e.g. time) but is primarily related to interpersonal relationships” (Nieckarz 2014, 64). The new reality generates new areas of difficulties and frustration that managers in the digital era must face. As M. Kraczla (2022) emphasizes, a manager’s professionalism is related to their personal maturity. Managerial effectiveness must be manifested par excellence in the effectiveness of achieving substantive goals, as well as “soft” goals inherent in the role of a manager and related to managing a subordinate team, such as resolving conflicts, motivating or developing them. Efficiency in carrying out those tasks is obvious and for years has been defined as the basic criterion for assessing a manager’s work.

The stress felt by managers, the so-called *managerial stress*, means “disturbance in the manager’s efficiency resulting from the discrepancy between requirements of their professional role and the possibilities of effective action” (Ochyra 2012, 180). Most often, this refers to obstacles appearing in the performance of managerial functions and in self-realization through management (Penc 2000). Difficulties experienced by people working in managerial positions are classified differently by different authors, and researchers, focusing their attention on different aspects, sometimes also indicate common areas of sources of stress in this professional group.

People employed in managerial positions experience numerous psychological burdens, usually identified in the following areas (Cenin 1994):

- competitive and threat situations,
- personal legal and material liability for the consequences of managerial activities,
- conflict situations,
- making decisions without complete information, risk,
- the need for constant control of behaviour in conditions of social exposure,
- intensity of activities, e.g. business trips,
- availability towards colleagues and partners,
- operating under time deficit conditions,
- work at the expense of family life and lack of time for rest.

The wide range of identified stressors can be categorized into the following five main groups of stressors:

- mental difficulties related to making good decisions,
- high level of risk,
- personal responsibility for decisions and actions,
- constant work under time pressure,
- interpersonal conflicts.

The areas of difficulties that a manager may experience were also synthetically described by J. Penc (2000, 237), who distinguished the following areas:

- pressure of changes and novelties,
- difficulties and tensions in relations with superiors,
- time pressure,
- difficulties and tensions in relations with colleagues,
- problems with themselves,
- difficulties and tensions in relations with subordinates,
- family and social problems,
- difficulties and tensions related to work organization and management.

Awareness of possible areas of stress shapes a multi-level model in relation to managerial stress. It is worth knowing these areas because organizational stressors coming from various levels in which a manager functions simultaneously may appear at the same time, provide high tension and require effective management of many difficult situations at the same time (Omrane et al. 2018). W. Perdeus and B. Rożnowski (1998) organize in more detail the areas of stress experienced by modern managers, distinguishing the following:

- *methods of performing work* (working under pressure, irregular work rhythm, constant changes in work performance)
- *managerial role* (role ambiguity, role overload, role conflict – conflicting demands from different superiors, conflict between professional and non-professional roles),
- *wrong interpersonal relationships* (with superiors, co-workers or subordinates)
- *limited participation in decision-making and expressing opinions*,
- *factors related to professional development* (dissatisfaction with career progress, lack of satisfaction with one's own achievements, lack of development opportunities, or lack of a sense of job stability).

The stress factors specified in the examples selected above create space for the emergence and maintenance of mental tension in people holding managerial positions, leading to a decline in work efficiency and the emergence of the so-called managerial diseases and burnout (which were noted in the previous section). These phenomena constitute the psychological costs of work as generalized and persistent consequences of mental workload. Recently, attention has also been paid to the increasingly frequent experience of Attention Deficit Trait (ADT) syndrome by managers (especially middle and high-level ones). Symptoms of *ADT* include hyperactivity, impaired concentration, difficulty making decisions, racing thoughts, feeling of overload and anxiety or increased level of aggression. In the case of managers, this syndrome may contribute to

problems with setting priorities, making good decisions and problems with time management. The indicated symptoms may result in errors in the manager's behaviour, which may expose the company to multi-faceted losses and harm the manager's career, ruining their authority.

When analysing the scope of managerial activities, it is necessary to highlight the extremely important fact that during their work, a manager not only struggles with problems that affect them personally, but also must be able to manage the stress of their employees. This makes managerial staff a group subject to stress more frequently and with greater intensity than in the case of other employees (Harms et al. 2017; Kraczkla 2016; Nieckarz 2014; Stephan 2018).

As noted earlier, the level of stress experienced by managers is influenced by many factors, resulting from the characteristics of the function performed, the structure of the organization, interpersonal relations at work, the manager's psychological dispositions, but also factors related to their functioning in the environment. A very important stress factor for managers is related to *work overload (quantitative and qualitative)*. Quantitative overload occurs when a manager has too many tasks to perform and is almost constantly under time pressure. As a result, the function they perform requires speed of thinking and action, often beyond their capabilities, while maintaining a high level of efficiency and concentration on the activities performed. Qualitative overload refers to situations in which the tasks performed by managerial staff are too difficult for them. Due to the rapidly progressing technological development, changing market situation and expectations of the organization's customers, even experienced managers may feel quality overload. Their work requires almost constant acquisition of new skills. However, we should not forget about managers who also feel stressed due to *qualitative underload*. It occurs when a manager feels that their work does not allow them to use all their knowledge or when they perceive it as boring or monotonous (Malamed et al. 1995). However, the assessment of overload is always an individual matter, related to human predispositions. You should always be careful and not allow yourself to overgeneralize when formulating views on it.

A manager's stress level may also depend on their *age*, as research analyses indicate. They show that managers under 35 years of age experience stress due to lack of interpersonal competencies, difficulties in cooperation with older subordinates and due to differences in age-dependant decision-making methods (Uen et al. 2009). However, an important source of stress for managers over 45 is related to their struggles with the stereotype of perceiving people 45+ as less effective, less active, and more often affected by sickness absence (Fryca and Majecka 2010).

Responsibility for other people and resources, is also an important potential source of stress for managers. Responsibility for another person requires a manager to devote a lot of time and attention to other employees, while maintaining high efficiency in performing their own duties, which increases the level of stress

related to time pressure. Not without significance, especially among middle managers, is the problem resulting from the feeling of little real power in relation to the large scope of responsibility (Cooper and Mardhall 1987). It should be noted, however, that both the feeling of too much and too little responsibility can be a stressor. Both a manager who does not participate in making important decisions, as well as a manager who makes them without any support of senior management, may feel discomfort, which later becomes stress. (Stephan 2018; Yeardrey 2023).

The sources of stress for managers also include *the ambiguity of their work or role*. Ambiguity occurs when the requirements for a job or task are not clearly outlined. The manager may not have full knowledge of their duties, but they may also not know what the expectations of their colleagues are. A problem related to the one indicated above refers to the *role conflict*, which can also be a stressor, and which occurs when a manager experiences different expectations of their work from different co-workers. The importance of the problem increases when these expectations conflict with each other.

The difficulty of a manager's job increases when they are obliged to perform an activity that they really do not want to do or they believe that they should not because

- it goes beyond their job duties,
- is contrary to their values,
- is unethical,
- they have to work overtime (e.g. early morning/late evening) or
- they have to perform their work in uncomfortable conditions (e.g. excessive noise, high temperature, poor lighting), which may negatively affect their well-being and increase fatigue.

Many factors influence comfort of manager's work. Certainly, those factors influence the comfort in question may also be negative and refer to the following:

- organizational chaos,
- excessive bureaucracy,
- faulty communication system,
- lack of transparent rules of operation,
- too rigid rules of operation, preventing autonomy in the decision-making process.

It turns out that the area of managerial decision-making is a particularly empirically intriguing topic. The need to make quick and accurate decisions in hierarchical positions requires an in-depth analysis of complex decision-making situations in order to help managers develop ways and tools to efficiently cope with organizational and market stress. S.E. Jackson and R.S. Schuler (2003)

report that managers forced to make difficult personnel decisions, e.g. regarding the dismissal of an employee, are exposed to serious health consequences. Empirical data proves that the risk of heart attack in managers doubles in the week after dismissal. For comparison, in Poland, research was carried out among HR managers on factors causing stress and the following main sources of stress were given by the respondents: constant changes in legal regulations, work under time pressure, insufficient qualifications of employees of HR departments, heavy burden of administrative activities, conflicts in cooperation with other units, insufficient position in the organizational hierarchy, or frequent changes and reorganizations (Pocztowski 2003). Other authors also point to a similar range of stress effects (Ames et al. 2020).

An important source of stress for managers is undoubtedly attributed to *interpersonal relationships with superiors, subordinates and co-workers* – both establishing and maintaining positive relationships. These factors may be a challenge especially for young managers who, when taking up their positions, have professional substantive knowledge, but often lack interpersonal skills resulting from insufficient experience and, nowadays, more and more often, from no personal contacts resulting from remote work. Young managers encounter difficulties in cooperation with much older people, although this problem can also be observed in the opposite relationship (Wziątek-Staško and Pobiedzińska 2023). The ability to manage employee diversity effectively and efficiently, taking into account gender, age, sexual orientation, religion and others, is one of the most significant challenges in the work of modern managers (Nyberg et al. 2015; Wziątek-Staško et al. 2023). The ability to function in a multicultural environment is not the only currently valued competence. Others that are particularly desirable include the ability to take initiative, creativity, entrepreneurship, communication skills, the ability to face risk and responsibility for decisions made, emotional stability, the ability to resolve conflicts and manage change, the ability to perceive challenges and opportunities, self-efficacy, a sense of self-esteem, high morale, the ability to undertake one's own development and support the development of subordinates, and the ability to develop a balance in the work-private life relationship, both in relation to one's own functioning and the functioning of subordinates (Dean and East 2019; Kraczlá 2013b, 2016). One of the competencies whose importance will gradually increase is the ability to effectively manage stress, especially coping with its symptoms.

2.4 Tools and methods for dealing with professional stress

Considerations devoted to the categories of *stress* and *occupational stress* inevitably lead to the emphasis on issues related to *coping with stress*. Theories on psychological stress quite clearly emphasize the need to analyse *human activity* undertaken in stressful situations, including both internal and external circumstances. "A stressful situation stimulates activity aimed at regaining the

balance between requirements and possibilities and improving the emotional state” (Bartkowiak 2009). Such action is referred to as *coping with stress* (Strelau 2007).

The concept of *coping with stress* was introduced into science in the 1960s (Wrześniewski 2000). This term has the following three meanings: coping with stress can be considered as *a process*, as *a strategy* and as *a style* (Heszen-Niejodek 2000). *The process of coping with stress* refers to all the activities undertaken by a person in a specific stressful situation. This activity is complex and dynamic and often concerns a long period of time. It includes a set of different strategies related to changes in the characteristics of the situation and the individual. *The strategy of coping with stress* includes the cognitive and behavioural actions a person takes in a stressful situation. The type of actions undertaken by an individual may be conditioned by their personality predispositions, features such as gender, age, psychophysical condition and the characteristics of the stressful situation itself. *The style of coping with stress* refers to “individual differentiation of dispositions that determine behaviour in stressful conditions” (Heszen-Niejodek 2000, 18). Therefore, this concerns relatively permanent features of an individual that determine their characteristic way of solving problems in stressful situations (Heszen-Niejodek 2000; Wrześniewski 2000).

The literature on the subject distinguishes two types of categories used to describe the concept of *the style of coping with stress*. The former group of categories includes terms that characterize style as a single dimension, disposition, or feature of an individual. This is how the style of coping is described by, among others, S.H. Miller and H.W. Krohne. The latter category consists of definitions that capture style in the form of a constellation of dispositions or features of an individual. This group is fed by the concepts of N.S. Endler and J.D. Parker and C.S. Carver, M.F. Scheier and J.K. Weintraub (Heszen-Niejodek 2000; Wrześniewski 2000).

Coping with stress is therefore a basic adaptive mechanism related to making conscious efforts to restore balance in the body. In this sense, it has a regulatory function between human requirements and capabilities (Ogińska-Bulik 2006; Michie and Williams 2003).

The choice of how to deal with stress is determined by the nature of the situation itself, the individual properties of the individual and the state and scope of their personal resources (Aitken and Crawford 2007, 666–673; Livneh et al. 1996; Ogińska-Bulik and Juczyński 2008). However, strategies of coping with stress are always aimed at dealing with the threat posed by the stressful situation. “The process of coping with stress includes all human efforts in response to stress: active and passive, positive and negative, constructive and unconstructive” (Bartkowiak 2009, 28). These are all types of cognitive, emotional and behavioural activities of an individual that are a response to internal or external requirements. (Terelak 2004).

There are many different models of coping with stress in the literature on the subject. Outstanding researchers of this phenomenon, R. S. Lazarus and S. Folkman, treat coping with stress as a process. The authors distinguished the following two basic *functions of coping with stress: instrumental and regulatory*. They combined the indicated functions with action strategies. The instrumental function is related to problem-oriented coping methods, while the regulatory function refers to emotion-focused strategies. In this way, the authors distinguished two main strategies of action in stressful situations (Lazarus and Folkman 1984):

- problem-solving attitude (problem-focused),
- emotion-regulating attitude (emotion-focused).

When implementing a problem-solving strategy, a person tries to remove the existing stressor through active action: developing an action plan, limiting competing activities, postponing the problem or searching for alternative solutions. However, when adopting an approach focused on regulating emotions, the individual uses other methods. They include distancing, using the rationalization mechanism, trying to adapt to the problem, accepting the situation, turning to religion, escape reactions, psychological detachment, denial, repression, compensating for stress with successes in other areas of life, taking responsibility or self-blame. As it can be seen, strategies aimed at overcoming the problem aim to improve the relationship between the subject and the environment, while the aim of emotional strategies is to reduce emotional tension. Most often, both strategies mentioned are used simultaneously, and the degree of their intensity and use depends on the individual characteristics of a given person. A person's flexibility in using selected strategies and efficiency in their skilful application will translate into effects in overcoming difficulties and returning to a state of balance (Kraczla 2013b, 2016). Other authors use the category of *the style of coping with stress*. This approach is represented, among others, by N.S. Endler and D.A. Parker, who, referring to the theory of R.S. Lazarus and S. Folkman described three styles of coping with stress. The two styles described correspond to the functions defined by R.S. Lazarus and S. Folkman: *task-oriented* and *emotion-oriented*. Third style, N.S. Endler and D.A. Parker described as *avoidance-oriented*. In this way, the authors indicated the variety of actions taken by people in stressful situations (Endler and Parker 1990).

Exploring the issues related to ways of coping with stress draws attention to subsequent classifications. One of the important issues is to distinguish *individual and organizational ways of coping with stress*. The aim of individual strategies for dealing with stress is to increase the individual's awareness of the phenomenon of stress, its symptoms, effects and possible forms of counteraction, as well as to alleviate unfavourable emotional arousal as a result of changing life attitude, shaping a healthy lifestyle and mastering cognitive-behavioural

and relaxation techniques (Kraczla 2021; Le Blanc et al. 2000; Wrześniewski 2000). The category of *resources* plays an important role in the considerations of researchers exploring the issue of coping with stress. Despite its popularity, no clear definition has been developed. Most often, *resources* are understood as “psychological, social and biological factors treated as moderators in the course of experiencing stress and coping with stress” (Ogińska-Bulik 2006, 91). In this sense, resources include everything that an individual contributes to the process of coping with stress. For example, H.E. Moos and J.A. Schaefer (1993, 243) define the concept of resources as “the complex system of personality, dispositional, and cognitive factors that constitute part of the psychological context of coping”. Resources are defined more broadly by Sęk (2005, 18), for whom personal resources are “specific functional properties of features potentially existing in a person’s environment and in themselves and in their relations with the environment”. The author divides resources into internal and external. Internal resources include mental resources (emotional competencies, cognitive-intellectual functions, temperament) and biological resources (genetic conditions, immunological resistance, physiological resistance of the body). External resources, on the other hand, include the resources of the biological and physical environment as well as socio-cultural resources. R. S. Lazarus and S. Folkman, in turn, draw attention to such categories of resources including the following:

- health and energy (strengthen the individual’s efforts to cope with stress),
- positive beliefs (responsible for hope in terms of controlling the situation and the expected effectiveness of the actions taken),
- ability to solve problems (ability to search for information, analyse and plan actions),
- social skills (ability to communicate and behave in accordance with social norms) (Ogińska-Bulik 2006).

Personal resources important in the process of coping with stress include individual, relatively stable properties of an individual (understood as dispositions), referred to as beliefs and expectations: sense of coherence, self-esteem, sense of personal effectiveness, optimism, or sense of control over events. These dispositions influence perception of environmental demands and emerging stressors and the ability to cope with them (Poprawa 2001; Roming and Howard 2019). R. S. Lazarus and S. Folkman also emphasize the importance of the sense of threat experienced by an individual in various life circumstances, which may limit the use of personal resources. The degree of perceived threat will determine the level of use of the individual’s personal resources. The perception of resources and their availability may be limited by beliefs or values that determine the desired behaviour in specific circumstances (Kraczla 2016).

An in-depth diagnosis of methods and tools for dealing with stress provides very rich material. The group of noteworthy strategies includes the following strategies (Folkman 2008; Franks and Roesch 2006):

- approach-avoidance coping,
- problem- and emotion-focused coping,
- meaning-focused coping.

In the group of stress coping strategies focused on *approach-avoidance*, it is possible to identify the following:

- approaching (active coping),
- avoidance (passive coping),
- searching for information,
- behavioural distraction,
- looking for support,
- mental distraction
- self-control,
- minimizing the threat,
- distancing yourself,
- planning, logical analysis,
- wishful thinking,
- optimism,
- positive expectations denial,
- coping through self-efficacy expressing emotions,
- suppressing competitive activities,
- use of alcohol, drugs,
- acceptance,
- helplessness,
- solving the problem of religiosity,
- positive revaluation,
- mood,
- reinterpretation.

In the group of coping strategies focused on the *problem and emotions*, it is possible to identify the following:

- instrumental coping,
- emotional coping
- looking for instrumental support,
- optimism,
- positive expectations,
- coping through self-efficacy,

- suppressing competitive activities,
- seeking emotional support,
- self-control,
- positive planning,
- reevaluation, reinterpretation,
- solution,
- acceptance,
- minimizing,
- wishful thinking,
- religiosity,
- mood.

In the group of coping strategies focused on *meaning*, it is possible to identify the following:

- looking for benefits,
- recalling favourable situations,
- setting adaptive goals,
- reformulation of priorities,
- saturating ordinary events with positive meaning.

The classification of the strategies of coping with stress presented above does not exhaust the spectrum of available tools and methods. It is worth remembering many others, such as: physical activity, using relaxation techniques, meditation, yoga, meetings with friends, indulging in your passions/hobbies, etc. Regardless of the tool used, it is worth remembering that when adopting an interactive approach to coping with stress, the type of coping strategy chosen by the subject will be multidimensional. Importance of the choice in question is attributed not only to the coping style characteristic of a given individual and the type of stressful situation, but also to personality conditions (e.g. optimism, level of self-esteem, fearfulness, level of achievements) and other characteristics of the individual, i.e. age, gender, education, current psychophysical condition (Agbaria and Mokh 2021; Bartkowiak 2009; Gutschmidt and Vera 2022; Heszen-Niejodek 2000; Oktan 2021; Wrześniewski 2000). In this approach, the process of coping with stress is “a series of strategies that change over time, related to changes in the characteristics of the situation and changes in the psychophysical condition of the individual” (Wrześniewski 2000, 47).

In the group of situational factors that determine how to cope with stress, controllability is particularly important. According to I. Heszen-Niejodek (2000), in controllable situations whose course and results depend on the individual's activity, strategies based on collecting and processing information will prove effective. However, in conditions of uncontrollability, information avoidance strategies seem to be more beneficial because, if they cannot be used, they only

increase the individual's emotional burden, without leading to the desired end result. Based on theoretical knowledge and many empirical studies, it can be concluded that people are able to adapt strategies of coping with stress to the requirements specified in a stressful situation, but those decisions will always be an expression of the interaction between individual and situational factors. Consequently, this skill will create space for flexibility in coping with stress (Heszen–Niejodek 2000).

Research on stress often adopts a one-sided approach, focusing on only subjective factors or situational factors. Meanwhile, coping with stress may also have the dimension of group activities, and broadly understood social support becomes important in this context (Hobfoll 2006; Kraczlá 2016). In relation to occupational stress, this approach is particularly interesting because the possibility and ability to use social support in the workplace is currently considered to be an indispensable element of organizational activities aimed at shaping low-stress work environments. The main types of social support in the workplace include the following (Le Blanc et al. 2000):

- *social integration* – a specific number and strength of relationships of a given employee with other people within the organization,
- *satisfying relationships* – regarding a friendly organizational climate and friendly professional relationships with superiors, co-workers and subordinates,
- *perceived support available* – relating to an individual's belief in the possibility of receiving direct help or support, information, advice and empathetic understanding,
- *support received* – regarding the situation after the occurrence of a stressor in which superiors, co-workers and subordinates can support a given person and help alleviate the stress they feel.

Actions taken by companies in the aspect of stress may be of two types. On the one hand, they can take the form of *preventive activities* related to the prevention of stress. On the other hand, they can be a form of *intervention activities*, enhancing the effectiveness of coping with existing stressful conditions. Coping with stress can also be *preventive*, involving the accumulation of resources and thus creating opportunities to cope with future potential threats that may occur in the future, or *proactive*, involving the process of self-improvement and strengthening existing personal resources (Kraczlá 2016). Each of the proposed forms of help, when used skilfully, plays an important role in alleviating the effects of stress. As a consequence, it becomes possible to shape the professional environment in a more friendly way and less psychologically burdensome for its participants. Organizational activities must therefore focus on stress management and constructing programs to optimize coping with this phenomenon. The proposed forms of individual employee activity should be supported by

appropriate, well-developed stress management programs at the organizational level. The essence of stress management comes down to maintaining the optimal level of stress by identifying stress factors and limiting the causes leading to excessive stress intensity (e.g. audit of stress sources). This type of activities also includes implementing techniques that reduce the negative effects of stress and creating conditions for teaching people how to cope with emotional situations that may determine the occurrence of many unfavourable phenomena in organizations, such as conflicts.

Bibliography

- Agbaria, Q. & Mokh, A. A. (2021). Coping with stress during the coronavirus outbreak: the contribution of big five personality traits and social support. *International Journal of Mental Health and Addiction*. <https://doi.org/10.1007/s11469-021-00486-2>
- Aitken, A. & Crawford, L. (2007). Coping with stress: dispositional coping strategies of project managers. *International Journal of Project Management*, 25, 666–673, <https://doi.org/10.1016/j.ijproman.2007.02.003>
- Ames, J. B., Gaskin, J. & Goronson, B. D. (2020). Exploring antecedents and consequences of managerial moral stress. *Business Ethics: A European Review*, 29(3), 557–569, <https://doi.org/10.1111/beer.12272>(Not accessible as of [2024/06/14])
- Amirkhan, J. (2012). Stress overload: a new approach to the assessment of stress. *American Journal of Community Psychology*, 49, 55–71. <https://doi.org/10.1007/s10464-011-9438-x>
- Amirkhan, J., Landa, L. & Huff, S. (2018). Seeking signs of stress overload: symptoms and behaviors. *International Journal of Stress Management*, 25(3), 301–311. <https://doi.org/10.1037/str0000066>(Not accessible as of [2024/06/14])
- Amirkhan, J., Urizar, G. & Clark, S. (2015). Criterion validation of a stress measure: the stress overload scale. *Psychological Assessment*, 27, 985–996. <https://doi.org/10.1037/pas0000081>(Not accessible as of [2024/06/14])
- Andrade, C. & Neves, P. C. (2022). Perceived organizational support, coworkers' conflict and organizational citizenship behavior: the mediation role of work-family conflict. *Administrative Sciences*, 12, 20, <https://doi.org/10.3390/admsci12010020>
- Antonovsky, A. (1980). *Health, Stress and Coping*. San Francisco: Jossey-Bass Publishers.
- Antonovsky, A. (1987). *Unraveling the Mystery of Health – How People Manage Stress and Stay Well*. San Francisco: Jossey-Bass Publishers, 15.
- Arnetz, B. B. & Wiholm, C. (1997). Technological stress: psychophysiological symptoms in modern offices. *Journal of Psychosomatic Research*, 43(1), 35–42. [https://doi.org/10.1016/s0022-3999\(97\)00083-4](https://doi.org/10.1016/s0022-3999(97)00083-4)
- Bańka, A. (2001). *Psychopatologia pracy*. Poznań: Gemini.
- Bartkowiak, G. (2009). *Człowiek w pracy. Od stresu do sukcesu w organizacji*. Warszawa: Polskie Wydawnictwo Ekonomiczne.
- Białek, E. D. (2012). *Psychosomatyczne, emocjonalne i duchowe aspekty chorób ze stresu*. Warszawa: Instytut Psychosyntezy.
- Bliese, P. D., Edwards, J. R. & Sonnentag, S. (2017). Stress and well-being at work: a century of empirical trends reflecting theoretical and societal influences. *Journal of*

- Applied Psychology*, 102(3), 389–402. <https://doi.org/10.1037/apl0000109>(Not accessible as of [2024/06/14])
- Borucki, Z. (1991). Współczesne koncepcje stresu psychologicznego. *Zeszyty Naukowe – Psychologia, no 10*, Gdańsk: Uniwersytet Gdański
- Brod, C. (1984). *Techno Stress: The Human Cost of the Computer Revolution*. Boston: Addison-Wesley.
- Caesens, G. & Stinglhamber, F. (2019). The relationship between organizational dehumanization and outcomes: the mediating role of emotional exhaustion. *Journal of Occupational and Environmental Medicine*, 61(9), 699–703. <https://doi.org/10.1097/JOM.0000000000001638>
- Caillier, J. G. (2021). The impact of workplace aggression on employee satisfaction with job stress, meaningfulness of work, and turnover intentions. *Public Personnel Management*, 50(2), 159–182. <https://doi.org/10.1177/0091026019899976>
- Celińska-Nieckarz, S. & Konieczny, T. (2014). Różnice w rozumieniu pojęcia stres. [In:] T. Konieczny (ed.) *Stres w organizacji*. Gdańsk: Harmonia Universalis, 13–40.
- Cenin, M. (1994). *Stres menedżerski i jego zwalczanie*. [In:] S. Witkowski (ed.) *Psychologia sukcesu*. Warszawa: Wydawnictwo Naukowe PWN, 145–174.
- Chlap, N. & Brown, R. (2022). Relationships between workplace characteristics, psychological stress, affective distress, burnout and empathy in lawyers. *International Journal of the Legal Profession*, 29(2), 159–180. <https://doi.org/10.1080/09695958.2022.2032082>
- Christianson, S. A. (1992). Emotional stress and eyewitness memory: a critical review. *Psychological Bulletin*, 112(2), 284–309. <https://psycnet.apa.org/doi/10.1037/0033-2909.112.2.284>(Not accessible as of [2024/06/14])
- Cieślak, R. & Łuszczzyńska-Cieślak, A. (2001). Zarządzanie stresem w pracy. Promocja Zdrowia. *Nauki społeczne i medycyna*, 8(21), 122–140.
- Clausen, T., Pedersen, L. R. M., Andersen, M. F., Theorell, T. & Madsen, I. E. H. (2021). Job autonomy and psychological well-being: a linear or a non-linear association? *European Journal of Work and Organizational Psychology*, 31(3), 395–405. <https://doi.org/10.1080/1359432X.2021.1972973>
- Cooper, C. L. & Marshall, J. (1987). Źródła stresu w pracy kierowniczej i umysłowej. [In:] C.L. Cooper, R. Payne (red.) *Stres w pracy*. Warszawa: PWN, 123–164.
- Davenport, T. O. & Harding, S. D. (2012). New manager manifesto. *People and Strategy*, 35(1), 24–31.
- Dean, S. A. & East, J. I. (2019). Soft skills needed for the 21st century workforce. *International Journal of Applied Management and Technology*, 18(1), 17–32. <https://doi.org/10.5590/IJAMT.2019.18.1.02>
- Dolińska-Zygmunt, G. (2001). *Psychologiczne uwarunkowania podatności na choroby*. [In:] G. Dolińska-Zygmunt (ed.) *Podstawy psychologii zdrowia*. Wrocław: Wydawnictwo Uniwersytetu Wrocławskiego, 169–189.
- Drucker, P. F. (2004). *Zawód menedżer*. Warszawa: MT Biznes.
- Dursun, D. E. (2021). Effect of work stress and burnout perceptions of aviation sector employees on organizational commitment. *The Journal of Contemporary Issues in Business and Government*, 27, 412–417. <https://doi.org/10.47750/CIBG.2021.27.03.056>
- Endler, N. S. & Parker, D. A. (1990). Multidimensional assessment of coping: a critical evaluation. *Journal of Personality and Social Psychology*, 58(5), 844–854. <https://doi.org/10.1037/0022-3514.58.5.844>(Not accessible as of [2024/06/14])

- Farne, M. (2006). *Stres*. Poznań: Drukarnia i Księgarnia Św. Wojciecha Sp. z o.o.
- Fletcher, B. & Payne, R. L. (1980). Stress and work: a review and theoretical framework, I., *Personnel Review*, 9, 19–29.
- Folkman, S. (2008). The case for positive emotions in the stress process. *Anxiety, Stress, Coping*, Jan. 21(1), 3–14. <https://doi.org/10.1080/10615800701740457>
- Franks, H. M & Roesch S. C. (2006). Appraisals and coping in people living with cancer: a meta-analysis. *Psychooncology*, 15, 1027–1037. <https://doi.org/10.1002/pon.1043>
- Fryca, J. & Majecka, B. (2010). *Analiza postaw i opinii pracodawców o pracownikach 45+ w województwie pomorskim*. [In:] J. Fryca, B. Majecka (eds.) *Pracownicy 45+ w przedsiębiorstwie*. Gdańsk: PTE, 24–60.
- Ganster, D. C. & Rosen, C. C. (2013). Work stress and employee health: a multidisciplinary review. *Journal of Management*, 39(5), 1085–1122. <https://doi.org/10.1177/0149206313475815>
- Greenhaus, J. H. & Beutell, N. J. (1985). Sources and conflict between work and family roles. *The Academy of Management Review*, 10(1), 76–88. <https://doi.org/10.2307/258214>
- Griffin, R. W. (2000). *Podstawy zarządzania organizacjami*. Warszawa: Wydawnictwo Naukowe PWN.
- Gutschmidt, D. & Vera, V. (2022). Organizational culture, stress, and coping strategies in the police: an empirical investigation. *Police Practice and Research*, 23(5), 507–522. <https://doi.org/10.1080/15614263.2021.1958683>
- Hargrove, M. B., Nelson, D. L. & Cooper, C. L. (2013). Generating eustress by challenging employees. *Organizational Dynamics*, 42(1), 61–69. <https://doi.org/10.1016/j.orgdyn.2012.12.008>
- Harms, P. D., Credé, M., Tynan, M., Leon, M. & Jeung, W. (2017). Leadership and stress: a meta-analytic review. *The Leadership Quarterly*, 28(1), 178–194. <https://doi.org/10.1016/j.leaqua.2016.10.006>
- Heo, Y. S., Leem, J. H., Park, S. G., Jung, D. Y. & Kim, C. H. (2015). Job stress as a risk factor for absences among manual workers: a 12-month follow-up study. *Industrial Health*, 53(6), 542–552.
- Heszen, I. (2013). *Psychologia stresu*. Warszawa: Wydawnictwo Naukowe PWN.
- Heszen, I. & Sęk, H. (2007). *Psychologia zdrowia*. Warszawa: Wydawnictwo Naukowe PWN, 463.
- Heszen-Niejodek, I. (2000). *Stres i radzenie sobie – główne kontrowersje*. [In:] I. Heszen-Niejodek, Z. Ratajczak (eds.) *Człowiek w sytuacji stresu*. Katowice: Wydawnictwo Uniwersytetu Śląskiego, 12–43.
- Hobfoll, S. E. (2006). *Stres, kultura i społeczność. Psychologia i filozofia stresu*. Sopot: Gdańskie Wydawnictwo Psychologiczne, 61.
- Hogue, C. M., Fry, M. D. & Fry, A. C. (2017). The differential impact of motivational climate on adolescents' psychological and physiological stress responses. *Psychology of Sport and Exercise*, 30, 118–127. <https://doi.org/10.1016/j.psychsport.2017.02.004>
- Huang, J., Wang, Y. & You, X. (2016). The job demands-resourced model and job burnout: the mediating role of personal resources. *Current Psychology: A Journal for Diverse Perspectives on Diverse Psychological Issues*, 35(4), 562–569. <https://doi.org/10.1007/s12144-015-9321-2>
- Hyang, P. M. (2014). The effect of job stress on positive thinking, organizational commitment and turnover intention of paediatric nurse. *Medicine, Psychology, Business*, 10, 269–287. <https://doi.org/10.3390/su15043015>

- Idrees, N., Ullah, Z. & Khan, M. Z. (2018). Impact of ethical conflict on job performance: the mediating role of proactive behavior. *Asian Journal of Business Ethics*, 7(1), 103–116. <https://doi.org/10.1007/s13520-017-0085-7>(Not accessible as of [2024/06/14])
- Jacson, S. E. & Schuler, R. S. (2003). *Managing Human Resources Through Strategic Partnership*. Mason, OH: Thomson Learning.
- Jamal, M. (1997). Job stress, satisfaction, and mental health: an empirical examination of self-employed and non-selfemployed Canadians. *Journal of Small Business Management*, 35(4), 18–57.
- Jung, S., Chul Shin, Y., Lee, M. Y., Oh, K. S., Shin, D. W. et al. (2023). Occupational stress and depression of Korean employees: moderated mediation model of burnout and grit. *Journal of Affective Disorders*, 339, 127–135. <https://doi.org/10.1016/j.jad.2023.07.045>
- Jurgielewicz, O. (2017). Stres i stresory w pracy wpływające na poczucie bezpieczeństwa pracownika. *Modern Management Review*, XXII, 24(4), 61. <https://doi.org/10.7862/rz.2017.mmr.41>
- Karney, J. E. (2007). *Psychopedagogika pracy*. Warszawa: Wydawnictwo Akademickie “Zak”.
- Kaszyński, K. (2009). Aksjologiczne aspekty pracy ludzkiej. *Problemy Profesjologii*, 2, 55–63.
- Keller, A., Litzelman, K., Wisk, L. E., Maddox, T., Cheng, E. R., Creswell, P. D. & Witt, W. P. (2012). Does the perception that stress affects health matter? The association with health and mortality. *Health Psychology*, 31(5), 677–684. <https://psycnet.apa.org/doi/10.1037/a0026743>(Not accessible as of [2024/06/14])
- Khuntia, J., Tanniru, M. & Weiner, J. (2015). Juggling digitization and technostress: the case of alert fatigues in the patient care system implementation. *Health Policy and Technology*, 4(4), 364–377. <https://doi.org/10.1016/j.hlpt.2015.08.005>
- Kim, J. & Jung, H. S. (2022). The effect of employee competency and organizational culture on employees’ perceived stress for better workplace. *International Journal of Environmental Research and Public Health*, 19, 4428, <https://doi.org/10.3390/ijerph19084428>
- Knani, M., Fournier, P. S. & Biron, C. (2018). Psychosocial risks, burnout and intention to quit following the introduction of new software at work. *Work*, 60(1), 95–104. <https://content.iospress.com/download/work/wor2714?id=work%2Fwor2714>
- Kocowski, T. (1993). *Stres*. [In]: W. Pomykało (ed.) *Encyklopedia pedagogiczna*. Warszawa: Fundacja Innowacja, 742–744.
- Kraczła, M. (2013a). *Osobowościowe uwarunkowania przywództwa. Menedżerowie a specjaliści*. Dąbrowa Górnicza: Wydawnictwo WSB w Dąbrowie Górniczej.
- Kraczła, M. (2013b). Wypalenie zawodowe jako efekt długotrwałego stresu. *Zeszyty Naukowe Wyższej Szkoły Humanitas*, seria “Zarządzanie”+, 69–81.
- Kraczła, M. (2016). *Stres w pracy menedżera*. Warszawa: Wydawnictwo CeDeWu Sp. z o.o., Wydanie II uzupełnione.
- Kraczła, M. (2021). Dominant ego states in transactional analysis in the context of managers’ stress coping strategies. *European Research Studies Journal*, Volume XXIV(Special Issue 4), 421–434.
- Kraczła, M. (2022). The personality maturity of managers and their effectiveness in performing their role. *Scientific Papers of Silesian University of*

- Technology – Organization and Management Series. No. 158*, 295–315. <http://dx.doi.org/10.29119/1641-3466.2022.158.20>.
- Kung, C. S. J & Chan, C. K. Y. (2014). Differential roles of positive and negative perfectionism in predicting occupational eustress and distress. *Personality and Individual Differences*, 58, 76–81.
- Lagrosen, S. & Lagrosen, Y. (2022). Workplace stress and health – the connection to quality management. *Total Quality Management*, 33(1), 113–126. <https://doi.org/10.1080/14783363.2020.1807317>
- Lazarus, R. S. & Folkman, S. (1984). *Stress, Appraisal and Coping*. New York: Springer Publishing, 253.
- Le Blanc, P., De Jonge, J. & Schaufeli, W. (2003). Job stress and health. In N. Chmiel (Ed.), *Introduction to Work and Organizational Psychology: A European Perspective*. New York: Blackwell Publishing, 148–177.
- Le Fevre, M., Matheny, J. & Kolt, G. (2003). Eustress, distress, and interpretation in occupational stress. *Journal of Managerial Psychology*, 18(7), 726–744. <https://doi.org/10.1108/02683940310502412>
- Leary, T. & Miller, M. (2021). The toxic relationship between laissez-faire leadership and employee burnout: no longer a well-kept secret. *International Leadership Journal*, 13(2), 3–15.
- Lewandowski, R. (2021). Praca jako wartość w życiu człowieka. *Szkola – Zawód – Praca*, nr 22, <https://doi.org/10.34767/szp.2021.02.10>
- Lindstrom, B. & Eriksson, M. (2006). Contextualizing salutogenesis and Antonovsky in public health development. *Health Promotion International*, 21/3, 238–244. <https://academic.oup.com/heapro/article/21/3/238/559289?login=false>
- Litzke, S. M. & Schuh, H. (2007). *Stres, mobbing i wypalenie zawodowe*. Gdańsk: GWP.
- Liu, M. Y., Li, N., Li, W. A. & Khan, H. (2017). Association between psychosocial stress and hypertension: a systematic review and meta-analysis. *Neurological Resources*, 39(6), 573–580. <https://doi.org/10.1080/01616412.2017.1317904>
- Livneh, H., Livneh, C. L., Maron, S. & Kaplan J. A. (1996). Multidimensional approach to the study of the structure of coping with stress. *The Journal of Psychology*, 30, 501–12. <https://doi.org/10.1080/00223980.1996.9915017>
- Łodzińska, J. (2013). *Stres zawodowy narastającym zjawiskiem w miejscu pracy*. Warszawa: Uniwersytet Kardynała Stefana Wyszyńskiego w Warszawie, 161–162.
- Łosiak, W. (2008). *Psychologia stresu*. Warszawa: Wydawnictwa Ekonomiczne Profesjonalne.
- Mack, O. & Khare, A. (2016). *Perspectives on a VUCA World*. [In:] O. Mack, A. Khare, A. Krämer, T. Burgartz (eds.) *Managing in a VUCA World*. London: Springer, Cham-Heidelberg, 5–6.
- Markovic, J. & Jovic, J. (2023). Types of stressors and their influence on human capital in the gaming industry. *Sociologija*, LXV(3), 458–477. <https://doi.org/10.2298/SOC230201016M>
- Maslach, C. (2006). *Understanding Job Burnout. Stress and Quality of Working Life: Current Perspectives in Occupational Health*. Greenwich: Information Age Publishing, 37–51.
- Maslach, C. (2010). *Wypalenie – w perspektywie wielowymiarowej*. [In:] H. Sęk (ed.) *Wypalenie zawodowe. Przyczyny i zapobieganie*. Warszawa: Wydawnictwo Naukowe PWN, 13–31.

- Melamed, S., Ben-Avi, I., Luz, J. & Green, M.S. (1995). Objective and subjective work monotony: effects on job satisfaction, psychological distress and absenteeism in blue-collar workers. *Journal of Applied Psychology*, No. 80. <https://doi.org/10.1037/0021-9010.80.4.538>(Not accessible as of [2024/06/14])
- Merecz, D. (2011). *Profilaktyka psychospołecznych zagrożeń w miejscu pracy – od teorii do praktyki*. Podręcznik dla psychologów. Instytut Medycyny Pracy im. prof. J. Nofera, Łódź, 37–38.
- Meurs, J. A. & Perrewé, P. L. (2011). Cognitive activation theory of stress: an integrative theoretical approach to work stress. *Journal of Management*, 37(4), 1043–1068. <https://doi.org/10.1177/0149206310387303>
- Michael, O., Court, D. & Petal, P. (2009). Job stress and organizational commitment among mentoring coordinators. *International Journal of Educational Management*, 23, 266–288. <https://doi.org/10.1108/09513540910941766>
- Michie, S. & Williams, S. (2003). Reducing work related psychological ill health and sickness absence. A systematic literature review. *Occupational and Environmental Medicine*, 60, 3–9. <https://doi.org/10.1136/oem.60.1.3>
- Młokosiewicz, M. (2018). Stres w miejscu pracy a potencjał pracowników. *Studia i prace WNEIZ US, nr 51/2*, 239. <https://doi.org/10.18276/sip.2018.51/2-20>
- Molek-Winiarska, D. (2011). *Skutki stresu zawodowego*. [In:] Z. Janowska (ed.) *Dysfunkcje i patologie w sferze zarządzania zasobami ludzkimi*. Łódź: Wydawnictwo Uniwersytetu Łódzkiego, 312.
- Moos, J. E. & Schaefer, J. A. (1993). Coping resources and process: current concepts and measures. [In:] L. Goldberg, S. Breznits (eds.) *Handbook of Stress: Theoretical and Clinical Aspects*. New York: The Free Press, 234–257.
- Moreira, A., Encarnação, T., Viseu, J. & Au-Yong-Oliveira, M. (2023). Conflict (work-family and family-work) and task performance: the role of well-being in this relationship. *Administrative Sciences*, 13, 94. <https://doi.org/10.3390/admsci13040094>
- Nappo, N. (2020). Job stress and interpersonal relationships cross country evidence from the EU15: a correlation analysis. *BMC Public Health*, 20, 1143. <https://doi.org/10.1186/s12889-020-09253-9>
- Nazareno, L. & Schiff, D. S. (2021). The impact of automation and artificial intelligence on worker well-being. *Technology in Society*, 67, 101679. <https://doi.org/10.1016/j.techsoc.2021.101679>
- Nguyen, T. D. & Nguyen, T. T. (2012). Psychological capital, quality of work life, quality of life of marketers: evidence from Vietnam. *Journal of Macromarketing*, 32(1), 87–95. <https://doi.org/10.1177/0276146711422065>
- Nieckarz, Z. (2014). *Stres i efektywność pracy menedżera*. [In:] T. Konieczny (ed.) *Stres w organizacji*. Gdańsk: Harmonia Universalis, 63–82.
- Noblet, A. & LaMontagne, A. D. (2006). The role of workplace health promotion in addressing job stress. *Health Promotion International*, 21, 346–353. <https://doi.org/10.1093/heapro/dal029>
- Nyberg, A., Leineweber, C. & Magnusson Hanson, L. (2015). Gender differences in psychosocial work factors, work-personal life interface, and well-being among Swedish managers and non-managers. *International Archives of Occupational and Environmental Health*, 88(8), 1149–1164. <https://doi.org/10.1007/s00420-015-1043> (Not accessible as of [2024/06/14])

- Ochyra, I. (2012). *Kompetencje psychospołeczne pełnomocnika i menedżera*. Warszawa: Wydawnictwo Wiedza i Praktyka Sp. z o.o.
- Ogińska-Bulik, N. (2006). *Stres zawodowy w zawodach usług społecznych. Źródła – konsekwencje – zapobieganie*. Warszawa: Difin Sp. z o.o.
- Ogińska-Bulik, N. & Juczyński, Z. (2008). *Osobowość, stres a zdrowie*. Warszawa: Difin Sp. o.o.
- Oktan, V. (2021). The roles of coping with stress and emotional regulation in predicting self-injurious behaviours among adolescents in Turkey. *British Journal of Guidance & Counselling*, 49(3), 456–467. <https://doi.org/10.1080/03069885.2020.1792829>
- Olynick, J. & Li, H. Z. (2020). Organizational culture and its relationship with employee stress, enjoyment of work and productivity. *International Journal of Psychological Studies*, 12(2), 14–30. <https://doi.org/10.5539/ijps.v12n2p14>
- Omrane, A., Kammoun, A. & Seaman, C. (2018). Entrepreneurial burnout: causes, consequences and way out. *FIIB Business Review*, 7(1), 28–42. <https://doi.org/10.1177/23197145187678050>(Not accessible as of [2024/06/14])
- Onesti, G. (2023). Exploring the impact of leadership styles, ethical behavior, and organizational identification on workers' well-being. *Administrative Sciences*, 13, 149. <https://doi.org/10.3390/admsci13060149>
- Ortego, G., Villafaña, J. H., Doménech-García, V., Berjano, P., Bertozzi, L. & Herrero, P. J. (2016). Is there a relationship between psychological stress or anxiety and chronic nonspecific neck-arm pain in adults? A systematic review and meta-analysis. *Journal of Psychosomatic Research*, Nov. 90, 70–81. <https://doi.org/10.1016/j.jpsychores.2016.09.006>
- Oruh, E. S. & Dibia, C. H. (2020). Employee stress and the implication of high-power distance culture: empirical evidence from Nigeria's employment terrain. *Employee Relations: The International Journal*, 42(6), 1381–1400. <https://doi.org/10.1108/ER-11-2019-0425>
- Parslow, R. A., Jorm, A. F., Christensen, H., Rodgers, B., Strazdins, L. & D'Souza, R. M. (2004). The associations between work stress and mental health: a comparison of organizationally employed and self-employed workers. *Work & Stress*, 18(3), 231–244. <https://doi.org/10.1080/14749730412331318649>
- Penc, J. (2000). *Menedżer w uczącej się organizacji*. Łódź: Wydawca Menadżer.
- Perdeus, W. & Rożnowski, B. (1998). *Personalne ABC menedżera*. Warszawa: Wydawnictwo Verlag Dashöfer.
- Perrewé, P. L. & Gangster, D. C. (2006). *Zdrowie pracowników*. Wydawnictwo Emerald Group, 265.
- Pines, A. M. & Keinan, G. (2005). Stress and burnout: the significant difference. *Personality and Individual Differences*, 39(3), 625–635. <https://doi.org/10.1016/j.paid.2005.02.009>
- Pocztowski A. (2003). *Zarządzanie Zasobami Ludzkimi*. Warszawa: PWE.
- Poprawa, R. (2001). *Zasoby osobiste w radzeniu sobie ze stresem*. [In:] H. Sęk (ed.) *Wypalenie zawodowe. Przyczyny i zapobieganie*. Warszawa: Wydawnictwo Naukowe PWN, 32–57.
- Rabenu, E., Yaniv, E. & Elizur, D. (2017). The relationship between psychological capital, coping with stress, well-being, and performance. *Current Psychology: A Journal for Diverse Perspectives on Diverse Psychological Issues*, 36(4), 875–887. <https://doi.org/10.1007/s12144-016-9477-4>.

- Ratajczak, Z. (1994). *Wsparcie społeczne w środowisku pracy a stres i jego skutki zdrowotne*. [In:] Z. Ratajczak (ed.) *Psychologiczna problematyka wsparcia społecznego i pomocy*. Katowice: Wyd. UŚ, 57–63.
- Rauch, A., Fink, M. & Hatak, I. (2018). Stress processes: an essential ingredient in the entrepreneurial process. *Academy of Management Perspectives*, 32(3), 340–357. <https://doi.org/10.5465/amp.2016.0184>
- Report: State of the Global Workplace 2023.
- Reykowski, J. (1966). *Funkcjonowanie osobowości w warunkach stresu psychologicznego*. Warszawa: Państwowe Wydawnictwo Naukowe.
- Robbins, S. P. & Judge, T. A. (2012). *Zachowania w organizacji*. Warszawa: Polskie Wydawnictwo Ekonomiczne.
- Romanowska, M. (2009). *Planowanie strategiczne w przedsiębiorstwie*. Warszawa: Polskie Wydawnictwo Ekonomiczne.
- Roming, S. & Howard, K. (2019). Coping with stress in college: an examination of spirituality, social support, and quality of life. *Mental Health, Religion & Culture*, 22(8), 832–843. <https://doi.org/10.1080/13674676.2019.1674794>
- Rubio, C., Osca, A., Recio, P., Urien, B. & Peiró, J. M. (2015). Work-family conflict, self-efficacy, and emotional exhaustion: a test of longitudinal effects. *Journal of Work and Organizational Psychology*, 31(3), 147–154. <https://doi.org/10.1016/j.rpto.2015.06.004>.
- Rudland, J. R., Golding, C. & Wilkinson, T. J. (2020). The stress paradox: how stress can be good for learning. *Medical Education*, 54, 40–45. <https://doi.org/10.1111/medu.13830>
- Rudland, J. R. & Wilkinson, T. J. (2018). When I say ... stress. *Medical Education*, 52(7), 692–693. <https://doi.org/10.1111/medu.13520>
- Salami, S. O. (2010). Job stress and counterproductive work behaviour: negative affectivity as a moderator. *The Social Sciences*, 5(6), 486–492. <https://doi.org/10.3923/SSCIENCE.2010.486.492>
- Salanova, M., López-González, A. A., Llorens, S., Del Libano, M., Vicente-Herrero, M. T. & Tomás-Salvá, M. (2016). Your work may be killing you! Workaholism, sleep problems and cardiovascular risk. *Work Stress*, 30(3), 228–242. <http://dx.doi.org/10.1080/02678373.2016.1203373>
- Sapolsky, R. M. (2012). *Dlaczego zebry nie mają wrzodów? Psychofizjologia stresu*. Warszawa: Wydawnictwo Naukowe PWN.
- Sęk, H. (2002). *Potoczna wiedza o stresie a naukowe koncepcje stresu i radzenia sobie*. [In:] I. Heszen-Niejodek (ed.) *Teoretyczne i kliniczne problemy radzenia sobie ze stresem*. Poznań: Stowarzyszenie Psychologia i Architektura, 15–36.
- Sęk, H. (2005). *Psychologia kliniczna*, vol. 1. Warszawa: PWN, 35.
- Selye, H. (1963). *Stress życia*. Warszawa: Wydawnictwo Lekarskie PZWL, 168.
- Selye, H. (1974). *Stress without Distress*. Philadelphia: J.B. Lippincott.
- Selye, H. (1978). *Stres okiełznany*. Warszawa: Wydawnictwo Państwowy Instytut Wydawniczy, 125.
- Sonnentag, S. & Frese, M. (2012). *Stress in organizations*. [In:] W. C. Borman, D. R. Ilgen, R. J. Klimoski (eds.) *Comprehensive Handbook of Psychology*, Vol. 12. Hoboken, NJ: Wiley: Industrial and Organizational Psychology, 453–491.
- Sonnentag, S. & Fritz, C. (2015). Recovery from job stress: the stressor-detachment model as an integrative framework. *Journal of Organizational Behavior*, 36(S1), 72–103. <https://doi.org/10.1002/job.1924>

- Sonwane, P., Bhalerao, P. & Joshi, M. (2021). Job stress (causes, impacts, and management): a case study of employees working in Kavayitari Bahinabai Chaudhari north Maharashtra University. *International Journal of Creative Research Thoughts*, 9(10), 108–114.
- Starowicz, A. (2003). *Osobowość a radzenie sobie ze stresem w pracy*. [In:] S. A. Witkowski (ed.) *Psychologiczne wyznaczniki sukcesu w zarządzaniu. Tom VI*. Wrocław: Wydawnictwo Uniwersytetu Wrocławskiego, 371–381.
- Stephan, U. (2018). Entrepreneurs' mental health and well-being: a review and research agenda. *Academy of Management Perspectives*, 32(3), 290–322. <https://doi.org/10.5465/amp.2017.0001>
- Stoner, J. A. F., Freeman, R. E. & Gilbert D. R. (1997). *Kierowanie*. Warszawa: PWE.
- Strelau, J. (1985). *Temperament, osobowość, działanie*. Warszawa: PWN.
- Strelau, J. (2007). *Psychologia*. Podręcznik akademicki, vol. 2 i 3. Gdańsk: GWP.
- Syed, F., Naseer, S. & Bouckenoogheb, D. (2021). Unfairness in stressful job environments: the contingent effects of perceived organizational injustice on the relationships between job stress and employee behaviors. *The Journal of General Psychology*, 148(2), 168–191. <https://doi.org/10.1080/00221309.2020.174796> (Not accessible as of [2024/06/14])
- Szaban, J. M. (2007). *Zachowania organizacyjne. Aspekt międzykulturowy*. Wydawnictwo Adam Marszałek, Toruń.
- Szostak, J. (2009). *Determinanty zachowań menedżerów w chronicznym stresie zawodowym*. Warszawa: Difin SA.
- Tavakoli, M. A. (2010). Positive approach to stress, resistance, and organizational change. *Procedia—Social and Behavioral Sciences*, 5, 1794–1798. <https://doi.org/10.1016/j.sbspro.2010.07.366>
- Terelak, J. F. (1995). *Stres psychologiczny*. Bydgoszcz: Wydawnictwo Branta.
- Terelak, J. F. (1999). *Psychologia menedżera*. Warszawa: Difin Sp. z o.o.
- Terelak, J. F. (2001). *Psychologia stresu*. Bydgoszcz: Oficyna Wydawnicza Branta.
- Terelak, J. (2004). *Stres organizacyjny*. Warszawa: Wydawnictwo WSM-SIG.
- Thanki, R. & Pestonjee, D. M. (2022). Mediating effect of psychological well-being in the relationship between spiritual climate and role stress among working professionals. *Mental Health, Religion & Culture*, 25(8), 774–788. <https://doi.org/10.1080/13674676.2022.2108012>
- Thomas, B. J., Khalil, T. & AIDarwashi, R. J. (2022). Do occupational stress affect employee performance? The case of middle east organizations. *Eurasian Journal of Business and Management*, 10(4), 222–238. <https://doi.org/10.15604/ejbm.2022.10.04.003>
- Tomaszewski, T. (1975). *Człowiek i otoczenie*. [In:] T. Tomaszewski (ed.) *Psychologia*. Warszawa: PWN, 13–36.
- Tucholska, S. (2009). *Wypalenie zawodowe u nauczycieli. Psychologiczna analiza zjawiska i jego osobowościowych uwarunkowań*. Lublin: Wydawnictwo KUL.
- Uen, J., Wu, T. & Huang H. (2009). Young manager's interpersonal stress and its relationship to management development practices: an exploratory study. *International Journal of Training and Development*, 13(1), 38–52. <https://doi.org/10.1111/j.1468-2419.2008.00314.x>
- Wang, Y., Huang, O., Davison, R. M. & Yang, F. (2021). Role stressors, job satisfaction, and employee creativity: the cross-level moderating role of social media use

- within teams. *Information & Management*, 58, 103317. <https://doi.org/10.1016/j.im.2020.103317>
- Wang, W. & Seifert, R. (2021). Job stress and employee outcomes: employment practices in a charity. *Employee Relations: The International Journal*, 43(5), 1178–1193. <https://doi.org/10.1108/ER-05-2020-0242>
- Wang, Z., Xu, H. & Song, M. (2021). Exploring how and when ethical conflict impairs employee organizational commitment: a stress perspective investigation. *Business Ethics: A European Review*, 30, 172–187. <https://doi.org/10.1111/beer.12324>
- Wilisz, J. (2009). *Teoria pracy*. Kraków: Oficyna Wydawnicza “Impuls”.
- Wrześniewski, K. (2000). *Style i strategie radzenia sobie ze stresem. Problemy pomiaru*. [In:] I. Heszen-Niejodek, Z. Ratajczak (eds.) *Człowiek w sytuacji stresu*. Katowice: Wydawnictwo Uniwersytetu Śląskiego, 44–64.
- Wziątek-Staśko, A. (2016a). *Motywowanie w erze Web 2.0+*. Warszawa: CeDeWu.
- Wziątek-Staśko, A. (2016b). Model kultury organizacyjnej a zjawisko stresu w pracy-studium badawcze. *Marketing i Rynek*, PWE, Warszawa, nr 3, 1083–1098.
- Wziątek-Staśko, A. (2022). Neuroprzywódtwo-nowy wymiar zarządzania w erze cyfryzacji. *Zarządzanie Zasobami Ludzkimi*, nr 146–147(3–4), 10–22. <https://doi.org/10.5604/01.3001.0015.9571>
- Wziątek-Staśko, A., Michalik, I. & Vveinhardt, J. (2023). Organizational commitment in the assessment of employees of different generations – a research study. *European Research Studies Journal*, XXVI(3), 534–555. <https://doi.org/10.35808/ersj/3230>
- Wziątek-Staśko, A. & Pobiedzińska, K. (2023). Trust in managers in SME organizations undergoing digitization. *International Journal of Contemporary Management*, 59(4), 94–111. <https://doi.org/10.2478/ijcm-2023-0014>
- Yeardley, T. (2023). Being rather than becoming managers: dilemmas facing event first level managers. *Event Management*, 27, 745–761. <https://doi.org/10.3727/152599523X16836740488004>
- Yong, L., Hu, X., Huang, X., Zhuang, X., Guo, P, et al. (2017). The relationship between job satisfaction, work stress, work–family conflict, and turnover intention among physicians in Guangdong, China: a cross-sectional study. *BMJ Open*, 17(5). <https://doi.org/10.1136/bmjopen-2016-014894>
- Younghwan, S. & Jia, G. (2020). Does telework stress employees out? A study on working at home and subjective well-being for wage/salary workers. *Journal of Happiness Studies*, 21, 2649–2668. <https://doi.org/10.1007/s10902-019-00196-6>
- Zimbardo, P. G. & Ruch, F. (1999). *Psychologia i życie*. Warszawa: PWN.

3 Faces of conflict in the organization

Disputes, misunderstandings, arguments, conflicts are concepts that inspire deep-seated considerations. If there were no causes, there would be no conflicts. The truth is quite obvious but extremely difficult to operationalize. This affects a human being as an entity that is the source of the conflict. A human being is also the one who often pays a very high price for participating in conflicts with “many faces and shades”. Conflict is an inevitable phenomenon that is both the cause of stress and one of its effects. Conflict is a category that intrigues everyone because everyone, sooner or later, becomes its subject. This chapter highlights the origins of the conflict and draws attention to the richness of its sources and types. A number of conflict classifications were reviewed, highlighting various criteria for their diversification. An important place in this part of the research is devoted to the role of emotions as determinants of behaviour in conflict situations and the presentation of a wide range of conflict resolution methods (from classic methods to innovative and quite non-obvious ones including *silence*).

3.1 Conflict as a research category – in the thicket of different perspectives

Conflict, like *stress*, belongs to research categories with many colours. The variety of causes of conflicts, their varieties and consequences make this category ambiguous, and therefore difficult to explore and, as it is believed, inevitable. The modern world, subject to globalization processes and diverse in terms of culture, ethnicity, religion, economics, politics and education, is full of conflicts of a global, regional, social, organizational and interpersonal nature. Human life and the existence of social groups appear as existential challenges, and freedom from threats, perceived as the result of proper conflict management, gives a sense of security, i.e. goodness, conditioning development (Kryza 2014, 32). Knowledge about conflicts and their mechanisms is a valuable competence in today’s troubled world, both in intra-organizational and extra-organizational relationships.

In the opinion of many researchers, conflict is an immanent feature of interpersonal relationships, with deep historical roots. T. Hobbes believed that conflict is in human nature, that each individual is egoistic, hence the war of everyone against everyone is common. To avoid situations leading to anarchy, one must submit to the authority of the sovereign, then conflicts can be controlled. According to Hobbes, this state of affairs resulted from human's concern for preserving life and striving for a state of security (Hobbes 1954). I. Kant held the view that history is a series of constant and cruel conflicts. He believed that only the power of human reason can make the world a better place, lead to the happiness of societies and individuals, and achieve a civil society governed by law. Conflicts are a historical category, an immanent feature of interpersonal relations, they are important in understanding the non-materialistic concept of history according to G.W. Hegel, based on the "struggle for recognition" (Fukuyama 2009). Human, as a thinking being, was able to rise above the instinct of self-preservation and security and expects higher values in the form of respect and recognition. This leads them to a conflict over respecting humanity with another person, whom they want to make dependent on themselves. This is how relationships of dependency were created including slavery, serfdom, and then possession, power, which generated conflicts between individuals and social groups. Recognition and respect depended on the ability to manage conflicts, which was also emphasized by Plato, a famous Greek philosopher, who emphasized the importance of self-esteem, ambition and recognition. According to him, people have intrinsic value, and when someone denies them this or perceives their value lower, they experience feelings of anger, which easily leads to conflict. Stormy discussions on the role of *recognition* in the process of generating conflicts were held by many thinkers, for example F. Nietzsche, who questioned the role of democracy in the process of reducing the number of conflicts and indicated it only as a tool useful in the process of creating a new model of conflict management, which will take into account the equality of the parties and in which struggle will not be a method of solving them (Nietzsche 1996, 2017), or T. Parsons, who proclaimed that democracy was the "evolutionary universal" of all societies. Only democracy can mediate in developing a consensus in the exercise of power and thus be a tool in the management process of conflicts (Parsons 1964, 355–356). However, in his opinion, democracy is not an effective tool in dealing with cultural, religious and national conflicts. These have historical roots, and their management is difficult, consisting more in mitigating crisis situations than striving to solve them. Scientific progress, especially the development of natural sciences, was important for understanding the essence of conflicts as a historical category. It led to creation of new technologies to serve people, but also of those that allowed one to dominate over the other, being an element of the fight for recognition. One of those technologies is attributed to military competition combined with an arms race. The threat of force and war is a serious tool for managing

contemporary conflicts and stimulates social, political and economic changes (Kryza 2014, 34–35).

Sociologists also took part in the discussion on conflict theory. One of the basic paradigms in sociology refers to conflict theories understood as a set of theoretical approaches emphasizing social conflict. They stand in opposition to functionalism, which ignored that problem. All theories of conflict see its sources in generally understood inequality. They indicate that societies are active according to the principle of subordinating some social groups to other groups. This relationship is consolidated by the legal system and social awareness. This situation creates a sense of injustice, which is why oppressed groups strive to change the situation, and dominant groups work to maintain the existing situation (Giddens 1998). Conflict theories try to explain the conflict-generating effects of social inequalities in interpersonal relationships. Awareness of inequalities leads to tensions, which in turn constitute the genesis of social conflicts. Conflicts can manifest themselves in various forms: from wars through riots, protests, strikes, demonstrations, aggression of the poor against the rich, women against men, disputes between employees and employers, etc. Conflict theories emphasize competition between elements of the social structure (Giddens 1998). The origins of conflict theories go back to the 19th century Darwinian concepts (the theories of K. Darwin and G. Ratzenhofer), but they mainly come from the thoughts of K. Marx, M. Weber and G. Simmel. To this day, the theories of those thinkers provide inspiration for contemporary conflict orientations. According to K. Marx, conflict is the essence of social systems and manifests itself in the polarization of opposing interests of the main forces of the system. K. Marx noticed that the inequality of the distribution of goods in the system led to a conflict of interests between the dominant and subordinate communities (Marks 1959). M. Weber made the emergence of a conflict situation dependent on “charismatic leaders” who could mobilize subordinated communities to act (Weber 1946). According to G. Simmel, social conflict occurs when there is a lack of agreement on fundamental values, group goals, interests and it is not dysfunctional. Conflict has positive functions because it leads to social transformations in a progressive direction. Simmel stated that the level of violence of the conflict depends on the emotional involvement of the members of the conflicting communities and on whether it is of a supra-individual nature and concerns values. It also depends on the degree of instrumentality of the conflict and on whether the goals that the conflicting communities want to achieve are defined. According to G. Simmel, conflict makes the boundaries of groups clear, leads to centralization of dominion and power, reduces tolerance for deviations and divergence of views, favouring their uniformity, and leads to an increase in internal solidarity among members of each side of the conflict (Simmel 1975).

The first modern theory of conflict was provided by the dialectical theory of R. Dahrendorf, in opposition to the functionalism of T. Parsons, who proposes a completely contradictory static vision of society. According to R. Dahrendorf,

society has the face of conformity and conflict, the sources of which he sees in the social structure, pointing to imbalance and the distribution of authority as the main sources. R. Dahrendorf is a supporter of the coercive theory of society, according to which all societies, at all times, are subject to processes of change. Discord and conflict are hallmarks of societies, and social conflict is ubiquitous. Every social element influences changes and disintegration of society, and every social structure is based on the coercion of some of its members towards others. According to this theory, the source of social cohesion is authority and the related coercion. As a result, two different interest groups emerge. Contradiction of interests generates conflicts, and their intensity depends on the amount of energy and the costs of victory or defeat of the parties involved. Regulation of conflict is possible when its entities are organized and there is agreement on the formal rules of the game. According to R. Dahrendorf, conflict leads to a change in the social structure in three ways: through the exchange of power elites, partial exchange of elites and structural changes in a manner consistent with the aspirations of the subordinated party (Dahrendorf 1967). Many contemporary conflicts take place according to the scenario proposed by R. Dahrendorf.

L.A. Coser was also a critic of T. Parsons' functionalism. In his opinion, conflict occurs when the legitimacy of relationships is questioned and when we are dealing with relative deprivation in relation to reference groups. The intensity of the conflict is related to the type of relations between the antagonized parties. The more personal and primary they are, the more intense the conflict is. The violence of a conflict depends on its degree of reality and on the available alternatives to its resolution. The more possibilities, the lower the degree of violence. According to L.A. Cosera, conflict generates consequences for both the parties and the entire system. It contributes to group integration, confirms existing norms and influences the creation of new ones. Social systems respond to conflict differently; in flexible systems it is much easier to relieve tension and achieve balance. In rigid systems it is more difficult to eliminate antagonisms due to ossification of the system that creates conditions for accumulation of hostility along one dividing line (Coser 2009).

A different view of civilization development and conflict-generating processes is represented by A. Toffler in his concept of the third wave of civilization development (Toffler 1997, 1998, 2003). Toffler is interested in the present, and even more in the future. He is particularly focused on the pace of change. It is possible to state that, compared to the changes of the industrial revolution, contemporary technological changes creating the information society have a pace that can be compared to geometric progress. Civilization and technological progress give the conflict a different character than before. Methods of managing conflict situations are influenced by knowledge, scientific, technological and economic progress, the level of education of the society, standard of living, fair distribution of goods, etc. Conflicts occur in almost all areas of social life. Most of us know that conflicts arise between family members, neighbours, on

playgrounds, in classrooms, on the school playground, in the ballet troupe, scout troop, etc. Later, even though the relationships we enter into become more complex and the social situations we engage in become more diverse, we notice that the conflicts remain remarkably similar to those we experienced in childhood. Some argue that our early experiences even shape the way we engage in conflict throughout later life. As adults, we encounter conflicts both in everyday situations in our professional lives and in emotionally charged close relationships. We find them in intimate friendships and political rivalries, in interactions in groups that make shared decisions, in small businesses, in large companies, in church organizations and in medical practices. In all this diversity of conflicts, we are most often interested in what is at stake in each of those conflicts (Folger et al. 2005, 469). The genesis of the conflict forces us to look at this research category as extremely multidimensional, which opens up space for its further exploration.

3.2 Conflict – essence and types

Conflict has accompanied humanity since the dawn of time and is a permanent element of the human condition. This seems to have two causes. Firstly, as Aristotle already noted, human is a social being – they can only exist as participants in human groups and communities that determine the way they understand and experience their world and life. Human is irrevocably dependent on other people, the results of their individual actions always depend on what other people think, feel and do. Secondly, people differ – in interests, needs, values, views, ways of understanding the world and their own and other people's behaviour. This interdependence of people, combined with the diversity of their aspirations, determines the inevitability of conflict. Conflict is a common and inevitable phenomenon in all societies and in all relationships, constituting one of the basic forms of mutual interaction between both individuals and social groups. It is often claimed that conflicts occupy human minds more than any other topics, except God and love (Kłusek-Wojciszke 2020, 9 after: Robbins 2004, 308). Already in 1986, D. Pruitt and J. Rubin, in the introduction to their book "Social Conflict. Escalation, Stalemate and Settlement" they wrote that: "they put off writing it for eight years because they could not agree on the definition of conflict" (Kłusek-Wojciszke 2020 after: Rummel-Syska 1990).

There are many different definitions of *conflict* in the literature on the subject (Lafta 2016). This concept is described by representatives of sociological sciences, lawyers, political scientists, sociologists, educators and psychologists. It is also explored by economists, philosophers (Platon 1994) and management specialists. All of them, perceiving the conflict through the prism of the needs of their field of science, define it in many different ways. Within international relations, conflict is defined as political, military and economic activities aimed at imposing one's own reasons and beliefs. In sociological terms, we are talking

about social conflicts that occur when the interests of people or social groups collide (Sztumski 2000). Even within psychology itself, there is no unanimity on this issue – definitions of conflict differ significantly depending on what the main interest of their creators is. Some authors focus on the causes of conflict, describing it as a phenomenon resulting from actual differences between people (Block 2013). Others focus on the psychological attitude of the parties. According to this approach, a conflict occurs when one party strives to achieve goals whose implementation excludes the achievement of the goals assumed by the other party, which causes mutual hostility (Likert and Likert 1976). There is often no epistemological, apart from conventional, solution to the question of whether the issue of the conflict belongs to one or some other field of knowledge. Many definitions blur the boundaries between *conflict* and other similar concepts, such as competition, aggression, domination, rivalry or antagonism. Another, equally important reason for the difficulties in precisely understanding the essence of the conflict seems to be the fact that some researchers take into account the temporal aspect of the conflict. Others, however, do not take it into account at all, which significantly affects the definition of what a conflict is: a process or a state. The multitude of different definitions obscures the meaning of the concepts used, and incompatible or even mutual contradictions between them cause theoretical confusion (Kłusek-Wojciszke 2020, 14).

The word *conflict* comes from the Latin language (Latin *conflictus* – “clash”) and means “contradiction of interests, views, inconsistency, dispute, quarrel, collision, (...) simultaneous occurrence of at least two unsatisfied and contradictory needs (motives) that simultaneously stimulate and inhibiting the functioning of the individual” (Słownik Wyrazów Obcych 1995, 582). A conflict is a contradiction or at least inconsistency of beliefs, intentions or actions, a contradiction that disturbs someone in something – and as such – requires the removal or weakening of its negative effects (Sikorski 2005, 36). According to other authors, it is the interaction of interdependent people who believe that they have incompatible goals and that they perceive each other as obstacles to achieving those goals (Hocker and Wilmot 1985). In the above definition, the authors pay special attention to the concept and role of *interaction* as a key element in a conflict situation. Conflict interaction is characterized by *the interdependence of the parties*. Conflict can only arise when the behaviour of one party has consequences for the other party. Mutual dependence has other consequences: when parties are dependent on each other, they can both help and hinder each other. For that reason, conflicts are always characterized by a mixture of cooperative and competitive tendencies. According to J. Stoner and Ch. Wankel, conflict is “a disagreement between two people or more members or groups resulting from the need to share limited resources or work or to occupy different positions, goals, values or perceptions”. During a dispute, members or departments of an organization strive for their cause or point of view to prevail over the cause or point of view of others (Stoner and Wankel 1997, 329).

T. Pszczołowski emphasizes that the condition for a conflict to occur is not only the inconsistency itself, but also its disclosure. Conflict is therefore a conscious state in which the conflicting parties remain. Awareness of a particular type of contradiction does not mean that it occurs in an objective sense. It may as well be imaginary, which does not prevent the development of a conflict situation (Pszczołowski 1978). The view expressed by the author seems extremely interesting and directs attention to new areas of analysis of conflict issues.

J. Mucha distinguishes the following three meanings of conflicts (Mucha 1978):

- *incompatibility* – that is, the mutual exclusion of certain goals,
- *social action* – involving interactions such as fighting, competition, rivalry, etc.,
- *mental tension* – related to the feeling of antagonism between the parties.

As it can be seen, the meaning in the first approach connects the other two. In fact, becoming aware of inconsistency causes mental tension, which in turn prompts action aimed at eliminating the inconsistency or its effects. Conflict can be understood not only as a state, but also as a social process. In this case, four stages can be distinguished:

- *emergence of contradictions* – beliefs, intentions or actions between specific social entities,
- *becoming aware of those contradictions* by one or both parties to the conflict, which causes social tension,
- *taking action by the parties* to eliminate the contradictions,
- *assessment of the results of actions* by the parties to the conflict, as a result of which an agreement is reached, i.e. ending the conflict, suspending the conflict – i.e. postponing its resolution or continuing the conflict (Sikorski 2005, 37–38).

Taking into account the scope of meaning, it is possible to classify the definition of conflict, taking into account the following approaches: *strict* (narrow), *broad* and *psychological*. Broadly speaking, a characteristic feature of conflicts in the *strict* sense is the occurrence of actions directed directly against the rival. The *broad* approach puts particular emphasis on the state of contradiction and incompatibility of goals, while the *psychological* approach emphasizes the state of mental tension between the parties, characteristic of a conflict situation, most often expressed in hostility or open antagonism (Kłusek-Wojciszke 2020, 15). As R. W. Mack and R. C. Snyder note: “it is obvious that in most cases conflict is a malleable concept that is shaped and adjusted according to the intentions of its creator. In its broadest sense, it covers everything from war to the choice between fruit ice cream and vanilla ice cream” (Kłusek-Wojciszke 2020, 14).

Conflict is a concept categorized in many ways, taking into account various criteria. One of the most popular divisions of conflicts provides for the following criteria (Augustynek 2018, 218–219):

- *interpersonal* – a situation in which two or more people pursue conflicting goals because there is a conflict of interest between them,
- *group* – a situation of rivalry and competition characterized by the fact that the achievement of a certain value by one person or group of people precludes its achievement by the rival(s),
- *intrapersonal* – a situation in which two or more forces act on an individual simultaneously, motivating them to act differently and having similar intensity. This type of conflict has three varieties: “striving-striving” – there are two desired objects with a similar degree of attractiveness, but obtaining one of them precludes obtaining the other; “avoidance-avoidance” – a person must make a choice between two goals that have a negative value for them, and “pursuit-avoidance” – refers to situations in which one and the same object causes ambivalent reactions, i.e. at the same time arouses a propulsive tendency (to), as well as repulsive (from).

As a complement to the above classification, it is worth mentioning the conflicts identified between *an individual* and *a group* or between *a group* and *a group*, which are also not uncommon, and their occurrence can be very destructive for each party.

According to another classification, conflicts are divided into the following ones (Sikorski 2005, 38):

- *potential conflict* – in a situation where they stop only at the initial phase (the parties are unable to fully realize the existing contradiction or it is not significant for them),
- *real conflict* – covers all stages of a conflict situation, from the emergence of contradictions to the assessment of results.

Due to the emotional temperature of mutual relations between the parties to the conflict, researchers divide conflicts into (Fritchie, Leary 1999, 25):

- *chronic / cold* – are those accompanied by moderate emotions but persisting among the parties to the conflict for a long time. The relations between the parties are confrontational, but do not result in broader and decisive actions,
- *sharp / heated* – are those that are characterized by intensification of confrontational actions and are accompanied by strong emotions. Maintaining a state of strong emotional arousal for a long time is difficult, which is why acute conflicts are usually short-lived and turn into a chronic conflict phase.

Conflicts may also be (Sikorski 2005, 38):

- *open* – the parties to the conflict have no inhibitions about revealing the conflict situation in the environment and even look for its witnesses,
- *hidden* – the parties to the conflict try not to officially disclose the existing dispute to others. Sometimes they use indirect forms (spreading rumours, sending anonymous messages or other personal entertainment).

Another classification of conflicts, taking into account the way they are revealed, assumes their existence (Więcek-Janka 2006, 104):

- *hidden conflict* – which can be treated as a primary factor causing conflict-generating behaviour, manifesting itself in interpersonal misunderstandings, communication disruptions, etc.,
- *perceived conflict* – manifested by a sense of stress, emotional discomfort, perceived threat, etc.,
- *open conflict* – characterized by directed aggression, disruption of communication continuity, emotional assessment of the situation, etc.

And yet another one, taking into account the criterion of the form of the conflict, is proposed by J. Sikora (1998, 13), distinguishing the following conflicts:

- *open* – employees openly indicate the cause and purpose of the conflict (e.g. complaints, grievances, strikes),
- *hidden* – are visible indirectly and their causes are hidden (e.g. rumours, anonymous names, personal games),
- *organized* – carried out according to planned rules (e.g. strikes),
- *unorganized* – lively, spontaneous.

In the group of noteworthy classifications of conflict types there is also a division into the following (Deutsch 1973):

- *realistic* – arise due to inconsistencies as to the means of achieving the goal or as to the goals themselves. The interaction focuses on trying to remove nonconformities at all costs. These types of conflicts enable the use of a wide range of techniques, such as: force, negotiation, persuasion, voting, coercion, threat, sometimes relaxed communication or jokes,
- *unrealistic* – are an expression of aggression that is aimed solely at defeating or harming the other party. They are characterized by chronic, uncontrolled cycles of escalation of tension or long-term attempts to avoid fundamental issues and frequent changes in the direction of interactions.

Their variation is the classification proposed by J. Sikora (1998, 13) and the division into the following:

- *rational* – result from factual, rational bases, e.g. power, position, good,
- *irrational* – result from fictitious and apparent reasons, from suspicion, envy, and social stereotypes.

The types of conflicts also include (Więcek-Janka 2006, 103–104) the following:

- *objective* – result from a difference of opinion as to how to handle a matter and are of a non-personal nature,
- *emotional* – are the result of a specific emotional attitude in interaction with another person and are often irrational in nature.

Conflicts are distinguished according to the subject of the conflict:

- *economic* – result from the principles of division of labour, pay, and ownership relations,
- *social* – concern living conditions and working conditions,
- *organizational* – concern reporting relationships, positions, organizational units in the workplace,
- *competence* – result from the scope of authority, discrepancies in powers and official duties,
- *values and goals* – concern the motives, needs and interests of individuals.

One of the more famous classifications of conflicts is the approach proposed by Ch.W. Moore, in the form of the so-called *conflict circles* (Cybulko 2018, 89–91; Moore 1989, 4). The author divided the conflicts into the following five groups:

- *data conflict* – occurs when the parties have different information in the same field or evaluate the same data differently. Frequently, conflict participants are unable to agree on the facts. This happens when one or both parties have incorrect or incomplete information. This type of conflict is facilitated by the lack of communication between the parties or their mutual negative attitude. By not talking, assuming the interlocutor's bad will, the participants in the dispute deprive themselves of the opportunity to obtain information about what the other party knows in a given matter. When the parties do not trust each other and begin to accuse each other of consciously concealing or distorting information, the conflict may escalate,
- *relationship conflict* – involves a hostile attitude both towards the situation and towards the other party, who is perceived as the enemy. Resentment

between people may appear even when there are no conditions conducive to conflict. This conflict is often irrational and difficult to resolve. Problems in relationships often lead to further escalation of the conflict. This conflict may be accompanied by stereotypical perceptions of the other party, poor communication and retaliatory behaviour,

- *conflict of values* – may result from different value systems of the parties involved in a given situation and it concerns differences in the interpretation of good and evil, recognition and application of different rules of justice. Disputes about values arise when someone tries to impose their values on others or claims to have the only correct point of view that does not allow for any different beliefs. For this reason, discrimination and mobbing may occur. In the absence of tolerance and lack of respect for the values recognized by others, this conflict may contribute to antagonizing people and blocking further cooperation. This is a difficult conflict to resolve,
- *structural conflict* – results from the structure of the situation, which makes it impossible to meet the needs of the parties involved. The cause of this type of conflict are external factors, independent of the parties, e.g. limited resources (money, inappropriate technical equipment, time, organizational structure, lack of authorization to make decisions. It can be solved by changing the structure and making the conflict participants aware that the situation they are in results from objective, external factors that shape their situation in one way or another. It is important to understand that the conflict was not caused by the other party and has an external source (e.g. budget constraints requiring changes to existing plans, improvement of professional qualifications due to legal changes, etc.),
- *conflict of interest* – results from competition for certain goods or different needs of the parties. This conflict most often arises when one party wants to satisfy their needs at the expense of the other. Those needs may concern material interests (e.g. money, time, division of responsibilities and powers), procedural interests (e.g. how to solve problems, how to conduct conversations, participation in decision-making), psychological interests (e.g. self-esteem, dignity, respect, trust). Completion of interests is a condition of satisfaction. We are fully satisfied with the resolution of the conflict of interest when all types of needs are met.

The variety of conflict typologies is large, and it is not always easy to recognize which type we are dealing with. Many conflicts take place simultaneously on several levels. Some start from one source but expand to other areas over time. This regularity significantly complicates finding the actual source of the conflict and significantly impedes its effective resolution. Unfortunately, this is not made easier by certain specific psychological mechanisms responsible for the phenomenon of conflict escalation, as provided by by C.K. Oyster (2002, 277–279):

- *cognitive dissonance* – understood as the desire to restore the disturbed correspondence between one’s own attitude and beliefs and behaviour: when the party observes themselves and the amount of time devoted to convincing the other party to their arguments, they begin to strengthen their beliefs and confirm their own visions (“since I put so much time and energy into this conflict, it’s clearly worth it”),
- *commitment trap* – the more time, energy and resources a party invests in a conflict, the more difficult it is for them to withdraw or adopt a more conciliatory attitude,
- *taking care of saving face* – it is associated with both the inability to admit a mistake and the need to maintain the image of a competent person,
- *social norm of reciprocity* – ordering us to repay favours and pay back for harm done,
- *anger* – the negative emotions felt by the conflict participants cause a biased, non-objective perception of the opponent. These phenomena are accompanied by attributing all kinds of bad qualities to the opponent, which in some situations may lead to deindividuation – dehumanizing the opponent and treating them as an object,
- *perception distortions* – such as, for example, *the fundamental attribution error*, i.e. the tendency to look for the causes of other people’s behaviour in personal rather than situational conditions.

When a conflict escalates, the chances of the parties solving it on their own are radically reduced. The more rapid the escalation, the less motivation the parties have to find a common solution. The key issue in this aspect is the type of attitude of the parties to the conflict as to how to resolve the conflict (Bates et al. 2022). M. Deutsch (1973, 31) distinguishes the following two types of contexts in which conflict occurs:

- *cooperative context* – in which the parties are focused on finding an agreement,
- *competitive context* – in which the parties strive to defeat the opponent.

In the author’s opinion, every conflict leads, sooner or later, either to a constructive compromise or to a destructive fight. Conflicts conducted in a cooperative context can be divided into *disagreements* and *disputes*. However, the competitive context allows for the distinction between *competition* and *fight*.

A misunderstanding is characterized by the fact that the contradiction has not yet been clearly defined and therefore realized by the parties. The participants in this situation realize that something has appeared, and it bothers them and begins to divide them. Symptoms of this are increasingly frequent arguments and mutual accusations regarding various aspects of mutual relations.

A dispute means a conflict in which the contradiction between the parties is clearly stated. This allows for the assessment of the degree of compliance of the

parties' goals in a given case. If these goals are compatible and the contradiction concerns only the methods of achieving them, then the cooperative nature of the conflict encourages the parties to engage in some discussion or dialogue. However, if those goals turn out to be incompatible, the parties enter into negotiations to find a compromise solution.

When the parties to the conflict become aware of conflicting goals, they may decide to compete rather than cooperate. By choosing this solution, you may face competition or fight. *Competition* is characterized by the fact that the parties, striving to achieve incompatible goals, act in accordance with specific rules. This is primarily about compliance with generally recognized moral standards, i.e. the principles of decency and honesty, as well as legal provisions. In the event of a *fight*, at least one of the parties does not follow any rules in an attempt to defeat the opponent and achieve the intended goal. The choice of a specific argument or method of behaviour is determined solely by its effectiveness, not by moral, legal or, in the case of argumentation, even logical correctness. Everything that helps destroy the opponent, make them feel bad, show them contempt, offend them, morally disqualify them or ridicule them in the eyes of conflict observers is good (Sikorski 2005, 51–55). Regardless of whether we are dealing with a misunderstanding, a dispute, or their advanced form – a conflict, it is worth taking a closer look at what the original cause of the conflict was.

3.3 Multi-faceted sources of conflict

The category of *conflict* is associated with many definitional approaches. There are numerous classifications of conflict types, and the diversity of conflict sources confirms that exploring the issues related to this research category is a serious challenge. Cz. Sikorski distinguishes the following four basic groups of conflict sources:

- *cultural,*
- *structural,*
- *functional,*
- *personality related.*

Conflicts between ideological groups are most often cultural, between pragmatic groups – structural and functional, and between social groups – personality-based (Sikorski 2005, 38).

H.I. Tosii et al. (1994, 440), divide the causes of the conflict into the following three groups:

- *individual characteristics* – this group includes both cultural elements (values, attitudes, beliefs) as well as personality and features partially influenced by both cultural and personality conditions (needs, perception, judgements),

- *properties of the organizational structure* – this group includes specialization, differentiation, interdependence of tasks, goals, procedures, rules relating to the structural causes of conflicts,
- *situational forces* – this group includes intensity of interaction, need for consensus, communication, status differentiation and ambiguity of responsibility. The last two features should rather be classified as structural causes of conflicts.

The cultural causes of conflict may be direct or indirect. Cultural differences lead directly to conflict when we are dealing with incompatibility of values and social norms, and the parties are focused on “bearing witness to the truth” rather than seeking a compromise. They can also be an indirect cause of conflict when they relate to attitudes and behaviour. The clash of attitudes of people representing different cultural patterns in this area is a source of psychological discomfort associated with a sense of uncertainty in matters that have so far seemed obvious and natural. This causes difficulties in social communication and in agreeing on actions, which may lead to various conflicts.

The structural causes of conflict usually result from the position of competing parties in the organizational division of labour and power. Structural solutions contain plenty of potential sources of conflict. The division of work causes differences in the assessment of the attractiveness of the tasks received, their degree of difficulty and importance. The tasks assigned to someone may seem insignificant, too easy in relation to their qualifications, depreciating the position of the employee or team compared to others. Other times, tasks may seem like too much of a burden compared to the responsibilities of other organizational entities. Following the received tasks, the resources (people, technical means, time and money) allocated to their implementation and the possibility of supplementing them are assessed. This assessment is always made from the point of view of the fairness of the distribution of resources, the quantity of which is usually limited. An important place in this group of problems is occupied by the assessment of the position in the power structure and possibilities of its improvement, i.e. chances for promotion. In a situation of unclear distribution of responsibilities and rights, a feeling of discrimination and the need to defend one’s own position may arise, which may result in a conflict.

The functional causes of conflict are closely related to the structural ones, because they most often result from them. Functional causes most often concern processes that occur in the structure. Functional conflict appears as a result of interactions between employees and work teams when differences in goals and methods of achieving them are revealed, when one party encounters difficulties or even inability to achieve a given goal without changing the way the other party pursues its goal. The greatest risk of conflict occurs when they are alternative, i.e. when achieving the goal by one of the parties excludes the possibility of

achieving the goal by the other party. The group of functional causes of conflicts also includes communication difficulties resulting from different perceptual patterns, different assessment criteria and language habits, too far-reaching division of labour, a large number of levels of management, etc.

The personal causes of conflict are related primarily to mental defects (mental imbalance, excessive excitability), mental predispositions (impetuosity, egoism, tendency to dominate, pedantism), acquired experiences that result in overly aroused ambitions, frustration due to the inability to satisfy certain needs or a tendency to exaggerate certain preferences or dislikes.

Conflicts occurring in the organization have many sources. The most frequently discussed sources that partly confirm the above-mentioned sources and partly complement them, include the following (Bieniok 2005, 170–171; Deep et al. 2016; Dennis et al. 2023; Koppman et al. 2022; Palancı et al. 2021; Palmeira and Gunasti 2023; Saundry et al. 2021; Sikora 1998, 26):

- the need to share limited resources, e.g. financial resources, information, personnel,
- visible dominance of a certain group, e.g. the marketing department,
- existence of competing goals, interests or values (different e.g. for the supervisory board, management board, employees),
- giving orders to a group with a higher status by a group with a lower status,
- limiting group independence,
- imbalance in mutual dependencies (e.g. group A depends more on group B than group B depends on A),
- granting only selected groups the opportunity to work according to different rules (e.g. flexitime, production control rules),
- errors in the change management process in the organization,
- constructing unclear, ambiguous scopes of responsibility, competencies and tasks,
- work interdependence (e.g. working in the same room, with the same device, different preferences for room temperature, etc.),
- imperfections of the organizational structure,
- different views on the goals that should be achieved,
- differences in the choice of methods to achieve a specific goal,
- discrepancy regarding facts established by both parties,
- inconsistency in the perception of roles (who is responsible for what),
- faulty communication system, large variety of barriers in this process,
- ideological differences (views, attitudes, values),
- differences in personality traits (e.g. when a choleric has to deal with another choleric),
- negative emotions or traits and behaviours such as: envy, jealousy, intrigue, gossip, stubbornness, lack of good will, etc.

The sources of conflicts are inextricably linked to their types (Benitez et al. 2021; Leon-Perez et al. 2015, 2016; Okech et al. 2016). The types of conflicts and related sources most frequently identified in organizations include the following:

- internal conflict,
- conflict between the team and the superior,
- conflict between employees,
- conflict between teams,
- conflict between employee and supervisor,
- conflict between the individual and the team.

Regardless of which type of conflict we have in mind, it is worth remembering that the basic cause of conflicts, from which other reasons arise, is the *employee* – they are the main factor causing misunderstandings and they are responsible for disturbing harmony in the organization. The same individual, experiencing various types of frustration, becomes the subject of conflicts and enters into various types of interactions. Even their experience of internal conflict may become a determinant contributing to causing all the other types of conflicts mentioned above. Human is considered the root cause of conflict in the workplace. Understanding this is the key to success in managing conflict and, in turn, managing the organization as a whole (Aukštikalnytė 2021; Bugdol 2007, 67; Jaramillo et al. 2011). F. Bohm and S. Laurell (2004, 13) support the above view, stating that: “When a conflict arises, the person will be the centre of your interest. People are quite a difficult subject to analyse and draw accurate conclusions, especially when we are dealing with conflicts”. The reason for this is the advanced process of human development and the related complexity of human characters. As it turns out, not only a person’s character is an important determinant of their behaviour during stressful and conflict situations. Their personality is equally important, as emphasized by M. Kraczla (2023, 280–312), referring in his research to managers and their styles of behaviour in conflict situations.

Internal conflicts may be related to a state of frustration, the emergence of conflicting goals or the fulfilment of conflicting roles (Demirel and Erdirençelebi 2019, 1300–1316; Ghanem 2021, 117–129; Gibson et al. 2021; Holtgrave et al. 2020; Johnson and Avolio 2019; Klonek et al. 2023). Conflicts based on frustration appear when a person notices obstacles in achieving a specific goal. A sign of the experienced conflict between willingness and capabilities is the activation of defence mechanisms, such as aggression, withdrawal, fixation, as well as compromise consisting in accepting only partial implementation of the goal or its modification. As mentioned earlier, internal conflict can occur in three common situations. The first of them occurs when an individual is motivated to achieve two or more attractive, but mutually exclusive, goals. The second

situation is that the individual is motivated at the same time to achieve a given goal and to give up another one, because its implementation entails both positive and negative effects. In the third situation, the individual is forced to choose one of two or more goals whose consequences are unfavourable for them. Internal conflict, resulting from performing conflicting roles, may also occur in three varieties. Firstly, it may be a conflict between the person and the role, e.g. taking up a managerial position by a person who previously served as a subordinate. Secondly, there is a conflict between the actual way of performing a given role and the way expected by the environment. Thirdly, there is a conflict between roles that impose different requirements on the individual and which they must fulfil at the same time.

The conflict between an individual and a team is cognitively interesting. This type of conflict occurs when the interests of the individual are contrary to the interests of the group, and the individual has no intention of giving up their goals. This conflict becomes particularly intense when it comes to light that the individual tried to hide this contradiction by declaring subordination to the interests of the group. In reality, however, their actions were aimed at maximizing their own benefits to the detriment of the group. A seemingly egoistic attitude does not have to have only signs of cynicism. It may turn out that such behaviour was determined by the need for independence and experimentation, as well as the originality of goals. An individualistic attitude may become a source of conflict in relations with more conformist-oriented team members. The problem to be resolved is whether this individuality and independence are features that should be perceived as disadvantages that need to be eliminated in the organization, or as advantages that can be a valuable asset. However, only people with special personality traits can afford them, such as: high self-esteem, self-confidence, intelligence, originality of thinking, or the ability to cope with stressful situations.

Business practice is also not free from quite common conflicts between groups. F. Luthans (1995, 287) draws attention to the existence of the following four types of conflict situations in an organization:

- *hierarchical conflict* – the parties to this conflict are different levels in the organization's management hierarchy. The conflict usually concerns different expectations regarding the allocation of decision-making powers and access to information. The effects and manifestations of this type of conflicts include weakening official connections and identification with top-down decisions, inconsistency of requirements, escape from responsibility, inhibition of grassroots initiatives, development of informal relations, etc.,
- *functional conflict* – in which the divergence of interests of teams operating in different areas of the organization's activity is noted, such as: technical preparation of production, supply, production, finance, sales, etc. Goal conflicts are usually supported by communication difficulties, which are caused by

differences in professional specialties and organizational experiences and priorities,

- *conflict between line and staff* – which most often occurs against the background of a feeling of underestimation among employees of staff units who have no decision-making powers,
- *conflict between formal and informal groups* – in which the inconsistency of norms determining methods of action becomes visible.

An organization is a system rich in many different sources of conflict. In addition to those mentioned above, these include *ideological conflicts* (concerning contradictions in beliefs, values and related social norms). These conflicts, due to their fundamental existential nature, can rarely be resolved in a short time, they become chronic and usually enter the phase of acute tension. Another group that is common are *motivational conflicts* that appear against the background of contradictions in striving to meet specific needs, usually: economic needs, the need for security, achievements and prestige. *Moral conflicts* constitute a separate group. The moral nature of contradictions refers to conflicts concerning evaluations, judgements and behaviours. Differences in criteria and objects for assessing various phenomena and processes, the degree of unambiguity of formulated judgements and differences in behavioural patterns are the leading determinants of moral differences. *Stereotypes* are also inextricably linked to the above group. Their role in the management process, including exploring issues related to conflicts, is quite significant. Stereotypes provide immediate and unambiguous explanations, which helps avoid doubts, anxiety and cognitive discomfort. They give a sense of order and confidence. The fear of losing a sense of confidence and the need to constantly solve problems causes a reluctant and often aggressive attitude towards people whose views or behaviours cause cognitive dissonance. In social life, stereotypes free us from the obligation to constantly analyse social situations and look for appropriate ways to respond to them, therefore they become a tool that is often used in interpersonal relationships, unfortunately causing a number of unfavourable phenomena, including conflicts.

3.4 Emotions as a key category in the conflict management process

Conflict is a situation that particularly highlights affective states, especially *emotions*. Emotions are a category whose precise and unambiguous definition is difficult to find in the world literature on the subject. Despite the relatively long history of research on affective states in the field of psychology, dating back to the 19th century, it has not yet been established what emotions are and the applicable definitions of related concepts, such as *moods* or *feelings*, have not been specified. The only consensus on this topic is no consensus. The complexity of the term *emotion* is demonstrated by the fact that it is the subject

of research and theoretical analyses not only by psychologists, but also by philosophers, sociologists, neurobiologists, neurologists, anthropologists, and even historians. Emotions as complex constructs. In addition to the affective and motivational component, they contain cognitive, physiological and behavioural elements in the form of expression patterns and action tendencies (Jaworek 2021, 44–45).

As H. Gasiul (2018, 19) notes, an emotion is something very complex and cannot be understood without referring to the entire context of mental life. In other words, it is impossible to understand emotions without placing them in the context of categories of other human behaviours, categories of other experiences, etc. The definition of *emotion* adopted as a result of scientific discourse by P.G. Zimbardo says that “*an emotion is a complex set of bodily and mental changes that include physiological arousal, feelings, cognitive processes and behavioural responses performed in response to a situation perceived as important to a given person*” (Zimbardo 1999, 473). K. Oatley and J.M. Jemkins (2003, 95) emphasize that an emotion is caused “by the subject’s conscious or unconscious evaluation of an event as something important for some matter important to them”. C.E. Izard (1993, 71–72) treats emotions as “a short-term, affective-arousal-purposeful-expressive phenomenon that enables adaptation to favourable circumstances and taking up challenges in the face of significant life events”, while N.H. Frijda (1998, 57) understands emotions as “changes in readiness to act, which are based on the meanings assigned to given events, objects, situations (...) emotions result from the relationship between the subject and the object”.

The above-mentioned ways of interpreting the concept of *emotions* allow us to identify several basic, although very important in the context of exploring the essence of conflicts (but also stress), properties of this research category (Gasiul 2018, 22):

- an emotion is a response to the quality of the relationship between the subject and the object or event, but also to the quality of the relationship between what the current centre of experience is and what remains in some interaction with the very current centre,
- an emotion is constructed and acquires its proper character only thanks to the dynamic relations between the subject and the event,
- an emotion is a complex set of changes that consists of certain components,
- an emotion arises as a result of assigning meaning and importance to certain states, events, stimuli, i.e. it is a consequence of an estimate made,
- emotion has motivational functions.

In addition to the properties mentioned above, the role of emotions in the process of coping with given events is increasingly emphasized, which is inextricably linked to the area of considerations presented in this monograph.

Stress and conflict are states clearly related to emotions, especially negative ones, such as anxiety, fear and anger. The emotions of anger and rage are close to states of irritation or fury. They are characterized by high activation and most researchers classify them as unpleasant, although not as strongly as in the case of anxiety and fear. The emotions of anger and rage are of great interest to researchers due to their close connections with aggressive behaviours (Jaworek 2021, 71; Qadir and Khan 2016), which, it is worth emphasizing, always accompany conflict situations to a greater or lesser extent and are often also activated in stressful situations. What remains cognitively interesting is that emotions (not only negative ones) can be the cause of various phenomena, but they can also be their effect. Regardless of the direction of influence, their in-depth understanding is a key competence in the process of effective stress and conflict management. As H. Bieniok (2005, 178) notes, conflict participants are guided mainly by emotions, not logic, representing the following three types of attitudes:

- *formal* (“they are guilty, not us”),
- *competitive* (“either they us or we them”),
- *emotional* (“we will not talk this way and with such people”).

The above author also formulates a rather disturbing view that “for many people it must be bitter to acknowledge the fact that there is no recipe for a final (definitive) solution to conflicts, and all the so-called golden means and compromises only work for a certain period of time”. At the same time, he emphasizes that “readiness to resolve conflicts and civil courage are the basic features of a good manager”. It is worth taking a closer look at some of them (Brummans et al. 2022; Haryanto et al. 2022; Huhtala et al. 2021; Khan et al. 2016; Lee and Brotheridge 2017; Parayutam and Papenhausen 2015; Yang 2015).

Conflict management is more than just resolving conflicts. The choice of conflict resolution methods depends on many factors, including employees’ attitudes towards the conflict. The attitudes in question are distinguished as follows (Holstein-Beck 1997, 140):

- *traditionalist* – stems from the belief that conflict is bad and should be excluded,
- *behavioural* – based on the approach to conflict as an inevitable element of social life and the pursuit of its solution,
- *interactional* – grows from the belief in the positive forces inherent in conflict.

Each of the above-mentioned attitudes corresponds to different sets of conflict resolution methods. Referring to the traditionalist attitude, the following is indicated:

- use of force,
- suppressing conflicts,
- procrastination,
- avoidance,
- removing individuals responsible for the conflict.

Taking into account the behavioural attitude, the following is proposed:

- mitigation,
- arbitration,
- looking for a common goal,
- peaceful coexistence,
- compromise,
- change of organizational structure.

With regard to the interactional attitude, the suggested methods include the following:

- auction,
- mediation,
- negotiations,
- increasing resources,
- changing actors' attitudes,
- confrontation of arguments,
- sensitivity training,
- situational simulations,
- management games.

K.W. Thomas and R.H. Killmann (Więcek-Janka 2006) distinguished the following five strategies for managing conflict in an organization:

- avoidance,
- accommodation,
- compromise,
- competition,
- cooperation.

Avoidance – usually concerns trivial matters, where the parties to the conflict often see no chance of meeting their expectations. They react to the conflict by withdrawing or suppressing. They hope that the conflict will resolve itself or disappear. The conflict is suppressed, which is not conducive to resolving an already difficult situation. This is not a desirable phenomenon in an organization that tries to solve it using bureaucratic conflict resolution rules.

Accommodation – it is used in a situation when the conflicting parties want to end the conflict and are ready to put the opponent’s arguments above their own arguments. It is also used in circumstances when quarrelling entities care about mutual good relations, as well as in situations when the primary goal of the organization is harmony and stability.

Compromise – is used in organizations when its goals are important, but not enough to be worth overbearing decisions. They can realistically be achieved by looking for solutions acceptable to both parties. When conflicted individuals are ready to give up something for something else. Negotiations play a huge role in this process. However, it is important to note that no one wins, and no one loses in this situation. Each party feels some kind of loss.

Competition – is the method most often chosen when the parties are focused on achieving their own benefits, regardless of the negative effects it will have on the other person. Win-lose situations arise, with one side of the conflict often winning at the expense of the other. Internal games are used between employees to achieve their own interests. A conflict situation is perceived as a kind of competition between the conflicting parties, the main goals of which are promotion, prestige, money, prizes.

Cooperation – each party represents an attitude conducive to resolving the dispute through the willingness to meet the needs of the other participant in the conflict, searching for new means of uniting the group. People in conflict look for solutions that will satisfy both parties. They perceive their conflict as a test of strength. We can use this method in a situation when the organization’s goal is learning, when the management wants to combine the points of view of people with opposing views.

The strategies presented above are a starting point for creating various methods of resolving conflicts. The group of those methods that are most frequently used by managers includes the following:

- *postponing* – a method of postponing action while waiting for changes that may occur, often regardless of the parties involved in the conflict, for example random events,
- *ignoring* – a method based on the belief that lack of decision causes less evil than failure to meet demands, hence completely ignoring the problem in silence,
- *reorientation* – a method of diverting attention from the subject of the dispute by: searching for a “scapegoat”, allegedly responsible for the causes of the conflict, indicating them as a “common enemy”, uniting the parties to the conflict in the fight,
- *separation* – a method involving radical separation of the parties to the conflict, most often of an ad hoc nature, may lead to the loss of valuable employees,

- *forcing* – a method of imposing a solution by a manager with great authority or adopting a solution proposed by the so-called “majority”,
- *compromise* – a method of searching for a “middle” solution when the parties do not find an optimal solution. Each side partially gives up its goals,
- *peaceful coexistence* – a method of seemingly ignoring the conflict and emphasizing cooperation. Unfortunately, this often results from obligation and not from the actual achievement of intended goals,
- *harmonizing* – a method of making the parties involved in the conflict aware of the need to pursue higher goals. An effective solution when the “higher goal” takes into account the goals of all parties to the conflict,
- *interference of third parties* – a method involving the participation of a third, impartial party in the conflict resolution process, e.g. an arbitrator or mediator.

As it is possible to observe here, the conflict resolution methods presented above are characterized by a large variety of actions and behaviours. However, such great differences did not make those methods tools fully recommended since they might not be effective in the conflict resolution process. Particular limitations are noted in relation to the possibility of their application in the case of conflicts that are *difficult to resolve*.

A difficult-to-resolve conflict usually begins similarly to a conflict that can be resolved – with a specific set of controversial issues. According to P.T. Coleman, a conflict that is difficult to solve is one “that resists all attempts at change, reaches deep, is at a dead point and is extremely difficult to end” (Cywińska 2019, 25). In difficult-to-resolve conflicts, the root causes are not resolved, which leads to their cyclical intensification and emotional outbursts filled with aggression and violence. Thus, the duration and intensity of these conflicts are persistent. They are usually related to needs and values that participants consider very important for their functioning (survival). At the same time, such conflicts create a huge sense of threat, which usually “impairs” the functioning of the parties involved in many spheres of their lives, resulting in the omnipresence of the conflict. This state causes a feeling of hopelessness, deprives the participants of those situations of hope for a constructive solution to controversial issues, so they do not look for other ways to resolve the conflict, but focus on destroying the opponent, eliminating them, provoking the escalation of the conflict process. As emphasized by H. Burgess and G. Burgess (1996, 305–322), as a rule, the causes of conflicts that are difficult to resolve include the following,:

- *irreconcilable moral differences* – reflecting conflicts over fundamental moral and religious values,
- *high-risk distribution conflicts* – regarding limited or scarce resources,
- *conflicts over position in the hierarchy* – regarding the fight for influence in interpersonal relationships, a higher rank (e.g. long-term conflicts in siblings between brothers, sisters).

The escalation of the conflict is facilitated by specific social and psychological processes related to perception deformations, expressed, for example, in:

- projecting one's internal states and features onto others (e.g. competitive people may attribute such behaviour to the other party),
- using schemas (which act as filters, rejecting contradictory information that is inconsistent with the information coming to us) and hidden personality theories (which are associated with, among others, the negative effect – the devil effect, which consists in attributing other negative traits to a given person based on a negative trait),
- using the fundamental attribution error (which involves looking for the reasons for someone's behaviour in that person, and not in the situation, which is often difficult to define and difficult to observe),
- displaying negative stereotypes (consisting in attributing mainly negative characteristics to a specific person due to their classification into a specific category of people),
- using ingratiation techniques to maintain and strengthen a positive self-esteem (these are strategies of unfair behaviour aimed at influencing another person in order to increase the attractiveness of one's own personal features).

Other factors contributing to the escalation of the conflict process include the following:

- orientation towards the victory of only one side or the competition between the parties to the conflict,
- cognitive rigidity of the parties involved (their inability to create alternatives),
- a tendency to play dirty by distracting attention from what is lost or gained through conflict,
- focusing on maintaining the image of power,
- bad communication (breakdown of open and direct communication),
- autistic hostility (the tendency to stop interacting and communicating with the parties to the dispute).

As P.T. Coleman emphasizes, “conflicts that are difficult to resolve have a long past, a turbulent present and a dark future” (Cywińska 2019, 28). This fact inspires us to highlight a separate group of tools that create a chance to solve the conflicts in question – those that will allow the parties to the conflict to get to know each other to a greater extent, to understand well, and not only superficially, their own and the opponent's emotions, and to reach the *proper* source of the conflict.

In the group of such methods, the following methods deserve attention:

- *image exchange sessions* – a method during which the parties to the conflict find out what the opposing party thinks. Both parties prepare descriptions of

their images and exchange them with each other. This allows them to get to know themselves and the opposing party better, at the same time creating the opportunity to break down any stereotypes,

- *common goal* – a method involving the creation of a task situation, the solution of which requires the joint involvement of the parties to the conflict,
- “*put yourself in their situation*” – a method in which participants swap roles in their imagination, which is intended to increase the chance of a rational assessment of the demands made by both parties,
- “*P-M-I – plus-minus-interesting*” – a method consisting in performing three steps: noticing the advantages of the problem under consideration (P), analysing its disadvantages (M), using what is new, interesting, useful (I). Shifting the focus from defending self-esteem to the essence of the problem, eliminating sticking to “only the right thing”,
- *confrontational meetings* – the aim of the method is to initiate positive thinking about the dispute, thanks to which the parties begin to engage in cooperation on a solution. They are trying to find a way out of the conflict after accepting both sides and identifying common interests. The essence of this method is to shift the attention from people to the subject of the dispute. However, the condition is a well-prepared and conducted discussion.
- *interview with a personality* – this method involves role-playing. The parties take turns playing the role of a journalist seeking and presenting positive information about the person being interviewed and the “personality”. This allows for a change in the perceptual perspective, the parties notice the positive features of the partner, which often leads to the resolution of the conflict.
- *Heuristic methods (creative problem-solving techniques)* – Brainstorming, Reverse Brainstorming, Albert Einstein Technique, Philips Technique – Talk 66, Brainwriting-635, Peter de Bono’s Coloured Hat Method, Walt Disney’s Strategy, Bond Technique – 5x why.

Silence can be an extremely interesting and inspiring tool for resolving conflicts. “Silence has many colours. It may mean a sense of guilt, uncertainty, it may be an expression of opposition, closeness or alienation. Silence holds speech together or disrupts its meaning. It may be a manifestation of ignorance or deep wisdom” (Kostera and Śliwa 2012, 270). Through silence, we can express a number of negative feelings, such as disapproval, disregard, reluctance or lack of acceptance. We distinguish the following types of silence:

- haughty (“as if someone wanted to say I am above everything”),
- contemptuous (“someone considers another person to be of little value”),
- as an expression of offence (“someone does not speak because they feel offended and want to show it”)

- condemning (“expresses indignation, condemnation, rejection of someone with his/her look, facial expression, entire behaviour”)
- silence can also be isolating when “someone withdraws into themselves”.

Silence “allows you to collect thoughts and words, to ask questions, because it is an encounter with yourself” (Olearczyk 2016, 9–32). Silence provides an excellent opportunity for in-depth reflection and justifying one’s own attitudes with higher ethical, spiritual, aesthetic and cognitive values. It creates opportunities to reflect on how to take actions so that human, a free and creative being, capable of contemplation and deeper experiences, can develop the basic features that constitute a human being and humanity. Silence is “a way of communicating with others, and also, and perhaps above all, with one’s own self”. Silence in interpersonal relationships is silence focused on listening, opening to the other person’s message, calming, concentrating, and expressing silence. I am silent to listen, not to be with the other in a void that carries no content, to be in mute silence. To listen is to allow the other to be, to create a space for them to live, to be themselves, to be authentic, to be open to them from a source, to be invited to co-exist (Stachewicz 2012, 355). Silence is noteworthy tool for getting to know your emotions and reaching the emotions of the person or people on the other side of the conflict, it is an innovative method of solving it.

Human creates and destroys himself. Their psychic arsenal includes both weapons for self-destruction and tools with which they can build palaces of joy, power and peace. Through appropriate selection and proper use of one’s thoughts, a person can rise to the heights of divine perfection.

(B.Brandy in: Wziętek-Staśko 2012)

Bibliography

- Augustynek, A. (2018). *Wprowadzenie do psychologii*. Warszawa: Difin.
- Aukštikalnytė, E. (2021). Burnout and workplace conflicts from an employee perspective. *Contemporary Research on Organization Management and Administration*, 9(1), 18–31. <https://doi.org/10.33605/croma-012021-002>(Not accessible as of [2024/06/14])
- Bates, S., McIlwrath, M., Howell, R. & Phillips, I. (2022). Dispute and conflict: finding stability in uncertain times. *The Resolver: The Quarterly Magazine of the Chartered Institute of Arbitrators*, 2, 11–12. <https://doi.org/10.3390/ijerph18158137>
- Benitez, M., Leon-Perez, J. M., Orgambidez, A. & Medina, F. J. (2021). Interpersonal conflicts in the unit impact the service quality rated by customers: the mediating role of work-unit well-being. *International Journal of Environmental Research and Public Health*, 18(15), 8137. <https://doi.org/10.3390/ijerph18158137>
- Bieniok, H. (2005). *Sztuka komunikowania się, negocjacji i rozwiązywania konfliktów*. Katowice: Wydawnictwo Akademii Ekonomicznej.
- Block, P. (2013). *Stewardship: Choosing Service over Self-Interest*. San Francisco: Berrett-Koehler Publishers.

- Bohm, F. & Lauell, S. (2004). *Rozwiązywanie konfliktów. Praktyczny poradnik dla pracodawców i menedżerów*. Gdańsk: BL info Polska.
- Brummans, B. H., Higham, L. & Cooren, F. (2022). The work of conflict mediation: actors, vectors, and communicative relationality. *Human Relations*, 75(4), 764–791. <https://doi.org/10.1177/001872672199418>(Not accessible as of [2024/06/14])
- Bugdol, M. (2007). *Gry i zachowania nieetyczne w organizacji*. Warszawa: Wydawnictwo Difin.
- Burgess, H. & Burgess, G. (1996). Constructive confrontation: a transformative approach to intractable. *Conflicts, Mediation Quarterly*, 13, 305–322. <https://doi.org/10.1002/crq.3900130407>
- Coser, L. A. (2009). *Funkcje konfliktu społecznego*. Kraków: Nomos.
- Cybulko, A. (2018). *Konflikt*. [In:] E. Gmurzyńska, R. Morek (eds.) *Mediacje. Teoria i praktyka*. Warszawa: Wydawnictwo Wolters Kluwer.
- Cywińska, M. (2019). Konflikty destruktywne–trudno rozwiązywalne w perspektywie “wychowania do wartości”. *Studia Edukacyjne*, 52, 23–34. <https://doi.org/10.14746/se.2019.52.2>
- Dahrendorf, R. (1967). *Spoleczeństwo i demokracja w Niemczech*. New York/London: WW Norton & Company.
- Deep, S., Othman, H. & Mohd Salleh, B. (2016). Potential causes and outcomes of communication conflicts at the workplace – a qualitative study in Pakistan. *Journal of Management Info*, 3(3), 1–5. <https://doi.org/10.31580/jmi.v1i1i.54>
- Demirel, E. E. & Erdirençelebi, M. (2019). The relationship of burnout with workaholism mediated by work-family life conflict: a study on female academicians. *Journal of Language and Linguistic Studies*, 15(4), 1300–1316. <https://doi.org/10.17263/jlls.668436>
- Dennis, A. R., Lakhiwal, A. & Sachdevaa, A. (2023). AI agents as team members: effects on satisfaction, conflict, trustworthiness, and willingness to work with. *Journal of Management Information Systems*, 40(2), 307–337 <https://doi.org/10.1080/07421222.2023.2196773>
- Deutsch, M. (1973). *The Resolution of Conflict*. New Haven: Yale University Press.
- Folger, J. P., Poole, M. S. & Stutman, R. K. (2005). *Konflikty i interakcja*. [In:] J. Steward (ed.) *Mosty zamiast murów*. Warszawa: Wydawnictwo PWN, 75–106.
- Frijda, N. H. (1998). *Różnorodność afektu: emocje i zdarzenia, nastroje i sentymenty*. [In:] P. Ekman, R. J. Davidson (eds.) *Natura emocji*. Gdańsk: GWP, 57.
- Fritchie, R. & Leary, M. (1999). *Konflikty w przedsiębiorstwie*. Warszawa: Wyd. Petit.
- Fukuyama, F. (2009). *Koniec historii*. Kraków: Znak.
- Gasiul, H. (2018). *Metody badania emocji i motywacji*. Warszawa: Difin.
- Ghanem, A. (2021). Organizational conflict and job burnout of Egyptian hotels employees. *Journal of Association of Arab Universities for Tourism and Hospitality*, 20(3), 117–129. <https://doi.org/10.21608/jaaauth.2021.66488.1149>
- Gibson, C. B., Dunlop, P. D. & Raghaw, S. (2021). Navigating identities in global work: Antecedents and consequences of intrapersonal identity conflict. *Human Relations*, 74(4), 556–586. <https://doi.org/10.1177/0018726719895314>
- Giddens A. (1998): *The Third Way: The Renewal of Social Democracy*. Cambridge, UK: Cambridge University Press.
- Haryanto, B., Suprpti, A. R., Taufik, A. & Fenitra, R. M. (2022). Moderating role of transformational leadership in the relationship between work conflict and employee

- performance. *Cogent Business & Management*, 9(1). <https://doi.org/10.1080/23311975.2022.2105578>
- Hobbes, T. (1954). *Lewiatan czyli materia, forma i władza państwa kościelnego i świeckiego*. Warszawa: PWN.
- Hocker, J. L. & Wilmot, W. W. (1985). *Interpersonal Conflict*. Dubuque: Wm. C. Brown.
- Holstein-Beck, M. (1997). *Być albo nie być menedżerem*. Warszawa: Infor.
- Holtgrave, M., Nienaber, A. M., Tzafirir, S. S. & Schewe, G. (2020). Cooperation in the face of conflict: effects of top managers' trust beliefs in their firms' major suppliers. *British Journal of Management*, 31, 253–273 <https://doi.org/10.1111/1467-8551.12350>
- Huhtala, M., Fadjukoff, P. & Kroger, J. (2021). Managers as moral leaders: moral identity processes in the context of work. *Journal of Business Ethics*, 172, 639–652. <https://doi.org/10.1007/s10551-020-04500-w>
- Izard, C. E. (1993). Four systems for emotion activation: cognitive and noncognitive processes. *Psychological Review*, 100(1), 68–90. <https://doi.org/10.1037/0033-295x.100.1.68>(Not accessible as of [2024/06/14])
- Jaramillo, F., Mulki, J. P. & Boles, J. S. (2011). Workplace stressors, job attitude, and job behaviors: is interpersonal conflict the missing link? *Journal of Personal Selling & Sales Management*, 31(3), 339–356. <https://doi.org/10.2753/PSS0885-3134310310>
- Jaworek, M. (2021). *Afektywny wymiar dobrostanu związanego z pracą i jego specyfika w grupie menedżerów*. Kraków: Wydawnictwo UJ
- Johnson, H. H. & Avolio, B. J. (2019). Team psychological safety and conflict trajectories' effect on individual's team identification and satisfaction. *Group & Organization Management*, 44(5), 843–873. <https://doi.org/10.1177/1059601118767316>
- Khan, K., Hussainy, S. K. & Iqbal, Y. (2016). Causes, effects, and remedies in conflict management. *The South East Asian Journal of Management*, 10(2), 4. <https://doi.org/10.21002/seam.v10i2.7733>
- Klonek, F. E., Gerpott, F. H. & Handke, L. (2023). When groups of different sizes collide: effects of targeted verbal aggression on intragroup functioning. *Group & Organization Management*, 48(4), 1203–1244. <https://doi.org/10.1177/10596011221134426>
- Kłusek-Wojciszke, B. (2020). *Konflikt w organizacji- style postępowania*. Gdańsk: GWP.
- Koppman, S., Bechky, B. A. & Cohen, A. C. (2022). Overcoming conflict between symmetric occupations: how “creatives” and “suits” use gender ordering in advertising. *Academy of Management Journal*, 65(5), 1623–1651. <https://doi.org/10.5465/amj.2020.0806>
- Kostera, M. & Śliwa, M. (2012). *Zarządzanie w XXI wieku. Jakość, twórczość, kultura*. Warszawa: Wolters Kluwer Sp. z o.o.
- Kraczla, M. (2023). Ego states in E. Berne's transactional analysis and the dominant ways managers use to solve conflicts. *European Research Studies Journal*, XXVI(1), 280–312. <https://doi.org/10.35808/ersj/3112>
- Kryza, J. E. (2014). *Konflikt jako obiektywna kategoria historyczna. Filozoficzne i socjologiczne uwarunkowania zarządzania konfliktami*. [In:] A. Stefańska, A. Knocińska, E. Kwiatkowska (eds.) *Konflikt-negocjacje-kultura-komunikacja. Psychospołeczne uwarunkowania i aplikacje*. Toruń: Wydawnictwo Adam Marszałek i UMCS, 31–42.

- Lafta, A. H. (2016). Conceptualizing workplace conflict from diverse perspectives. *Journal of Business and Management*, 4(1), 49–53. <https://doi.org/10.9790/487X-18144953>(Not accessible as of [2024/06/14])
- Lee, R. T. & Brotheridge, C. M. (2017). *Coping with workplace aggression*. [In:] N. A. Bowling, M. S. Hershcovis (eds.) *Research and theory on workplace aggression*. New York: Cambridge University Press, 269–370.
- Leon-Perez, J. M., Antino, M. & Leon-Rubio, J. M. (2016). The role of psychological capital and intragroup conflict on employees, burnout and quality of service: a multi-level approach. *Frontiers in Psychology*, 7. <https://doi.org/10.3389/fpsyg.2016.01755>
- Leon-Perez, J. M., Medina, F. J., Arenas, A. & Munduate, L. (2015). The relationship between interpersonal conflict and workplace bullying. *Journal of Managerial Psychology*, 30(3), 250–263. <https://doi.org/10.1108/JMP-01-2013-0034>
- Likert, R. & Likert, J. G. (1976). *New Ways of Managing Conflict*. New York: McGraw-Hill. <https://doi.org/10.1177/105960117700200123>
- Luthans, F. (1995). *Organizational Behavior*. New York: McGraw-Hill.
- Marks, K. (1959). *Kapitał*. Warszawa: Książka i Wiedza.
- Moore, Ch.W. (1989). *The Mediation Process. Practical Strategies for Resolving Conflict*. Fourth Edition.. San Francisco, CA: Jossey-Bass.
- Mucha, J. (1978). *Konflikt i społeczeństwo*. Warszawa: PWN.
- Nietzsche, F. (1996). *O pożytkach i szkodliwości historii dla życia*. Kraków: Znak.
- Nietzsche, F. (2017). *Wola mocy*. Warszawa: Vis-a-Vis Etiuda.
- Oatley, K. & Jemkins, J. M. (2003). *Zrozumieć emocje*. Warszawa: PWN.
- Okech, J. A., Pimpleton-Gray, A., Vannatta, R. & Champe, J. (2016). Intercultural conflict in groups. *The Journal for Specialists in Group Work*, 41(4), 350–369. <https://doi.org/10.1080/01933922.2016.1232769>
- Olearczyk, E. (2016). *Cisza w edukacji szkolnej*. Kraków: Krakowska Akademia im. Andrzeja Frycza Modrzewskiego.
- Oyster, C. K. (2002). *Grupy*. Poznań: Zysk i S-ka.
- Palanci, Y., Mengenci, C., Bayraktaroglu, S. & Emhan, A. (2021). Analysis of workplace health and safety, job stress, interpersonal conflict, and turnover intention: a comparative study in the health sector. *Health Psychology Report*, 9(1), 76–86. <https://doi.org/10.5114/hpr.2020.99971>
- Palmeira, M. & Gunasti, K. (2023). The conflict between partnership and fairness in the decision of whom to help. *Journal of Business Ethics*, 183, 1173–1188. <https://doi.org/10.1007/s10551-022-05068-3>
- Papenhausen, C. & Parayitam, S. (2015). Conflict management strategies as moderators in the antecedents to affective conflict and its influence on team effectiveness. *Journal of Business and Management*, 21(1), 101–119.
- Parsons, T. (1964). Evolutionary universals in society. *American Sociological Review*, 29(3), 339–357. <https://doi.org/10.2307/2091479>
- Platon (1994). *Państwo*. Warszawa: Alfa.
- Pszczołowski, T. (1978). *Mała encyklopedia prakseologii i teorii organizacji*. Wrocław-Warszawa-Kraków-Gdańsk.
- Qadir, A. & Khan, M. M (2016). Linking personality and emotional labor: the mediating role of relationship conflict and conflict management styles. *Pakistan Journal of Commerce and Social Sciences*, 10(2), 212–238.

- Rummel-Syska, Z. (1990). *Konflikty organizacyjne. Ujęcie mikrospołeczne*. Warszawa: PWN.
- Saundry, R., Fisher, V. & Kinsey, S. (2021). Disconnected human resource? Proximity and the (mis)management of workplace conflict. *Human Resources Management*, 31, 476–492. <https://doi.org/10.1111/1748-8583.12318>
- Sikora, J. (1998). *Zarządzanie konfliktem w zakładzie pracy*. Bydgoszcz: Oficyna Wydawnicza Ośrodka Postępu Organizacyjnego.
- Sikorski, C. (2005). *Język konfliktu. Kultura komunikacji społecznej w organizacji*. Warszawa: Wydawnictwo C.H. Beck.
- Simmel, G. (1975). *Socjologia*. Warszawa: PWN.
- Słownik Wyrazów Obcych* (1995). E. Sobol (ed.) Warszawa: Wydawnictwo PWN, 582.
- Stachewicz, K. (2012). *Milczenie wobec dobra i zła. W stronę etyki sygetycznej i apofatycznej*. Poznań. <https://doi.org/10.12775/RF.2013.010>
- Stoner, J. A. F. & Wankel, C. (1997). *Kierowanie*. Warszawa: Państwowe Wydawnictwo Ekonomiczne, 329.
- Sztumski, J. (2000). *Konflikty społeczne*. Częstochowa: Wydawnictwo Wydziału Zarządzania Politechniki Częstochowskiej.
- Toffler, A. (1997). *Trzecia fala*. Warszawa: PIW.
- Toffler, A. (1998). *Szok przyszłości*. Poznań: Wyd. Zysk i S-ka.
- Toffler, A. (2003). *Zmiana władzy*. Poznań: Wyd. Zysk i S-ka.
- Tossi, H. I., Rizzo, J. R. & Carroll, S. J. (1994). *Managing Organizational Behavior*. New York: Blackwell Scientific Publications.
- Weber, M. (1946). *From Max Weber: Essays in Sociology*. New York: Oxford University Press.
- Więcek-Janka, E. (2006). *Zmiany i konflikty w organizacji*. Poznań: Wydawnictwo Politechniki Poznańskiej.
- Wziątek-Staśko, A. (2016). *Motywowanie w ERZE 2.0+*. Wydawnictwo CeDeWu: Warszawa, 198.
- Yang, I. (2015). Positive effects of laissez-faire leadership: Conceptual exploration. *Journal of Management Development*, 34(10), 1246–1261. <https://doi.org/10.1108/JMD-02-2015-0016>
- Zimbardo, P. G. (1999). *Psychologia i życie*. Warszawa: PWN.

4 Styles of conflict resolution and strategies of coping with stress in the case of people occupying managerial positions

Research methodology

4.1 The subject of the research and the problem of the paper

The problem of the paper concerns detection of the expected relationship between the ways of coping with stress by managers and the way of reacting to conflict, determined by the theoretical construct by K. Thomas and R. Kilmann (called the style of behaviour in a conflict situation). A particular advantage of the research is attributed to the presentation of connections between both research categories that are important in the reality of modern organizations in the VUCA world.

The choice of issues is closely related to the state of contemporary knowledge about the conditions for fulfilling a managerial role. Contemporary literature on the subject indicates a strong connection between the managerial function and the experience of occupational stress. Functioning of managers in stressful conditions is one of the most important dimensions in the implementation of the managerial role. The concept of managerial stress introduced into science requires some analysis of key managerial skills in the field of experiencing and enduring various types of psychological burdens while working in a managerial position. One of such areas includes reactions to conflict situations – the so-called conflict resolution strategies adopted by managers in stressful situations (cf. Antonowsky 1979; Bartkowiak 2009; Cooper and Dewe 2004; Cowan et al. 2011; Heszen 2013; Hobfoll 2001; Kraczkla 2016; Lazarus 1999; Ogińska-Bulik and Juczyński 2008; Wrześniewski 2000).

Assuming that fulfilling the role of a manager takes place in a highly stressful environment, and coping with stress is currently considered one of the most desirable managerial competencies, **the main goal of this paper is to find an answer to the following question: What styles of conflict resolution do contemporary managers use and what strategies do they choose in stressful situations? A particular advantage of the research refers to presentation of connections between both research categories that are so important nowadays.**

This paper aims at expanding knowledge about managerial functioning, and the research results obtained regarding the interdependence between strategies for coping with stress and styles of behaviour in conflict situations will allow for formulating practical recommendations. These tips will aim at increasing managers' control over their own behaviour in conflict, especially in stressful conditions. The conducted considerations should help us answer the following key question: Is the manager's preferred style of coping with stress associated with specific conflict resolution strategies?

The authors of this paper focused their research on the following aspects:

1. determining preferences of managers in terms of the styles of coping with stress;
2. determining preferences of managers in terms of the conflict resolution techniques used; and
3. determining the relationship between ways of coping with stressful situations and conflict resolution techniques in a group of managers.

The research was planned based on methodological guidelines aimed at systematic collection, analysis and interpretation of data that were all done in order to understand and verify the research hypotheses formulated in the research. The research aims at obtaining credible and reliable results that should allow for making conclusions about the researched field in an objective and scientifically justified way. Relying on solid methodological guidelines is the foundation of the adopted research approach, while ensuring consistency and repeatability of the research process (Dyduch 2011; Lisiński 2011, 2016; Miles and Huberman 1994; Sudol 2014).

4.2 Formulation of the paper problem and research hypotheses

Due to the problems of the paper and the assumption that there are significant differences between the methods of coping with stress used by managers and the choice of conflict resolution strategies, the following set of research questions was formulated:

The sources of the research questions and hypotheses include the following:

- a. the contemporary state of knowledge and numerous available scientific research results that regard functioning of managers in stressful conditions and in conditions of organizational conflicts, which makes up the everyday life of managers in organizations; and
- b. appropriate research tools that can be used to determine the studied variables accurately and reliably.

Research questions:

1. What strategies for coping with stressful situations do modern managers prefer?
2. What styles of conflict resolution do contemporary managers prefer?
3. Are there differences between managers using different styles of coping with stress in terms of preferring different conflict resolution techniques?

Due to the adopted research problems, the following hypotheses were formulated:

Research hypotheses:

H1: Managers prefer a task-oriented approach to stress.

H2: Managers prefer partnership techniques for resolution of conflicts (based on cooperation and compromise).

H3: Managers using different styles of coping with stress demonstrate significant differences in the choice of conflict resolution techniques.

4.3 Psychological measurement methods (research tools)

Two research tools were used to measure the relationships specified in the research questions and hypotheses: **the Coping Inventory for Stressful Situations questionnaire (CISS) by N.S. Endler and J.D.A. Parker** (in Polish adaptation, in collective research by J. Strelau and co-authors) and **the Thomas-Kilmann Questionnaire (T-K Questionnaire) according to K. Thomas and R. Kilmann**.

4.3.1 Coping Inventory for Stressful Situations questionnaire (CISS) by N.S. Endler and J.D.A. Parker

The Coping Inventory for Stressful Situations is used to examine styles of coping with stress. It was assumed that **the style of coping with stress is defined as a typical way of behaving in various stressful situations for a given individual** (Endler and Parker 1990, 1994).

The CISS questionnaire consists of 48 items that concern various behaviours that people display in various stressful situations. Respondents answer on a five-point scale: from 1 – *not at all* to 5 – *very much*, specifying the frequency with which a given activity is undertaken in stressful situations.

The CISS questionnaire consists of three scales describing different styles of coping with stress:

1. **TASK-ORIENTED STYLE scale (Task OC)** – describes a style of coping with stress, in which it is typical to take actions to overcome a stressful situation. People scoring high on this scale show a tendency to overcome difficult situations by trying to change the stressful situation. The main activities focus on efforts to solve the problem.
2. **EMOTION-ORIENTED STYLE scale (Emotion OC)** – concerns a style of coping with stress in which a person, in stressful conditions, tends to focus on themselves and their own emotional experiences. Such people also tend to demonstrate fantasizing and wishful thinking. This helps them reduce the emotional tension that accompanies a stressful situation. Sometimes, however, such actions can increase tensions and even increase the feeling of depression.
3. **AVOIDANCE-ORIENTED STYLE scale (Avoidance OC)** – defines a style of coping with stress typical of people who, in stressful situations, tend to avoid thinking, and experiencing the situation. This style can manifest itself in two forms, creating two subscales: engaging in substitute activities (**Avoidant Distracted**), e.g. overeating, escaping to sleep, watching television, or fantasizing about pleasures, or seeking social contacts alternatively (**Avoidant Social Coping**).

Each of the basic CISS scales – Task OC, Emotion OC and Avoidance OC – consists of 16 items, which allows the examined person for obtaining from 16 to 80 points in each case. The Avoidant Distracted subscale consists of eight items and allows for obtaining from 8 to 40 points, while the Avoidant Social Coping subscale has five items and allows for obtaining from 5 to 25 points.

The CISS scales described above were characterized based on the CISS Test Manual by N.S. Endler and J.D.A. Parker, published by *Pracownia Testów Psychologicznych Polskiego Towarzystwa Psychologicznego* (Psychological Test Laboratory of the Polish Psychological Association) in 2013.

The Polish version of CISS developed by J. Strelau, A. Jaworowska, K. Wrześniewski and P. Szczepaniak (2013) has psychometric parameters almost identical to those obtained by N.S. Endler and J.D.A. Parker, creating an accurate and reliable questionnaire for examining styles of coping with stress (Wrześniewski 2000).

4.3.2 Thomas-Kilmann Questionnaire (T-K Questionnaire) by K. Thomas and R. Kilmann (Schaubhut 2007)

The Thomas-Kilmann questionnaire is intended to measure the way of reacting to conflict (behaviour in conflict situations). This test, used all over the world for over 30 years, allows you for reliable determination of person's behaviour in a conflict situation, described on five test scales. The questionnaire consists of 30 pairs of statements that allow measuring the intensity of specific preferences for behaviour in conflict situations (Schaubhut 2007). To precisely highlight the features characteristic of particular types of behaviour measured in the test, they are summarized in Table 4.1.

Table 4.1 Behaviour in conflict situations according to K. Thomas and R. Kilmann

<i>Type of reaction to conflict</i>	<i>Reaction characteristics</i>
Competition	The parties involved in the conflict strive to maximize their own benefits, disregarding the benefits of the other party. The aim of the actions taken is to win and force concessions from the other side. In this style, there is no attention to the quality of relationships, which leads to polarization of positions and loss of trust between the parties to the conflict.
Cooperation	This type of conflict behaviour balances self-interest with the benefits of the other party. In this style, striving for one's own goals is correlated with caring for the quality of the relationship with the other party. This type of behaviour is characteristic of searching for solutions to conflict situations in the win-win paradigm. Typical of this style is an attitude towards cooperation and mutual concessions.
Compromise	This type of behaviour is characterized by a willingness to accept concessions to the partner. A certain care for relationships is also visible. The aim of the actions taken is not to win at all costs, but rather to find a solution that satisfies both parties, even to a minimal extent. This strategy takes into account the modification of preferences by both parties, and the developed solution – although it does not guarantee full benefits – allows the relationship to continue at a satisfactory level, enabling the parties to cooperate in the future.
Avoidance	In this type of behaviour, the parties involved in the conflict ignore both their own benefits and the relationship with the other party. This approach is manifested by avoidance actions, postponing the search for solutions until later, not noticing or denying conflicts, leaving matters to their own course and/or withdrawing from the conflict situation in the hope that the problem will go away or the other party will soften its position or give up its expectations. However, choosing this strategy does not always have to mean that neither party loses, either in terms of their own benefits or in terms of the relationship.
Adjustment	Adjustment is a type of behaviour in which the priority is to maintain positive relationships with the other party to the conflict over the pursuit of self-interest. This strategy involves making concessions “here and now: to maintain good relationships and a positive atmosphere, which allows for greater benefits in the future.

Source: Author's compilation based on Lewicki, R., Hiat, A. & Oleander, K. (1998). *Pomysł zanim powiesz. Wszystko o strategiach negocjacyjnych*, Warszawa: Amber, 46; Klusek-Wojciszke, B. (2009). Osobowość jako determinanta wyboru stylu rozwiązywania konfliktów. *Organizacja i kierowanie*, 1/2009 (135), 12–13.

4.4 Method of conducting research

The research was conducted from December 2022 to May 2023. The subject of the research involved people participating in postgraduate management studies and MBA studies who expressed interest in participating in the research. In their professional practice, the research participants played the roles of managers at various levels of management in various organizations. As a result, all respondents met the criterion of holding a managerial position, which included direct management of subordinate employees.

The following two questionnaire methods were used in the research: the Coping Inventory for Stressful Situations (CISS) by N.S. Endler and J.D.A. Parker and the Thomas-Kilmann Questionnaire (T-K Questionnaire) according to K. Thomas and R. Kilmann. Each respondent completed the same test set.

Research procedures involving both group and individual meetings were used to conduct the research. The research group consisted of 320 participants, however, due to the incomplete return of the survey material, 262 complete test sheets were qualified for the final analyses.

In order to maintain credibility of the research and provide participants with a sense of security and freedom to provide honest answers, the research was conducted on a voluntary and anonymous basis.

4.5 Characteristics of the research group

The research group was diverse in terms of Age, Gender, Education and work experience (Company Size).

The distribution of qualitative variables is as follows:

- The analysis for the Gender variable showed that there were 143 Females and 119 Males involved (54.58% and 45.42% respectively), which constituted a total of 262 occurrences (100%).
- The analysis for the Age variable showed that the number of its individual levels of 31–40, 41–50, 20–30, 51–60 was 110, 92, 41, 19, respectively (their percentages were 41.98, 35.11, 15.65, 7.25, respectively), which constituted a total of 262 occurrences (100%).
- The analysis for the Education variable showed that the number of its individual levels of Higher education, Secondary education, Basic vocational was 237, 24, 1, respectively (their percentages were 90.46, 9.16, 0.38, respectively), which constituted a total of 262 occurrences (100%).
- The analysis for the Company Size variable showed that the number of its individual levels of Large (over 250 emp), Medium (50–250 emp) was 167 and 95, respectively (their percentages were 63.74, 36.26, respectively), which constituted a total of 262 occurrences (100%).

The distribution of qualitative variables is graphically illustrated in the following Figures 4.1–4.4:

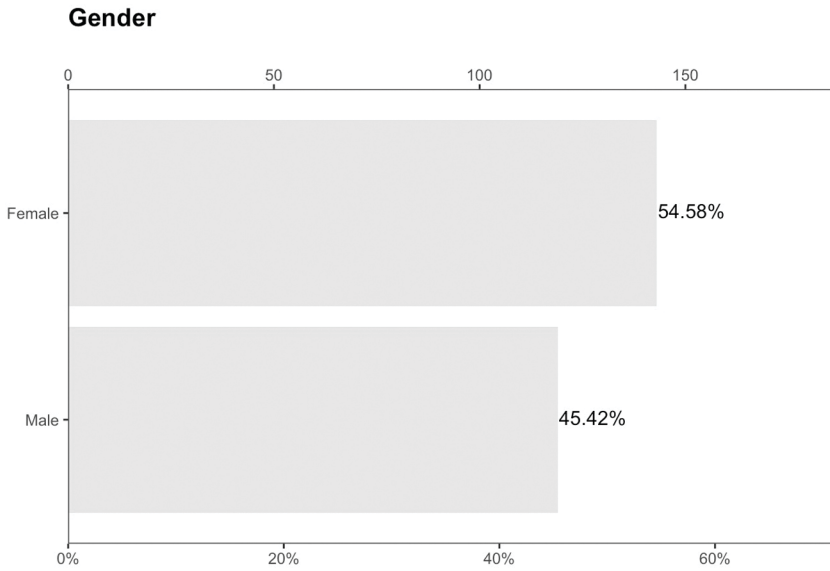


Figure 4.1 Distribution of the research group in terms of the following variable: gender.

Source: Author's compilation based on conducted research.

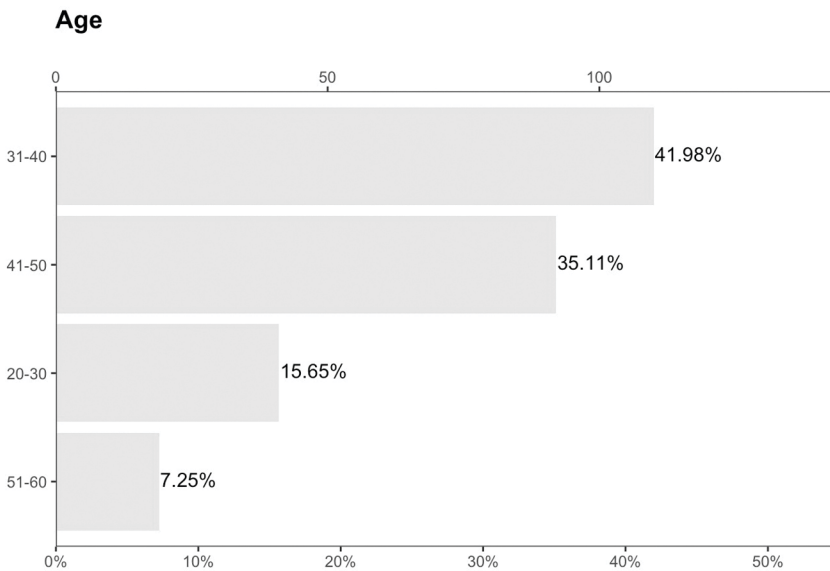


Figure 4.2 Distribution of the research group in terms of the following variable: age.

Source: Author's compilation based on conducted research.

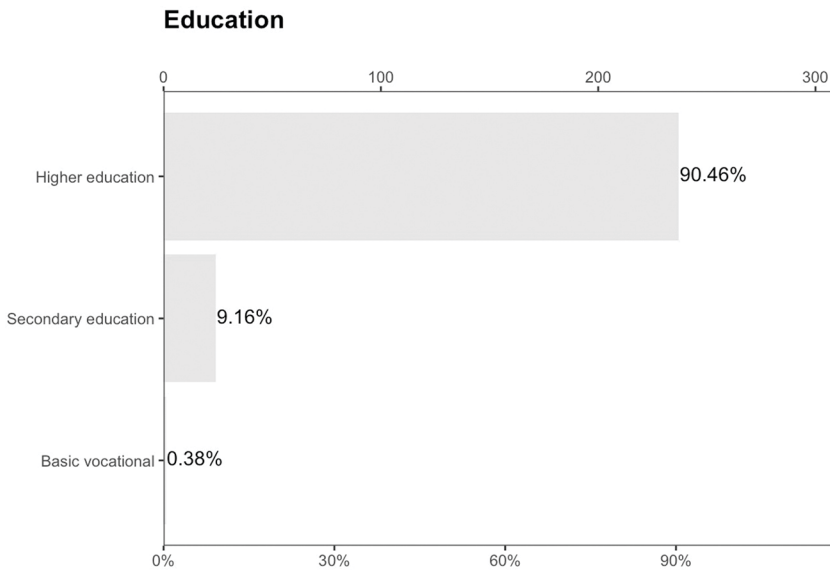


Figure 4.3 Distribution of the research group in terms of the following variable: education.

Source: Author's compilation based on conducted research.

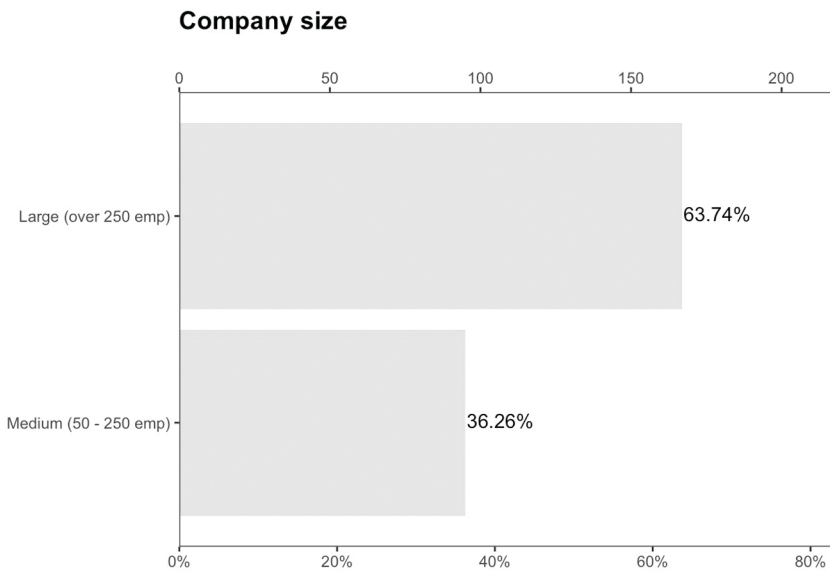


Figure 4.4 Distribution of the research group in terms of the following variable: company size.

Source: Author's compilation based on conducted research.

It is worth noting that the research sample was balanced in terms of Gender – 55% were women, 45% were men. In terms of the Age variable, the largest group involves people aged 31–40 (42%), followed by people aged 41–50 (35%). Younger age groups (20–30 years) and older age groups (51–60 years) have a smaller share in the sample. Most respondents have higher education (over 90%). The number of people with secondary and vocational education is much smaller, which indicates that the research group is strongly concentrated on people with higher education. Taking into account the Company Size variable, it should be noted that most respondents work for large companies (employing over 250 employees), which constitutes 64% of the sample. Meanwhile, medium-sized companies (50–250 employees) constitute 36% of the sample.

Bibliography

- Antonowsky, A. (1979). *Health, Stress and Coping*. San Francisco: Jossey-Bass.
- Bartkowiak, G. (2009). *Człowiek w pracy. Od stresu do sukcesu w organizacji*. Warszawa: Polskie Wydawnictwo Ekonomiczne.
- Cooper, C. L. & Dewe, P. J. (2004). *Stress: A Brief History*. Oxford: Blackwell.
- Cowan, R., Sanditov, B. & Weehuizen, R. (2011). Productivity effects of innovation, stress and social relations. *Journal of Economic Behavior & Organization*, 79(3), 165–182.
- Dyduch, W. (2011). Ilościowe badanie i operacjonalizacja zjawisk w naukach o zarządzaniu. [In]: W. Czakon (ed.) *Podstawy metodologii badań w naukach o zarządzaniu*. Warszawa: Wolters Kluwer, 306–330.
- Endler, N. S. & Parker, D. A. (1990). Multidimensional assessment of coping: a critical evaluation. *Journal of Personality and Social Psychology*, 58(5), 844–854.
- Endler, N. S. & Parker, J. D. A. (1994). Assessment of multidimensional coping: task, emotion and avoidance strategies. *Psychological Assessment*, 6, 50–60.
- Heszen, I. (2013). *Psychologia stresu*. Warszawa: Wydawnictwo Naukowe PWN.
- Hobfoll, S. E. (2001). The influence of culture, community, and the nested-self in the stress process: advancing conservation of resources theory. *Applied Psychology*, 50(3), 337–421.
- Kraczla, M. (2016). *Stres w pracy menedżera*, 2nd edition, supplemented. Warszawa: Wydawnictwo CeDeWu.
- Lazarus, R. S. (1999). *Stress and Emotion. A New Synthesis*. New York: Springer.
- Lisiński, M. (2011). Metodologia nauk o zarządzaniu a sukces organizacji. *Prace i Materiały Wydziału Zarządzania Uniwersytetu Gdańskiego*, 4/2, 223–231.
- Lisiński, M. (2016). Paradygmaty metodologiczne nauk o zarządzaniu. *Prace Naukowe Uniwersytetu Ekonomicznego we Wrocławiu*, 421, 374–385.
- Miles, M. B. & Huberman, A. M. (1994). *Qualitative Data Analysis*. California: Sage Publications Inc.
- Ogińska-Bulik, N. & Juczyński, Z. (2008). *Osobowość, stres a zdrowie*. Warszawa: Difin Sp. z o.o.

- Schaubhut, N. A. (2007). Technical Brief for the Thomas-Kilmann Conflict Mode Instrument. Retrieved October 15, 2020, from www.cpp.com.
- Strelau, J., Jaworowska, A., Wrześniewski, K. & Szczepaniak, P. (2013). *CISS. Kwestionariusz Radzenia Sobie w Sytuacjach Stresowych. Podręcznik*. Warszawa: Pracownia Testów Psychologicznych Polskiego Towarzystwa Psychologicznego.
- Sudoł, S. (2014). Podstawowe problemy metodologiczne nauk o zarządzaniu. *Organizacja i Kierowanie*, 1/2014(161), 11–36.
- Wrześniewski, K. (2000). Style i strategie radzenia sobie ze stresem. Problemy pomiaru. [In]: I. Heszen-Niejodek, Z. Ratajczak (eds.) *Człowiek w sytuacji stresu*. Katowice: Wydawnictwo Uniwersytetu Śląskiego, 44–64.

5 **Styles of conflict resolution and strategies of coping with stress in people in the case of people occupying managerial positions**

Presentation of the research results

This chapter contains an analysis of the empirical data obtained in the research of managerial staff. It includes presentation of the results obtained by the respondents regarding preferences of conflict resolution strategies in relation to the style of coping with stress. The results of the conducted research were analysed and interpreted in the following subsections:

1. *Statistical analysis of empirical material.* The results obtained by the surveyed group of managers in the Coping Inventory For Stressful Situations questionnaire (CISS) by N.S. Endler and J.D.A. Parker and the results in the Thomas-Kilmann Questionnaire (T-K Questionnaire) by K. Thomas and R. Kilmann.

To verify the research problems, a number of statistical activities were performed. Means and standard deviations were calculated. In order to verify the assumption about normality of the distribution of the studied variables, a series of analyses were performed using the Shapiro-Wilk test (dedicated test for sample size $N < 50$) and the Kolmogorov-Smirnov test with Liliefors's correction (dedicated test for sample size $N > 50$). A correlation analysis was performed between the variables (analysis using the Pearson r correlation test), an analysis of multiple pairwise comparisons was performed using the Bonferroni method, and an analysis of variance (ANOVA) and Tukey's post-hoc test were performed (Sections 5.1–5.4).

The aim of the analyses undertaken in the following paragraphs is to identify the relationship between the preferred style of coping with stress and the choice of conflict resolution techniques. The main goal is to understand how preferred stress management strategies correlate with the individual approach to resolving conflict situations. The first stage of the analysis focused on accurate measurement of the research participants' preferred style to be used while coping with stress. Standardized questionnaires and measurement scales were used, taking into account the diversity of reactions related to stress reactions. This helped us precisely classify the research participants

in the context of their preferred strategies for coping with stress. Then, an analysis of the choice of conflict resolution techniques was carried out based on the second standardized questionnaire. Respondents were assessed in terms of their preferences for conflict resolution techniques. In this context, it was important to identify whether the preferred style of coping with stress influences the choice of specific conflict strategies.

Additionally, statistical analysis was used to assess the significance of the relationship between the preferred style of coping with stress and the choice of conflict resolution techniques.

The final results of the research are intended to provide a deeper understanding of psychological mechanisms that may shape an individual's choices in stressful and conflict situations. This information can be important for psychology practitioners, coaches and human resources management specialists, supporting them in adapting stress and conflict management strategies to individual needs and preferences.

2. Verification of the research hypotheses (Section 5.5)

Verification of the main hypotheses:

- analysis and interpretation of the identified preferences in terms of choosing a style of coping with stress in people performing managerial functions;
- analysis and interpretation of stated preferences in the selection of conflict resolution techniques by people performing managerial functions;
- analysis and interpretation of the relationship between the methods of coping with stress and conflict resolution strategies used by managers.

5.1 Analysis of managerial behaviour in stressful situations – research using the Coping Inventory for Stressful Situations questionnaire (CISS) by N.S. Endler and J.D.A. Parker

The researched group of managers was analysed according to the criterion of behaviour in stressful situations (i.e., the way they cope with stressful situation). Based on the results of the CISS Questionnaire, significant differences were found in the choice of styles of coping with stress. In order to verify the research problem, a number of statistical analyses were carried out. The analyses were performed in the R program (R Core Team 2023). The results were visualized using the “ggplot2” graphics package (Wickham 2016). In order to verify the differences between $N = 3$ measurements (TASK OC, Emotion OC, Avoidance OC) in terms of the intensity of the *Measurement Intensity* variable, a one-factor analysis of comparisons in the dependent sample system was performed. $N = 262$ observations were included in the analysis.

The analysis with Mauchly's test of sphericity (Mauchly 1940) testing the assumption of equality of variance of differences between measurements for

the ANOVA test showed that the assumption of similarity of those differences between individual measurements (TASK OC, Emotion OC, Avoidance OC) of the results of *the Measurement Intensity* variable was not met, $\epsilon = 0.96$; $p = 0.005$. Therefore, it was decided to use the Greenhouse-Geisser method, which corrects the estimates of the statistical significance of ANOVA in relation to the size of the inequality of variability of differences between measurements (Greenhouse, Geisser 1959). One-way ANOVA for dependent samples (Fisher 1925) showed significant differences between the tested measurements of *the Measurement Intensity* variable, $F(1.92, 501.59) = 385.56$; $p < 0.001$; $\eta^2 = 0.60$. The partial η^2 coefficient showed that the differences between the tested measurements of TASK OC, Emotion OC, Avoidance OC explained about 60% of the variability of the results of the Measurement Intensity variable. In order to detect the exact differences between the compared measurements, a post-hoc analysis was performed using the Bonferroni method (Dunn 1961). The strength of the differences between measurements was assessed using Cohen's d coefficient (Cohen 2013).

The data obtained are presented collectively in Table 5.1 and graphically in Figure 5.1.

The comparison analysis performed using the Bonferroni technique showed that:

- the difference between Avoidance OC and Emotion OC was statistically significant $p < 0.001$. The average intensity of the results of *the Measurement Intensity* variable in the Avoidance OC measurement was statistically higher compared to the results of the Emotion OC measurement, the intensity of these results was, respectively, $M = 43.26$; $SD = 9.96$ vs $M = 40.2$; $SD = 11.52$ (the strength of the differences between these measurements was weak, Cohen's d coefficient was $d = 0.28$).
- The difference between Avoidance OC and TASK OC was statistically significant $p < 0.001$. The average intensity of the results of *the Measurement*

Table 5.1 Descriptive statistics of the differences between TASK OC, Emotion OC, Avoidance OC measurements in terms of the Measurement Intensity variable

<i>Measurement</i>	<i>Min</i>	<i>Max</i>	<i>M</i>	<i>SD</i>	<i>SE</i>	<i>Rank</i>
TASK OC	39	77	62.44	7.36	0.46	623.97
Emotion OC	19	73	40.20	11.52	0.71	253.04
Avoidance OC	17	70	43.26	9.96	0.62	303.49

Note: Number of observations examined: $N = 262$; Min = minimum value; Max = maximum value; M = arithmetic mean; SD = standard deviation; SE = standard error of the mean; Rank = average rank for the measurement.

Source: Author's compilation based on conducted research.

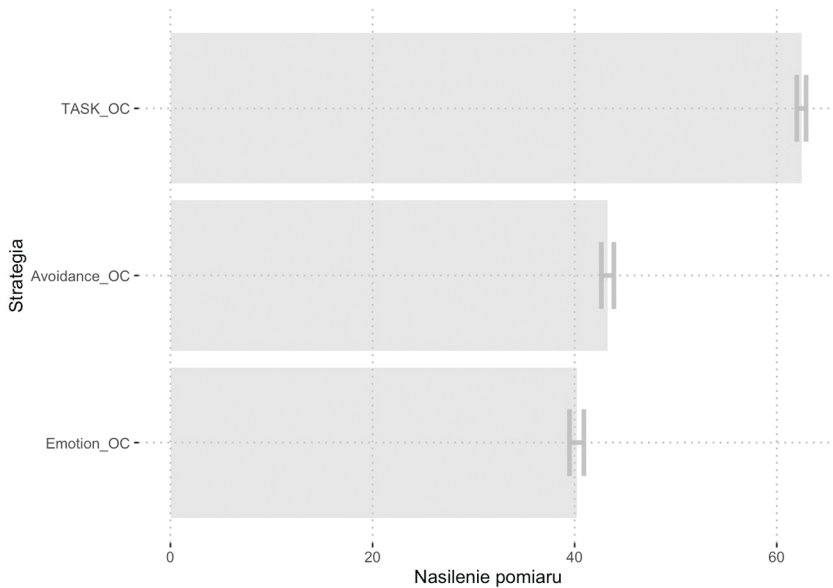


Figure 5.1 Differences between TASK OC, Emotion OC, and Avoidance OC measurements in terms of the Measurement Intensity variable.

Note: The error whiskers on the horizontal bars represent the standard errors of the means in the following measurements: TASK OC, Emotion OC, Avoidance OC. The overlapping whisker lines between the bars represent the approximate similarity of results between measurements in terms of the Measurement Intensity variable. In contrast, non-overlapping whisker lines represent approximately significant differences between measurements in terms of Measurement Intensity.

Source: Author's compilation based on conducted research.

Intensity variable in the Avoidance OC measurement was statistically lower compared to the results of the TASK OC measurement, the intensity of these results was, respectively, $M = 43.26$; $SD = 9.96$ vs $M = 62.44$; $SD = 7.36$ (the strength of the differences between these measurements was strong, Cohen's d coefficient was $d = 2.19$).

- The difference between Emotion OC and TASK OC was statistically significant $p < 0.001$. The average intensity of the results of the *Measurement Intensity* variable in the Emotion OC measurement was statistically lower compared to the results of the TASK OC measurement, the intensity of these results was, respectively, $M = 40.2$; $SD = 11.52$ vs $M = 62.44$; $SD = 7.36$ (the strength of the differences between these measurements was strong, Cohen's d coefficient was $d = 2.30$).

Based on the presented research material regarding differences in the choice of style of coping with stress, significant differences were found in the choice of the task-oriented style (Task OC) in relation to the other two styles: the avoidance-oriented style (Avoidance OC) and the emotion-oriented style (Emotions OC). **A statistically significant predominance of the task-oriented style (Task OC) was found in the research managerial group. A statistically significant advantage of the avoidance-oriented style (Avoidance OC) over the emotion-oriented style (Emotion OC) was also found in the studied managerial group.** The obtained data indicate that in the research managerial group, the task-oriented style (Task OC) was more common than other styles, which suggests that managers more often choose a task-oriented strategy in coping with stress. It was also revealed that the avoidance-oriented style (Avoidance OC) was more common than the emotion-oriented style (Emotion OC) among managers. This means that some managers may choose an avoidance strategy instead of focusing on emotional aspects in stressful situations. It can be assumed that managers associated with their profession frequent experience of constant stress related to the need of making difficult decisions, solving problems and being responsible to their colleagues. Despite those difficulties, their strong focus on success motivates them to develop flexibility and resilience in the face of unclear and demanding situations. As a result, the pressure to achieve business goals prompts managers to actively search for solutions, which translates into the dominance of the task-oriented strategy in stressful situations. It also seems that the specificity of managerial work may explain managers' use of the avoidance strategy (Avoidance OC). Functioning of managers at the organizational level is often associated with many challenges along with various unknown and dynamic factors. Managers often have to cope with complex business situations. When faced with uncertainty, the avoidance strategy (Avoidance OC) can be used as a way to avoid directly problem confrontation and it gives time to understand the situation. Psychological games, such as power struggles, competition or unclear interpersonal relationships, also often occur in the business environment. To avoid conflicts or becoming entangled in games, managers may use an avoidance strategy (Avoidance OC). At the same time, managers, bearing in mind the complex organizational context, may prefer avoidance (OC) as a risk management strategy. Avoiding conflict or problems can be seen as a way to minimize potential negative consequences. Therefore, the use of avoidance strategies (Avoidance OC) by managers may be adaptive, resulting from the difficulties they encounter in a dynamic organizational environment. Hence, managers can first use Task OC and Avoidance OC strategies in stressful situations. These approaches are consistent with managers' professional roles. Managers can resort to seeking emotional support (Emotion OC) when it becomes necessary to encounter the emotional aspects of the situation or when the stressful situation intensifies and becomes increasing mental burden.

5.2 Analysis of managerial behaviour in the face of conflict situations – research using the Thomas-Kilmann Questionnaire (T-K Questionnaire) by K. Thomas and R. Kilmann

The research group of managers was analysed due to the criterion for selecting conflict resolution techniques. Based on the results of the T-K Questionnaire research, significant differences were found in the choice of methods of coping with conflict. In order to verify the research problem, a number of statistical analyses were carried out. The following analyses were performed in the R program (R Core Team 2023). The results were visualized using the “ggplot2” graphics package (Wickham 2016). In order to verify the differences between $N = 5$ measurements (Competing, Collaborating, Compromising, Avoiding, Accommodating) in terms of the intensity of the *Measurement Intensity* variable, a one-factor analysis of comparisons in the dependent sample system was performed. $N = 262$ observations were included in the analysis.

The analysis with Mauchly’s test of sphericity (Mauchly 1940) testing the assumption of equality of variance of differences between measurements for the ANOVA test showed that the assumption of similarity of these differences between individual measurements (Competing, Collaborating, Compromising, Avoiding, Accommodating) of the results of the *Measurement Intensity* variable was not met, $\varepsilon = 0.66$; $p < 0.001$. Therefore, it was decided to use the Greenhouse-Geisser method, which corrects the estimates of the statistical significance of ANOVA in relation to the size of the inequality of variability of differences between measurements (Greenhouse, Geisser 1959). One-way ANOVA for dependent samples (Fisher 1925) showed significant differences between the tested measurements of the *Measurement Intensity* variable, $F(3.21, 836.96) = 109.87$; $p < 0.001$; $\eta^2 = 0.30$. The partial η^2 coefficient showed that the differences between the tested measurements of Competing, Collaborating, Compromising, Avoiding, Accommodating explained about 30% of the variability of the results of the *Measurement Intensity* variable. In order to detect the exact differences between the compared measurements, a post-hoc analysis was performed using the Bonferroni method (Dunn 1961). The strength of the differences between measurements was assessed using Cohen’s d coefficient (Cohen 2013).

The results of the analysis are presented in Table 5.2 and Figure 5.2.

The comparison analysis performed using the Bonferroni technique showed that:

- The difference between Accommodating and Avoiding was statistically significant $p < 0.001$. The average intensity of the results of the *Measurement Intensity* variable in the Accommodating measurement was statistically lower compared to the results of the Avoiding measurement, the intensity of these results was, respectively, $M = 4.36$; $SD = 2.23$ vs $M = 7.06$; $SD = 2.12$ (the

Table 5.2 Descriptive statistics of the differences between the Competing, Collaborating, Compromising, Avoiding, Accommodating measurements in terms of the Measurement Intensity variable

Measurement	Min	Max	M	SD	SE	Rank
Competing	0	12	4.36	2.93	0.18	445.37
Collaborating	2	12	5.97	1.92	0.12	647.31
Compromising	3	12	8.03	1.93	0.12	950.43
Avoiding	2	12	7.06	2.12	0.13	808.74
Accommodating	0	11	4.36	2.23	0.14	425.65

Note: Number of observations examined: $N = 262$; Min = minimum value; Max = maximum value; M = arithmetic mean; SD = standard deviation; SE = standard error of the mean; Rank = average rank for the measurement.

Source: Author's compilation based on the conducted research.

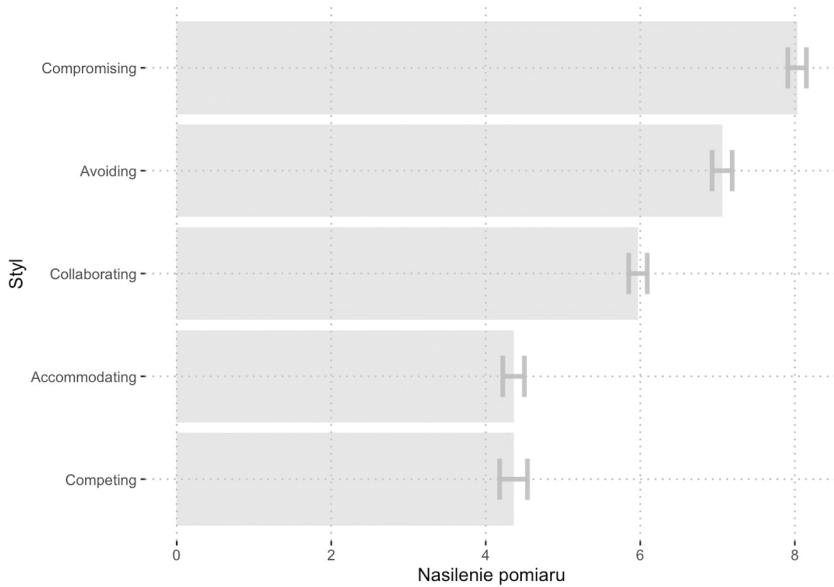


Figure 5.2 Differences between Competing, Collaborating, Compromising, Avoiding, Accommodating measurements in terms of the Measurement Intensity variable.

Note: The error whiskers on the horizontal bars represent the standard errors of the means in the following measurements: Competing, Collaborating, Compromising, Avoiding, Accommodating. The overlapping whisker lines between the bars represent the approximate similarity of results between measurements in terms of the Measurement Intensity variable. In contrast, non-overlapping whisker lines represent approximately significant differences between measurements in terms of Measurement Intensity.

Source: Author's compilation based on the conducted research.

strength of the differences between these measurements was strong, Cohen's d coefficient was $d = 1.24$).

- The difference between Accommodating and Collaborating was statistically significant $p < 0.001$. The average intensity of the results of the *Measurement Intensity* variable in the Accommodating measurement was statistically lower compared to the results of the Collaborating measurement, the intensity of these results was, respectively, $M = 4.36$; $SD = 2.23$ vs $M = 5.97$; $SD = 1.92$ (the strength of the differences between these measurements was moderate, Cohen's d coefficient was $d = 0.77$).
- The difference between Accommodating and Competing was not statistically significant $p = 1.000$. The average intensity of the results of the *Measurement Intensity* variable in the Accommodating measurement was statistically similar compared to the results of the Competing measurement, the intensity of these results was, respectively, $M = 4.36$; $SD = 2.23$ vs $M = 4.36$; $SD = 2.93$ (the strength of the differences between these measurements was weak, Cohen's d coefficient was $d = 0.00$).
- The difference between Accommodating and Compromising was statistically significant $p < 0.001$. The average intensity of the results of the *Measurement Intensity* variable in the Accommodating measurement was statistically lower compared to the results of the Compromising measurement, the intensity of these results was, respectively, $M = 4.36$; $SD = 2.23$ vs $M = 8.03$; $SD = 1.93$ (the strength of the differences between these measurements was strong, Cohen's d coefficient was $d = 1.76$).
- The difference between Avoiding and Collaborating was statistically significant $p < 0.001$. The average intensity of the results of the *Measurement Intensity* variable in the Avoiding measurement was statistically higher compared to the results of the Collaborating measurement, the intensity of these results was, respectively, $M = 7.06$, $SD = 2.12$ vs $M = 5.97$; $SD = 1.92$ (the strength of the differences between these measurements was moderate, Cohen's d coefficient was $d = 0.54$).
- The difference between Avoiding and Competing was statistically significant $p < 0.001$. The average intensity of the results of the *Measurement Intensity* variable in the Avoiding measurement was statistically higher compared to the results of the Competing measurement, the intensity of these results was, respectively, $M = 7.06$; $SD = 2.12$ vs $M = 4.36$; $SD = 2.93$ (the strength of the differences between these measurements was strong, Cohen's d coefficient was $d = 1.06$).
- The difference between Avoiding and Compromising was statistically significant $p < 0.001$. The average intensity of the results of the *Measurement Intensity* variable in the Avoiding measurement was statistically lower compared to the results of the Compromising measurement, the intensity of these results was, respectively, $M = 7.06$; $SD = 2.12$ vs $M = 8.03$; $SD = 1.93$ (the strength of the differences between these measurements was weak, Cohen's d coefficient was $d = 0.48$).

- The difference between Collaborating and Competing was statistically significant $p < 0.001$. The average intensity of the results of the *Measurement Intensity* variable in the Collaborating measurement was statistically higher compared to the results of the Competing measurement, the intensity of these results was, respectively, $M = 5.97$; $SD = 1.92$ vs $M = 4.36$; $SD = 2.93$ (the strength of the differences between these measurements was moderate, Cohen's d coefficient was $d = 0.65$).
- The difference between Collaborating and Compromising was statistically significant $p < 0.001$. The average intensity of the results of the *Measurement Intensity* variable in the Collaborating measurement was statistically lower compared to the results of the Compromising measurement, the intensity of these results was, respectively, $M = 5.97$; $SD = 1.92$ vs $M = 8.03$; $SD = 1.93$ (the strength of the differences between these measurements was strong, Cohen's d coefficient was $d = 1.07$).
- The difference between Competing and Compromising was statistically significant $p < 0.001$. The average intensity of the results of the *Measurement Intensity* variable in the Competing measurement was statistically lower compared to the results of the Compromising measurement, the intensity of these results was, respectively, $M = 4.36$; $SD = 2.93$ vs $M = 8.03$; $SD = 1.93$ (the strength of the differences between these measurements was strong, Cohen's d coefficient was $d = 1.48$).

Taking into account the above-mentioned relationships regarding the differences in the selection of conflict resolution techniques, significant differences were found in the technique focused on a compromise approach to conflicts (Compromising) in relation to the four other techniques: avoidance techniques (Avoiding), collaboration techniques (Collaborating), accommodation techniques (Accommodating) and competition techniques (Competing). **The significant statistical differences found allow us for indicating that the most frequently used conflict resolution techniques in the surveyed managerial group involve Compromising and Avoiding, with the choice of Collaborating ranked in the middle and the least frequently used conflict resolution techniques involved Accommodating and Competition.** The obtained data indicate that in the surveyed managerial group, the Compromising technique is one of the most frequently used techniques. This means that managers usually try to reach a solution that is acceptable to all parties to the conflict, but not necessarily ideal for any of them. Managers also often decide to avoid conflict (Avoiding). They may ignore the problem or avoid confrontation, which may lead to temporary avoidance of tensions, but not necessarily a permanent solution to the problem. Sometimes managers refer to the collaboration technique (Collaborating). Statistically, managers hardly use the Accommodating and Competing techniques at all. This may mean that if they choose the Accommodating technique, they are not willing to push their points of view and are more inclined to make concessions to meet the needs of other parties to

the conflict. In the case of the Competing technique, managers are more willing to take the initiative and push their point of view without major compromises. Generally speaking, managers in the research group seem to avoid aggressive strategies (competition) and strategies of adapting to the requirements of a conflict situation and are more willing to seek compromises or avoid conflict. The intensification of the dominant techniques of coping with conflict situations – compromise and avoidance – among the surveyed managers may result from several reasons, which are usually related to resource management, maintaining relationships between employees and maintaining stability in the organization. Managers usually try to maintain positive atmosphere in the work team. Conflicts can lead to tensions between employees, which affects the atmosphere and collaboration. Using compromise or avoidance strategies may avoid conflict escalation, which is important for maintaining peace and effectiveness at work. Conflicts can consume valuable time and energy of employees and managers. Searching for compromises can shorten duration of conflict, allowing the team to focus on completing tasks and achieving goals. Avoiding conflict can, in turn, prevent wasting time on unproductive confrontation. The compromise technique in resolving conflicts allows for balancing various interests and needs of the parties to the conflict. Managers are professionals who are aware that each side of the conflict has its own reasons and preferences, so they try to find a solution that takes those differences into account. Conflict avoidance may be an attempt to avoid bias and maintain a neutral position towards the parties involved. By choosing an avoidance strategy, managers may try to prevent conflict escalation that may have negative consequences for all parties involved. Taking a proactive approach to resolving conflict can help minimize negative consequences and maintain stability in the organization. Managers are often focused on achieving long-term organizational goals. The use of compromise or avoidance strategies may result from a desire to avoid long-term disputes that may disrupt the implementation of strategic plans.

It is also worth emphasizing that preferred strategies may vary depending on the situation, the specificity of the organization or the characteristics of a specific conflict, and good conflict management requires flexibility and the ability to adapt to a specific organizational situation.

5.3 Analysis of managerial behaviour in stressful situations and in conflict situations due to demographic variables

5.3.1 Differences between groups distinguished on the basis of the gender variable

In order to determine significant differences between the groups distinguished on the basis of the Gender variable in terms of the level of the TASK OC, Emotion OC, Avoidance OC, Avoidant Distracted, Avoidant Social Coping, Competing, Collaborating, Compromising, Avoiding, Accommodating variables, an analysis

was carried out using the Mann-Whitney U test (Mann and Whitney 1947). The non-parametric method was used due to the lack of assumptions met for parametric tests. A total of $N = 262$ observations were included in the research. The maximum number in the Male group was $n = 119$, and in the case of the Female group it was $n = 143$.

In order to determine whether those groups are equal in size, a chi-square test for one variable was performed (Pearson 1900). As a result of the analysis, it was determined that the groups were statistically equal, $\chi^2(1) = 2.20$; $p = 0.138$. The effect strength was assessed using Glass's measure of biserial correlation (Glass 1965). Descriptive statistics are included in Table 5.3.

In order to verify the assumption about the normality of the distribution of the research variables, a series of analyses were performed using the Shapiro-Wilk test (dedicated test for sample size $N < 50$) (Royston 1982) and the Kolmogorov-Smirnov test with the Lilliefors correction (dedicated test for sample size $N > 50$) (Dallal and Wilkinson 1986). The results of those tests, along with the measures of symmetry of the distributions, are presented in Tables 5.4 and 5.5. Intergroup comparisons are presented in Table 5.6. A visual presentation of the obtained results is provided in Figures 5.3–5.12.

In terms of the TASK OC variable, there were no statistically significant differences between the Male and Female groups. Both women and men used the task-based stress coping strategy to the same extent.

The lack of statistically significant differences between women and men in the variable defined as Task OC may be due to several possible reasons.

Different strategies of coping may be equally available and acceptable to women and men, leading to no statistically significant gender differences. This means that both groups may choose similar approaches to coping with stress in

Table 5.3 Basic descriptive statistics of the distributions of the following variables: TASK OC, Emotion OC, Avoidance OC, Avoidant Distracted, Avoidant Social Coping, Competing, Collaborating, Compromising, Avoiding, Accommodating

<i>Variable</i>	<i>N</i>	<i>Min</i>	<i>Max</i>	<i>M</i>	<i>SD</i>	<i>SE</i>
TASK OC	262	42.00	77.00	62.51	7.22	0.45
Emotion OC	262	19.00	73.00	40.03	11.34	0.70
Avoidance OC	262	17.00	66.00	43.15	9.76	0.60
Avoidant Distracted	262	5.00	34.00	18.39	5.94	0.37
Avoidant Social Coping	262	8.00	25.00	16.74	3.79	0.23
Competing	262	0.00	12.00	4.43	3.06	0.19
Collaborating	262	2.00	11.00	5.97	1.93	0.12
Compromising	262	3.00	12.00	7.98	2.00	0.12
Avoiding	262	2.00	12.00	7.06	2.19	0.14
Accommodating	262	0.00	11.00	4.37	2.23	0.14

Source: Author's compilation based on the conducted research.

Table 5.4 Normality tests and measures of symmetry of the distributions of the following variables: TASK OC, Emotion OC, Avoidance OC, Avoidant Distracted, Avoidant Social Coping, Competing, Collaborating, Compromising, Avoiding, Accommodating

<i>Variable</i>	<i>KS test</i>		<i>SW test</i>		<i>Distribution symmetry measures</i>	
	<i>KS</i>	<i>p</i>	<i>SW</i>	<i>p</i>	<i>Skewness</i>	<i>Kurtosis</i>
TASK OC	0.06	0.031	0.98	0.005	-0.18	-0.45
Emotion OC	0.08	0.004	0.98	<0.001	0.44	-0.10
Avoidance OC	0.07	0.007	0.99	0.020	-0.32	0.00
Avoidant Distracted	0.06	0.010	0.99	0.016	0.12	-0.60
Avoidant Social Coping	0.09	<0.001	0.98	0.003	-0.16	-0.50
Competing	0.14	<0.001	0.95	<0.001	0.49	-0.58
Collaborating	0.13	<0.001	0.97	<0.001	0.16	-0.63
Compromising	0.13	<0.001	0.96	<0.001	-0.32	-0.41
Avoiding	0.11	<0.001	0.97	<0.001	-0.03	-0.49
Accommodating	0.12	<0.001	0.97	<0.001	0.29	-0.28

Note: *KS* = Kolmogorov-Smirnov test statistics; *SW* = Shapiro-Wilk test statistics. Normality test *p*-values > 0.05 mean that the distribution of the variable is normal.

Source: Author's compilation based on the conducted research.

task situations. A task-based stress coping strategy may include various elements, such as planning, organization or focusing on the task. The lack of statistically significant differences may be due to the fact that women and men may perform similarly on various aspects of the task strategy, which leads to an overall lack of differences.

It is also worth noting that the lack of differences may reflect a real lack of differences in the approach to task-based coping strategies in the managerial population, but it is equally likely that the lack of significant differences in the area of task-based coping strategies does not necessarily mean that those strategies are unimportant for both genders. It is important to consider the context of the research and understand whether the lack of differences is the result of actual equality in the choice of strategy, or perhaps a result of methodological limitations or the specificity of the research sample.

The analysis showed that in terms of the Emotion OC variable, the difference was statistically significant, $U = 4904.50$; $p < 0.001$ – a higher result was observed in the case of the Female group ($M_{rang} = 156.70$), and a lower result in the Male group ($M_{rang} = 101.21$). The effect strength of differences between groups in the Emotion OC variable was moderate ($rg = 0.42$).

In terms of the variable referred to as emotional strategy of coping with stress (Emotion OC), it was found that women referred to the strategy of seeking emotional support in stressful situations more often than men.

Table 5.5 Normality tests and measures of symmetry of the distribution of the following variables: TASK OC, Emotion OC, Avoidance OC, Avoidant Distracted, Avoidant Social Coping, Competing, Collaborating, Compromising, Avoiding, Accommodating, in groups distinguished on the basis of the gender variable

Variable	Gender	Kolmogorov-Smirnov test		Shapiro-Wilk test		Distribution symmetry measures	
		K-S	p	S-W	p	Skewness	Kurtosis
TASK OC	Male	0.08	0.064	0.97	0.010	0.01	-0.96
	Female	0.07	0.121	0.98	0.040	-0.32	-0.05
Emotion OC	Male	0.09	0.013	0.96	0.003	0.39	-0.64
	Female	0.11	< 0.001	0.97	0.001	0.57	-0.05
Avoidance OC	Male	0.07	0.112	0.98	0.099	-0.31	-0.10
	Female	0.06	0.302	0.99	0.239	-0.20	-0.19
Avoidant Distracted	Male	0.08	0.040	0.98	0.047	0.18	-0.70
	Female	0.06	0.185	0.99	0.139	0.13	-0.50
Avoidant Social Coping	Male	0.10	0.008	0.98	0.028	-0.16	-0.69
	Female	0.10	0.003	0.98	0.107	-0.10	-0.39
Competing	Male	0.11	< 0.001	0.96	< 0.001	0.31	-0.78
	Female	0.16	< 0.001	0.94	< 0.001	0.58	-0.44
Collaborating	Male	0.16	< 0.001	0.96	0.001	-0.03	-0.34
	Female	0.15	< 0.001	0.95	< 0.001	0.32	-0.76
Compromising	Male	0.17	< 0.001	0.95	< 0.001	-0.33	-0.77
	Female	0.13	< 0.001	0.96	< 0.001	-0.20	-0.11
Avoiding	Male	0.14	< 0.001	0.96	0.002	-0.18	-0.42
	Female	0.09	0.011	0.97	0.009	0.00	-0.63
Accommodating	Male	0.13	< 0.001	0.96	< 0.001	0.46	0.04
	Female	0.12	< 0.001	0.97	0.006	0.15	-0.37

Note: *KS* = Kolmogorov-Smirnov test statistics; *SW* = Shapiro-Wilk test statistics. Normality test *p*-values > 0.05 mean that the distribution of the variable is normal.

Source: Author's compilation based on the conducted research.

Social and cultural norms may shape expectations about how women and men should cope with stress. If society promotes the idea that women are more willing to share emotions and seek support, women may be more likely to use such strategies in response to stressful situations. The social context may favour women in using strategies to seek emotional support. Men may be more willing to use other forms of coping with stress that are more consistent with traditional ideas about being in a masculine role.

Individual beliefs and values may also shape preferences for strategies of coping with stress. If women believe that sharing emotions and seeking support is an effective strategy, they may be more likely to use this form of coping with difficult situations. Biological and psychological differences are also important and may play a significant role in this context. Research suggests that women

Table 5.6 Differences between groups distinguished on the basis of the Gender variable in terms of the level of the following variables: TASK OC, Emotion OC, Avoidance OC, Avoidant Distracted, Avoidant Social Coping, Competing, Collaborating, Compromising, Avoiding, Accommodating

Variable	Male (a)					Female (b)					U Mann-Whitney test			rg
	N	M	SD	Me	Mrang	N	M	SD	Me	Mrang	U	p	a vs b difference	
TASK OC	119	62.66	7.16	63.00	132.26	143	62.38	7.30	62.00	130.87	8418.00	0.883	a = b	0.01
Emotion OC	119	35.42	10.22	34.00	101.21	143	43.87	10.82	42.00	156.70	4904.50	< 0.001	a < b	0.42
Avoidance OC	119	42.08	10.69	43.00	124.09	143	44.05	8.86	44.00	137.67	7626.50	0.149	a = b	0.10
Avoidant Distracted	119	17.48	6.13	17.00	120.21	143	19.15	5.68	19.00	140.90	7165.00	0.028	a < b	0.16
Avoidant Social Coping	119	16.20	3.94	16.00	121.66	143	17.19	3.60	17.00	139.69	7338.00	0.055	a = b	0.14
Competing	119	5.13	3.24	5.00	147.31	143	3.85	2.79	3.00	118.34	6627.00	0.002	a > b	0.22
Collaborating	119	6.09	1.89	6.00	137.85	143	5.87	1.96	6.00	126.22	7753.00	0.211	a = b	0.09
Compromising	119	7.84	2.21	8.00	128.42	143	8.10	1.80	8.00	134.07	8141.50	0.544	a = b	0.04
Avoiding	119	6.77	2.06	7.00	122.77	143	7.30	2.27	7.00	138.76	7470.00	0.086	a = b	0.12
Accommodating	119	4.01	2.16	4.00	118.84	143	4.66	2.26	4.00	142.03	7002.00	0.013	a < b	0.18

Note: Mrang = average rank; U = Mann-Whitney U statistic; p = statistical significance; rg = glass's biserial correlation strength test statistic.

Source: Author's compilation based on the conducted research.

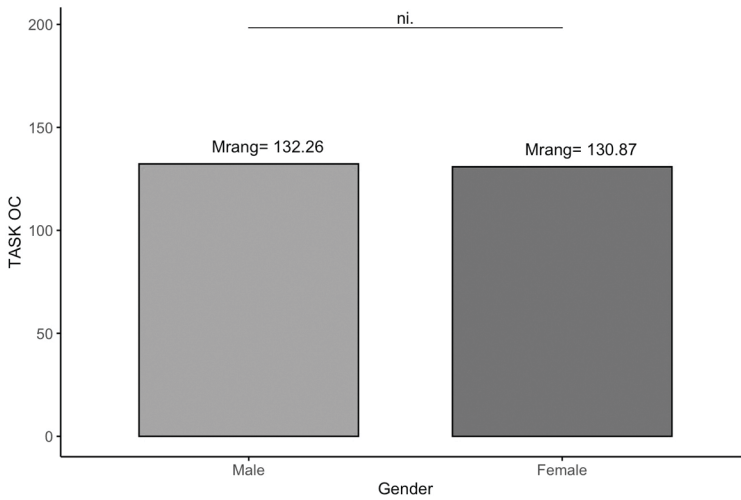


Figure 5.3 Differences between groups distinguished on the basis of the gender variable in terms of the level of the TASK OC variable.

Note: * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$, *ni* – insignificant result.

Source: Author's compilation based on the conducted research.

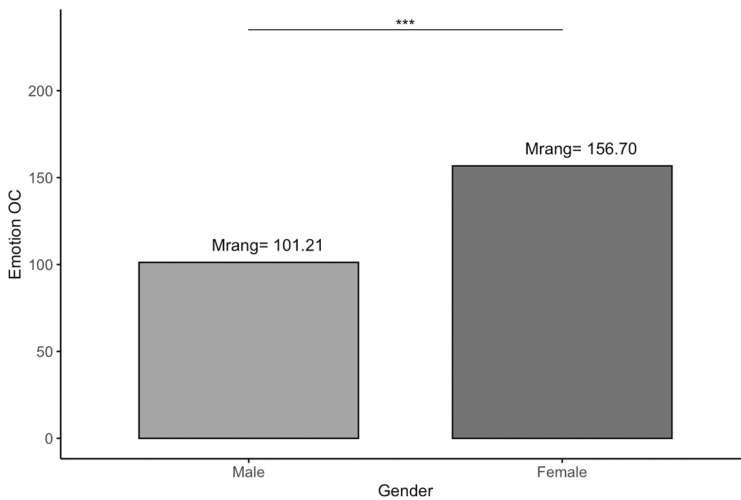


Figure 5.4 Differences between groups distinguished on the basis of the gender variable in terms of the level of the Emotion OC variable.

Note: * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$, *ni* – insignificant result.

Source: Author's compilation based on the conducted research.

may be more inclined to express emotions and seek support in difficult situations. This may be related to differences in brain functioning or hormonal influences.

The analyses did not show statistically significant differences between the Male and Female groups in terms of the Avoidance OC variable. Both women and men used the avoidance strategy of coping with stress to the same extent. Perhaps the differences in strategies of coping with stress are more related to individual personality traits, life experiences or the level of stress at a specific moment, than to gender. Valuing avoidance or preferring confrontation may depend more on individual personality traits than be a function of gender. One can also hypothesize that common adaptation mechanisms – specific to functioning in a managerial role – may encourage both women and men to use similar strategies, including an avoidance strategy of similar intensity in relation to stressful situations.

The analysis showed that in the area of the Avoidant Distracted variable the difference was statistically significant, $U = 7165.00$; $p = 0.028$ – a higher result was observed in the case of the Female group ($M_{rang} = 140.90$), and a lower result in the Male group ($M_{rang} = 120.21$). The effect strength of differences between groups in terms of the Avoidant Distracted variable was small ($r_g = 0.16$).

In terms of the variable involving engaging in substitute activities (Avoidant Distracted) as a subscale of the avoidance strategy for responding to stress

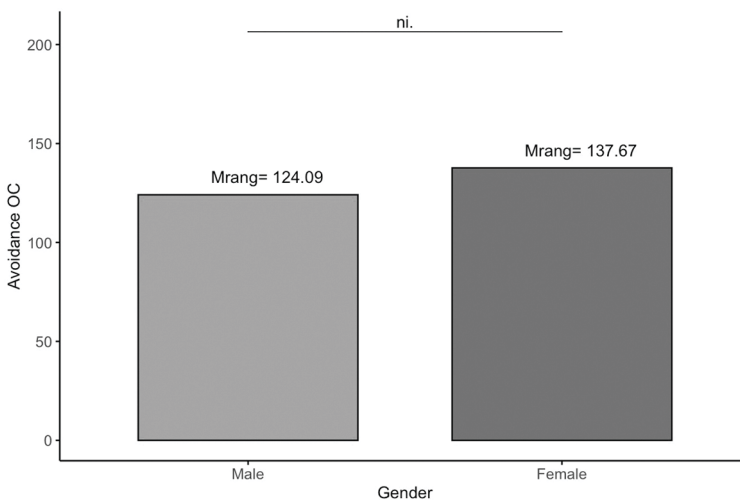


Figure 5.5 Differences between groups distinguished on the basis of the gender variable in terms of the level of the Avoidance OC variable.

Note: * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$, *ni* – insignificant result.

Source: Author's compilation based on the conducted research.

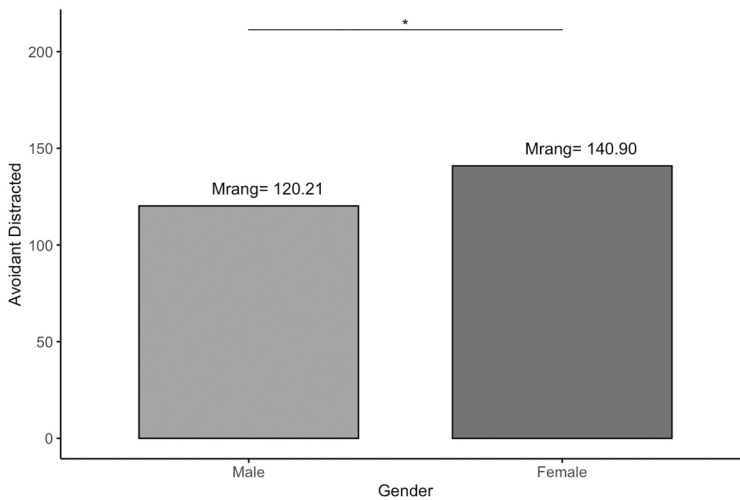


Figure 5.6 Differences between groups distinguished on the basis of the gender variable in terms of the level of the Avoidant Distracted variable.

Note: * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$, *ni* – insignificant result.

Source: Author’s compilation based on the conducted research.

(Avoidance OC), it was found that women were more likely to engage in other activities to avoid coping with the stressful situation than men. Social norms and expectations can shape how women and men cope with stress. If society promotes the idea that women should more actively avoid directly confronting stressful situations by engaging in other activities, then women may be more willing to use this strategy. Early experiences and the socialization process can also influence how individuals cope with stress. If women were raised in an environment that promoted avoiding confrontation by engaging in other activities, they may continue to use this strategy into adulthood. It is also worth noting that individual differences in an individual’s psychology, such as the tendency to avoid confrontation or fear of stressful situations, may influence the choice of strategy. Women who exhibit strong avoidance patterns may be more willing to engage in other activities to avoid directly confronting the source of stress.

The analyses did not show statistically significant differences between the Male and Female groups in terms of the Avoidant Social Coping variable. Both women and men equally used the avoidant coping strategy of engaging in substitute social relationships to avoid coping with the stressful situation (Avoidant Social Coping) as a subscale of the avoidance strategy of responding to stress (Avoidance OC).

The strategy of engaging in vicarious social relationships can be widely used by managers regardless of gender. If this is one of the commonly accepted

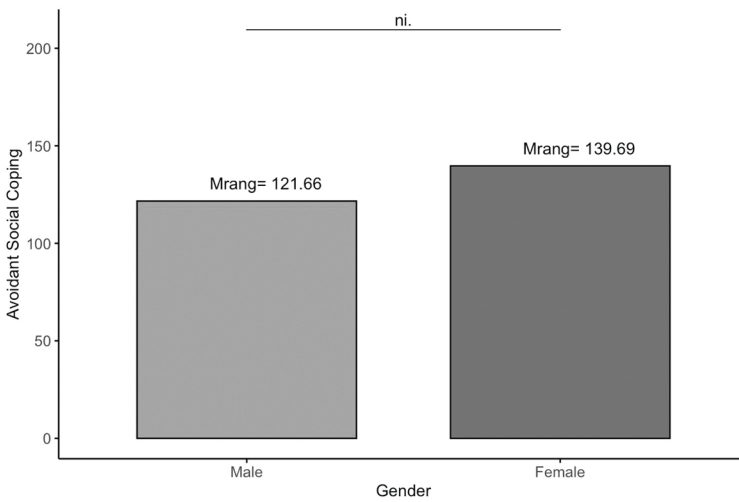


Figure 5.7 Differences between groups distinguished on the basis of the gender variable in terms of the level of the Avoidant Social Coping variable.

Note: * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$, *ni* – insignificant result.

Source: Author's compilation based on the conducted research.

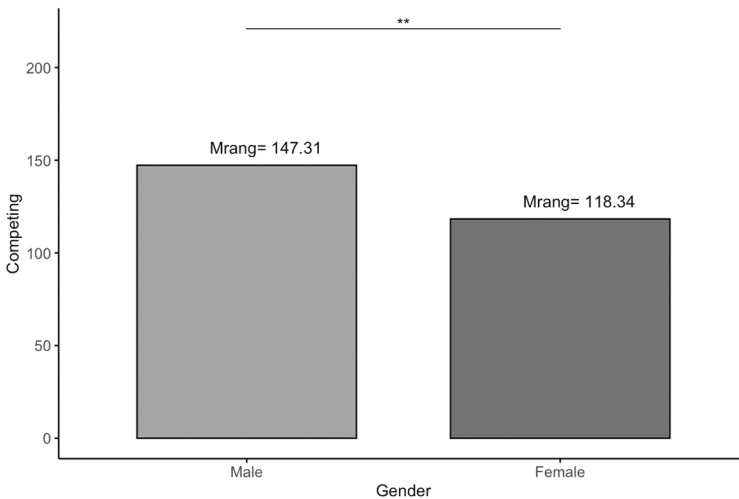


Figure 5.8 Differences between groups distinguished on the basis of the gender variable in terms of the level of the Competing variable.

Note: * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$, *ni* – insignificant result.

Source: Author's compilation based on the conducted research.

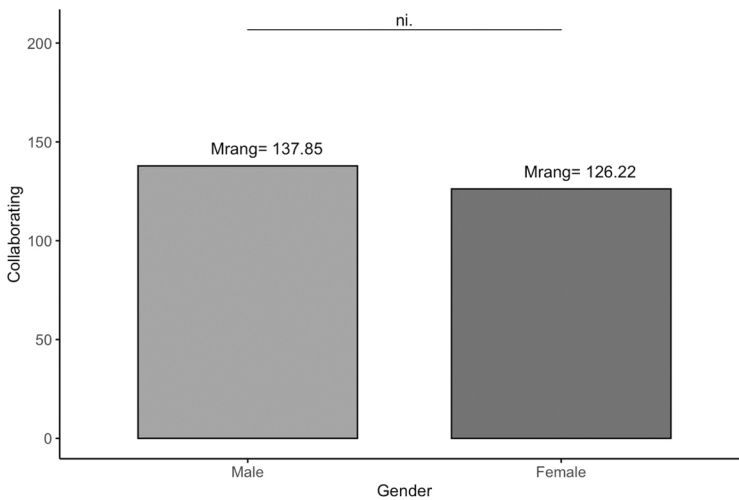


Figure 5.9 Differences between groups distinguished on the basis of the gender variable in terms of the level of the Collaborating variable.

Note: * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$, *ni* – insignificant result.

Source: Author’s compilation based on the conducted research.

forms of stress avoidance, both women and men can use it to a similar extent. If a society accepts engaging in vicarious social relationships as a way to avoid stress, then women and men can adapt their strategies to those social norms. Both women and men may equally feel the need to “de-stress” through social support and relationships. Therefore, the strategy of engaging in vicarious social relationships may be equally attractive and effective for both genders.

The analysis showed that in the Competing variable the difference was statistically significant, $U = 6627.00$; $p = 0.002$ – a higher result was observed in the Male group (Mrang = 147.31), and a lower result in the Female group (Mrang = 118.34). The effect strength of differences between groups in the Competing variable was small ($rg = 0.22$).

In terms of the variable referred to as competitive conflict resolution technique (Competing), it was found that men used a competitive strategy to overcome conflict situations more often than women. Perhaps differences between men and women in the way they perceive and cope with conflict influence strategy preferences. Men may more often value resolving conflicts through competition. Men and women also often show differences in communication styles. Men may prefer more direct and competitive communication in conflict situations, which may translate into the choice of a competitive strategy.

The analyses did not reveal statistically significant differences between the Male and Female groups in terms of the Collaborating variable. The research

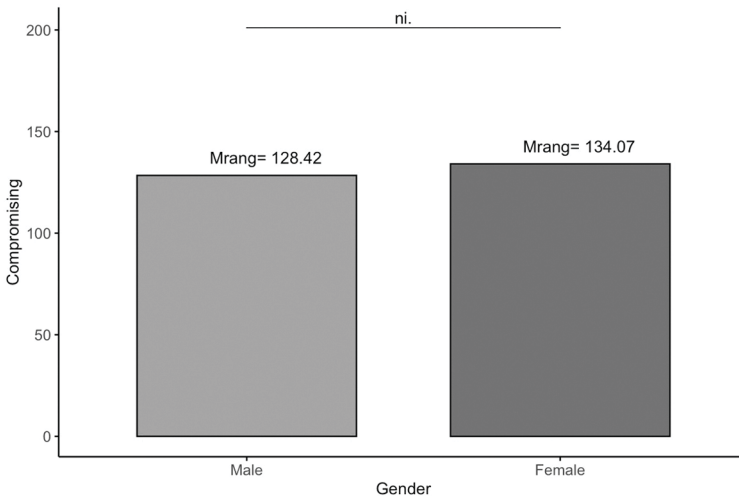


Figure 5.10 Differences between groups distinguished on the basis of the gender variable in terms of the level of the Compromising variable.

Note: * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$, *ni* – insignificant result.

Source: Author’s compilation based on the conducted research.

did not observe a preference for collaboration strategies by one gender over the other. This means that men and women may have similar preferences and tendencies to use this particular strategy. If organizations promote a balanced approach to conflict management, men and women may be equally likely to use collaborative strategies.

The analyses did not show statistically significant differences between the Male and Female groups in terms of the Compromising variable. The analysis may indicate the lack of specific preferences of one gender for the compromise strategy over the other. This suggests that the two groups do not differ in their degree of preference for this particular technique. Perhaps both genders are willing to use it to achieve satisfactory results in resolving conflicts. This is very likely if compromise is considered an ethical and effective way of coping with conflict. If managers of both genders are exposed to the same organizational norms and values, both groups are likely to choose to use this strategy equally often in conflict situations.

The analyses did not show statistically significant differences between the Male and Female groups in terms of the Avoiding variable. Women and men did not differ significantly in the avoidance-based conflict resolution technique. This means that both groups use the avoidance technique to a similar extent, which may be the result of common features characteristic of both genders. The

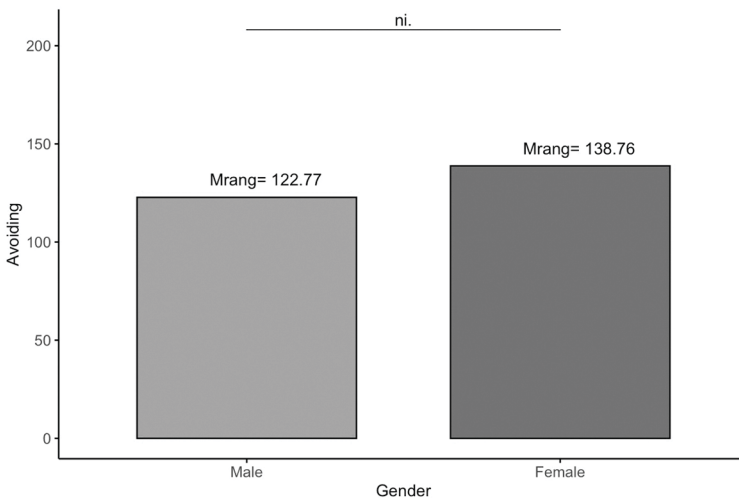


Figure 5.11 Differences between groups distinguished on the basis of the gender variable in terms of the level of the Avoiding variable.

Note: * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$, *ni* – insignificant result.

Source: Author's compilation based on the conducted research.

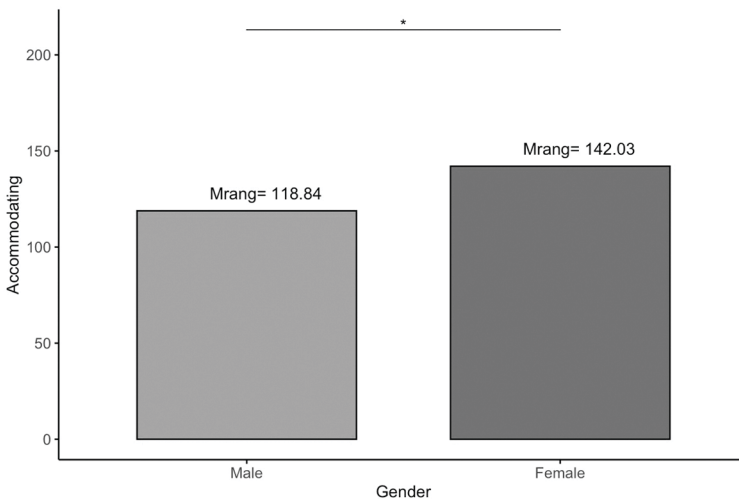


Figure 5.12 Differences between groups distinguished on the basis of the gender variable in terms of the level of the Accommodating variable.

Note: * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$, *ni* – insignificant result.

Source: Author's compilation based on the conducted research.

lack of statistical differences may also be due to the lack of social expectations regarding this particular strategy in the context of gender.

The analysis showed that in the field of the Accommodating variable the difference was statistically significant, $U = 7002.00$; $p = 0.013$ – a higher result was observed in the case of the Female group ($M_{rang} = 142.03$), and a lower result in the Male group ($M_{rang} = 118.84$). The effect strength of differences between groups in terms of the Accommodating variable was small ($rg = 0.18$). In terms of the variable referred to as the conflict resolution technique based on accommodation (Accommodating), it was found that women used the adaptation strategy to overcome conflict situations more often than men. Women are often associated with greater attachment to interpersonal relationships. In conflict situations, they may be more willing to give in to maintain relational stability. In this way, women may prefer to avoid direct confrontations and clashes, which leads them to choose an accommodation strategy that is more conciliatory and does not lead to conflict.

5.3.2 Differences between groups distinguished on the basis of the age variable

In order to determine significant differences between the groups distinguished on the basis of the Age variable in terms of the level of the TASK OC, Emotion OC, Avoidance OC, Avoidant Distracted, Avoidant Social Coping, Competing, Collaborating, Compromising, Avoiding, Accommodating variables, an analysis was carried out using the Mann-Whitney U test (Mann and Whitney 1947). The non-parametric method was used due to the lack of met assumptions for parametric tests. A total of $N = 262$ observations were included in the research. The maximum number in the 41–60 group was $n = 111$, and in the 20–40 group it was $n = 151$.

In order to determine whether those groups are equal in size, a chi-square test for one variable was performed (Pearson 1900). As a result of the analysis, it was determined that the groups were statistically unequal, $\chi^2(1) = 6.11$; $p = 0.013$. The effect strength was assessed using Glass's measure of biserial correlation (Glass 1965).

Descriptive statistics are included in Table 5.7. In order to verify the assumption about the normality of the distribution of the research variables, a series of analyses were performed using the Shapiro-Wilk test (dedicated test for sample size $N < 50$) (Royston 1982) and the Kolmogorov-Smirnov test with the Lilliefors correction (dedicated test for sample size $N > 50$) (Dallal and Wilkinson 1986). The results of these tests, along with the measures of symmetry of the distributions, are presented in Tables 5.8 and 5.9. Intergroup comparisons are presented in Table 5.10. A visual presentation of the obtained results is provided in Figures 5.13–5.22.

The analysis showed that in terms of the TASK OC variable, the difference was statistically significant, $U = 7122.00$; $p = 0.038$ – a higher result was observed in

Table 5.7 Basic descriptive statistics of the distributions of the following variables: TASK OC, Emotion OC, Avoidance OC, Avoidant Distracted, Avoidant Social Coping, Competing, Collaborating, Compromising, Avoiding, Accommodating

Variable	N	Min	Max	M	SD	SE
TASK OC	262	42.00	77.00	62.51	7.22	0.45
Emotion OC	262	19.00	73.00	40.06	11.23	0.69
Avoidance OC	262	17.00	68.00	43.19	9.84	0.61
Avoidant Distracted	262	0.00	34.00	18.34	6.04	0.37
Avoidant Social Coping	262	5.00	25.00	16.65	3.97	0.24
Competing	262	0.00	12.00	4.43	3.06	0.19
Collaborating	262	0.00	12.00	5.98	2.02	0.12
Compromising	262	3.00	12.00	7.98	2.00	0.12
Avoiding	262	2.00	12.00	7.06	2.19	0.14
Accommodating	262	0.00	11.00	4.42	2.33	0.14

Source: Author's compilation based on the conducted research.

Table 5.8 Normality tests and measures of symmetry of the distributions of the following variables: TASK OC, Emotion OC, Avoidance OC, Avoidant Distracted, Avoidant Social Coping, Competing, Collaborating, Compromising, Avoiding, Accommodating

Variable	KS test		SW test		Distribution symmetry measures	
	KS	p	SW	p	Skewness	Kurtosis
TASK OC	0.06	0.031	0.98	0.005	-0.18	-0.45
Emotion OC	0.07	0.005	0.98	0.001	0.34	-0.37
Avoidance OC	0.06	0.007	0.99	0.042	-0.28	0.05
Avoidant Distracted	0.06	0.017	0.99	0.086	0.03	-0.42
Avoidant Social Coping	0.09	<0.001	0.98	0.002	-0.34	-0.16
Competing	0.14	<0.001	0.95	<0.001	0.49	-0.58
Collaborating	0.13	<0.001	0.97	<0.001	0.22	-0.14
Compromising	0.13	<0.001	0.96	<0.001	-0.32	-0.41
Avoiding	0.11	<0.001	0.97	<0.001	-0.03	-0.49
Accommodating	0.12	<0.001	0.97	<0.001	0.45	-0.01

Note: KS = Kolmogorov-Smirnov test statistics; SW = Shapiro-Wilk test statistics. Normality test p-values > 0.05 mean that the distribution of the variable is normal.

Source: Author's compilation based on the conducted research.

the case of the 41–60 group (Mrang = 142.84), and a lower result in the 20–40 group (Mrang = 123.17). The effect strength of differences between groups in terms of the TASK OC variable was small (rg = 0.15). In terms of the variable referred to as the task-oriented strategy for coping with stress (Task OC), it

Table 5.9 Normality tests and measures of symmetry of the distribution of the following variables: TASK OC, Emotion OC, Avoidance OC, Avoidant Distracted, Avoidant Social Coping, Competing, Collaborating, Compromising, Avoiding, Accommodating, in groups distinguished on the basis of the Age variable

<i>Variable</i>	<i>Age</i>	<i>Kolmogorov-Smirnov test</i>		<i>Shapiro-Wilk test</i>		<i>Distribution symmetry measures</i>	
		<i>K-S</i>	<i>p</i>	<i>S-W</i>	<i>p</i>	<i>Skewness</i>	<i>Kurtosis</i>
TASK OC	41 60	0.10	0.005	0.97	0.007	-0.26	-0.68
TASK OC	20 40	0.08	0.039	0.98	0.081	-0.17	-0.18
Emotion OC	41 60	0.09	0.038	0.97	0.006	0.31	-0.42
Emotion OC	20 40	0.08	0.042	0.98	0.055	0.35	-0.42
Avoidance OC	41 60	0.10	0.017	0.98	0.043	-0.41	0.13
Avoidance OC	20 40	0.06	0.229	0.99	0.312	-0.13	-0.10
Avoidant Distracted	41 60	0.07	0.157	0.99	0.301	0.06	-0.49
Avoidant Distracted	20 40	0.07	0.053	0.99	0.130	0.01	-0.35
Avoidant Social Coping	41 60	0.11	0.002	0.96	0.004	-0.57	0.13
Avoidant Social Coping	20 40	0.08	0.017	0.99	0.130	-0.11	-0.48
Competing	41 60	0.18	<0.001	0.92	<0.001	0.59	-0.66
Competing	20 40	0.12	<0.001	0.96	<0.001	0.37	-0.56
Collaborating	41 60	0.15	<0.001	0.95	<0.001	0.33	-0.31
Collaborating	20 40	0.12	<0.001	0.97	0.007	0.17	-0.12
Compromising	41 60	0.15	<0.001	0.94	<0.001	-0.49	-0.55
Compromising	20 40	0.11	<0.001	0.97	0.002	-0.22	-0.44
Avoiding	41 60	0.16	<0.001	0.96	0.003	-0.09	-0.47
Avoiding	20 40	0.11	0.002	0.97	0.006	0.03	-0.51
Accommodating	41 60	0.15	<0.001	0.94	<0.001	0.75	0.26
Accommodating	20 40	0.12	<0.001	0.97	0.006	0.15	-0.26

Note: *KS* = Kolmogorov-Smirnov test statistics; *SW* = Shapiro-Wilk test statistics. Normality test *p*-values > 0.05 mean that the distribution of the variable is normal.

Source: Author's compilation based on the conducted research.

was found that managers from the older age group (41–60) more often used a task-oriented approach in stressful situations than respondents representing the younger age group (20–40). The obtained result may indicate that older managers may have greater professional experience, which allows them to use task-oriented strategies for coping with stress more effectively. During their years of work, they gain skills in coping with various challenges, which then influences their preferred strategies. Younger managers may be more focused on short-term goals and results, while older managers, due to their experience, may be more attentive to long-term goals and strategies.

Table 5.10 Differences between groups distinguished on the basis of the Age variable in terms of the level of the following variables: TASK OC, Emotion OC, Avoidance OC, Avoidant Distracted, Avoidant Social Coping, Competing, Collaborating, Compromising, Avoiding, Accommodating

Variable	41 60 (a)					20 40 (b)					U Mann-Whitney test			rg
	N	M	SD	Me	Mrang	N	M	SD	Me	Mrang	U	p	a vs b difference	
TASK OC	111	63.59	7.53	65.00	142.84	151	61.71	6.90	62.00	123.17	7122.00	0.038	a > b	0.15
Emotion OC	111	37.70	10.74	38.00	116.99	151	41.80	11.31	41.00	142.17	6769.50	0.008	a < b	0.19
Avoidance OC	111	42.33	10.24	44.00	127.07	151	43.82	9.52	44.00	134.76	7888.50	0.417	a = b	0.06
Avoidant Distracted	111	17.67	5.94	18.00	123.58	151	18.83	6.08	19.00	137.32	7501.00	0.146	a = b	0.10
Avoidant Social Coping	111	16.75	4.25	17.00	135.35	151	16.57	3.76	17.00	128.67	7953.00	0.480	a = b	0.05
Competing	111	4.52	3.26	4.00	131.82	151	4.36	2.92	4.00	131.26	8344.50	0.953	a = b	0.00
Collaborating	111	6.41	1.98	6.00	146.59	151	5.66	2.00	6.00	120.41	6705.50	0.005	a > b	0.20
Compromising	111	7.64	1.98	8.00	120.20	151	8.24	1.98	8.00	139.80	7126.50	0.036	a < b	0.15
Avoiding	111	6.95	2.23	7.00	128.55	151	7.14	2.17	7.00	133.67	8053.00	0.586	a = b	0.04
Accommodating	111	4.30	2.52	4.00	124.45	151	4.51	2.19	4.00	136.69	7597.50	0.193	a = b	0.09

Note: Mrang = average rank; U = Mann-Whitney U statistic; p = statistical significance; rg = glass's biserial correlation strength test statistic.

Source: Author's compilation based on the conducted research.

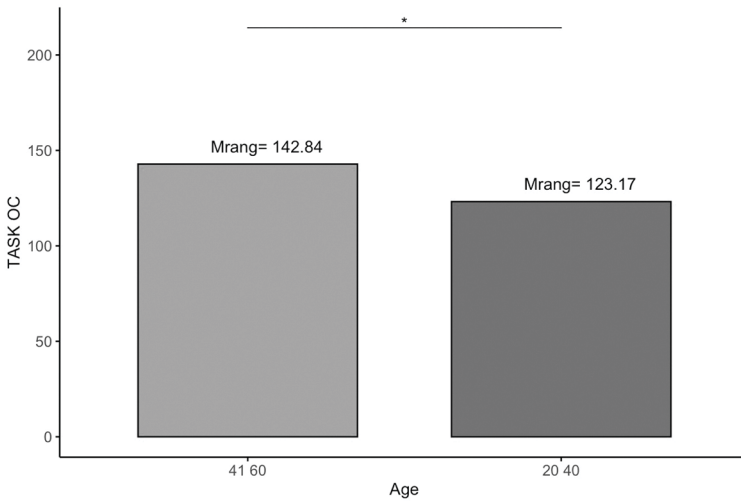


Figure 5.13 Differences between groups distinguished on the basis of the age variable in terms of the level of the TASK OC variable.

Note: * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$, ni – insignificant result.

Source: Author's compilation based on conducted research.

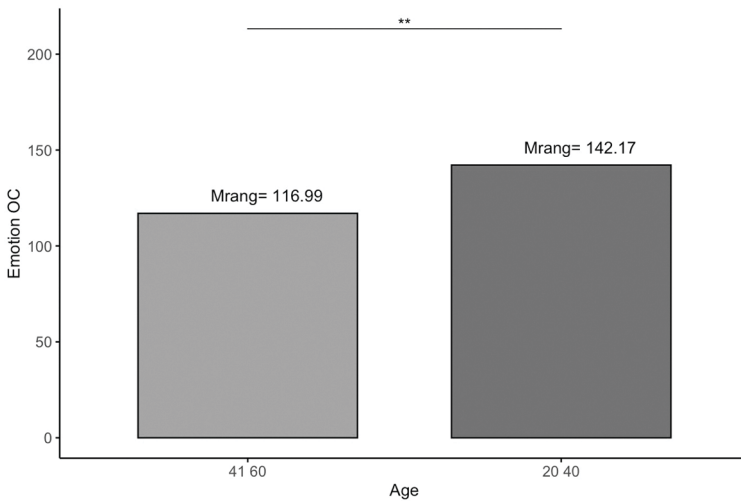


Figure 5.14 Differences between groups distinguished on the basis of the age variable in terms of the level of the Emotion OC variable.

Note: * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$, ni – insignificant result.

Source: Author's compilation based on the conducted research.

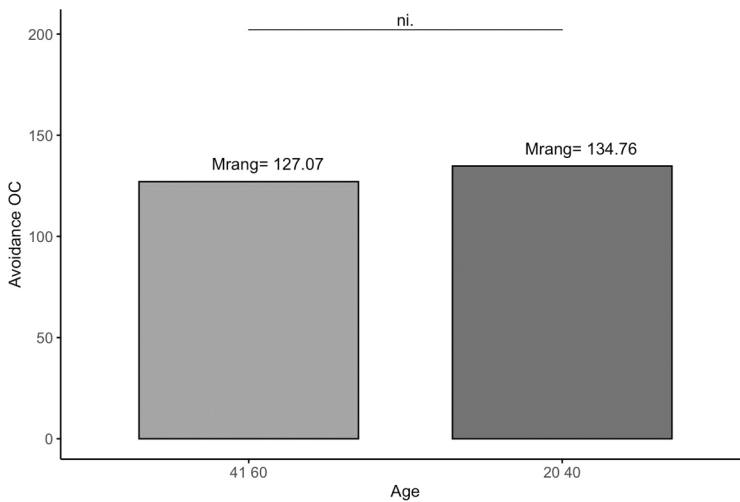


Figure 5.15 Differences between groups distinguished on the basis of the age variable in terms of the level of the Avoidance OC variable.

Note: * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$, ni – insignificant result.

Source: Author's compilation based on the conducted research.

The analysis showed that in terms of the Emotion OC variable, the difference was statistically significant, $U = 6769.50$; $p = 0.008$ – a higher result was observed in the case of the 20–40 group (Mrang = 142.17), and a lower result in the 41–60 group (Mrang = 116.99). The effect strength of differences between groups in terms of the Emotion OC variable was small ($rg = 0.19$). In terms of the variable referred to as emotional strategy for coping with stress (Emotion OC), it was found that managers from the younger age group (20–40) more often used an emotional approach in stressful situations than respondents representing the older age group (41–60). The analysis conducted may indicate that younger managers may be more willing to use emotional strategies for coping with stressful situations because they are in the phase of learning and adapting to stressful situations. They may experience new work challenges and need time to develop effective coping strategies. However, older managers, having more professional experience, may be more self-confident and have already developed more effective strategies for coping with stress. They can also better understand how to control their emotional states in difficult situations.

The analyses did not show statistically significant differences between the Age 41–60 and Age 20–40 groups in terms of the Avoidance OC variable. Both managers from the younger and older age groups used the avoidance strategy of coping with stress to the same extent. The obtained result indicates that the

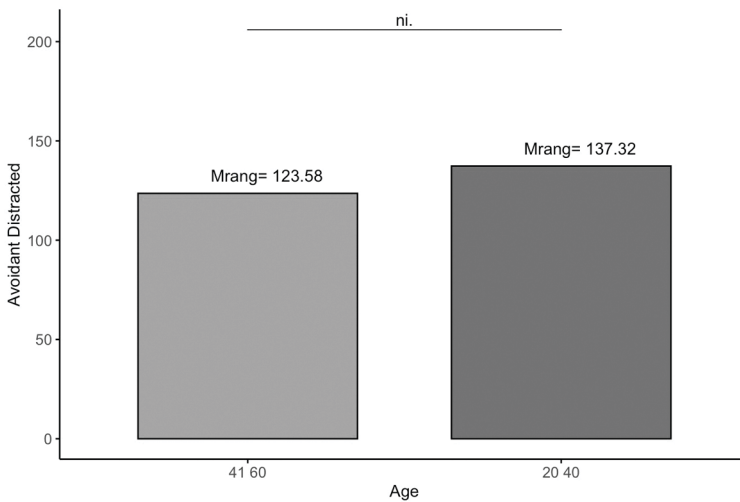


Figure 5.16 Differences between groups distinguished on the basis of the age variable in terms of the level of the Avoidant Distracted variable.

Note: * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$, ni – insignificant result.

Source: Author's compilation based on the conducted research.

avoidant strategy of coping with stress, consisting in avoiding conflict or difficult situations, can be commonly used by different age groups. In addition, preferences and coping skills may be individualized rather than age-related. Managers of different age groups may simply differ in their own preferences and effectiveness in using avoidance strategies.

The analyses did not show statistically significant differences between the Age 41–60 and Age 20–40 groups in terms of the Avoidant Distracted variable. Both managers from the younger and older age groups engaged in substitute activities to the same extent (Avoidant Distracted) as a subscale of the avoidance strategy for responding to stress (Avoidance OC). Substitute activities, as a form of stress avoidance, can be commonly used by various age groups. Both younger and older managers may use similar coping mechanisms, such as engaging in coping activities, to reduce stress. The lack of differences between age groups may be due to the similar tendency of both groups to use this particular way of coping with stress in a specific category of situations.

The analyses did not show statistically significant differences between the Age 41–60 and Age 20–40 groups in terms of the Avoidant Social Coping variable. Both managers from the younger and older age groups engaged in substitute social relationships to the same extent to avoid coping with the stressful situation (Avoidant Social Coping) as a subscale of the avoidance strategy of

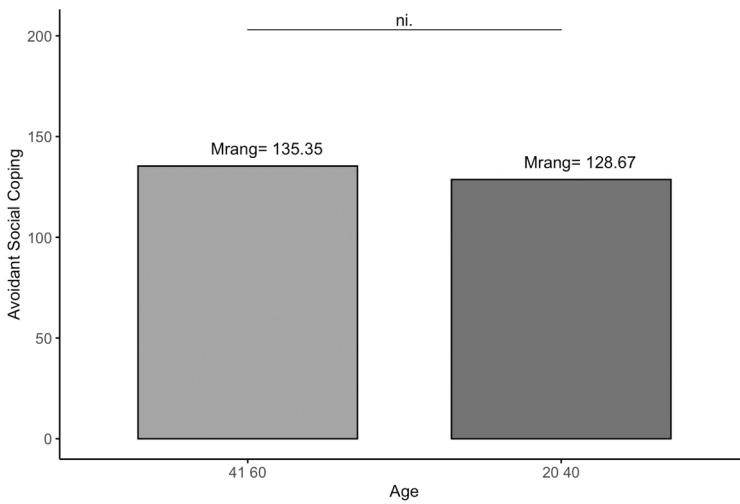


Figure 5.17 Differences between groups distinguished on the basis of the age variable in terms of the level of the Avoidant Social Coping variable.

Note: * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$, ni – insignificant result.

Source: Author's compilation based on the conducted research.

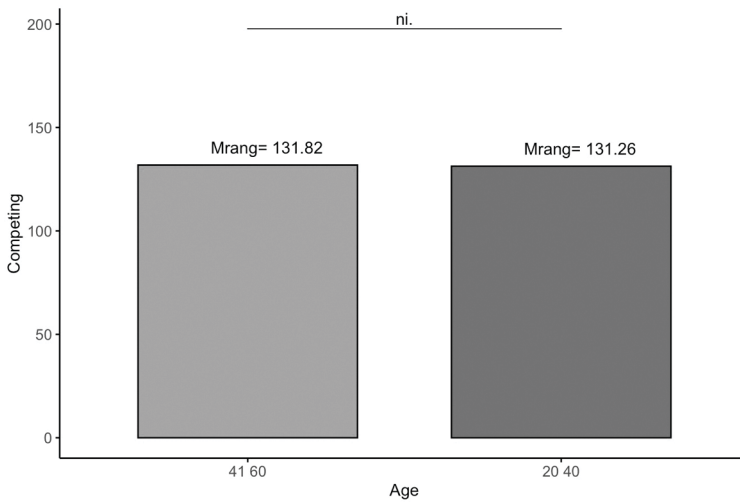


Figure 5.18 Differences between groups distinguished on the basis of the age variable in terms of the level of the Competing variable.

Note: * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$, ni – insignificant result.

Source: Author's compilation based on the conducted research.

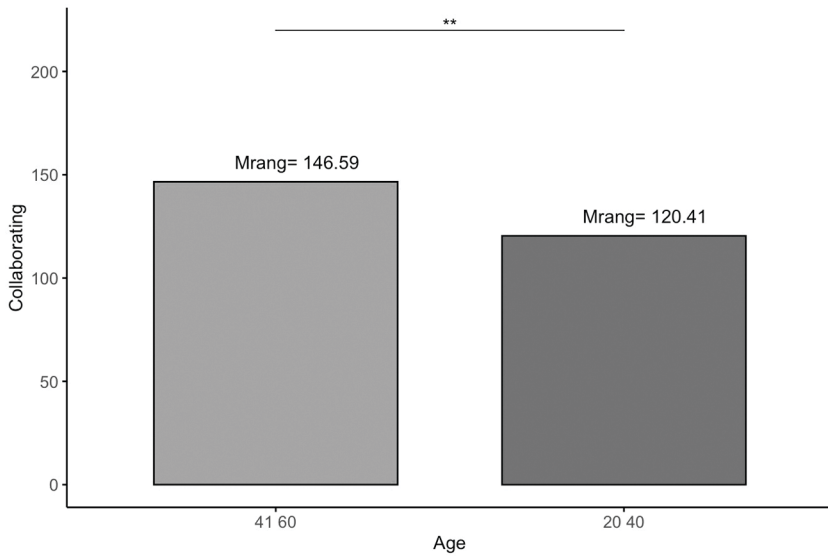


Figure 5.19 Differences between groups distinguished on the basis of the age variable in terms of the level of the Collaborating variable.

Note: * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$, ni – insignificant result.

Source: Author's compilation based on the conducted research.

responding to stress (Avoidance OC). The obtained result may suggest that there is a universal tendency to engage in substitute social relationships as a form of avoiding stressful situations. Both younger and older managers may experience similar social needs when faced with stressful situations in certain categories. The tendency to seek support in social relationships may be a common response to experienced difficulties.

The analyses did not show any statistically significant differences between the Age 41–60 and Age 20–40 groups in terms of the Competing variable. Managers representing the studied age categories did not differ significantly in terms of conflict resolution techniques based on competition. This means that the competition technique can be widely used across age groups, especially in the context of managing conflict situations. Managers from both groups may perceive this strategy as effective in certain situations. Both younger and older managers may often choose a competitive strategy in situations where there is a need to focus on their own interests and achieve their intended goals, despite conflict.

The analysis showed that in the Collaborating variable the difference was statistically significant, $U = 6705.50$; $p = 0.005$ – a higher result was observed in the case of the 41–60 group (Mrang = 146.59), and a lower result in the 20–40 group

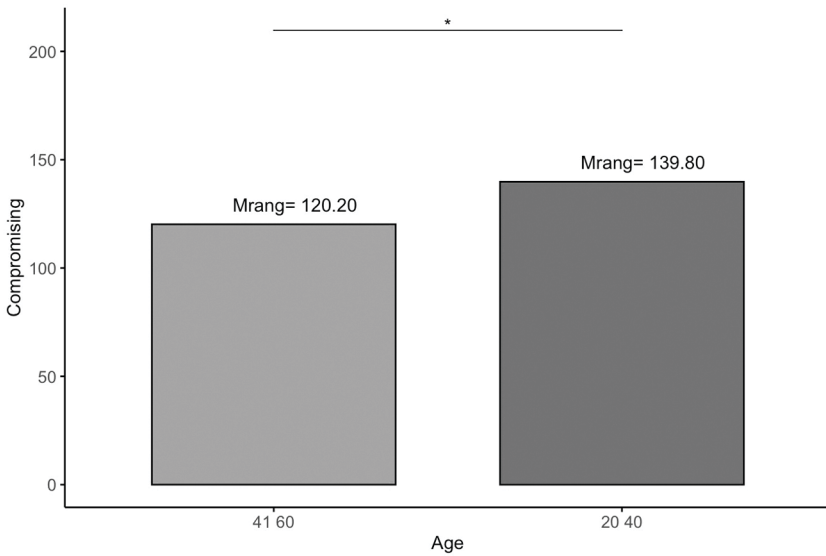


Figure 5.20 Differences between groups distinguished on the basis of the age variable in terms of the level of the Compromising variable.

Note: * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$, ni – insignificant result.

Source: Author's compilation based on the conducted research.

(Mrang = 120.41). The effect strength of differences between groups in terms of the Collaborating variable was small ($rg = 0.20$). In terms of the variable referred to as the conflict resolution technique based on Collaborating, it was found that managers from the older age group used a collaboration strategy in overcoming conflict situations more often than managers from the younger age group. The obtained result may suggest that older managers may have richer professional and life experience, which may contribute to the development of collaboration skills in resolving conflicts. A longer period of professional activity may provide them with a wider spectrum of conflict situations in which they have developed mechanisms of collaboration also in the field of conflict resolution. Hence, managers from the older age group may prefer a more integrated approach to conflict management, which seeks to jointly solve the problem. Collaboration can be seen as an effective way to achieve goals and build lasting relationships.

The analysis showed that in terms of the Compromising variable the difference was statistically significant, $U = 7126.50$; $p = 0.036$ – a higher result was observed in the 20–40 group (Mrang = 139.80), and a lower result in the 41–60 group (Mrang = 120.20). The effect strength of differences between groups in terms of the Compromising variable was small ($rg = 0.15$). In terms of the

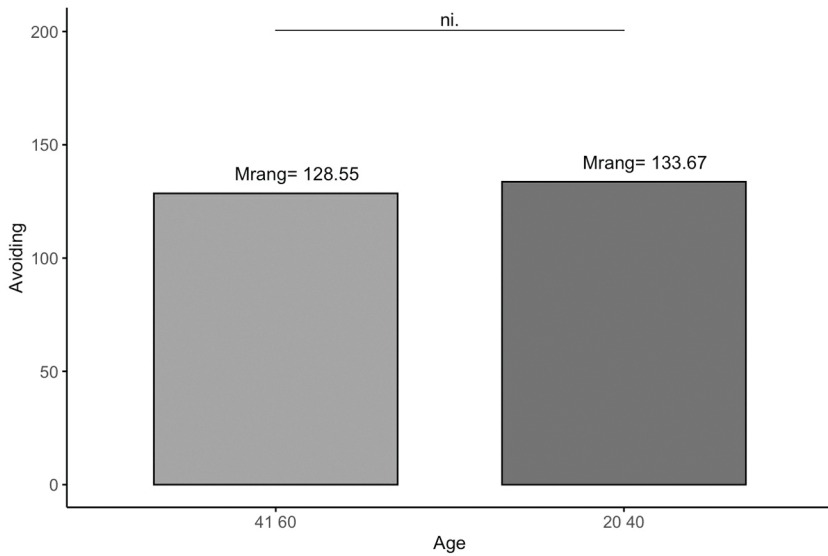


Figure 5.21 Differences between groups distinguished on the basis of the age variable in terms of the level of the Avoiding variable.

Note: * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$, ni – insignificant result.

Source: Author’s compilation based on the conducted research.

variable referred to as the conflict resolution technique based on compromise (Compromising), it was found that managers from the younger age group used a strategy of reaching a compromise in conflict situations more often than managers from the older age group. Younger managers may represent a generation that values flexibility, openness to new ideas and the ability to collaborate. For this reason, they may be more inclined to use a compromise strategy, seeing it as a means of achieving balance and satisfaction in conflict situations. It also appears that the younger generation may be taking a more egalitarian approach to management, which involves distributing benefits and responsibilities evenly between the parties to the conflict. The compromise strategy can be considered an opportunity to satisfy both sides of the conflict, which is also consistent with contemporary educational trends.

The analyses did not show statistically significant differences between the Age 41–60 and Age 20–40 groups in terms of the Avoiding variable. Managers representing the research age categories did not differ significantly in terms of conflict resolution techniques based on conflict avoidance. This may mean that the conflict avoidance strategy is a commonly used technique, especially in

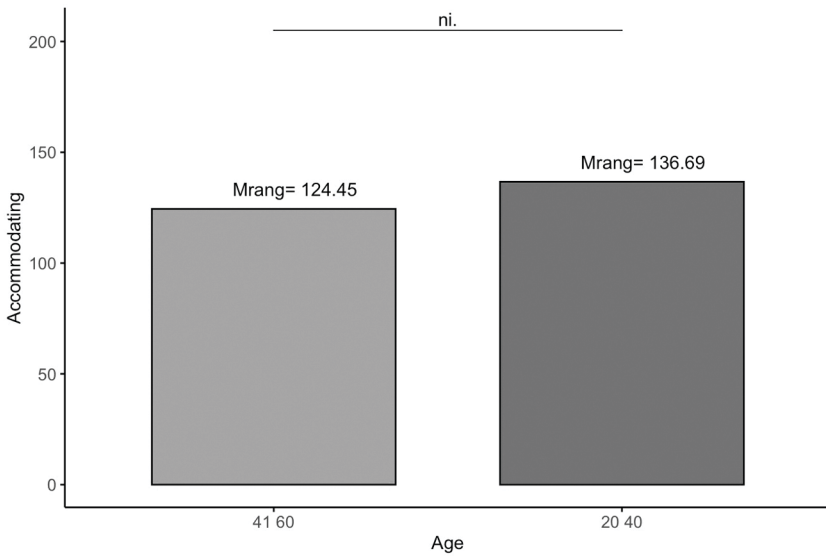


Figure 5.22 Differences between groups distinguished on the basis of the age variable in terms of the level of the Accommodating variable.

Note: * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$, ni – insignificant result.

Source: Author’s compilation based on the conducted research.

situations where confrontation may lead to further problems. Presumably, this approach is neutral, generally acceptable and can be used by representatives of different age groups. If managers, regardless of age group, are aware of the possible negative effects of confrontation and see avoidance as a way to avoid these effects, they may be more willing to use this strategy.

The analyses did not show any statistically significant differences between the Age 41–60 and Age 20–40 groups in terms of the Accommodating variable. Both older and younger managers did not differ significantly in terms of the adaptation-based conflict resolution technique. The technique of accommodation, i.e. giving in and adapting to the needs of the other side, can be perceived as universal and acceptable in various conflict situations. If managers from both age groups find this strategy effective, they may often use it equally. This attitude may also be related to personality predispositions and/or organizational expectations. Organizations may not set specific age expectations regarding the use of an accommodation technique. If there are no apparent differences in preferences across age groups, managers from both groups can choose this strategy according to their own preferences and situation.

5.3.3 Differences between groups distinguished on the basis of the education variable

In order to determine significant differences between the groups distinguished on the basis of the Education variable in terms of the level of the TASK OC, Emotion OC, Avoidance OC, Avoidant Distracted, Avoidant Social Coping, Competing, Collaborating, Compromising, Avoiding, Accommodating variables, an analysis was carried out using the Mann-Whitney U test (Mann and Whitney 1947). The non-parametric method was used due to the lack of met assumptions for parametric tests. A total of $N = 262$ observations were included in the research. The maximum number in the Higher education group was $n = 237$, and in the case of the Secondary education group it was $n = 25$.

In order to determine whether these groups are equal in size, a chi-square test for one variable was performed (Pearson 1900). As a result of the analysis, it was determined that the groups were statistically unequal, $\chi^2(1) = 171.54$; $p < 0.001$. The effect strength was assessed using Glass's measure of biserial correlation (Glass 1965).

Descriptive statistics are included in Table 5.11. In order to verify the assumption about the normality of the distribution of the research variables, a series of analyses were performed using the Shapiro-Wilk test (dedicated test for sample size $N < 50$) (Royston 1982) and the Kolmogorov-Smirnov test with the Lilieforce correction (dedicated test for sample size $N > 50$) (Dallal and Wilkinson 1986). The results of these tests, along with the measures of symmetry of the distributions, are presented in Tables 5.12 and 5.13. Intergroup comparisons are presented in Table 5.14. A visual presentation of the obtained results is provided in Figures 5.23–5.32.

Table 5.11 Basic descriptive statistics of the distributions of the following variables: TASK OC, Emotion OC, Avoidance OC, Avoidant Distracted, Avoidant Social Coping, Competing, Collaborating, Compromising, Avoiding, Accommodating

<i>Variable</i>	<i>N</i>	<i>Min</i>	<i>Max</i>	<i>M</i>	<i>SD</i>	<i>SE</i>
TASK OC	262	43.00	77.00	62.60	7.11	0.44
Emotion OC	262	19.00	72.00	39.74	10.99	0.68
Avoidance OC	262	20.00	68.00	43.27	9.65	0.60
Avoidant Distracted	262	5.00	34.00	18.39	5.94	0.37
Avoidant Social Coping	262	5.00	25.00	16.67	3.94	0.24
Competing	262	0.00	12.00	4.43	3.06	0.19
Collaborating	262	0.00	11.00	5.95	1.96	0.12
Compromising	262	3.00	12.00	7.98	2.00	0.12
Avoiding	262	2.00	12.00	7.06	2.19	0.14
Accommodating	262	0.00	10.00	4.35	2.20	0.14

Source: Author's compilation based on the conducted research.

Table 5.12 Normality tests and measures of symmetry of the distributions of the following variables: TASK OC, Emotion OC, Avoidance OC, Avoidant Distracted, Avoidant Social Coping, Competing, Collaborating, Compromising, Avoiding, Accommodating

Variable	KS test		SW test		Distribution symmetry measures	
	KS	p	SW	p	Skewness	Kurtosis
TASK OC	0.06	0.032	0.98	0.006	-0.13	-0.54
Emotion OC	0.07	0.005	0.98	0.001	0.37	-0.25
Avoidance OC	0.06	0.020	0.99	0.054	-0.18	-0.14
Avoidant Distracted	0.06	0.010	0.99	0.016	0.12	-0.60
Avoidant Social Coping	0.09	<0.001	0.98	0.002	-0.35	-0.12
Competing	0.14	<0.001	0.95	<0.001	0.49	-0.58
Collaborating	0.12	<0.001	0.97	<0.001	0.07	-0.45
Compromising	0.13	<0.001	0.96	<0.001	-0.32	-0.41
Avoiding	0.11	<0.001	0.97	<0.001	-0.03	-0.49
Accommodating	0.12	<0.001	0.97	<0.001	0.23	-0.42

Note: KS = Kolmogorov-Smirnov test statistics; SW = Shapiro-Wilk test statistics. Normality test *p*-values > 0.05 mean that the distribution of the variable is normal.

Source: Author’s compilation based on the conducted research.

The analysis showed that in terms of the TASK OC variable, the difference was statistically significant, $U = 2188.50$; $p = 0.032$ – a higher result was observed in the Higher education group ($M_{rang} = 134.77$), and a lower result in the Secondary education group ($M_{rang} = 100.54$). The effect strength of differences between groups in terms of the TASK OC variable was small ($rg = 0.26$). In terms of the variable called the task-oriented strategy for coping with stress (Task OC), it was found that managers with higher education more often used a task-oriented approach in stressful situations than managers with an average level of education. The obtained result may indicate that managers with higher education may have specialized knowledge and skills that facilitate the use of a more task-oriented approach to stressful situations. Their education can equip them with tools and coping strategies that are more focused on constructive problem solving. Higher education may influence the ability to think analytically and effectively analyse situations. Managers with a higher degree of education may be more willing to identify tasks and set goals to effectively cope with task-related stress.

The analyses did not show statistically significant differences between the Higher Education and Secondary Education groups in terms of the Emotion OC variable. This means that managers with higher and middle levels of education used the emotional strategy of coping with stress, consisting in seeking emotional support, to the same extent. The obtained result indicates that people,

Table 5.13 Normality tests and measures of symmetry of the distribution of the following variables: TASK OC, Emotion OC, Avoidance OC, Avoidant Distracted, Avoidant Social Coping, Competing, Collaborating, Compromising, Avoiding, Accommodating, in groups distinguished on the basis of the Education variable

Variable	Education	Kolmogorov-Smirnov test		Shapiro-Wilk test		Distribution symmetry measures	
		K-S	p	S-W	p	Skewness	Kurtosis
TASK OC	Higher education	0.06	0.060	0.98	0.006	-0.18	-0.41
	Secondary education	0.14	0.226	0.94	0.147	0.53	-0.75
Emotion OC	Higher education	0.06	0.016	0.98	0.003	0.33	-0.37
	Secondary education	0.11	0.581	0.98	0.904	-0.06	0.19
Avoidance OC	Higher education	0.06	0.020	0.99	0.069	-0.13	-0.13
	Secondary education	0.13	0.373	0.95	0.309	-0.52	-0.47
Avoidant Distracted	Higher education	0.06	0.018	0.99	0.031	0.18	-0.50
	Secondary education	0.18	0.031	0.93	0.073	-0.45	-1.05
Avoidant Social Coping	Higher education	0.09	<0.001	0.98	0.006	-0.29	-0.24
	Secondary education	0.14	0.223	0.95	0.195	-0.22	-0.76
Competing	Higher education	0.15	<0.001	0.95	<0.001	0.53	-0.47
	Secondary education	0.15	0.174	0.94	0.117	0.12	-1.18
Collaborating	Higher education	0.13	<0.001	0.97	<0.001	0.09	-0.48
	Secondary education	0.16	0.108	0.96	0.377	-0.18	-0.08
Compromising	Higher education	0.12	<0.001	0.97	<0.001	-0.30	-0.39
	Secondary education	0.18	0.028	0.93	0.069	-0.46	-0.76
Avoiding	Higher education	0.11	<0.001	0.97	<0.001	-0.03	-0.48
	Secondary education	0.14	0.243	0.96	0.467	-0.02	-0.62
Accommodating	Higher education	0.12	<0.001	0.97	<0.001	0.29	-0.36
	Secondary education	0.19	0.018	0.94	0.134	-0.39	-0.53

Note: *KS* = Kolmogorov-Smirnov test statistics; *SW* = Shapiro-Wilk test statistics. Normality test *p*-values > 0.05 mean that the distribution of the variable is normal.

Source: Author's compilation based on the conducted research.

Table 5.14 Differences between groups distinguished on the basis of the Education variable in terms of the level of the following variables: TASK OC, Emotion OC, Avoidance OC, Avoidant Distracted, Avoidant Social Coping, Competing, Collaborating, Compromising, Avoiding, Accommodating

Variable	Higher education (a)					Secondary education (b)					U Mann-Whitney test			rg
	N	M	SD	Me	Mrang	N	M	SD	Me	Mrang	U	p	a vs b difference	
TASK OC	237	62.91	6.92	62.00	134.77	25	59.72	8.31	58.00	100.54	2188.50	0.032	a > b	0.26
Emotion OC	237	40.06	11.29	39.00	133.56	25	36.73	7.11	37.00	111.96	2474.00	0.175	a = b	0.16
Avoidance OC	237	42.98	9.78	44.00	129.01	25	46.00	7.94	48.00	155.06	2373.50	0.102	a = b	0.20
Avoidant Distracted	237	18.17	5.95	18.00	128.54	25	20.44	5.52	21.00	159.52	2262.00	0.052	a = b	0.24
Avoidant Social Coping	237	16.56	4.06	17.00	129.25	25	17.76	2.35	18.00	152.84	2429.00	0.138	a = b	0.18
Competing	237	4.35	3.02	4.00	129.66	25	5.20	3.39	5.00	148.92	2527.00	0.225	a = b	0.15
Collaborating	237	5.96	1.98	6.00	131.73	25	5.84	1.77	6.00	129.34	2908.50	0.881	a = b	0.02
Compromising	237	8.05	1.98	8.00	133.66	25	7.36	2.08	7.00	110.98	2449.50	0.150	a = b	0.17
Avoiding	237	7.11	2.19	7.00	132.99	25	6.64	2.14	7.00	117.38	2609.50	0.323	a = b	0.12
Accommodating	237	4.29	2.22	4.00	129.10	25	4.92	1.96	5.00	154.24	2394.00	0.112	a = b	0.19

Note: Mrang = average rank; U = Mann-Whitney U statistic; p = statistical significance; rg = glass's biserial correlation strength test statistic.

Source: Author's compilation based on the conducted research.

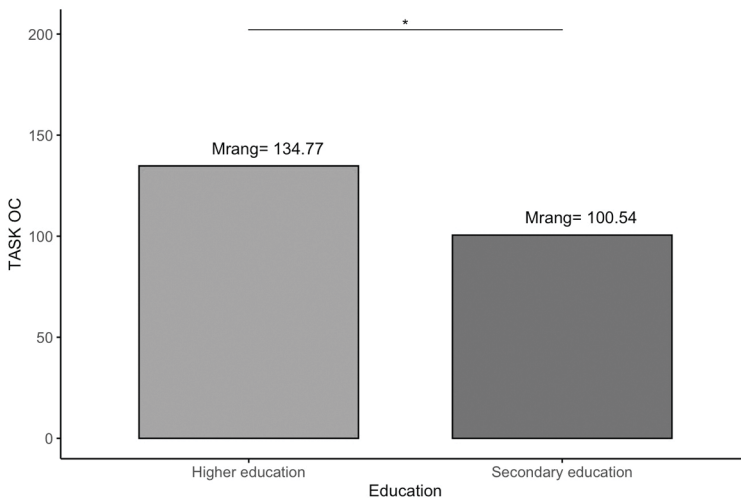


Figure 5.23 Differences between groups distinguished on the basis of the education variable in terms of the level of the TASK OC variable.

Note: * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$, *ni* – insignificant result.

Source: Author's compilation based on the conducted research.

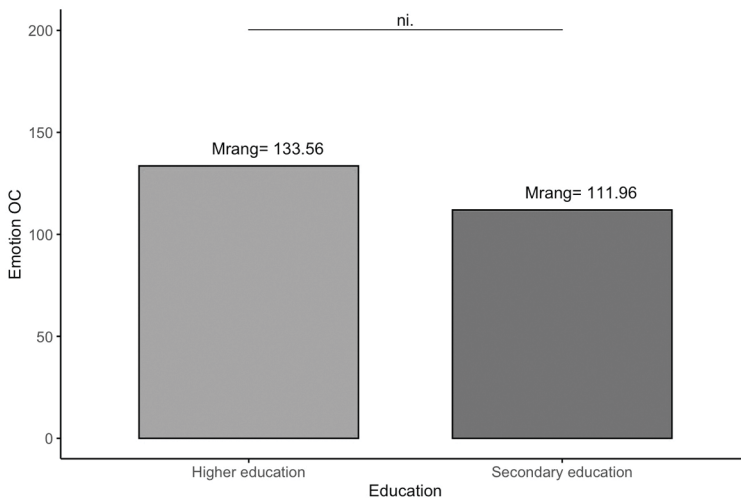


Figure 5.24 Differences between groups distinguished on the basis of the education variable in terms of the level of the Emotion OC variable.

Note: * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$, *ni* – insignificant result.

Source: Author's compilation based on the conducted research.

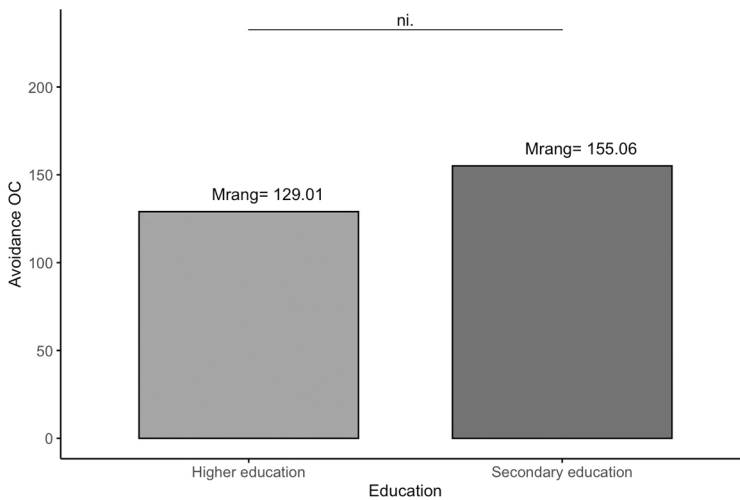


Figure 5.25 Differences between groups distinguished on the basis of the education variable in terms of the level of the Avoidance OC variable.

Note: * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$, *ni* – insignificant result.

Source: Author’s compilation based on the conducted research.

regardless of their education level, may experience the need to express their emotions and seek support in difficult situations. Managers with different levels of education may be equally aware of their emotional needs and equally willing to use strategies related to seeking support from others.

The analyses did not show statistically significant differences between the Higher Education and Secondary Education groups in terms of the Avoidance OC variable. Both managers with higher and secondary education used the avoidance strategy of coping with stress to the same extent. The obtained result indicates that people, regardless of their level of education, may prefer to avoid situations that they perceive to be difficult or unpleasant. Both managers with higher and secondary education may be subject to similar professional challenges, which makes avoidance an attractive, and perhaps even useful, coping strategy in specific organizational contexts.

The analyses did not show statistically significant differences between the Higher Education and Secondary Education groups in the Avoidant Distracted variable. Both managers with higher and secondary education were equally involved in substitute activities (Avoidant Distracted) as a subscale of the avoidance strategy for responding to stress (Avoidance OC). This may indicate a certain universality in the use of substitute activities as a form of alleviating internal tension related to stress and avoiding stress, regardless of the level of education.

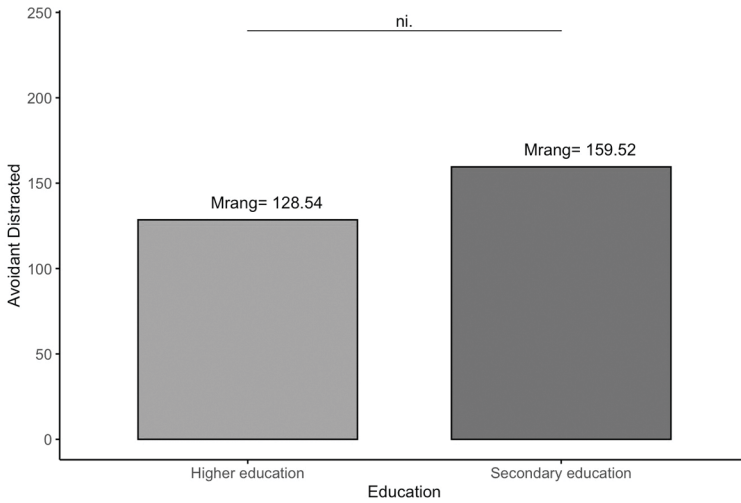


Figure 5.26 Differences between groups distinguished on the basis of the education variable in terms of the level of the Avoidant Distracted variable.

Note: * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$, *ni* – insignificant result.

Source: Author's compilation based on the conducted research.

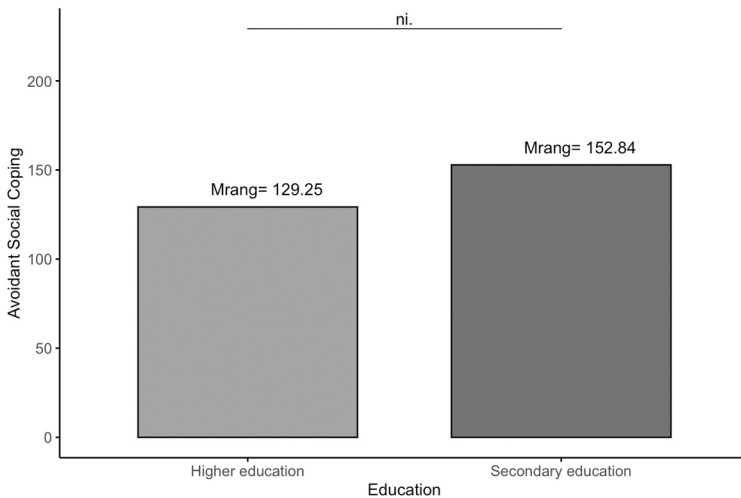


Figure 5.27 Differences between groups distinguished on the basis of the education variable in terms of the level of the Avoidant Social Coping variable.

Note: * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$, *ni* – insignificant result.

Source: Author's compilation based on the conducted research.

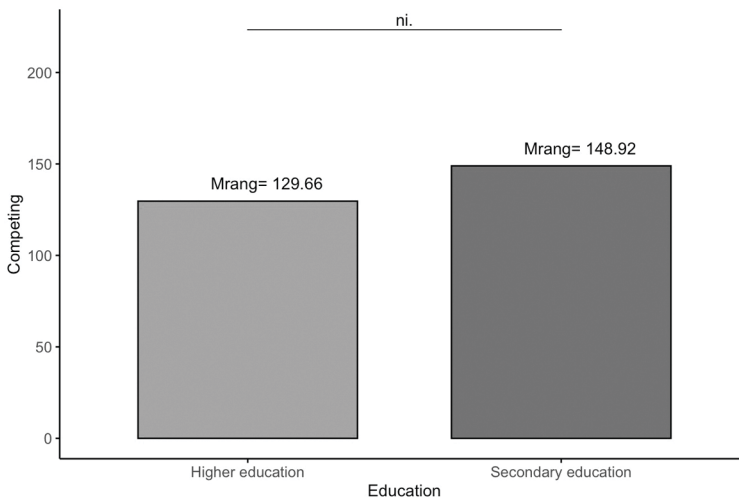


Figure 5.28 Differences between groups distinguished on the basis of the education variable in terms of the level of the Competing variable.

Note: * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$, *ni* – insignificant result.

Source: Author's compilation based on the conducted research.

The analyses did not show statistically significant differences between the Higher Education and Secondary Education groups in terms of the Avoidant Social Coping variable. Both managers with higher and secondary education engaged in substitute social relationships to the same extent in order not to face a stressful situation (Avoidant Social Coping) as a subscale of the avoidance strategy of responding to stress (Avoidance OC). The obtained result may suggest that engaging in vicarious social relationships does not necessarily require a high level of education. If interpersonal skills are important but not necessarily related to educational level, both groups may use this strategy equally often.

The analyses did not reveal statistically significant differences between the Higher Education and Secondary Education groups in the Competing variable. Managers representing the research categories did not differ significantly in terms of conflict resolution techniques based on competition. This means that the competition technique can be widely used by managers with different levels of education. Potential reasons for this lack of differences may result from the universal acceptance of the competitive strategy in a given professional or cultural environment, as well as from the lack of dependence of this strategy on the level of education of managers.

The analyses did not show statistically significant differences between the Higher Education and Secondary Education groups in the Collaborating variable. Managers representing the research educational categories did not differ

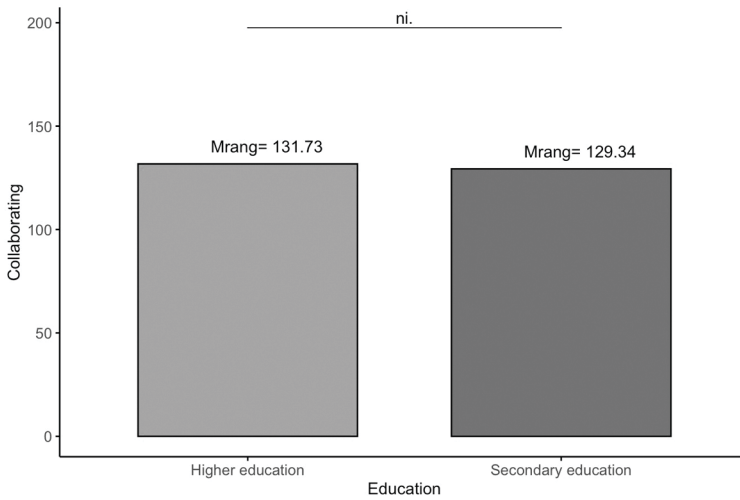


Figure 5.29 . Differences between groups distinguished on the basis of the education variable in terms of the level of the Collaborating variable.

Note: * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$, *ni* – insignificant result.

Source: Author's compilation based on the conducted research.

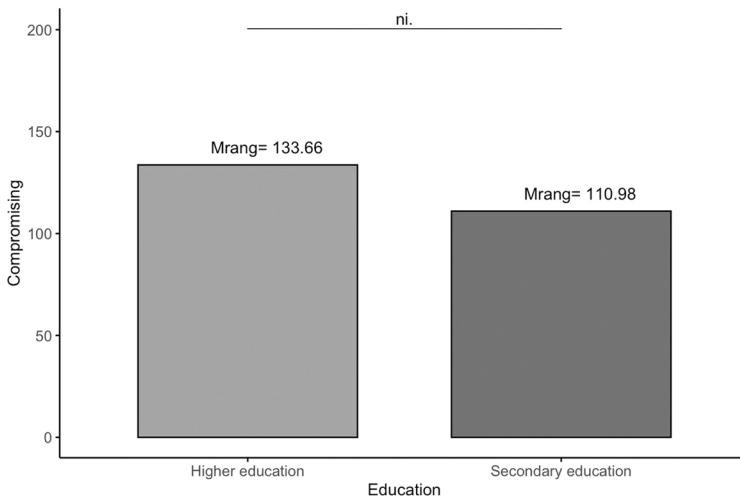


Figure 5.30 . Differences between groups distinguished on the basis of the education variable in terms of the level of the Compromising variable.

Note: * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$, *ni* – insignificant result.

Source: Author's compilation based on the conducted research.

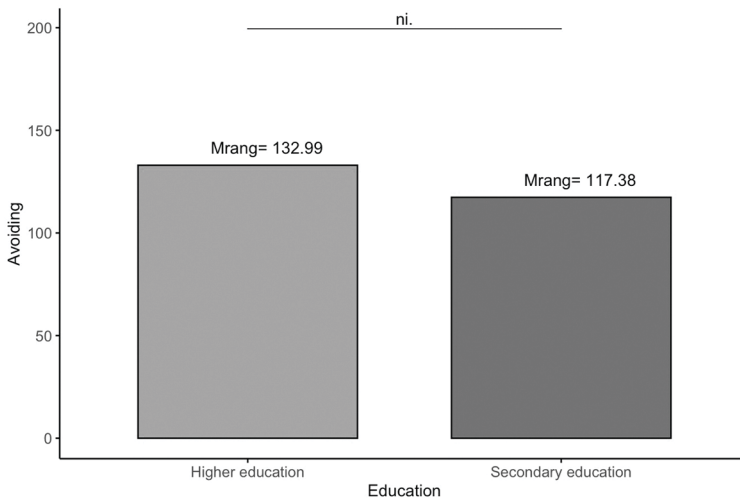


Figure 5.31 Differences between groups distinguished on the basis of the education variable in terms of the level of the Avoiding variable.

Note: * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$, *ni* – insignificant result.

Source: Author’s compilation based on the conducted research.

significantly in terms of collaborative conflict resolution techniques. This may mean that managers with different levels of education may gain similar work experience, which may influence their approach to conflict resolution. This experience may outweigh any differences in education.

The analyses did not show statistically significant differences between the Higher Education and Secondary Education groups in the Compromising variable. Managers representing different levels of education did not differ in the frequency of use of the compromise-based conflict resolution technique. Therefore, it seems that the level of education does not significantly influence the choice of compromise strategy. This suggests that managers, regardless of education level, are equally willing to reach for compromise to resolve conflicts. This may indicate that negotiation and concession skills are more dependent on factors other than the level of formal education.

The analyses did not show statistically significant differences between the Higher Education and Secondary Education groups in terms of the Avoiding variable. Both managers with higher and secondary education did not differ significantly in terms of avoidance-based conflict resolution techniques. The level of formal education does not appear to have a significant impact on the choice of avoidance strategy. The conflict avoidance strategy is often considered neutral and acceptable in various professional contexts. If managers from both educational groups see value in avoiding confrontation and maintaining harmony, they may use this strategy just equally often.

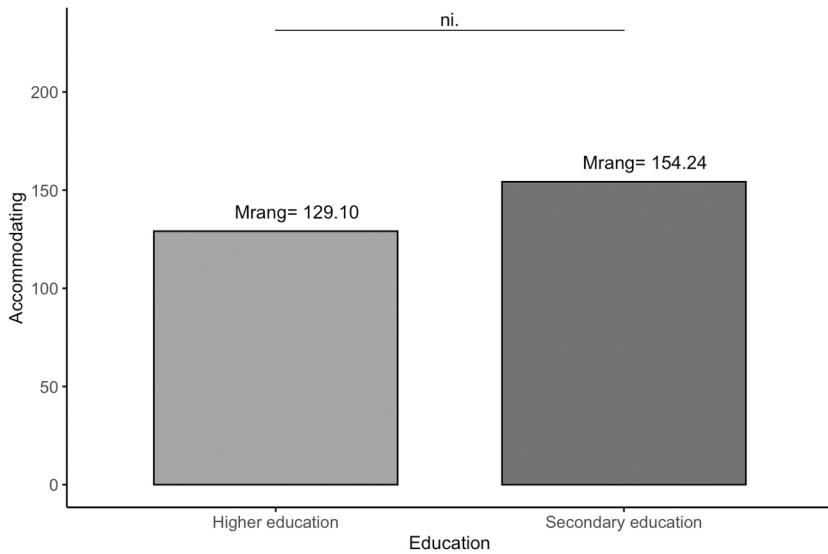


Figure 5.32 Differences between groups distinguished on the basis of the education variable in terms of the level of the Accommodating variable.

Note: * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$, *ni* – insignificant result.

Source: Author’s compilation based on the conducted research.

The analyses did not reveal statistically significant differences between the Higher Education and Secondary Education groups in terms of the Accommodating variable. Both managers with higher and secondary education used the conflict resolution technique of adaptation to the same extent. Adapting to the needs of others can be widely used by managers with different levels of education and is not determined by formal education level.

5.3.4 Differences between groups distinguished on the basis of the company size variable

In order to determine significant differences between the groups distinguished on the basis of the Company Size variable in terms of the level of the TASK OC, Emotion OC, Avoidance OC, Avoidant Distracted, Avoidant Social Coping, Competing, Collaborating, Compromising, Avoiding, Accommodating variables, an analysis was carried out using the Mann-Whitney U test (Mann and Whitney 1947). The non-parametric method was used due to the lack of met assumptions for parametric tests. A total of $N = 262$ observations were included in the research. The maximum number in the Large over 250 emp group was $n = 167$, and in the case of the Medium 50–250 emp group it was $n = 95$.

Table 5.15 Basic descriptive statistics of the distributions of the following variables: TASK OC, Emotion OC, Avoidance OC, Avoidant Distracted, Avoidant Social Coping, Competing, Collaborating, Compromising, Avoiding, Accommodating

<i>Variable</i>	<i>N</i>	<i>Min</i>	<i>Max</i>	<i>M</i>	<i>SD</i>	<i>SE</i>
TASK OC	262	43.00	77.00	62.79	6.84	0.42
Emotion OC	262	19.00	73.00	40.00	11.21	0.69
Avoidance OC	262	17.00	68.00	43.19	9.82	0.61
Avoidant Distracted	262	5.00	34.00	18.39	5.94	0.37
Avoidant Social Coping	262	8.00	25.00	16.75	3.78	0.23
Competing	262	0.00	12.00	4.43	3.06	0.19
Collaborating	262	0.00	12.00	5.97	2.00	0.12
Compromising	262	3.00	12.00	8.01	1.96	0.12
Avoiding	262	2.00	12.00	7.06	2.19	0.14
Accommodating	262	0.00	10.00	4.35	2.20	0.14

Source: Author's compilation based on the conducted research.

In order to determine whether these groups are equal in size, a chi-square test for one variable was performed (Pearson 1900). As a result of the analysis, it was determined that the groups were statistically unequal, $\chi^2(1) = 19.79$; $p < 0.001$. The effect strength was assessed using Glass's measure of biserial correlation (Glass 1965).

In order to verify the assumption about the normality of the distribution of the research variables, a series of analyses were performed using the Shapiro-Wilk test (dedicated test for sample size $N < 50$) (Royston 1982) and the Kolmogorov-Smirnov test with the Lilliefors correction (dedicated test for sample size $N > 50$) (Dallal, Wilkinson 1986). Descriptive statistics are included in Table 5.15. In order to verify the assumption about the normality of the distribution of the research variables, a series of analyses were performed using the Shapiro-Wilk test. The results of these tests, along with the measures of symmetry of the distributions, are presented in Tables 5.16 and 5.17. Intergroup comparisons are presented in Table 5.18. A visual presentation of the obtained results is provided in Figures 5.33–5.42.

The analyses did not show any statistically significant differences between the Large over 250 emp and Medium 50–250 emp groups in terms of the TASK OC variable. This means that managers from large and medium-sized organizations used the task-oriented strategy of coping with stress to the same extent. This may suggest that the size of the organization does not have a significant impact on the use of task-oriented strategies for coping with stress. Another possible explanation may be that in both large and medium-sized organizations, managers are subjected to similar levels of task stress and respond to it in similar ways, regardless of the size of the organization.

Table 5.16 Normality tests and measures of symmetry of the distributions of the following variables: TASK OC, Emotion OC, Avoidance OC, Avoidant Distracted, Avoidant Social Coping, Competing, Collaborating, Compromising, Avoiding, Accommodating

<i>Variable</i>	<i>KS test</i>		<i>SW test</i>		<i>Distribution symmetry measures</i>	
	<i>KS</i>	<i>p</i>	<i>SW</i>	<i>p</i>	<i>Skewness</i>	<i>Kurtosis</i>
TASK OC	0.06	0.029	0.98	0.003	-0.02	-0.69
Emotion OC	0.07	0.005	0.98	0.001	0.38	-0.26
Avoidance OC	0.06	0.007	0.99	0.049	-0.27	0.03
Avoidant Distracted	0.06	0.009	0.99	0.016	0.12	-0.60
Avoidant Social Coping	0.09	<0.001	0.98	0.003	-0.16	-0.49
Competing	0.14	<0.001	0.95	<0.001	0.49	-0.58
Collaborating	0.13	<0.001	0.97	<0.001	0.15	-0.29
Compromising	0.12	<0.001	0.97	<0.001	-0.26	-0.49
Avoiding	0.11	<0.001	0.97	<0.001	-0.03	-0.49
Accommodating	0.12	<0.001	0.97	<0.001	0.23	-0.42

Note: *KS* = Kolmogorov-Smirnov test statistics; *SW* = Shapiro-Wilk test statistics. Normality test *p*-values > 0.05 mean that the distribution of the variable is normal.

Source: Author's compilation based on the conducted research.

The analyses did not show any statistically significant differences between the Large over 250 emp and Medium 50–250 emp groups in terms of the Emotion OC variable. The obtained result indicates that managers representing large and medium-sized organizations used emotional strategies to cope with stress to the same extent. The obtained result can be explained by the fact that in both large and medium-sized companies, managers may experience similar stressful situations, which may trigger the need to use emotional coping strategies. The willingness to reach for emotional support would depend more on the situation and personal characteristics of the manager than on the size of the organization.

The analyses did not show any statistically significant differences between the Large over 250 emp and Medium 50–250 emp groups in terms of the Avoidance OC variable. This means that managers from large and medium-sized organizations used avoidance strategies to cope with stress to the same extent. Regardless of the size of the organization, managers may have similar preferences in the use of avoidance strategies, which may be related to personal predispositions or the type of stressful situations, not the size of the organization.

The analyses did not show any statistically significant differences between the Large over 250 emp and Medium 50–250 emp groups in terms of the Avoidant Distracted variable. Managers employed in both large and medium-sized organizations engaged in substitute activities to the same extent (Avoidant Distracted) as a subscale of the avoidance strategy for responding to stress

Table 5.17 Normality tests and measures of symmetry of the distribution of the following variables: TASK OC, Emotion OC, Avoidance OC, Avoidant Distracted, Avoidant Social Coping, Competing, Collaborating, Compromising, Avoiding, Accommodating, in groups distinguished on the basis of the Company Size variable

Variable	Company size	Kolmogorov-Smirnov test <i>t</i>		Shapiro-Wilk test		Distribution symmetry measures	
		<i>K-S</i>	<i>p</i>	<i>S-W</i>	<i>p</i>	Skewness	Kurtosis
TASK OC	Large over 250 emp	0.07	0.028	0.98	0.015	0.05	-0.74
	Medium 50 250 emp	0.08	0.174	0.98	0.082	-0.11	-0.60
Emotion OC	Large over 250 emp	0.06	0.153	0.98	0.022	0.32	-0.41
	Medium 50 250 emp	0.10	0.046	0.97	0.049	0.41	-0.17
Avoidance OC	Large over 250 emp	0.07	0.060	0.99	0.075	-0.30	0.17
	Medium 50 250 emp	0.06	0.630	0.99	0.765	-0.20	-0.14
Avoidant Distracted	Large over 250 emp	0.07	0.042	0.99	0.149	0.02	-0.58
	Medium 50 250 emp	0.09	0.053	0.97	0.059	0.28	-0.59
Avoidant Social Coping	Large over 250 emp	0.08	0.008	0.99	0.080	-0.14	-0.32
	Medium 50 250 emp	0.10	0.016	0.97	0.039	-0.18	-0.74
Competing	Large over 250 emp	0.14	<0.001	0.94	<0.001	0.47	-0.74
	Medium 50 250 emp	0.15	<0.001	0.95	<0.001	0.53	-0.31
Collaborating	Large over 250 emp	0.13	<0.001	0.97	<0.001	0.17	-0.38
	Medium 50 250 emp	0.16	<0.001	0.96	0.005	0.10	-0.18
Compromising	Large over 250 emp	0.14	<0.001	0.96	<0.001	-0.30	-0.44
	Medium 50 250 emp	0.12	0.004	0.97	0.015	-0.20	-0.63
Avoiding	Large over 250 emp	0.09	0.002	0.97	0.003	0.17	-0.46
	Medium 50 250 emp	0.18	<0.001	0.95	<0.001	-0.42	-0.33
Accommodating	Large over 250 emp	0.12	<0.001	0.97	<0.001	0.31	-0.39
	Medium 50 250 emp	0.12	0.004	0.97	0.016	0.10	-0.68

Note: *KS* = Kolmogorov-Smirnov test statistics; *SW* = Shapiro-Wilk test statistics. Normality test *p*-values > 0.05 mean that the distribution of the variable is normal.

Source: Author's compilation based on the conducted research.

Table 5.18 Differences between groups distinguished on the basis of the Company Size variable in terms of the level of the following variables: TASK OC, Emotion OC, Avoidance OC, Avoidant Distracted, Avoidant Social Coping, Competing, Collaborating, Compromising, Avoiding, Accommodating

Variable	Large over 250 emp (a)					Medium 50 250 emp (b)					U Mann-Whitney test			rg
	N	M	SD	Me	Mrang	N	M	SD	Me	Mrang	U	p	a vs b difference	
TASK OC	167	62.40	7.13	62.00	126.91	95	63.48	6.27	63.87	139.57	7166.00	0.193	a = b	0.10
Emotion OC	167	39.47	10.75	39.00	128.47	95	40.92	11.98	40.00	136.83	7426.00	0.391	a = b	0.06
Avoidance OC	167	43.49	9.45	44.00	133.90	95	42.67	10.47	43.00	127.27	7531.00	0.496	a = b	0.05
Avoidant Distracted	167	18.48	5.88	19.00	133.43	95	18.22	6.07	18.00	128.10	7609.50	0.584	a = b	0.04
Avoidant Social Coping	167	16.89	3.68	17.00	133.90	95	16.49	3.97	17.00	127.28	7531.50	0.496	a = b	0.05
Competing	167	4.29	3.05	4.00	127.91	95	4.68	3.09	4.00	137.81	7333.00	0.307	a = b	0.08
Collaborating	167	5.98	2.10	6.00	130.94	95	5.96	1.80	6.00	132.48	7839.50	0.874	a = b	0.01
Compromising	167	8.01	1.83	8.00	131.46	95	8.00	2.17	8.00	131.56	7926.50	0.992	a = b	0.00
Avoiding	167	6.90	2.28	7.00	124.64	95	7.35	2.00	8.00	143.56	6787.00	0.050	a < b	0.14
Accommodating	167	4.58	2.20	4.00	138.41	95	3.95	2.16	4.00	119.36	6779.00	0.049	a > b	0.15

Note: Mrang = average rank; U = Mann-Whitney U statistic; p = statistical significance; rg = glass's biserial correlation strength test statistic.

Source: Author's compilation based on the conducted research.

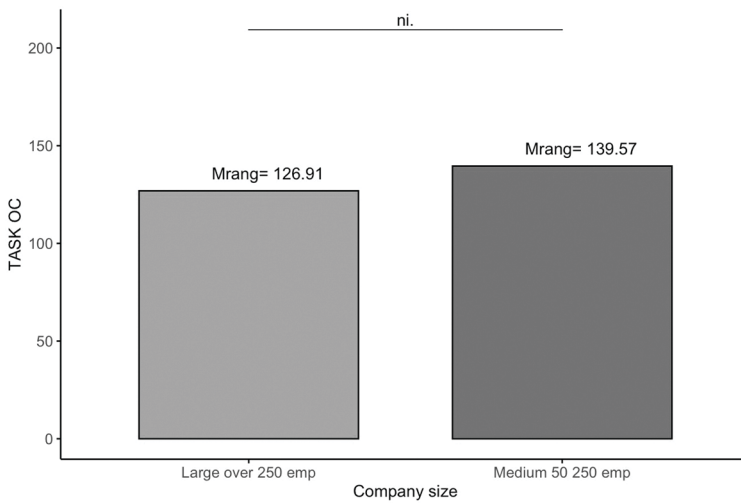


Figure 5.33 Differences between groups distinguished on the basis of the company size variable in terms of the level of the TASK OC variable.

Note: * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$, *ni* – insignificant result.

Source: Author's compilation based on the conducted research.

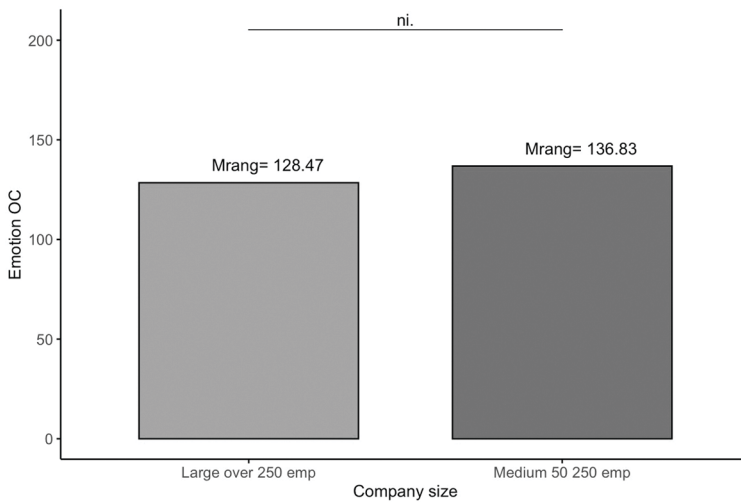


Figure 5.34 Differences between groups distinguished on the basis of the company size variable in terms of the level of the Emotion OC variable.

Note: * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$, *ni* – insignificant result.

Source: Author's compilation based on the conducted research.

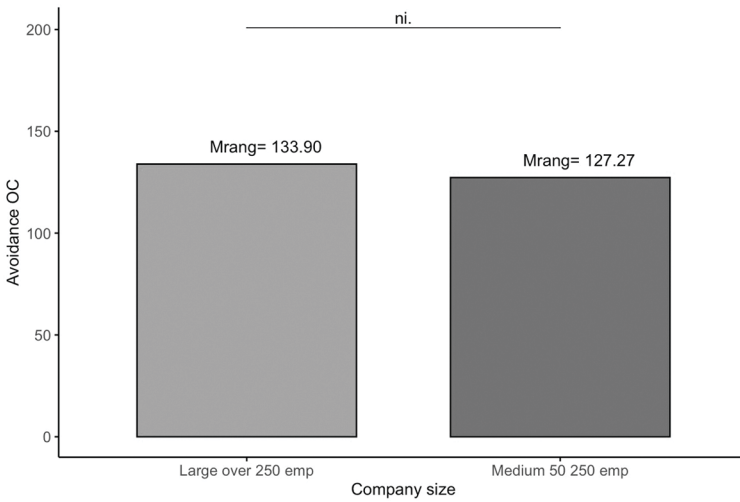


Figure 5.35 Differences between groups distinguished on the basis of the company size variable in terms of the level of the Avoidance OC variable.

Note: * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$, *ni* – insignificant result.

Source: Author's compilation based on the conducted research.

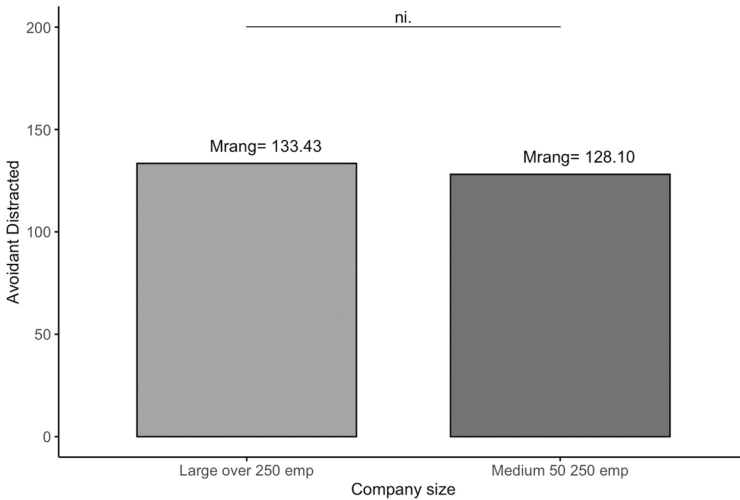


Figure 5.36 Differences between groups distinguished on the basis of the company size variable in terms of the level of the Avoidant Distracted variable.

Note: * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$, *ni* – insignificant result.

Source: Author's compilation based on the conducted research.

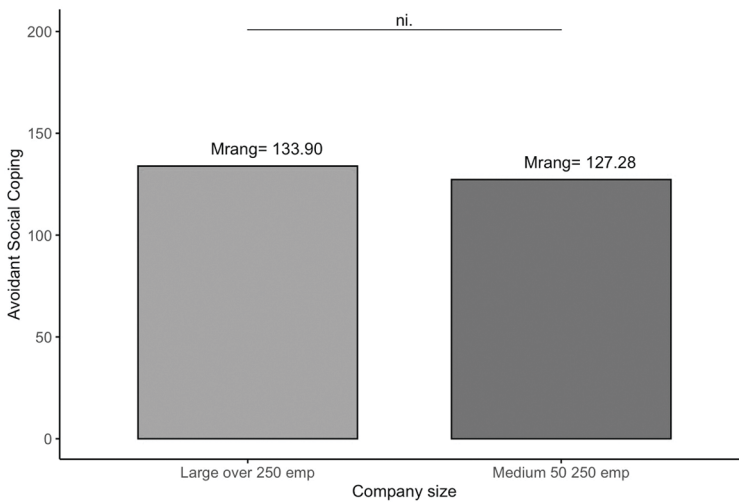


Figure 5.37 Differences between groups distinguished on the basis of the company size variable in terms of the level of the Avoidant Social Coping variable.

Note: * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$, *ni* – insignificant result.

Source: Author’s compilation based on the conducted research.

(Avoidance OC). The lack of significant differences between managers from large and medium-sized organizations may suggest that they are exposed to similar challenges and pressures in the workplace, which encourage them to use avoidance strategies in the form of vicarious avoidance in the face of stress.

The analyses did not show any statistically significant differences between the Large over 250 emp and Medium 50–250 emp groups in terms of the Avoidant Social Coping variable. Managers representing large and medium-sized organizations engaged in substitute social relationships to the same extent in order not to cope with stressful situations (Avoidant Social Coping) as a subscale of the avoidance strategy of responding to stress (Avoidance OC). Perhaps this is due to the personal characteristics of managers or the fact that managers are exposed to similar stressful situations that prompt them to avoid them through vicarious social relationships, regardless of the size of the organization.

The analyses did not show any statistically significant differences between the Large over 250 emp and Medium 50–250 emp groups in terms of the Competing variable. Managers representing large and medium-sized companies did not differ significantly in terms of competitive conflict resolution techniques. The obtained result indicates that the competitive strategy for coping with conflicts can be commonly used by managers from both large and medium-sized companies. This is a strategy that managers use regardless of the size of the organization, perhaps because of its effectiveness in certain conflict situations.

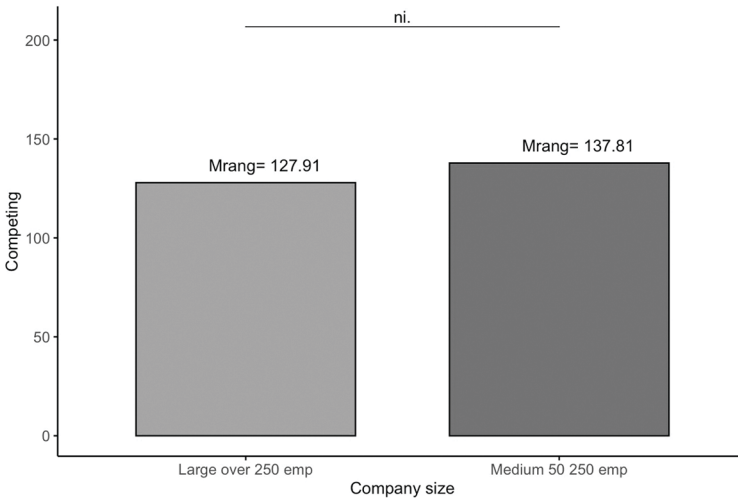


Figure 5.38 Differences between groups distinguished on the basis of the company size variable in terms of the level of the Competing variable.

Note: * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$, *ni* – insignificant result.

Source: Author's compilation based on the conducted research.

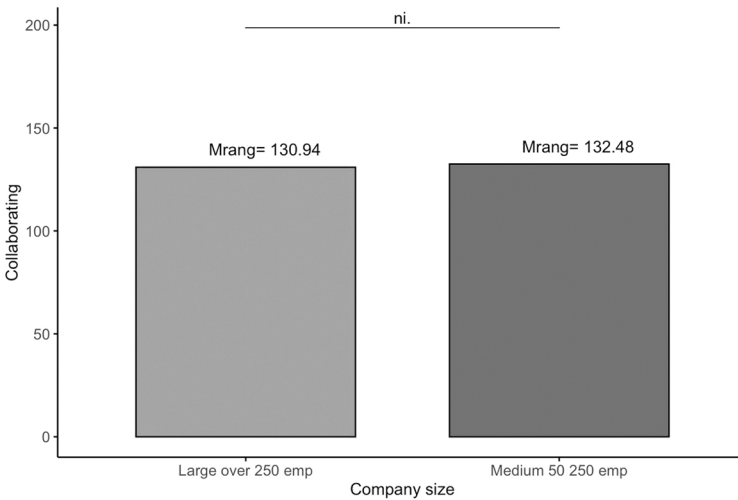


Figure 5.39 Differences between groups distinguished on the basis of the company size variable in terms of the level of the Collaborating variable.

Note: * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$, *ni* – insignificant result.

Source: Author's compilation based on the conducted research.

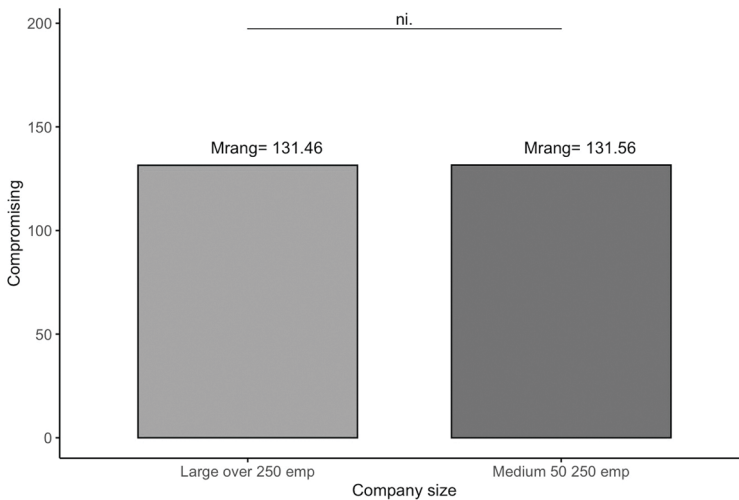


Figure 5.40 Differences between groups distinguished on the basis of the company size variable in terms of the level of the Compromising variable.

Note: * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$, *ni.* – insignificant result.

Source: Author’s compilation based on the conducted research.

The analyses did not show any statistically significant differences between the Large over 250 emp and Medium 50–250 emp groups in terms of the Collaborating variable. Managers employed in both large and medium-sized organizations did not differ significantly in terms of collaborative conflict resolution techniques. This result indicates that a collaborative conflict management strategy can be widely used in both large and medium-sized companies. It is a strategy that managers use regardless of the size of the organization, perhaps because of its perceived effectiveness in building positive relationships and solving problems.

The analyses did not show any statistically significant differences between the Large over 250 emp and Medium 50–250 emp groups in terms of the Compromising variable. Managers representing large and medium-sized companies did not differ significantly in terms of conflict resolution techniques based on searching for compromise solutions. This result suggests that the compromise strategy is widely accepted and used in both large and medium-sized companies. Managers in both types of organizations choose a compromise approach as a way to resolve conflicts, perhaps due to perceived balance and the ability to reach an agreement.

The analysis showed that in the area of the Avoiding variable the difference was statistically significant, $U = 6787.00$; $p = 0.050$ – a higher result was observed in the case of the Medium 50–250 emp group ($Mrang = 143.56$), and

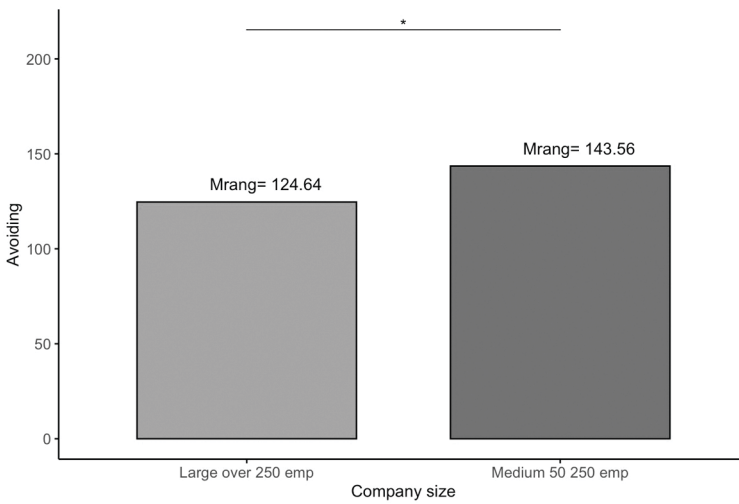


Figure 5.41 Differences between groups distinguished on the basis of the company size variable in terms of the level of the Avoiding variable.

Note: * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$, *ni* – insignificant result.

Source: Author's compilation based on the conducted research.

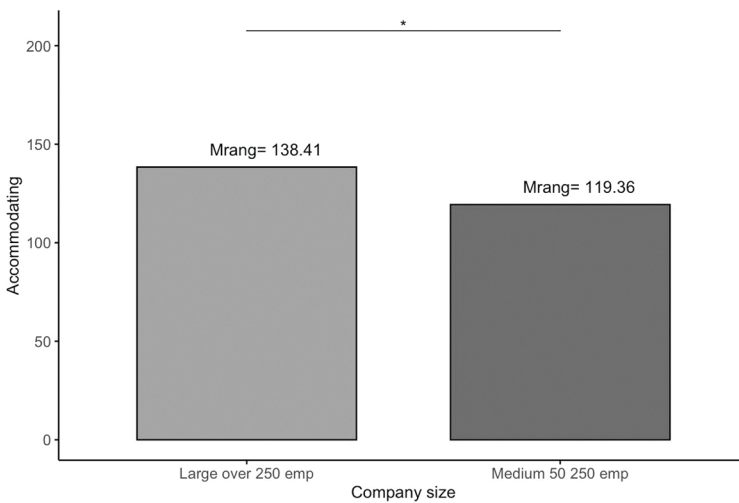


Figure 5.42 Differences between groups distinguished on the basis of the company size variable in terms of the level of the Accommodating variable.

Note: * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$, *ni* – insignificant result.

Source: Author's compilation based on the conducted research.

a lower result in the Large over 250 emp group ($M_{rang} = 124.64$). The effect strength of differences between groups in terms of the Avoiding variable was small ($r_g = 0.14$). In terms of the variable known as the conflict resolution technique based on avoidance (Avoiding), it was found that managers from companies with medium-sized employment used a strategy of avoiding conflict and decisive situations more often than managers representing large organizations. In companies with medium-sized employment, where the structure may be more flexible, managers may be more likely to choose conflict avoidance as a way to resolve them. Managers in medium-sized companies may have more autonomy in making decisions and managing conflict situations, which may promote the use of avoidance strategies. In turn, in large companies, where the organizational structure may be more formal and complex, there is greater pressure to resolve conflicts quickly, which may lead to the preference for other strategies of coping with stress.

The analysis showed that in the field of the Accommodating variable the difference was statistically significant, $U = 6779.00$; $p = 0.049$ – a higher result was observed in the Large over 250 emp group ($M_{rang} = 138.41$), and a lower result in the Medium 50–250 emp group ($M_{rang} = 119.36$). The effect strength of differences between groups in the Accommodating variable was small ($r_g = 0.15$). In terms of the variable referred to as the conflict resolution technique of accommodation (Accommodating), it was found that managers representing large organizations used a strategy of employing an adaptive attitude in conflict situations more often than managers from companies with medium-sized employment. In large organizations, where activities must be more coordinated and subordinated to organizational goals, managers may be more willing to adapt to conflict situations to maintain stability and harmony in the work environment. However, in medium-sized companies, where the organizational structure may be more flexible, managers may have greater freedom in making decisions and approaching conflicts, including avoiding them.

Conclusion

Based on the analyses performed using four demographic variables, important conclusions can be drawn regarding the identified relationships:

1. **Gender – Stress:** Both women and men managers equally prefer strategies based on taking specific actions to solve problems in stressful situations. However, women more often preferred seeking emotional support from other people in difficult situations, as well as avoiding direct confrontation with the problem, choosing other substitute activities.
2. **Age – Stress:** Older managers (41–60) tend to use strategies based on a task-oriented approach to difficult situations more often than their younger counterparts. Younger managers (20–40) are more likely to seek emotional support from others when faced with stress.

3. **Education – Stress:** Managers with a higher level of education demonstrated a task-oriented approach to difficult situations more frequently than the managers with secondary education.
4. **Company Size – Stress:** No significant differences were found between managers representing large and medium-sized organizations in terms of employment in the use of strategies of coping with stress.

As the above data indicate, the task-oriented strategy of coping with stress (Task OC) is more often used by older managers and those with higher education. The emotional strategy of coping with stress (Emotion OC) is more often used by women managers and young managers representing a younger age group. Women are also more likely to use stress-avoidance strategies (Avoidance OC).

5. **Gender – Conflict:** Male managers used the competitive strategy (Competing) to overcome conflict situations more often than women. However, women managers used the Accommodating strategy to overcome conflict situations more often than men.
6. **Age – Conflict:** Managers from the older age group (41–60) used the Collaborating strategy to overcome conflict situations more often than managers from the younger age group (20–40). Managers from the younger age group used the strategy of reaching a compromise in conflict situations (Compromising) more often than managers from the older age group.
7. **Education – Conflict:** Managers with Higher Education and with Secondary Education do not differ significantly in the use of any of the assessed conflict resolution techniques.
8. **Company Size – Conflict:** Managers from companies with medium-sized employment used the strategy of avoiding conflict and decisive situations (Avoiding) more often than managers representing large organizations. However, managers representing large organizations more often than managers from companies with medium-sized employment used the strategy of adopting an attitude of accommodation in conflict situations (Accommodating).

As the analyses showed, male managers used the competitive strategy (Competing) in resolving conflicts more often than women. Managers from the older age group (41–60) more often than managers from the younger age group (20–40) used a conflict resolution strategy based on Collaborating. However, the conflict resolution strategy based on working out compromises (Compromising) was more often used by managers from the younger age group. Managers representing medium-sized companies more often used the avoidance strategy in conflict situations (Avoiding), and managers representing large organizations more often chose the accommodation technique (Accommodating). The Education variable was not a differentiating variable in terms of the choice of conflict resolution techniques.

The differences found in preferred strategies of coping with stress and preferred conflict resolution techniques may also be the result of the specificity of stressful and conflict situations, their nature and organizational conditions, as well as personality predispositions that were not controlled in the research. Understanding those differences can be crucial to effectively managing conflict in the workplace and developing management skills. An in-depth psychological interpretation of the obtained data will be undertaken in Section 5.5.

5.4 Relationships between the methods of coping with stress and conflict resolution strategies used by managers

In order to conduct detailed analyses of the presence and intensity of various ways of coping with stress (measured by the CISS test scales) in relation to the preferences for using various conflict resolution techniques (measured by the T-K test), many statistical analyses were carried out relating to the distinguished conflict resolution techniques, and individual CISS test scales.

5.4.1 Correlational relationships between the CISS scale and the T-K scale

The collected research material was subjected to a Pearson correlation analysis for the following variables: Competing, Collaborating, Compromising, Avoiding, Accommodating (scales of the T-K Questionnaire), and Task OC, Emotion OC, Avoidance OC, Avoidant Distracted, Avoidant Social Coping (scales of the CISS Questionnaire).

In order to verify the relationships between the following variables: Competing, Collaborating, Compromising, Avoiding, Accommodating, Task OC, Emotion OC, Avoidance OC, Avoidant Distracted, Avoidant Social Coping, a series of correlation analyses were performed using the Pearson method (Pearson 1895). Parametric analysis was selected due to the relative fulfilment of the assumption of normality of distribution of the results in the analysed variables.

The results of the Pearson analysis are presented in Table 5.19 and Figure 5.43.

Taking into account the tabular data and graphical visualization, it can be concluded that the Pearson test analysis showed the following relationships:

- An increase in the results of the Competing variable was associated with a decrease in the results of the Compromising variable, $r(260) = -0.33$; $p < 0.001$ (the strength of this relationship was statistically moderate)
- An increase in the results of the Collaborating variable was associated with a decrease in the results of the Compromising variable, $r(260) = -0.16$; $p = 0.012$ (the strength of this relationship was statistically weak)
- An increase in the results of the Competing variable was associated with a decrease in the results of the Avoiding variable, $r(260) = -0.47$; $p < 0.001$ (the strength of this relationship was statistically moderate)

Table 5.19 Results of Pearson correlation analysis between the following variables: Competing, Collaborating, Compromising, Avoiding, Accommodating, TASK OC, Emotion OC, Avoidance OC, Avoidant Distracted, Avoidant Social Coping

Variable	Id.	1	2	3	4	5	6	7	8	9
Competing	1									
Collaborating	2	-0.06								
Compromising	3	-0.33***	-0.16*							
Avoiding	4	-0.47***	-0.29***	-0.12						
Accommodating	5	-0.46***	-0.37***	-0.15*	0.09					
TASK OC	6	0.14*	0.23***	0.06	-0.35***	-0.19**				
Emotion OC	7	-0.21***	-0.18**	-0.09	0.25***	0.22***	-0.29***			
Avoidance OC	8	0.14*	-0.02	-0.19**	0.02	-0.07	-0.22***	0.27***		
Avoidant Distracted	9	0.13*	-0.03	-0.23***	-0.02	0.02	-0.26***	0.35***	0.84***	
Avoidant Social Coping	10	0.05	0.09	-0.06	0.00	-0.11	-0.03	0.03	0.69***	0.34***

Note: * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

Source: Author's compilation based on the conducted research.

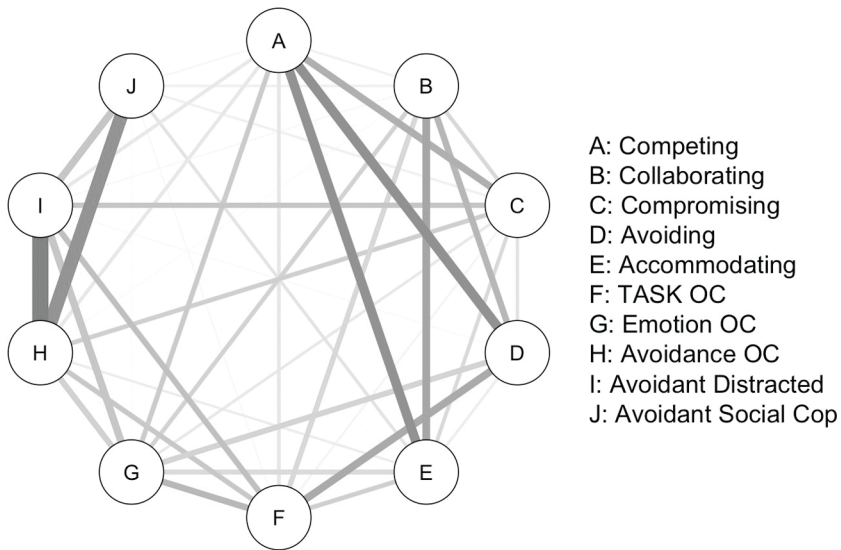


Figure 5.43 Visualization of the relationship between the following variables: Competing, Collaborating, Compromising, Avoiding, Accommodating, TASK OC, Emotion OC, Avoidance OC, Avoidant Distracted, and Avoidant Social Coping.

Note: The darker the green = more positive correlation; The darker the red = more negative correlation. The figure is based on the obtained estimates of Pearson's correlation coefficients.

Source: Author's compilation based on the conducted research.

- An increase in the results of the Collaborating variable was associated with a decrease in the results of the Avoiding variable, $r(260) = -0.29$; $p < 0.001$ (the strength of this relationship was statistically weak)
- An increase in the results of the Competing variable was associated with a decrease in the results of the Accommodating variable, $r(260) = -0.46$; $p < 0.001$ (the strength of this relationship was statistically moderate)
- An increase in the results of the Collaborating variable was associated with a decrease in the results of the Accommodating variable, $r(260) = -0.37$; $p < 0.001$ (the strength of this relationship was statistically moderate)
- An increase in the results of the Compromising variable was associated with a decrease in the results of the Accommodating variable, $r(260) = -0.15$; $p = 0.017$ (the strength of this relationship was statistically weak)
- An increase in the results of the Competing variable was associated with an increase in the results of the TASK OC variable, $r(260) = 0.14$; $p = 0.027$ (the strength of this relationship was statistically weak)

- An increase in the results of the Collaborating variable was associated with an increase in the results of the TASK OC variable, $r(260) = 0.23$; $p < 0.001$ (the strength of this relationship was statistically weak)
- An increase in the results of the Avoiding variable was associated with a decrease in the results of the TASK OC variable, $r(260) = -0.35$; $p < 0.001$ (the strength of this relationship was statistically moderate)
- An increase in the results of the Accommodating variable was associated with a decrease in the results of the TASK OC variable, $r(260) = -0.19$; $p = 0.002$ (the strength of this relationship was statistically weak)
- An increase in the results of the Competing variable was associated with a decrease in the results of the Emotion OC variable, $r(260) = -0.21$; $p < 0.001$ (the strength of this relationship was statistically weak)
- An increase in the results of the Collaborating variable was associated with a decrease in the results of the Emotion OC variable, $r(260) = -0.18$; $p = 0.004$ (the strength of this relationship was statistically weak)
- An increase in the results of the Avoiding variable was associated with an increase in the results of the Emotion OC variable, $r(260) = 0.25$; $p < 0.001$ (the strength of this relationship was statistically weak)
- An increase in the results of the Accommodating variable was associated with an increase in the results of the Emotion OC variable, $r(260) = 0.22$; $p < 0.001$ (the strength of this relationship was statistically weak)
- An increase in the results of the TASK OC variable was associated with a decrease in the results of the Emotion OC variable, $r(260) = -0.29$; $p < 0.001$ (the strength of this relationship was statistically weak)
- An increase in the results of the Competing variable was associated with an increase in the results of the Avoidance OC variable, $r(260) = 0.14$; $p = 0.029$ (the strength of this relationship was statistically weak)
- An increase in the results of the Compromising variable was associated with a decrease in the results of the Avoidance OC variable, $r(260) = -0.19$; $p = 0.002$ (the strength of this relationship was statistically weak)
- An increase in the results of the TASK OC variable was associated with a decrease in the results of the Avoidance OC variable, $r(260) = -0.22$; $p < 0.001$ (the strength of this relationship was statistically weak)
- An increase in the results of the Emotion OC variable was associated with an increase in the results of the Avoidance OC variable, $r(260) = 0.27$; $p < 0.001$ (the strength of this relationship was statistically weak)
- An increase in the results of the Competing variable was associated with an increase in the results of the Avoidant Distracted variable, $r(260) = 0.13$; $p = 0.031$ (the strength of this relationship was statistically weak)
- An increase in the results of the Compromising variable was associated with a decrease in the results of the Avoidant Distracted variable, $r(260) = -0.23$; $p < 0.001$ (the strength of this relationship was statistically weak)

- An increase in the results of the TASK OC variable was associated with a decrease in the results of the Avoidant Distracted variable, $r(260) = -0.26$; $p < 0.001$ (the strength of this relationship was statistically weak)
- An increase in the results of the Emotion OC variable was associated with an increase in the results of the Avoidant Distracted variable, $r(260) = 0.35$; $p < 0.001$ (the strength of this relationship was statistically moderate)
- An increase in the results of the Avoidance OC variable was associated with an increase in the results of the Avoidant Distracted variable, $r(260) = 0.84$; $p < 0.001$ (the strength of this relationship was statistically strong)
- An increase in the results of the Avoidance OC variable was associated with an increase in the results of the Avoidant Social Coping variable, $r(260) = 0.69$; $p < 0.001$ (the strength of this relationship was statistically moderate)
- An increase in the results of the Avoidant Distracted variable was associated with an increase in the results of the Avoidant Social Coping variable, $r(260) = 0.34$; $p < 0.001$ (the strength of this relationship was statistically moderate).

By analysing all the relationships between variables based on the Pearson test, several general conclusions can be drawn regarding conflict resolution methods and their connections with strategies for coping with stressful situations.

Relationships between conflict resolution techniques

The Competing style showed moderately strong negative relationships with the Compromising, Avoiding and Accommodating techniques. This means that people who preferred a competitive approach to conflict were less likely to use compromise, avoid conflict situations, or adapt to them. As a consequence, this may limit flexibility in coping with conflicts and collaboration with others.

The Collaborating style showed weak negative relationships with the Compromising, Avoiding and Accommodating techniques, which suggests that people who preferred collaboration in conflict situations tended to avoid compromises, avoid entering conflict situations and adapt in conflicts. The Compromising style was also associated with a decrease in the Accommodating style, which suggests that people focused on reaching a compromise in conflict situations are less willing to adapt to the conflict situation and are more inclined to look for common areas of understanding.

Relationships in terms of preferences for strategies of coping with stress

The task-oriented coping strategy (Task OC) was associated with a decrease in the emotional strategy (Emotion OC) and avoidance strategy (Avoidance OC). This means that the more task-oriented people show in stressful situations, the less they avoid the situation and the less they seek emotional support. However,

the more the emotional attitude towards stress (Emotion OC) increased, the more the involvement in substitute activities (Avoidance Distracted) intensified. This means that the more emotionally people reacted to a stressful situation, the more they were willing to engage in substitute activities to reduce emotional tension.

The style of coping with stress known as Avoidance OC showed a strong relationship with the Avoidant Distracted strategy and a moderate relationship with the Avoidant Social Coping strategy. This means that people who preferred an avoidance strategy in stressful situations tended to use avoidance strategies primarily by engaging in substitute activities, and to a moderate extent by engaging in substitute social activities. Although it has also been shown that the more inclined to perform substitute activities in a stressful situation a person is (Avoidant Distracted), the more inclined they will be to engage in substitute social activities (Avoidant Social Coping).

Relationships between conflict resolution techniques and strategies of coping with stress

The conflict resolution technique known as the Competing style was associated with an increase in the task-oriented strategy of coping with stress (Task OC). This means that the more focused on finding solutions in a stressful situation a person is, the more competitively they approach the conflict situation. Meanwhile, the Competing style had weak negative relationships with the Emotion OC strategy, which means that people who preferred a competitive style of resolving conflicts tended to refer less often to emotional strategies for coping with stressful situations. It can be said that an emotional approach to stress reduces the competitive attitude. Meanwhile, the task-oriented approach to stress (Task OC) and the strategy of coping with stress known as avoidance (Avoidance OC), and especially engaging in substitute activities (Avoidant Distracted), increase the competitive attitude to conflict (Competing). However, as the avoidance approach to stress (Avoidance OC) decreased, the compromise strategy of resolving conflicts (Compromising) intensified.

At the same time, the Emotion OC style of the stress coping strategy showed a moderately strong relationship with the increase in the levels of the Avoiding conflict resolution style, which suggests that the avoidance style in conflict situations was related to the emotional coping strategy in stressful situations. It can be said that if a person showed a more emotional approach to stress, the tendency to resort to avoidance strategies in conflict situations gets greater. Meanwhile, the increase in the approach to conflict known as Avoiding and Accommodating weakened the task-oriented strategy of coping with stress (Task OC), which means that in conflict situations the individual prefers to avoid confrontation or adapt to the needs of others at the expense of their own goals and interests.

In turn, an increase in Collaborating conflict resolution style results was associated with an increase in TASK OC results, suggesting that a more collaborative approach to conflict resolution was implemented with a task-oriented strategy of coping with stress. This means that a more collaborative approach to conflict resolution, based on mutual understanding and openness to other people's ideas, synergizes with task-based stress management.

5.4.2 Differences between conflict resolution techniques (T-K) and qualitative variables

In order to detect differences between conflict resolution techniques measured by the T-K Questionnaire (Competing, Collaborating, Compromising, Avoiding and Accommodating) due to the degree of intensity of strategies of coping with stress measured by the CISS test (Task OC, Emotion OC, Avoidance OC, Avoidant Distracted and Avoidant Social Coping), ANOVA, chi-square test analysis and Tukey's post-hoc test analysis were used.

Due to the construction of the CISS test, which consists of three main scales – a task-oriented strategy for coping with stress (Task OC), an emotional strategy for coping with stress (Emotion OC) and an avoidant strategy for coping with stress (Avoidance OC) and two additional avoidance style subscales (Avoidance OC), taking two forms of avoidance: engaging in substitute activities, i.e. watching TV, overeating, escaping to sleep or thinking about pleasant things (Avoidant Distracted) or seeking social contacts (Avoidant Social Coping) – two prediction models were constructed:

Model 1. – taking into account the three main predictors of the CISS Test: Task OC, Emotion OC and Avoidance OC.

Model 2. – including two subscales of the Avoidance OC style: Avoidant Distracted and Avoidant Social Coping.

MODEL 1.

ANALYSIS OF MODEL 1 COEFFICIENTS

In order to verify the prediction model estimates, structural equation modelling was performed in R program using the “lavaan” package. The MLR algorithm (maximum likelihood estimation with robust (Huber-White) standard errors) was used in the calculations. This method allows for the calculation of robust estimates and standard error corrections. The model tested $N = 27$ parameters to be estimated. Chi-square test analysis showed a fit of $X^2(3) = 6.42; p > 0.05$. The empirical data are presented in Table 5.20 and graphically in Figure 5.44.

The analysis showed that the **Accommodating** variable was significantly influenced by all tested variables. The analysis showed that the Accommodating

Table 5.20 Structural estimation results: Model 1

ZAL	<-	NZAL	B	s.e.	Z	DPU	GPU	β
Competing	<-	TASK OC	0.05	0.02	2.06*	0.00	0.09	0.11
Competing	<-	Emotion OC	-0.06	0.01	-4.22***	-0.09	-0.03	-0.23
Competing	<-	Avoidance OC	0.07	0.02	3.68***	0.03	0.10	0.22
Collaborating	<-	TASK OC	0.05	0.02	3.41**	0.02	0.08	0.20
Collaborating	<-	Emotion OC	-0.02	0.01	-2.14*	-0.04	0.00	-0.13
Collaborating	<-	Avoidance OC	0.01	0.01	1.07	-0.01	0.03	0.06
Compromising	<-	TASK OC	0.00	0.02	0.12	-0.03	0.03	0.01
Compromising	<-	Emotion OC	-0.01	0.01	-0.66	-0.03	0.01	-0.04
Compromising	<-	Avoidance OC	-0.03	0.01	-2.79**	-0.06	-0.01	-0.18
Avoiding	<-	TASK OC	-0.09	0.02	-5.46***	-0.13	-0.06	-0.32
Avoiding	<-	Emotion OC	0.04	0.01	3.18**	0.01	0.06	0.19
Avoiding	<-	Avoidance OC	-0.02	0.01	-1.67	-0.05	0.00	-0.11
Accommodating	<-	TASK OC	-0.05	0.02	-2.76**	-0.09	-0.01	-0.17
Accommodating	<-	Emotion OC	0.04	0.01	3.24**	0.02	0.07	0.21
Accommodating	<-	Avoidance OC	-0.04	0.01	-2.87**	-0.06	-0.01	-0.17

Note: ZAL = dependent variable; <- = direction of influence; NZAL = independent variable; B = unstandardized regression coefficient; s.e. = standard error of the estimate B; Z = Z-statistics; DPU and GPU = 95% confidence intervals (lower and upper, respectively); β = standardized regression coefficient; $\chi^2(3) = 6.42$; $p > 0.05$; CFI = 1.00; TLI = 0.96; NFI = 0.99; IFI = 1.00; RMSEA = 0.07; 90%PU[0.00-0.14]; PCLOSE = 0.279; SRMR = 0.04; GFI = 0.99; AGFI = 0.89.

*** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$.

Source: Author's compilation based on the conducted research.

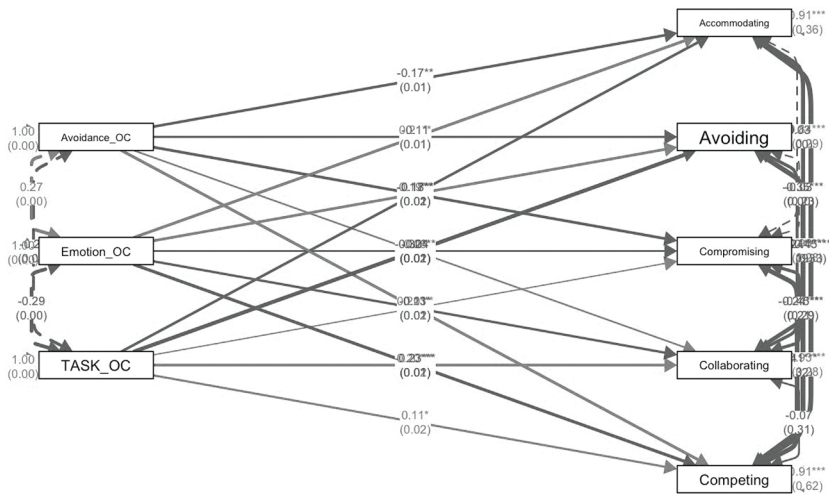


Figure 5.44 Estimation results for Model 1.

Note: The figure shows the structural model of the tested variables; results in parentheses are standard errors of estimates. *** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$.

Source: Author's compilation based on the conducted research.

variable was significantly influenced by an increase in the results of the Emotion OC variable $\beta = 0.21$; $Z = 3.24$; $p < 0.01$, the decrease in the results of the TASK OC variable had a significant effect $\beta = -0.17$; $Z = -2.76$; $p < 0.01$, the decrease in the results of the Avoidance OC variable had a significant effect $\beta = -0.17$; $Z = -2.87$; $p < 0.01$. The analysis also showed that the Accommodating variable had no insignificant predictors.

The analysis showed that the **Avoiding** variable was significantly influenced by an increase in the results of the Emotion OC variable $\beta = 0.19$; $Z = 3.18$; $p < 0.01$, the decrease in the results of the TASK OC variable had a significant effect $\beta = -0.32$; $Z = -5.46$; $p < 0.001$. The analysis also showed that the Avoiding variable was insignificantly influenced by a decrease in the results of the Avoidance OC variable $\beta = -0.11$; $Z = -1.67$; $p > 0.05$.

The analysis showed that the **Collaborating** variable was significantly influenced by an increase in the results of the TASK OC variable $\beta = 0.20$; $Z = 3.41$; $p < 0.001$, the decrease in the results of the Emotion OC variable had a significant effect $\beta = -0.13$; $Z = -2.14$; $p < 0.05$. The analysis also showed that the Collaborating variable was insignificantly influenced by an increase in the results of the Avoidance OC variable $\beta = 0.06$; $Z = 1.07$; $p > 0.05$.

The analysis thus showed that the **Competing** variable was significantly influenced by all tested variables. The analysis showed that the Competing variable was significantly influenced by an increase in the results of the Avoidance OC variable $\beta = 0.22$; $Z = 3.68$; $p < 0.001$, the increase in the results of the TASK OC variable had a significant effect $\beta = 0.11$; $Z = 2.06$; $p < 0.05$, the decrease in the results of the Emotion OC variable had a significant effect $\beta = -0.23$; $Z = -4.22$; $p < 0.001$. The analysis also showed that the Competing variable had no insignificant predictors.

The analysis showed that the **Compromising** variable was significantly influenced by a decrease in the results of the Avoidance OC variable $\beta = -0.18$; $Z = -2.79$; $p < 0.01$. The analysis also showed that the Compromising variable was insignificantly influenced by an increase in the results of the TASK OC variable $\beta = 0.01$; $Z = 0.12$; $p > 0.05$, the decrease in the results of the Emotion OC variable had a non-significant effect $\beta = -0.04$; $Z = -0.66$; $p > 0.05$.

THE PREDICTIVE POWER OF STRUCTURAL MODEL 1

The analysis of the explained variance coefficients showed that the **Avoiding** variable was explained by the model in 16.00% ($R^2 = 0.16$), the **Accommodating** variable was explained by the model in 8.93% ($R^2 = 0.09$), the **Competing** variable was explained by the model in 8.88% ($R^2 = 0.09$), the **Collaborating** variable was explained by the model in 6.76% ($R^2 = 0.07$), the **Compromising** variable was explained by the model in 3.84% ($R^2 = 0.04$).

These results are presented in Table 5.21.

Conclusion

The analysis of the explained variance coefficients showed that the variable explained most strongly was the Avoiding variable $R^2 = 0.16$, and the least explained variable was Compromising $R^2 = 0.04$. In this way, it was

Table 5.21 Estimates of coefficients of explained variance: Model 1

<i>ZAL</i>	R^2
Competing	0.09
Collaborating	0.07
Compromising	0.04
Avoiding	0.16
Accommodating	0.09

Note: *ZAL* = dependent variable.

Source: Author's compilation based on the conducted research.

possible to indicate the strength of the three main predictors of the CISS test, referred to as the strategies of coping with stress – the task-oriented strategy of coping with stress (Task OC), the emotional strategy of coping with stress (Emotion OC) and the avoidance strategy of coping with stress (Avoidance OC) explain the variables determined by the scales of the T-K Questionnaire – the technique of competition in conflict (Competing), the technique of attitude towards Collaborating, compromise-oriented technique (Compromising), avoidance technique in conflict situations (Avoiding) and Accommodating technique.

The analysis indicates that managers with a higher level of emotional involvement in stressful situations, a lower level of effectiveness in performing tasks in stressful situations and a lower level of avoidance tend to be more conciliatory and accommodating towards other people in difficult situations. The lack of significant predictors for the Accommodating variable suggests that the research factors are more important in shaping this style of coping with stress than other factors that were not included in the analysis. It has also been shown that managers with a higher level of emotional approach to stress and a weaker task approach may show a greater tendency to avoid conflict situations (Avoiding). However, an avoidant stress strategy was not significantly associated with reducing the tendency to avoid conflict. The results of the analysis also indicate that effectiveness in performing tasks and the level of emotional approach to stress may have a significant impact on the tendency to cooperate as an approach to resolving conflicts (Collaborating). People with a higher level of adaptation to stressful task situations and a lower tendency to emotional reactions to stress may be more open to collaboration and constructive solution of problems. However, the level of stress-avoidance strategy does not seem to have a significant impact on the choice of avoidance technique in conflict situations.

The Competing variable is significantly related to all tested variables relating to strategies of coping with stress. People with higher task performance may be more willing to use the competition technique in stressful situations. Also, managers with lower levels of emotional response to stress may be more competitive. People with a higher level of avoidance also tend to choose competitive strategies in conflict situations. The lack of significant predictors for the Competing variable suggests that the research factors are more important in shaping this style of coping with stress than other factors that were not included in the analysis. The obtained results of the analysis also suggest that people with a lower level of stress-avoidant behaviour are more willing to make compromises as a way of coping with conflict situations (Compromising). However, effectiveness in performing tasks and reducing the emotional approach to stress do not seem to have a significant impact on the choice of this strategy.

MODEL 2.

ANALYSIS OF MODEL 2 COEFFICIENTS

In order to verify the prediction model estimates, structural equation modelling was performed in R program using the “lavaan” package. The MLR algorithm (maximum likelihood estimation with robust (Huber-White) standard errors) was used in the calculations. This method allows for the calculation of robust estimates and standard error corrections.

The model tested $N = 22$ parameters to be estimated.

Chi-square test analysis showed a fit of $\chi^2(3) = 7.53; p > 0.05$.

The empirical data are presented in Table 5.22 and graphically in Figure 5.45.

The analysis showed that the **Accommodating** variable was significantly influenced by a decrease in the results of the Avoidant Social Coping variable $\beta = -0.14; Z = -2.25; p < 0.05$. The analysis also showed that the Accommodating variable was insignificantly influenced by an increase in the results of the Avoidant Distracted variable $\beta = 0.08; Z = 1.38; p > 0.05$.

The analysis showed that none of the variables in the model had a significant impact on the **Avoiding** variable.

The analysis showed that none of the variables in the model had a significant impact on the **Collaborating** variable.

The analysis showed that the **Competing** variable was significantly influenced by an increase in the results of the Avoidant Distracted variable $\beta = 0.17; Z = 2.74; p < 0.01$. The analysis also showed that the Competing variable was insignificantly influenced by a decrease in the results of the Avoidant Social Coping variable $\beta = -0.02; Z = -0.30; p > 0.05$.

The analysis showed that the **Compromising** variable was significantly influenced by a decrease in the results of the Avoidant Distracted variable $\beta = -0.26; Z = -4.44; p < 0.001$. The analysis also showed that the Compromising variable was insignificantly influenced by an increase in the results of the Avoidant Social Coping variable $\beta = 0.02; Z = 0.30; p > 0.05$.

THE PREDICTIVE POWER OF STRUCTURAL MODEL 2

The analysis of the explained variance coefficients showed that the Compromising variable was explained by the model in 6.62% ($R^2 = 0.07$), the Competing variable was explained by the model in 2.55% ($R^2 = 0.03$), the Accommodating variable was explained by the model in 1.77% ($R^2 = 0.02$), the Collaborating variable was explained by the model in 0.98% ($R^2 = 0.01$), the Avoiding variable was explained by the model in 0.12% ($R^2 = 0.00$).

These results are presented in Table 5.23.

Table 5.22 Structural estimation results: Model 2

ZAL	<-	NZAL	B	s.e.	Z	DPU	GPU	β
Competing	<-	Avoidant Distracted	0.08	0.03	2.74**	0.02	0.14	0.17
Competing	<-	Avoidant Social Coping	-0.01	0.05	-0.30	-0.10	0.08	-0.02
Collaborating	<-	Avoidant Distracted	-0.03	0.02	-1.49	-0.07	0.01	-0.09
Collaborating	<-	Avoidant Social Coping	0.04	0.03	1.27	-0.02	0.10	0.08
Compromising	<-	Avoidant Distracted	-0.08	0.02	-4.44***	-0.12	-0.05	-0.26
Compromising	<-	Avoidant Social Coping	0.01	0.03	0.30	-0.05	0.06	0.02
Avoiding	<-	Avoidant Distracted	-0.01	0.02	-0.57	-0.06	0.03	-0.04
Avoiding	<-	Avoidant Social Coping	0.01	0.03	0.29	-0.06	0.08	0.02
Accommodating	<-	Avoidant Distracted	0.03	0.02	1.38	-0.01	0.07	0.08
Accommodating	<-	Avoidant Social Coping	-0.08	0.03	-2.25*	-0.14	-0.01	-0.14

Note: ZAL = dependent variable; <- = direction of influence; NZAL = independent variable; B = unstandardized regression coefficient; s.e. = standard error of the estimate B; Z = Z-statistics; DPU i GPU = 95% confidence intervals (lower and upper, respectively); β = standardized regression coefficient; $\chi^2(3) = 7.53$; $p > 0.05$.; CFI = 0.99; TLI = 0.95; NFI = 0.99; IFI = 0.99; RMSEA = 0.08; 90%PU[0.00–0.15]; PCLOSE = 0.205; SRMR = 0.04; GFI = 0.99; AGFI = 0.89.
*** $p < 0.001$.

Source: Author's compilation based on the conducted research.

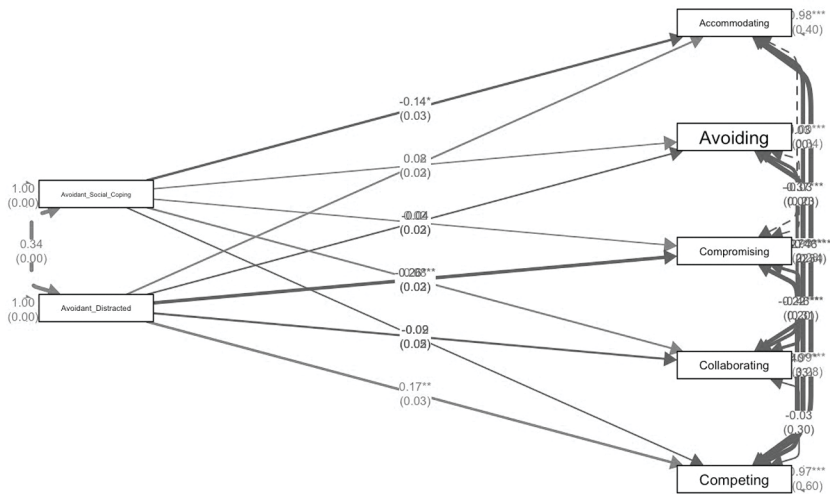


Figure 5.45 Estimation results for Model 2.

Note: The figure shows the structural model of the tested variables; results in parentheses are standard errors of estimates. *** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$.

Source: Author’s compilation based on the conducted research.

Table 5.23 Estimates of coefficients of explained variance: Model 2

ZAL	R^2
Competing	0.03
Collaborating	0.01
Compromising	0.07
Avoiding	0.00
Accommodating	0.02

Note: ZAL = dependent variable.

Source: Author’s compilation based on the conducted research.

Conclusion

The analysis of the explained variance coefficients showed that the variable explained most strongly was Compromising $R^2 = 0.07$, and the least explained variable was Avoiding $R^2 = 0.00$. In this way, it was possible to indicate the strength with which two subscales of the Avoidance OC scale of the CISS test – Avoidant Distracted and Avoidant Social Coping, defined as two forms of avoidance behaviour, explain the variables determined by the scales of the

T-K Questionnaire – the technique of Competing in a conflict, the technique of focusing on Collaborating, the technique of Compromising, the technique of Avoiding in a conflict situation, and the technique of Accommodating.

The analysis indicates that less use of avoidance strategies by engaging in substitute social contacts is associated with a greater tendency to adapt in conflict situations. However, avoidance by engaging in substitute activities does not appear to have a significant impact on the choice of this strategy (Accommodating). It has also been shown that people with a greater tendency to avoid by taking substitute actions are more willing to compete in conflict situations and therefore more willing to compete with others. However, avoiding conflict by engaging in substitute social activities does not appear to have a significant impact on the preference for competition as a means of resolving conflicts. It has also been shown that less use of avoidance strategies by taking substitute actions is associated with a greater tendency to make compromises in conflict situations. People who are less likely to get distracted and stay focused on a problem may be more open to negotiation and compromise. However, an increase in the level of avoiding conflict situations by escaping into alternative social contacts did not have a significant impact on the tendency to make compromises in difficult situations (Compromising). At the same time, the analyses performed showed that none of the tested variables had a significant impact on the Avoiding variable. This means that the examined factors that were included in the model do not have a significant impact on an individual's tendency to avoid conflict situations. Also, none of the tested variables showed a significant impact on the Collaborating variable. This means that the examined factors that were included in the model do not have a significant impact on an individual's tendency to cooperate and jointly solve problems in conflict situations. There may be other factors that may have a greater impact on the choice of avoidance and collaboration strategies than those considered in the above analysis.

Analysis of invariance of regression coefficients of demographic variables – MODEL 1.

Analysis of invariance of regression coefficients – Gender (Model 1.)

The analysis of the differences between the models in terms of fitting the data to the models showed significant differences between them $\chi^2(15) = 26.83$; $p < 0.05$. The Different Regression Slopes Across Groups model fit the data better than the Equal Regression Slopes Across Groups model. The results of the significance of differences between models in terms of fit are presented in Table 5.24. A lower value of the χ^2 statistic indicates a better fit. Table 5.25 shows the estimates of the path coefficients in both groups and their comparison.

The analysis of the above data indicates that in the Male group, an increase in Emotion OC results was associated with a decrease in Competing results, while

Table 5.24 Comparative analysis of differences in fitting data to models tested in the male group and the female group determined by the gender variable

<i>Models</i>	<i>DF</i>	<i>AIC</i>	<i>BIC</i>	<i>X²</i>	<i>X² diff</i>	<i>DF diff</i>	<i>p</i>
The Different Regression Slopes Across Groups model	6	3053.30	3281.67	8.20			
The Equal Regression Slopes Across Groups	21	3051.42	3226.27	36.32	26.83	15	0.030

Note: = X^2 diff = difference between estimates X^2 statistics; p = statistical significance of this difference; NA = no estimates for statistical significance.

Source: Author's compilation based on the conducted research.

in the Female group this relationship was not significant. The difference between groups in these estimates was statistically significant. Further analysis showed that in the Male group, an increase in Avoidance OC was associated with an increase in Competing results, while in the Female group this relationship was not statistically significant. The difference between groups in those estimates was statistically significant. Further analysis showed that in the Male group, the increase in Avoidance OC results was not significantly related to Collaborating results, while in the Female group this relationship was significant and positive. The difference between groups in those estimates was statistically significant. The last analysis showed that in the Male group, the increase in Avoidance OC results was not significantly related to Avoiding results, while in the Female group this relationship was significant and negative. The difference between groups in those estimates was statistically significant.

The obtained statistically significant data show that in the case of male respondents, along with the intensification of emotional reaction to stressful situations (Emotion OC), there was a decrease in the competitive approach to conflict resolution (Competing). This may suggest that men who react more emotionally to stressful situations prefer to avoid competitive conflict resolution strategies. However, in the case of female respondents, an increase in the avoidance reaction to stress (Avoidance OC) resulted in an increase in the attitude towards collaboration in conflict situations and a decrease in the avoidance of conflict technique (Avoiding). The observed relationships may indicate that women who avoid stress prefer more active conflict resolution strategies instead of avoiding them. However, the increase in avoidance response to stress (Avoidance OC) in men did not have a significant impact on changing any of the conflict resolution techniques examined. This may suggest that in men, stress-avoidance does not have a direct impact on preferences for specific conflict resolution strategies.

Table 5.25 Analysis of differences between model estimates for the male group and the female group determined by the gender variable

ZAL	<-	NZAL	Male			Female			Zdiff
			β	s.e.	Z	β	s.e.	Z	
Competing	<-	TASK OC	0.09	0.08	1.07	0.20	0.08	2.38*	-0.97
Competing	<-	Emotion OC	-0.27	0.08	-3.40***	-0.05	0.08	-0.62	-2.00*
Competing	<-	Avoidance OC	0.32	0.08	3.97***	0.09	0.09	0.98	1.98*
Collaborating	<-	TASK OC	0.26	0.09	2.92**	0.16	0.09	1.85	0.82
Collaborating	<-	Emotion OC	-0.10	0.09	-1.08	-0.18	0.11	-1.62	0.55
Collaborating	<-	Avoidance OC	-0.04	0.07	-0.50	0.20	0.09	2.17*	-2.00*
Compromising	<-	TASK OC	0.00	0.09	-0.06	-0.01	0.08	-0.15	0.06
Compromising	<-	Emotion OC	-0.03	0.09	-0.30	-0.18	0.10	-1.81	1.14
Compromising	<-	Avoidance OC	-0.28	0.08	-3.60***	-0.03	0.10	-0.27	-1.94
Avoiding	<-	TASK OC	-0.30	0.09	-3.26**	-0.36	0.08	-4.51***	0.54
Avoiding	<-	Emotion OC	0.26	0.09	2.81**	0.11	0.08	1.30	1.25
Avoiding	<-	Avoidance OC	0.04	0.08	0.44	-0.25	0.09	-2.93**	2.42*
Accommodating	<-	TASK OC	-0.24	0.08	-2.91**	-0.12	0.09	-1.45	-0.95
Accommodating	<-	Emotion OC	0.16	0.10	1.66	0.20	0.10	1.94	-0.29
Accommodating	<-	Avoidance OC	-0.20	0.08	-2.54*	-0.15	0.09	-1.69	-0.39

Note: = ZAL = dependent variable; <- = direction of influence; NZAL = independent variable; β = standardized regression coefficient; s.e. = standard error of the estimate; Z = Z-statistics, Zdiff = statistics of the significance of differences between β estimates for the male group and the female group. *** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$.

Source: Author's compilation based on the conducted research.

Analysis of invariance of regression coefficients – age

The analysis of the differences between the models in terms of fitting the data to the models showed no differences between them $\chi^2(15) = 19.20; p > 0.05$. Both models tested had a similar fit to the data. This means that in both groups of the Age variable, the slopes of the regression lines were similar. The results of the significance of differences between models in terms of fit are presented in Table 5.26. A lower value of the χ^2 statistic indicates a better fit. Table 5.27 shows the estimates of the path coefficients in both groups and their comparison.

The analysis of the results presented above, despite the indication that the model with equal estimates of path coefficients fits the data better than the model with different estimates, showed that detailed differences between groups were observed in terms of the impact of Task OC on Competing. The analysis showed that in the older group this relationship was close to zero and statistically insignificant. However, in the younger group, the increase in Task OC was significantly associated with the increase in Competing results. The other observed difference between age groups concerned the influence of Emotion OC on the variability of the Avoiding measurement. The analysis showed that in the younger group this relationship was close to zero and it was insignificant. However, in the older group, an increase in Emotion OC was statistically significantly associated with an increase in the Avoiding measurement results. Such results may stem from the fact that at the general level the differences in estimates are statistically insignificant, and at the level of detailed estimates there are statistically significant differences.

The obtained statistically significant data show that younger (20–40) and older (41–60) respondents differ in the impact of the task-oriented approach to stress (Task OC) on the competitive approach to conflict resolution (Competing) and in the impact of the emotional reaction to stress (Emotion OC) to an avoidant conflict resolution technique (Avoiding). Younger respondents, along with an

Table 5.26 Comparative analysis of differences in fitting data to models tested in the 41–60 group and the 20–40 group determined by the age variable

<i>Models</i>	<i>DF</i>	<i>AIC</i>	<i>BIC</i>	<i>χ²</i>	<i>χ² diff</i>	<i>DF diff</i>	<i>p</i>
The Different Regression Slopes Across Groups model	6	3085.31	3313.68	0.44			
The Equal Regression Slopes Across Groups	21	3074.44	3249.28	19.57	19.20	15	0.205

Note: = χ^2 diff = difference between estimates χ^2 statistics; *p* = statistical significance of this difference; *NA* = no estimates for statistical significance.

Source: Author’s compilation based on the conducted research.

Table 5.27 Analysis of differences between model estimates for the 41–60 group and the 20–40 group determined by the age variable

ZAL	<-	NZAL	41–60			20–40			Zdiff
			β	s.e.	Z	β	s.e.	Z	
Competing	<-	TASK OC	-0.04	0.08	-0.50	0.35	0.09	4.13***	-3.36***
Competing	<-	Emotion OC	-0.35	0.09	-3.80***	-0.14	0.07	-2.01*	-1.84
Competing	<-	Avoidance OC	0.25	0.09	2.89**	0.23	0.07	3.16**	0.17
Collaborating	<-	TASK OC	0.31	0.08	3.94***	0.11	0.08	1.39	1.87
Collaborating	<-	Emotion OC	0.00	0.08	0.04	-0.17	0.09	-1.86	1.39
Collaborating	<-	Avoidance OC	0.06	0.08	0.74	-0.01	0.09	-0.13	0.59
Compromising	<-	TASK OC	0.07	0.09	0.81	0.00	0.08	-0.03	0.61
Compromising	<-	Emotion OC	-0.07	0.10	-0.76	-0.09	0.08	-1.15	0.16
Compromising	<-	Avoidance OC	-0.21	0.08	-2.54*	-0.18	0.09	-2.11*	-0.23
Avoiding	<-	TASK OC	-0.21	0.08	-2.53*	-0.36	0.09	-4.05***	1.27
Avoiding	<-	Emotion OC	0.32	0.09	3.66***	0.05	0.08	0.65	2.21*
Avoiding	<-	Avoidance OC	-0.15	0.10	-1.57	-0.04	0.09	-0.47	-0.87
Accommodating	<-	TASK OC	-0.09	0.09	-1.03	-0.24	0.08	-3.00**	1.26
Accommodating	<-	Emotion OC	0.17	0.09	1.81	0.28	0.09	3.22**	-0.88
Accommodating	<-	Avoidance OC	-0.15	0.09	-1.69	-0.18	0.08	-2.25*	0.25

Note: = ZAL = dependent variable; <- = direction of influence; NZAL = independent variable; β = standardized regression coefficient; s.e. = standard error of the estimate; Z = Z-statistics, Zdiff = statistics of the significance of differences between β estimates for the 41–60 group and the 20–40 group.

*** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$.

Source: Author's compilation based on the conducted research.

increase in the task-oriented approach to stress (Task OC), revealed an increase in the competitive approach to conflict resolution (Competing). Therefore, younger respondents seem to prefer competitive strategies in resolving conflicts in situations, along with undertaking task-oriented coping with stressful situations. Older respondents, along with an increase in the emotional approach to stress (Emotion OC), revealed an increase in the avoidant approach to conflict resolution (Avoiding). This means that older respondents seem to choose avoidance strategies in conflict situations when they experience an increase in emotional stress.

Analysis of invariance of regression coefficients – Education (Model 1)

The analysis of the differences between the models in terms of fitting the data to the models showed significant differences between them $\chi^2(15) = 28.46$; $p < 0.05$. The Different Regression Slopes Across Groups model fit the data better than the Equal Regression Slopes Across Groups model. The results of the significance of differences between models in terms of fit are presented in Table 5.28. A lower value of the χ^2 statistic indicates a better fit. Table 5.29 shows the estimates of the path coefficients in both groups and their comparison.

The analysis of the above tabular data indicates that in the Higher Education group, an increase in Task OC results was associated with an increase in Collaborating results, while in the Secondary Education group, this relationship was not significant. The difference between groups in these estimates was statistically significant.

The obtained statistically significant data indicate that in respondents with a higher level of education, the task-oriented approach to stress (Task OC) is associated with the intensification of conflict resolution techniques based on Collaborating. Respondents with higher education seem to prefer an active

Table 5.28 Comparative analysis of differences in fitting data to models tested in the higher education group and the secondary education group determined by the education variable

<i>Models</i>	<i>DF</i>	<i>AIC</i>	<i>BIC</i>	<i>χ^2</i>	<i>χ^2 diff</i>	<i>DF diff</i>	<i>p</i>
The Different Regression Slopes Across Groups model	6	3082.53	3310.91	3.49			
The Equal Regression Slopes Across Groups	21	3074.53	3249.38	25.48	28.46	15	0.019

Note: = χ^2 diff = difference between estimates χ^2 statistics; p = statistical significance of this difference; *NA* = no estimates for statistical significance.

Source: Author’s compilation based on the conducted research.

Table 5.29 Analysis of differences between model estimates for the higher education group and the secondary education group determined by the education variable

ZAL	<-	NZAL	Higher education			Secondary education			Zdiff
			β	s.e.	Z	β	s.e.	Z	
Competing	<-	TASK OC	0.10	0.06	1.67	0.25	0.15	1.65	-0.89
Competing	<-	Emotion OC	-0.23	0.06	-4.06***	-0.26	0.21	-1.24	0.12
Competing	<-	Avoidance OC	0.23	0.06	3.63***	0.04	0.20	0.18	0.94
Collaborating	<-	TASK OC	0.25	0.06	3.80***	-0.12	0.16	-0.77	2.14*
Collaborating	<-	Emotion OC	-0.13	0.07	-1.97*	-0.13	0.20	-0.67	0.03
Collaborating	<-	Avoidance OC	0.06	0.06	0.98	0.18	0.28	0.66	-0.45
Compromising	<-	TASK OC	0.00	0.06	0.00	-0.07	0.14	-0.52	0.47
Compromising	<-	Emotion OC	-0.06	0.07	-0.86	0.03	0.14	0.18	-0.52
Compromising	<-	Avoidance OC	-0.14	0.07	-2.14*	-0.57	0.21	-2.73**	1.94
Avoiding	<-	TASK OC	-0.31	0.06	-5.00***	-0.50	0.16	-3.12**	1.11
Avoiding	<-	Emotion OC	0.21	0.06	3.42***	-0.14	0.19	-0.71	1.72
Avoiding	<-	Avoidance OC	-0.11	0.07	-1.70	0.11	0.21	0.50	-0.99
Accommodating	<-	TASK OC	-0.18	0.06	-2.73**	0.03	0.17	0.19	-1.16
Accommodating	<-	Emotion OC	0.21	0.07	3.04**	0.36	0.22	1.64	-0.67
Accommodating	<-	Avoidance OC	-0.19	0.06	-3.12**	0.08	0.18	0.45	-1.39

Note: = ZAL = dependent variable; <- = direction of influence; NZAL = independent variable; β = standardized regression coefficient; s.e. = standard error of the estimate; Z = Z-statistics, Zdiff = statistics of the significance of differences between β estimates for the higher education group and the secondary education group.

*** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$.

Source: Author's compilation based on the conducted research.

approach to conflicts, in the context of task-oriented stress, where collaborating is crucial in order to develop a constructive solution. In contrast to the group with higher education, for respondents with secondary education, no such clear relationship was observed between a task-oriented approach to stress and preferences in conflict resolution.

Analysis of invariance of regression coefficients – company size (Model 1)

The analysis of the differences between the models in terms of fitting the data to the models showed significant differences between them $\chi^2(15) = 34.84$; $p < 0.01$. The Different Regression Slopes Across Groups model fit the data better than the Equal Regression Slopes Across Groups model. The results of the significance of differences between models in terms of fit are presented in Table 5.30. A lower value of the χ^2 statistic indicates a better fit. Table 5.31 shows the estimates of the path coefficients in both groups and their comparison.

The analysis of the above results, despite indicating that the model with different estimates of path coefficients fit the data better than the model of equal estimates, showed that no detailed differences were observed between groups in terms of path estimates. Such results may result from the fact that at the general level the differences in estimates are statistically significant, and at the level of detailed estimates they are close to statistical significance. The obtained data suggest that no statistically significant relationships were observed between strategies of coping with stress and conflict resolution techniques in people representing organizations of various sizes, determined by the number of employees (large and medium-sized companies). The lack of such relationships may indicate that in large companies, various strategies for coping with stress do not have a clear impact on preferred conflict resolution techniques, and the size of the company is not a variable determining such a relationship, hence it may

Table 5.30 Comparative analysis of differences in fitting data to models tested in the large group (over 250 emp) and the medium group (50–250 emp) determined by the company size variable

<i>Models</i>	<i>DF</i>	<i>AIC</i>	<i>BIC</i>	<i>χ^2</i>	<i>χ^2 diff</i>	<i>DF diff</i>	<i>p</i>
The Different Regression Slopes Across Groups model	6	3061.31	3289.68	5.72			
the Equal Regression Slopes Across Groups	21	3066.53	3241.38	40.94	34.84	15	0.003

Note: = χ^2 diff = difference between estimates χ^2 statistics; p = statistical significance of this difference; *NA* = no estimates for statistical significance.

Source: Author's compilation based on the conducted research.

Table 5.31 Analysis of differences between model estimates for the large group (over 250 emp) and the medium group (50–250 emp) determined by the company size variable

ZAL	<-	NZAL	Large (over 250 emp)			Medium (50–250 emp)			Zdiff
			β	s.e.	Z	β	s.e.	Z	
Competing	<-	TASK OC	0.16	0.07	2.25*	0.02	0.10	0.23	1.13
Competing	<-	Emotion OC	-0.22	0.07	-3.12**	-0.28	0.09	-2.98**	0.50
Competing	<-	Avoidance OC	0.24	0.07	3.34***	0.19	0.11	1.76	0.37
Collaborating	<-	TASK OC	0.16	0.07	2.15*	0.28	0.10	2.72**	-0.94
Collaborating	<-	Emotion OC	-0.14	0.08	-1.70	-0.14	0.10	-1.42	-0.05
Collaborating	<-	Avoidance OC	0.11	0.08	1.40	-0.01	0.08	-0.09	1.05
Compromising	<-	TASK OC	-0.06	0.07	-0.83	0.13	0.11	1.15	-1.42
Compromising	<-	Emotion OC	-0.13	0.08	-1.66	0.10	0.10	0.98	-1.78
Compromising	<-	Avoidance OC	-0.24	0.07	-3.26**	-0.06	0.11	-0.52	-1.32
Avoiding	<-	TASK OC	-0.38	0.07	-5.16***	-0.20	0.09	-2.26*	-1.51
Avoiding	<-	Emotion OC	0.14	0.08	1.85	0.28	0.09	3.05**	-1.20
Avoiding	<-	Avoidance OC	-0.18	0.08	-2.16*	0.06	0.10	0.63	-1.88
Accommodating	<-	TASK OC	-0.09	0.07	-1.29	-0.29	0.11	-2.70**	1.54
Accommodating	<-	Emotion OC	0.27	0.09	3.12**	0.15	0.10	1.44	0.96
Accommodating	<-	Avoidance OC	-0.17	0.08	-2.12*	-0.21	0.09	-2.46*	0.38

Note: = ZAL = dependent variable; <- = direction of influence; NZAL = independent variable; β = standardized regression coefficient; s.e. = standard error of the estimate; Z = Z-statistics, Zdiff = statistics of the significance of differences between β estimates for the Large (over 250 emp) group and the medium (50–250 emp) group.

*** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$.

Source: Author's compilation based on the conducted research.

lead to different reactions among employees. The lack of such relationships may suggest that also in medium-sized companies, various strategies for coping with stress do not have a clear impact on the preferred conflict resolution techniques. In this case, too, the specificity of a medium-sized organization is not a variable that influences employees' actions in the assessed scope.

Analysis of invariance of regression coefficients of demographic variables – MODEL 2.

Analysis of invariance of regression coefficients – Gender (Model 2.)

The analysis of the differences between the models in terms of fitting the data to the models showed significant differences between them $\chi^2(10) = 20.88$; $p < 0.05$. The Different Regression Slopes Across Groups model fit the data better than the Equal Regression Slopes Across Groups model. The results of the significance of differences between models in terms of fit are presented in Table 5.32. A lower value of the χ^2 statistic indicates a better fit. Table 5.33 shows the estimates of the path coefficients in both groups and their comparison.

The analysis of tabular data indicates that in the Male group the increase in Avoidant Social Coping was not significantly associated with Collaborating. However, in the Female group, an increase in Avoidant Social Coping results was associated with an increase in Collaborating results. The analysis did not reveal any other differences between the groups.

The obtained statistically significant data show that among female respondents, along with the intensification of the stress response strategy based on seeking social contacts as a substitute activity (Avoidant Social Coping), the use of conflict resolution techniques based on collaboration (Collaborating) intensified. Meanwhile, no such relationship was found in the male group. Women who intensively use stress-avoidance through increased social contacts tend to have an increased preference for collaborative conflict resolution

Table 5.32 Comparative analysis of differences in fitting data to models tested in the male group and the female group determined by the gender variable

<i>Models</i>	<i>DF</i>	<i>AIC</i>	<i>BIC</i>	<i>χ^2</i>	<i>χ^2 diff</i>	<i>DF diff</i>	<i>p</i>
The Different Regression Slopes Across Groups model	6	3145.21	3337.90	8.04			
the Equal Regression Slopes Across Groups	16	3146.43	3303.44	29.26	20.88	10	0.022

Note: = χ^2 diff = difference between estimates χ^2 statistics; p = statistical significance of this difference; *NA* = no estimates for statistical significance.

Source: Author's compilation based on the conducted research.

Table 5.33 Analysis of differences between model estimates for the male group and the female group determined by the gender variable

ZAL	<-	NZAL	Male			Female			Zdiff
			β	s.e.	Z	β	s.e.	Z	
Competing	<-	Avoidant Distracted	0.26	0.10	2.49*	0.10	0.08	1.29	1.18
Competing	<-	Avoidant Social Coping	0.10	0.10	0.95	-0.11	0.08	-1.46	1.63
Collaborating	<-	Avoidant Distracted	-0.08	0.09	-0.88	-0.05	0.08	-0.62	-0.26
Collaborating	<-	Avoidant Social Coping	-0.08	0.09	-0.83	0.21	0.08	2.59**	-2.35*
Compromising	<-	Avoidant Distracted	-0.28	0.09	-3.02**	-0.24	0.08	-2.94**	-0.26
Compromising	<-	Avoidant Social Coping	-0.07	0.09	-0.82	0.10	0.08	1.18	-1.41
Avoiding	<-	Avoidant Distracted	0.01	0.10	0.10	-0.11	0.08	-1.33	0.91
Avoiding	<-	Avoidant Social Coping	0.08	0.12	0.68	-0.05	0.07	-0.69	0.94
Accommodating	<-	Avoidant Distracted	0.00	0.09	-0.05	0.12	0.08	1.51	-0.99
Accommodating	<-	Avoidant Social Coping	-0.12	0.10	-1.21	-0.15	0.08	-2.03*	0.29

Note: = ZAL = dependent variable; <- = direction of influence; NZAL = independent variable; β = standardized regression coefficient; s.e. = standard error of the estimate; Z = Z-statistics, Zdiff = statistics of the significance of differences between β estimates for the male group and the female group.
 *** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$.

Source: Author's compilation based on the conducted research.

strategies. Unlike the group of women, in men there is no clear relationship between the stress-avoidance strategy based on seeking social contacts and preferences in resolving conflicts. Potential explanations arising from those observations may include psychosocial differences between the genders, such as differences in communication styles, social adaptation, and preferences for coping with stress. There may also be a cultural influence where women, more than men, may use social relationships as a means of coping with stress, which in turn may influence their preferred conflict resolution strategies. It is worth noting, however, that the stress strategy presented here (Avoidant Social Coping), is a strategy to avoid stress and establishing social contacts is intended to be a substitute activity. This is an emotional strategy (Emotion OC) analysed in Model 1. It is associated with the attitude of seeking emotional support in stressful situations. Meanwhile, Avoidant Social Coping, as one of the subscales of the Avoidance OC strategy, is intended to help distance oneself from stress by taking up substitute social relationships. Further research may focus on exploring those potential mechanisms.

Analysis of invariance of regression coefficients – age (Model 2)

The analysis of the differences between the models in terms of fitting the data to the models showed no differences between them $X^2(10) = 5.68$; $p > 0.05$. Both models tested had a similar fit to the data. This means that in both groups of the Age variable, the slopes of the regression lines were similar. The results of the significance of differences between models in terms of fit are presented in Table 5.34. A lower value of the X^2 statistic indicates a better fit. Table 5.35 shows the estimates of the path coefficients in both groups and their comparison.

Table 5.34 Comparative analysis of differences in fitting data to models tested in the 41–60 group and the 20–40 group determined by the age variable

<i>Models</i>	<i>DF</i>	<i>AIC</i>	<i>BIC</i>	<i>X²</i>	<i>X² diff</i>	<i>DF diff</i>	<i>p</i>
The Different Regression Slopes Across Groups model	6	3148.96	3341.66	2.67			
the Equal Regression Slopes Across Groups	16	3134.53	3291.54	8.24	5.68	10	0.842

Note: = X^2 diff = difference between estimates X^2 statistics; p = statistical significance of this difference; *NA* = no estimates for statistical significance.

Source: Author’s compilation based on the conducted research.

Table 5.35 Analysis of differences between model estimates for the 41–60 group and the 20–40 group determined by the age variable

ZAL	<-	NZAL	41–60			20–40			Zdiff
			β	s.e.	Z	β	s.e.	Z	
Competing	<-	Avoidant Distracted	0.24	0.10	2.36*	0.13	0.08	1.57	0.86
Competing	<-	Avoidant Social Coping	-0.04	0.09	-0.41	-0.01	0.09	-0.17	-0.18
Collaborating	<-	Avoidant Distracted	0.06	0.10	0.57	-0.16	0.08	-2.01*	1.71
Collaborating	<-	Avoidant Social Coping	-0.03	0.09	-0.34	0.14	0.07	2.03*	-1.52
Compromising	<-	Avoidant Distracted	-0.30	0.09	-3.27**	-0.27	0.08	-3.44***	-0.25
Compromising	<-	Avoidant Social Coping	-0.01	0.07	-0.16	0.06	0.09	0.70	-0.65
Avoiding	<-	Avoidant Distracted	-0.10	0.10	-0.99	-0.01	0.09	-0.12	-0.66
Avoiding	<-	Avoidant Social Coping	0.05	0.10	0.56	0.00	0.08	-0.01	0.43
Accommodating	<-	Avoidant Distracted	-0.04	0.09	-0.44	0.14	0.08	1.90	-1.57
Accommodating	<-	Avoidant Social Coping	-0.05	0.09	-0.61	-0.19	0.09	-2.24*	1.12

Note: = ZAL = dependent variable; <- = direction of influence; NZAL = independent variable; β = standardized regression coefficient; s.e. = standard error of the estimate β ; Z = Z-statistics, Zdiff = statistics of the significance of differences between β estimates for the 41–60 group and the 20–40 group.

*** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$.

Source: Author's compilation based on the conducted research.

Based on the data presented above, it can be concluded that the analysis showed that at the general level (all analysed directional relationships in general in each age group) and at the fragmentary level (individual directional relationships in each age group), the analysed relationships had similar intensity in the groups of younger and older people. The obtained data suggest that no statistically significant relationships were observed between strategies for coping with stress, defined as subscales of the avoidance strategy of responding to stress (Avoidance OC) in the form of engaging in substitute activities (Avoidant Distracted) and in the form of a strategy based on seeking social contacts, as avoidance activities (Avoidant Social Coping), and conflict resolution techniques in people representing different age groups (20–40 and 41–60). The lack of significant relationships between avoidance stress coping strategies (Avoidance OC and Avoidant Social Coping) and conflict resolution techniques in both age groups may result from the diversity of individual preferences, life experiences, or cultural experiences among people in different age groups. To conclude, the data obtained may indicate individual tendencies to use different strategies depending on a specific situation or life context. Further research may be helpful in better understanding these relationships and confirming or explaining the lack of statistical relationships in this particular research sample.

Analysis of invariance of regression coefficients – education (Model 2)

The analysis of the differences between the models in terms of fitting the data to the models showed no differences between them $\chi^2(10) = 9.76; p > 0.05$. Both models tested had a similar fit to the data. This means that in both groups of the Education variable, the slopes of the regression lines were similar. The results of the significance of differences between models in terms of fit are presented in Table 5.36. A lower value of the χ^2 statistic indicates a better fit. Table 5.37 shows the estimates of the path coefficients in both groups and their comparison.

Table 5.36 Comparative analysis of differences in fitting data to models tested in the higher education group and the secondary education group determined by the education variable

<i>Models</i>	<i>DF</i>	<i>AIC</i>	<i>BIC</i>	<i>X²</i>	<i>X² diff</i>	<i>DF diff</i>	<i>p</i>
The Different Regression Slopes Across Groups model	6	3093.11	3285.80	4.74			
the Equal Regression Slopes Across Groups	16	3083.00	3240.01	14.63	9.76	10	0.462

Note: = χ^2 diff = difference between estimates χ^2 statistics; *p* = statistical significance of this difference; *NA* = no estimates for statistical significance.

Source: Author’s compilation based on the conducted research.

Table 5.37 Analysis of differences between model estimates for the higher education group and the secondary education group determined by the education variable

ZAL	<-	NZAL	Higher education			Secondary education			Zdiff
			β	s.e.	Z	β	s.e.	Z	
Competing	<-	Avoidant Distracted	0.19	0.06	3.00**	-0.13	0.25	-0.51	1.25
Competing	<-	Avoidant Social Coping	-0.03	0.06	-0.47	0.05	0.30	0.18	-0.27
Collaborating	<-	Avoidant Distracted	-0.12	0.07	-1.82	0.25	0.22	1.13	-1.60
Collaborating	<-	Avoidant Social Coping	0.09	0.06	1.46	-0.13	0.22	-0.57	0.95
Compromising	<-	Avoidant Distracted	-0.26	0.06	-4.22***	-0.17	0.25	-0.66	-0.37
Compromising	<-	Avoidant Social Coping	0.04	0.06	0.67	-0.34	0.22	-1.50	1.63
Avoiding	<-	Avoidant Distracted	-0.05	0.07	-0.73	0.17	0.26	0.65	-0.81
Avoiding	<-	Avoidant Social Coping	0.03	0.07	0.43	-0.07	0.31	-0.24	0.32
Accommodating	<-	Avoidant Distracted	0.08	0.06	1.33	-0.04	0.21	-0.18	0.55
Accommodating	<-	Avoidant Social Coping	-0.16	0.06	-2.66**	0.43	0.23	1.83	-2.45*

Note: = ZAL = dependent variable; <- = direction of influence; NZAL = independent variable; β = standardized regression coefficient; s.e. = standard error of the estimate; Z = Z-statistics, Zdiff = statistics of the significance of differences between β estimates for the Higher education group and the secondary education group

*** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$.

Source: Author's compilation based on the conducted research.

Based on the data presented above, it can be concluded that despite the lack of formal difference between the fit of the data to both tested models, a detailed analysis showed that in the Higher Education group, an increase in Avoidant Social Coping was associated with a decrease in Accommodating results. However, in the Secondary Education group this relationship was insignificant (probably due to the low sample size), but quite strong (β coefficient had a value of 0.43), an increase in Avoidant Social Coping results was associated with an increase in Accommodating.

The obtained data indicate that in respondents with a higher level of education, the intensification of the avoidant response to stress strategy in the form of searching for alternative social contacts (Avoidant Social Coping) resulted in a decrease in the conflict resolution strategy based on Accommodating. This means that in the case of people with higher education, avoiding stress by seeking alternative social contacts may lead to a lower tendency to adapt in conflict situations.

In contrast to the group with higher education, for respondents with secondary education, the strength of this relationship did not reach the level of statistical significance but was highlighted by the opposite direction of a strong relationship. In this group, an increase in the strategy of avoiding stress through escaping social contacts (Avoidant Social Coping) resulted in an intensification of the conflict resolution strategy of Accommodating. It can therefore be concluded that in the group of people with secondary education, there is a tendency, although statistically insignificant, that avoiding stress by seeking social contacts may lead to an increased tendency to adapt in conflict situations. To conclude, differences in results between groups with different levels of education may result from differences in experiences, expectations, interpersonal skills or organizational culture. People with higher education may tend to prefer more proactive coping strategies, such as avoidance by seeking alternative social contacts, which may correlate with a lower tendency to adapt in conflict situations. For people with secondary education, these results may be the result of different psychosocial dynamics that require further research to understand the differences more fully.

Analysis of invariance of regression coefficients – company size (Model 2)

The analysis of the differences between the models in terms of fitting the data to the models showed no differences between them $X^2(10) = 16.66; p > 0.05$. Both models tested had a similar fit to the data. This means that in both groups of the Company Size variable, the slopes of the regression lines were similar. The results of the significance of differences between models in terms of fit are presented in Table 5.38. A lower value of the X^2 statistic indicates a better fit. Table 5.39 shows the estimates of the path coefficients in both groups and their comparison.

Table 5.38 Comparative analysis of differences in fitting data to models tested in the large group (over 250 emp) and the medium group (50–250 emp) determined by the company size variable

<i>Models</i>	<i>DF</i>	<i>AIC</i>	<i>BIC</i>	<i>X²</i>	<i>X² diff</i>	<i>DF diff</i>	<i>p</i>
The Different Regression Slopes Across Groups model	6	3164.67	3357.37	5.54			
the Equal Regression Slopes Across Groups	16	3161.70	3318.70	22.56	16.66	10	0.082

Note: = X^2 diff = difference between estimates X^2 statistics; p = statistical significance of this difference; *NA* = no estimates for statistical significance.

Source: Author’s compilation based on the conducted research.

Based on the tabular data, it can be concluded that despite the lack of formal difference between the fit of the data to both tested models, a detailed analysis showed that in the Large Company group there was no connection between Avoidant Social Coping and Compromising. However, in the Medium Company group, an increase in Avoidant Social Coping scores was associated with an increase in Compromising, although this result was not statistically significant.

The obtained data suggest that no significant relationships were observed between strategies of coping with stress, defined as subscales of the avoidant strategy of responding to stress (Avoidance OC) in the form of engaging in substitute activities (Avoidant Distracted) and in the form of a strategy based on seeking social contacts, as escape activities (Avoidant Social Coping), and conflict resolution techniques among people representing organizations of various sizes, determined by the number of employees (large and medium-sized companies). However, it is worth paying attention to the observed trends, which, although they did not reach statistically significant values, are clearly noticeable. Namely, respondents who represented medium-sized companies, with the intensification of the strategy of avoiding stress in the form of searching for alternative social contacts (Avoidant Social Coping), achieved a significant increase in results in the conflict resolution technique consisting in searching for compromises (Compromising). However, respondents representing large organizations did not reveal such a relationship. It can therefore be assumed that in the group of medium-sized companies, despite the lack of statistical significance, there is a certain tendency indicating that people who intensively use the strategy of avoiding stress by seeking social contacts may be more willing to overcome conflict situations by starting to work out compromises. And for respondents from large companies, no clear relationships were observed between strategies of coping with stress and preferred conflict resolution techniques. To conclude, differences in performance between groups of companies of different

Table 5.39 Analysis of differences between model estimates for the large group (over 250 emp) and the medium group (50–250 emp) determined by the company size variable

ZAL	<-	NZAL	Large (over 250 emp)			Medium (50–250 emp)			Zdiff
			β	s.e.	Z	β	s.e.	Z	
Competing	<-	Avoidant Distracted	0.15	0.07	2.09*	0.21	0.11	1.90	-0.42
Competing	<-	Avoidant Social Coping	0.03	0.07	0.44	-0.12	0.12	-1.02	1.10
Collaborating	<-	Avoidant Distracted	-0.03	0.08	-0.41	-0.22	0.10	-2.32*	1.52
Collaborating	<-	Avoidant Social Coping	0.08	0.08	1.04	0.09	0.10	0.94	-0.10
Compromising	<-	Avoidant Distracted	-0.26	0.07	-3.53***	-0.29	0.10	-3.00**	0.30
Compromising	<-	Avoidant Social Coping	-0.07	0.07	-1.10	0.18	0.11	1.69	-2.02*
Avoiding	<-	Avoidant Distracted	-0.09	0.08	-1.19	0.07	0.11	0.63	-1.22
Avoiding	<-	Avoidant Social Coping	-0.04	0.08	-0.48	0.13	0.12	1.11	-1.20
Accommodating	<-	Avoidant Distracted	0.05	0.07	0.68	0.15	0.11	1.46	-0.83
Accommodating	<-	Avoidant Social Coping	-0.10	0.08	-1.39	-0.22	0.10	-2.22*	0.93

Note: = ZAL = dependent variable; <- = direction of influence; NZAL = independent variable; β = standardized regression coefficient; s.e. = standard error of the estimate β ; Z = Z-statistics, Zdiff = statistics of the significance of differences between β estimates for the large (over 250 emp) group and the medium (50–250 emp) group.

*** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$.

Source: Author's compilation based on the conducted research.

sizes may be due to differences in the organizational culture, management structure, and operational scale of these companies. It may be that in medium-sized companies, due to their specific size, compromise is the preferred technique in resolving conflicts, especially in the context of using avoidance strategies to cope with stress by seeking social contacts. For large companies, where situations and contexts are more diverse, these relationships may be more complex and difficult to capture statistically. Further research and analysis may help to understand those relationships more fully.

5.5 Discussion of the results

The group of managers included in the research was assessed due to the selection of conflict resolution techniques depending on their preferred style of coping with stress.

The research aimed at analysing the potential relationship between the preferred strategies of coping with stress by managers and their reactions in conflict situations, which were defined in accordance with the model created by K. Thomas and R. Kilmann, known as styles of behaviour in conflict situations.

It was assumed that preferred techniques of coping with stress and reactions to conflict situations are related because both strategies of coping with stress and conflict behaviour styles are partially shaped by an individual's personality and life experiences.

The analysis of the collected data allowed for the identification of individual differences in preferred conflict resolution techniques and strategies of coping with stress. This way, on the basis of empirically documented data, a coherent picture of the functioning of managers in conflict situations occurring in stressful conditions was created.

For analytical purposes, groups of managers were distinguished with different preferences in terms of the style of coping with stress and preferred conflict resolution techniques.

Dominant ways of coping with stress

The CISS test revealed all types of styles of coping with stress. Analysing the collected research data on the preferred styles of coping with stress among managers, significant differences were observed in the selection of strategies focusing on tasks (Task OC) compared to two other styles: avoidance (Avoidance OC) and emotions (Emotions OC). It was shown that **in the surveyed group of managers, the task-oriented style (Task OC) was preferred in a statistically significant way. Moreover, it was observed that the avoidance-oriented style (Avoidance OC) was also preferred to a greater extent than the emotion-oriented style (Emotion OC).**

The conclusions drawn from the obtained data indicate that managers more often choose a strategy focusing on tasks as a way of coping with stress. Moreover, it is observed that a style focused on avoiding conflicts is preferred to a greater extent than a style based on emotional reactions. These findings suggest that managers prefer a pragmatic and problem-solving approach when faced with stressful situations. Managers, due to their professional responsibilities, are exposed to constant challenges related to making difficult decisions, solving problems and managing responsibilities towards colleagues. Despite this, their drive to succeed motivates them to develop flexibility and stress resistance. As a result, the pressure to achieve business goals encourages managers to actively search for solutions, which translates into the dominance of the task-oriented strategy in stressful situations. At the same time, the specificity of managers' work, associated with numerous challenges and dynamic factors, may encourage them to use conflict avoidance strategies. Managers often have to cope with complex business situations where an avoidance strategy can be used as a way to avoid directly confronting the problem and provides extra time to understand the situation. Psychological games and unclear interpersonal relationships are also common in a business environment. To avoid conflicts or becoming entangled in games, managers may use an avoidance strategy. At the same time, in an organizational context, conflict avoidance can be viewed as a risk management strategy that minimizes potential negative consequences. Hence, managers may first use task and avoidance strategies in stressful situations due to their compatibility with their professional role. Only in the later phases of stressful situations can they turn to emotional support when the situation requires confrontation with emotional aspects or its mental burden increases.

Dominant conflict resolution techniques

The analysis of managerial behaviour in the face of conflict situations showed that the dominant strategy of the managers of the research group was the Compromising strategy, followed by the avoidance strategy (Avoiding) and the collaboration-oriented strategy (Collaborating). However, the least frequently used techniques were the accommodation technique (Accommodating) and the competition technique (Competing). It seems that managers try to avoid aggressive strategies in order not to escalate conflicts, but they are not willing to unconsciously adapt to the requirements of conflict situations in order to achieve their organizational goals. Hence, compromise and collaboration strategies or avoidance strategies may be the result of striving to maintain positive interpersonal relationships and maintain organizational stability. Conflicts may disturb the atmosphere and effectiveness of work.

It is worth noting that preferred strategies may vary depending on the situation and the characteristics of the conflict, which requires flexibility and the

ability to adapt to the specific organizational situation. Managers, concerned with achieving long-term organizational goals, choose compromise or avoidance strategies to avoid long-term disputes that can disrupt the implementation of strategic plans.

It can be assumed that the most frequently chosen compromise strategy (Compromising) allows for balancing the interests of the conflict parties, while the second chosen strategy – the conflict avoidance strategy (Avoiding) can prevent wasting time and energy on unproductive confrontation. Taking a proactive approach to conflict resolution helps minimize negative impacts and maintain organizational stability.

Managerial behaviour in the context of demographic variables

Demographic variables were taken into account in the analyses. Their presence in research on managers' behaviour and preferences is important for a more complete understanding of individual differences and contextualization of research results in a broader social and cultural context.

The analysis concerned managerial behaviour in stressful situations and in conflict situations due to demographic variables. The analyses undertaken differentiated the surveyed managerial group in terms of four demographic variables – Gender, Age, Education, Company Size. An interesting range of results was obtained, allowing for the formulation of interesting conclusions and giving them a psychological interpretation, important from the point of view of managerial efficiency. This seems significant from the point of view of human resources management. A detailed analysis of the data and preliminary, synthetic interpretations of the results are included in Section 5.3. Their development allows us for formulating the following conclusions. The obtained results allow us for indicating that:

Gender – stress – conflict

The analysis of the differences between the groups distinguished on the basis of the Gender variable in terms of the level of strategies of coping with stress (TASK OC, Emotion OC, Avoidance OC, Avoidant Distracted, Avoidant Social Coping) showed that Female and Male managers did not differ in terms of the use of task-oriented strategies of coping with stress and avoidance coping strategies. The lack of differences in these areas may suggest that managers of both genders take similar approaches to coping with stress in the context of organizational tasks and stressful situations, using similar patterns of behaviour. Social and cultural expectations about the managerial role may influence how women and men cope with stress. However, if both groups are exposed to similar cultural and educational influences, the differences in task-oriented and avoidant coping strategies may blur. Hence, both women and men managers can solve

difficult situations with equal frequency and use strategies such as avoidance, denial or escape from stressful situations with similar intensity.

However, it seems that a different approach and interpretation are required when women and men use emotional strategies to cope with stressful situations. The research showed that women more often resorted to the strategy of seeking emotional support in stressful situations than men. Women managers were also more likely than men to engage in substitute activities in response to a stressful situation in order to avoid coping with it directly. This indicates that women may be more willing to escape from the source of stress by engaging in other activities. Perhaps these relationships are determined to a greater extent by the interaction of many factors, including social, biological, psychological and cultural ones. Different cultures have different expectations for how men and women should cope with stress. What is considered acceptable behaviour may influence the choice of specific strategies by members of both genders. And if a stressful situation is related to emotions and interpersonal relationships, women may more naturally resort to strategies for seeking emotional support. Emotional culture may vary by gender, which influences how society tolerates and accepts the expression of emotions. If women are more likely to avoid direct emotional confrontations, they may choose strategies to engage in other activities to avoid stressful situations.

However, in terms of engaging in substitute social relationships to avoid coping with a stressful situation, both women and men showed the same tendency. Psychological mechanisms of stress-avoidance, such as the tendency to avoid conflicts or escape into social relationships, may be similar in women and men. The lack of differences in the use of this particular strategy may suggest that the psychological mechanisms of avoidance are similar. And although women react more emotionally to stress and are more willing to engage in substitute activities so as not to face a difficult situation, both genders are equally involved in substitute social relationships as a form of stress relief. This means that this strategy can be widely accepted and used by both genders to cope with stress.

The conclusions drawn may be helpful in understanding individual differences in strategies of coping with stress between female and male managers. They also point to important areas where gender differences may be important in the context of managing stress in the workplace.

The analysis of the differences between the groups distinguished on the basis of the Gender variable in terms of the level of conflict resolution techniques (Competing, Collaborating, Compromising, Avoiding, Accommodating) showed that Female and Male managers differ in the use of competitive conflict resolution techniques (Competing) and in the strategy of resolving conflicts through accommodation (Accommodating). The analyses have shown that male managers more often use a competitive approach to conflicts.

Perhaps social expectations and gender stereotypes influence how people react in conflict situations. If there is a common belief that men should be more assertive and competitive, then they may prefer confrontational strategies, such as the competitive conflict resolution technique. The culture in which an individual is raised may value competition and rivalry as positive characteristics, especially in the professional sphere. Men may be more subject to cultural influences that promote a competitive approach to conflict. However, women managers more often used the technique of adaptation in conflict situations. Women are often credited with greater interpersonal skills, including the ability to empathize and understand other people's perspectives. Using adaptation strategies may be an expression of high emotional competence and the ability to identify with the feelings of others. Social norms may also influence what strategies are expected from people of different genders in conflict situations. If women are socially encouraged to be more agreeable and flexible, they may be more likely to use the accommodation strategy. Adapting to the needs of others can be seen as the ability to build and maintain positive relationships. Women, focused on building strong social bonds, may prefer this strategy to maintain harmony and good interpersonal relationships.

However, the analysis showed that Female and Male managers did not differ in terms of the use of other conflict resolution techniques – based on collaboration, compromise and avoidance (Collaborating, Compromising, Avoiding). The Collaborating strategy can be considered universally effective and acceptable in many contexts. Regardless of gender, both women and men can see the value and effectiveness of this strategy in resolving conflicts. Organizations often promote collaboration and communication as key elements of effective conflict management. There may therefore be a shared valuation of workplace collaboration strategies. There may be an equal expectation in organizational, social, or professional culture that both men and women use collaborative strategies. If collaboration is valued in a given environment, both genders can adapt their behaviour to these norms. Also, seeking a compromise is widely recognized as one of the most frequently used strategies in conflict management. It includes the ability to make concessions on both sides, which can be considered a neutral and balanced strategy, used by both genders equally. There may be expectations in a culture, society, or organization to use compromise as an ethical and effective way to resolve conflict. If both genders are subjected to the same cultural norms and values, they may use this strategy equally often. Hence, in the analysed context, both genders equally often use this strategy, perhaps due to its recognized universality and effectiveness. Also, the avoidance strategy (Avoiding) is often perceived as neutral and generally acceptable in various contexts. Therefore, unless there are specific expectations about who should use this strategy more often, both genders may choose it equally. In a society or organization where men and women are encouraged to engage in

similar social activities, they may demonstrate similar approaches to conflict resolution. If avoidance is accepted as a strategy, both groups can use it equally.

In general, it can be noted that differences in preferred conflict strategies between men and women probably result from the influence of social norms, cultural expectations and gender-ascribed interpersonal skills, and perhaps also personality traits. It is also worth paying attention to common strategy choices, which suggests that certain conflict resolution techniques may be universally recognized and accepted in the managerial group under research.

Age – stress – conflict

The analysis of differences between groups distinguished on the basis of the Age variable in terms of the level of strategies of coping with stress (TASK OC, Emotion OC, Avoidance OC, Avoidant Distracted, Avoidant Social Coping) showed that managers from the Age group (20–40) and Age group (41–60) differ in the use of task-oriented and emotional strategies for coping with stress. Managers representing the older age group more often than younger managers showed a task-oriented approach to difficult situations, while younger managers more often used strategies of seeking emotional support in the face of experienced stress. Older managers may have developed more advanced cognitive skills that let them approach tasks and stressful situations more effectively in a task-oriented manner. This may also be due to the fact that senior managers often hold higher-level positions, which may require them to take a more task-oriented approach to management and problem solving. If the organization promotes a task-oriented approach in difficult organizational situations, managers with longer work experience may be more attuned to the expectations of such an organizational culture. In contrast, younger generations of managers may be more open to expressing emotions in the workplace and see the benefits of engaging in coping strategies based on seeking emotional support. In turn, the older generation may be more willing to maintain a more controlled emotional attitude. Younger managers may value aspects related to emotions in the workplace, such as empathy or building relationships, more, which influences their choice of strategies of coping with stress. The openness of the organizational culture to expressing emotions in the workplace may also be important, and then younger managers may be more willing to use emotional strategies for coping with stressful situations.

The analysis also showed that managers from the younger and older age groups did not differ in terms of using avoidance strategies to cope with stress, did not show differences in taking up substitute activities in the face of stress, or in looking for substitute social relationships. The similarity in the use of avoidant ways of coping with stress by managers from both age categories may indicate the universality of this type of behaviour in relation to specific organizational situations, which remains independent of age. To some extent, younger

and older managers may be equally vulnerable to similar stress challenges in the workplace. If stressors are similar for both age groups, this may lead to similar forms of avoidance, such as engaging in substitute activities. Substitute activities may involve a defence mechanism used by individuals of all ages when faced with stress. The lack of differences between age groups may be due to the similar tendency of both groups to use this type of defensive behaviour. The organizational climate is also important. Organizational norms for coping with stress may influence how managers of different age groups respond to stressful situations. If substitute activities are accepted in a given environment as a way of coping with stress, both age groups may be equally likely to choose this strategy. If managers of both groups have experienced the effectiveness of using avoidance strategies, in various forms, in counteracting stress, they may be willing to continue using them, regardless of age. To sum up, the lack of significant differences between age groups in the use of substitute stress responses in stressful situations indicates the potential universality of this strategy among managers, regardless of their age, although it can be assumed that it is used in the face of specific categories of difficult situations.

The analysis of differences between groups distinguished on the basis of the Age variable in terms of the level of conflict resolution techniques (Competing, Collaborating, Compromising, Avoiding, Accommodating) showed that managers from the Age group (20–40) and the Age group (41–60) differ in the use of two conflict resolution techniques: based on collaboration and based on compromise. The analyses showed that managers representing the older age group more often than younger managers showed willingness to collaborate in conflict situations, while younger managers more often used conflict resolution techniques based on compromise. However, in terms of other conflict resolution techniques – those based on competition, avoidance and adaptation, no significant differences were found between representatives of the adopted age categories. It seems that the attitude towards collaboration and cooperation with others may be more a function of personality and development, and these features may be more persistent and more difficult to change as a result of experience or training. However, conflict resolution strategies based on competition, avoidance and adaptation are more flexible and dependent on different organizational contexts, hence less dependent on age. Older managers may be more experienced in managing interpersonal relationships and have better communication skills, making it easier to use collaborative strategies. The ability to collaborate effectively often develops with professional experience and life experience. Moreover, older managers often play mentoring and leadership roles in the organization. The use of collaboration strategies may therefore be related to their role as mediators and team builders, which helps resolve conflicts in a collaborative manner. However, younger managers, operating in a more volatile and dynamic business environment, may find compromise an effective way to adapt to rapidly changing conditions and requirements. As a

result, managers in the younger age group tend to use a compromise strategy more often than managers in the older age group, perhaps due to cultural, educational, and organizational factors influencing their approach to conflict management. It is worth remembering that in the collaboration-oriented environment, mutual concessions and attention to the quality of relationships are important. However, in the technique based on compromise, it is important that the solution satisfies both parties at least to a minimal extent and that the relationship can be continued after the conflict situation ends. Collaboration is therefore an emotionally closer form of searching for solutions based on understanding the interests of the other party, in which senior managers may be more efficient due to their experience. The lack of differences between age groups in the use of other conflict resolution techniques may result from a similar tendency of representatives of both groups to implement the resulting behaviours. If both younger and older managers have similar professional experience, e.g. in the same industry or type of organization, they may be more likely to use similar strategies in coping with conflicts. If a given culture generally accepts competitive conflict resolution or conflict avoidance as a neutral strategy, or compliance with expectations, managers of different age groups may adjust their behaviour to prevailing general cultural and organizational trends. At the same time, they attempt at collaborating (senior managers) or reaching a compromise (younger managers) in organizational situations that will enable them to implement such strategies. Ultimately, these differences may result from a combination of factors such as experience, organizational culture, education and changing social trends. It is worth emphasizing, however, that each manager's individual approach to conflict resolution may be strongly related to their personal characteristics, management style and reactions to conflict situations. A manager's personality, including the tendency to cooperate, may develop over the years and be the result of various life experiences. However, conflict resolution strategies that are more technical and based on interpersonal skills may be more susceptible to the influence of training, education or specific organizational situations.

Education – stress – conflict

The analysis of differences between groups distinguished on the basis of the Education variable in terms of the level of strategies of coping with stress (TASK OC, Emotion OC, Avoidance OC, Avoidant Distracted, Avoidant Social Coping) showed that managers representing a Higher Education and a Secondary Education differ in the use of task-oriented strategies for coping with stress. Managers with higher education showed a task-oriented approach to difficult situations more often than managers with secondary education. Higher education may provide managers with tools to effectively manage stress in the professional context, which translates into more frequent use of task-oriented strategies of coping with stress. People with higher education often undergo

specialized educational programs that may emphasize the development of skills in constructive coping with stress in the context of work. Educational programs can shape preferences for coping strategies. Higher education may be associated with developed decision-making skills. Managers with a higher level of education may be more independent in making decisions related to stress management and effectively counteracting stressful situations in the area of tasks. Managers with higher education may also work in more complex professional areas, where a task-oriented approach may be more effective. Complex projects or specialized areas may require specific skills and a task-oriented approach.

Meanwhile, in terms of using emotional strategies to cope with stress, the analysis did not reveal any significant differences between managers with higher and secondary education. It seems that methods based on seeking emotional support can be widely used regardless of the level of education. Both managers with higher and secondary education may have similar interpersonal competencies that facilitate the use of emotional coping strategies. Managers with different levels of education may be exposed to different types of stressful situations, where the need for emotional support may be common regardless of education level.

Managers with higher and secondary education did not differ significantly in the use of avoidance strategies to cope with stress, either in terms of undertaking substitute activities in the face of stress or in developing substitute social relationships. The similarity in the use of avoidant ways of coping with stress by managers with different levels of education may indicate that avoidance strategies, such as avoiding conflicts or avoiding directly facing stressful situations by taking other substitute actions, may be commonly used in groups diversified from due to the level of education achieved. Substitute activities, such as looking for other activities or distracting attention from a stressful situation through substitute social relationships, may be widely used by various social groups. People, regardless of their level of education, may use these mechanisms to avoid directly confronting a stressful situation. Managers with different educational backgrounds may use similar coping mechanisms, including avoidance, as a response to stressful situations. This may be due to individual differences in personality, life experiences and coping styles. It seems that participation in alternative activities, including social relations, is not conditioned by a higher level of education. Where interpersonal skills are important but not directly related to educational level, both categories of respondents are equally likely to use various forms of avoidance strategies.

The analysis of differences between groups distinguished on the basis of the Education variable in terms of the level of conflict resolution techniques (Competing, Collaborating, Compromising, Avoiding, Accommodating) showed that managers with Higher Education and those with Secondary Education do not differ significantly in the use of any of the assessed conflict resolution techniques: based on competition, collaboration, compromise, avoidance and

adaptation. Potential reasons for this state of affairs may stem from universal acceptance of the research strategies in resolving conflicts in a given professional or cultural environment. Additionally, the lack of dependence of the research strategies on the level of education of managers suggests that the use of these techniques is not conditioned by a secondary or higher level of education. This suggests that the skills associated with using the above-mentioned conflict resolution techniques may be more dependent on professional experience, interpersonal skills, or individual preferences than on formal education.

Company size – stress – conflict

The analysis of differences between the groups distinguished on the basis of the Company Size variable in terms of the level of strategies of coping with stress (TASK OC, Emotion OC, Avoidance OC, Avoidant Distracted, Avoidant Social Coping) did not show significant statistical differences in any of the scales. The lack of significant differences between managers representing large and medium-sized organizations in the use of strategies of coping with stress may be due to several factors. Firstly, in both types of organizations, managers may be exposed to similar types of stress related to tasks and interpersonal relationships, such as time pressure, excessive responsibilities, or difficulties in managing resources. This may lead to the use of similar strategies of coping with stress in both groups of managers. Secondly, organizational structures and work cultures may be similar in large and medium-sized companies, which may influence the way managers cope with stress. Additionally, it is possible that both large and medium-sized companies have similar resources and levels of support for their managers in stress management. This may lead to similar patterns of coping behaviour in both managerial groups. Finally, the lack of significant differences between groups may suggest that individual characteristics of managers, such as personality or professional experience, are more important for strategies of coping with stress than the size of the organization itself. Although there are no significant differences in the use of strategies of coping with stress between managers in large and medium-sized organizations, there is a need for further research to better understand the context and causes of this phenomenon. These studies may take into account other variables, such as organizational culture, hierarchical structure, or industry specificity, which may influence the way of coping with stress in various types of organizations.

The analysis of the differences between the groups distinguished on the basis of the Company Size variable in terms of the level of conflict resolution techniques (Competing, Collaborating, Compromising, Avoiding, Accommodating) showed no significant differences between managers from large and medium-sized companies in the use of competitive techniques in conflict resolution and techniques based on collaboration and compromise. The lack of differences in this respect may reflect the fact that the existing work

environments in both large and medium-sized companies are equally conducive to the implementation of the indicated strategies, and this is not related to the company size. It can be assumed that the attitude towards collaboration, compromise or competition is more a function of personal predispositions than the structure of the company. Another assumption arises in the case of the other two conflict resolution techniques (avoidance and accommodation techniques) that seem to be more dependent on the organizational context. Research has shown that managers from medium-sized companies more often used the strategy of avoiding conflict situations compared to managers representing large organizations. In medium-sized companies (with usually greater freedom of action) managers may more often choose to avoid conflicts because the management of conflict situations may be more autonomous. Hence, the use of avoidance strategies may be more common. In turn, in large organizations, where the organizational structure is usually more formal and complex, there is greater emphasis on quick conflict resolution, which may, to some extent, prevent the implementation of an avoidant conflict resolution strategy in favour of more confrontational actions. Managers representing companies with different employment levels also showed significant differences in terms of adaptation strategies in conflict situations. Managers from large organizations were more likely to use an adaptation strategy compared to managers from medium-sized companies. This may suggest that in large organizations, where there is a greater hierarchy and formal structure, managers may more often use an adaptation strategy, maintain the organization's preferred way of overcoming difficult situations and thus maintain the coherence of organizational activities. The significance of the indicated differences in the use of avoidance strategies and adaptation strategies in conflict situations depending on the size of the company suggests that it is worth conducting further research to better understand the factors influencing this phenomenon and its consequences for effectiveness of management in various types of organizations. Organizational culture and company structure can have a significant impact on the way managers cope with conflict situations.

The differences discussed above certainly constitute an important aspect for the effective management of conflict situations at work in the context of experienced stress, as well as for the adequate development and strengthening of managerial competencies.

However, it is also worth noting that the differences demonstrated in the selected strategies of coping with stress and preferred conflict resolution techniques are not clearly attributed only to factors such as gender or age of managers. Instead, these differences may result from complex interactions between many variables, both internal (such as individual personality traits and professional experience of individuals) and external (characteristics of the contexts of stressful and conflict situations, or the dominant organizational culture). All of these factors are extremely complex and interconnected, making understanding

and analysis of these differences the subject of further research that takes into account a wide range of factors.

Managerial behaviour – the relationship between conflict resolution techniques and strategies of coping with stress

Based on the research results, **differences in the intensity of various conflict resolution techniques were found in relation to individual styles of coping with stress** (Section 5.4).

Firstly, a series of correlation analyses were performed using the Pearson method to identify correlations between the CISS scales and the T-K scales. The obtained results of the analyses allow us for formulating interesting conclusions and giving them some psychological interpretation. A detailed analysis of the data and preliminary, synthetic interpretations of the results are included in Section 5.4.1. Their development allows for formulating the following conclusions:

1. There are correlations between strategies of coping with stress:
 - the more task-oriented managers got towards stressful situations, the less they avoided the situation and the less often they sought emotional support from others
 - the more managers sought emotional support from others in the face of stress, the more they got engaged in avoidance behaviours, mainly in the field of substitute activities
2. There are correlations between conflict resolution techniques:
 - the more managers used competitive conflict resolution techniques, the less inclined they were to use compromise, avoidance and accommodation techniques
 - the more managers preferred collaboration in conflict situations, the more they avoided compromise, conflict avoidance and conflict adaptation
 - the more oriented towards compromise managers got, the less willing they were to adapt in a conflict situation.
3. There are correlations between conflict resolution techniques and strategies of coping with stress:
 - the more managers preferred a task-oriented approach to stress, the more willing they were to use a competitive conflict resolution strategy
 - the more managers preferred a competitive style of resolving conflicts, the less often they showed an emotional approach to stress
 - the competitive attitude towards conflict intensified with a task-oriented and avoidant approach to stress
 - the less managers preferred the stress-avoidance strategy, the more they were willing to use a compromise conflict resolution technique
 - the more managers became emotionally involved in coping with stress, the stronger their conflict avoidance strategy got

- the more avoidant and adaptive managers reacted to conflict, the less task-oriented approach to stress they displayed
- the more managers managed stress in a task-oriented manner, the more cooperative approach to conflict resolution they showed

Additionally, the ANOVA showed that:

- managers with a higher level of emotional involvement in stressful situations, a lower level of task-oriented approach in stressful situations and a lower level of stress avoidance tend to be more conciliatory in the face of conflicts (Accommodating) – managers with a more emotional attitude to stress and a weaker task-oriented approach may show a greater tendency to avoid conflict situations (Avoiding)
- managers with a more task-oriented approach to stress and a weaker emotional approach to stress show a greater tendency to use the technique of collaboration in conflict situations (Collaborating)
- managers with a lower level of stress-avoidant behaviour are more focused on reaching compromises in conflict situations (Compromising)
- managers with higher task orientation in stressful situations and lower emotional involvement may be more willing to use the competitive technique (Competing).

The obtained data suggest that managers who are more task-oriented towards stressful situations are less likely to avoid situations and seek emotional support from others to a lesser extent. This may suggest that these managers are more willing to take action to solve the problem rather than avoid it or wait for emotional support. However, managers who seek emotional support in stressful situations are more likely to engage in avoidance behaviours, especially in the field of substitute activities. This suggests that when faced with stress, some managers may seek support in activities that allow them for diverting attention from the problem. Additionally, managers who prefer a task-oriented approach to stress are more likely to use a competitive conflict resolution strategy, while those who prefer a competitive conflict resolution style are less likely to display an emotional approach to stress. Managers with higher levels of emotional involvement in stressful situations, lower task orientation, and lower levels of stress avoidance may be more willing to make concessions to resolve conflicts. Managers with a more emotional attitude to stress and a weaker task-oriented approach may prefer to avoid confrontation with problems, which may lead to a lack of involvement in conflict resolution. Another conclusion indicates that managers with a more task-oriented approach to stress and weaker emotional involvement are more willing to actively seek solutions to problems through collaboration and dialogue. Additionally, managers with a lower level of stress-avoidant behaviour show a greater tendency to reach compromises in conflict

situations. This is consistent with expectations because these managers may be more flexible and willing to make concessions in order to reach an agreement. Meanwhile, managers with higher task orientation in stressful situations and weaker emotional involvement present such a level of concentration on the task and striving to achieve goals that they may be inclined to present a competitive approach to conflict situations. This suggests that there is some consistency between how people cope with stress and their preferred conflict resolution strategies.

Ultimately, research indicates that preferred conflict resolution strategies are related to attitudes toward stress. Managers can tailor their approach to conflict management to suit their preferred coping strategies, and the two can influence each other. For example, managers who become emotionally involved in coping with stress may be more likely to avoid conflict, while those who prefer a task-oriented approach to stress may demonstrate a more collaborative approach to conflict resolution. These interdependencies can be important for effective management in a business environment.

Managerial behaviour – the relationship between conflict resolution techniques and strategies of coping with stress in the context of demographic variables

An extremely interesting range of results was obtained in the analysis of the relationship between the main styles of coping with stress and conflict resolution techniques, taking into account demographic variables by using the analysis of invariance of regression coefficients of demographic variables. Similarly to ANOVA, the invariance analysis took into account four variables – Gender, Age, Education and Company Size. In order to avoid repetitions, the characterization of the dependencies contains collective conclusions and semantic interpretation, as a detailed presentation of these dependencies is included in Section 5.4.

The obtained results allow us for the following conclusions:

1. There are significant differences in the relationships between genders in the context of stress reactions and preferred conflict resolution strategies. Men seem to be more inclined to avoid competitive situations when they have stronger emotional reactions to stress, while women may tend to be more collaborative and proactive in coping with conflict when faced with stress (although this is presumably due to a desire to “escape the stress” rather than task-oriented approach to stress). Additionally, research has shown that women who intensively avoid stress through increased social contacts tend to have an increased preference for collaborative conflict resolution strategies.
2. There are significant differences between age groups in terms of the impact of different stress strategies on preferred conflict resolution strategies. Younger respondents show a greater tendency to take a competitive approach when faced with task-oriented stress, while older respondents prefer an avoidant

approach in response to emotional stress. These differences may result from differences in life experiences, adaptations to stress, and the evolution of preferences and coping skills with age.

3. The relationship between the task-oriented approach to stress and the preferred conflict resolution technique may also be related to the respondents' level of education. In the group with higher education, there is a tendency to use a strategy based on collaboration in the face of task stress, while in the group with secondary education, such a relationship is not statistically significant. This may be due to differences in experiences, interpersonal skills and preferences resulting from different levels of education and social and business awareness. At the same time, managers with higher education who engage in stress avoidance by seeking alternative social contacts show less tendency to adapt in conflict situations.
4. There were no statistically significant relationships between managers from large and medium-sized companies, which may result from differences in organizational culture, management structure, and may also be embedded in the characteristics of employees from individual companies. The impact of these factors may lead to different reactions and preferences for solving conflicts in the context of coping with stress, which does not necessarily have to be clearly related to the size of the organization.

The analysis of the relationship between styles of coping with stress and conflict resolution techniques indicates that they are significantly influenced by gender, age and level of education, which may explain a number of managerial behaviours, independent – as research has shown – of the size of the organization in which managers perform their managerial function.

In the ongoing discussion, several important issues should be noted. They emerge after the combined treatment of the analysed research material in relation to the area of stress and conflict management in organizations, as well as significant relationships between the ways of coping with stress and conflict resolution techniques in the surveyed managerial group. It is worth noting that the pattern of results in the research group shows that:

Task orientation to stress (Task OC):

- managers are characterized by a significantly higher level of task-oriented style of coping with stress, especially in older managers and managers with a higher level of education.
- managers focused on tasks in stressful situations are less characterized by emotional and stress-avoidance strategies
- the more managers approach stress in a task-oriented manner, the more they are inclined to use a competitive conflict resolution technique (this mainly applies to managers from the younger age group) and to use a

collaborative conflict resolution technique (this mainly applies to managers with a higher level of education).

Emotional orientation to stress (Emotion OC):

- the strategy of emotional orientation in stressful situations is the least represented in the managerial group subject to the research
- women and younger managers significantly more often use the strategy of seeking emotional support in the face of experienced stress
- the more managers approach stress in an emotional way, the more they are oriented towards avoidance behaviour and conciliatory behaviour in conflict situations
- the more emotionally managers approach stress, the more they are willing to use conflict resolution techniques based on collaboration and compromise (this applies to female managers) and to avoid competitive strategies in the face of conflicts in the context of an emotional reaction to stress (this applies to male managers) and to use avoidance conflict resolution techniques in the face of emotional stress (applies to younger managers)

Avoidant orientation to stress (Avoidance OC):

- avoidant stress orientation is the second most frequently represented strategy in the surveyed managerial group (after the task strategy and before the emotional strategy)
- women are significantly more likely to use an avoidance strategy when faced with stress
- the more managers avoid stress, the more they are willing to act competitively in conflict situations (probably a different type of competition than the one driven by a task-oriented approach to stress)
- the less managers revealed an avoidant approach to stress, the more willing they were to use conflict resolution techniques based on collaboration and compromise (although in the case of women, escapist involvement in substitute social activities may increase the willingness to cooperate)
- the more managers treated stress in an avoidant way, the less willing they were to adapt in conflict situations (this applies mainly to people with higher education)

Conflict resolution techniques:

- the dominant conflict resolution strategy in the surveyed managerial group was the compromise strategy, followed by the avoidance strategy (Avoiding) and the collaboration-oriented strategy (Collaborating). On

the other hand, the adaptation and competition techniques were used the least often

- the competitive approach to conflicts is more often used by male managers, while the adaptive approach is more often used by female managers
- older managers were more likely to show willingness to collaborate in conflict situations, while younger managers were more likely to use conflict resolution techniques based on compromise
- managers representing large organizations more often used the strategy of adaptation, while managers representing medium-sized companies more often used the strategy of avoiding conflicts
- the more competitive or collaborative managers were in the face of conflict, the less they compromised, avoided, and adapted
- the relationships between reactions to stress and the choice of specific conflict resolution techniques are indicated above

Taking into account the above observations, it is possible to construct a profile of a manager whose dominant strategy for coping with stressful situations involves the task approach, which, however, does not determine the competitive conflict resolution strategy (this strategy is chosen the least often), but shows a significant relationship with behaviours based on collaboration and seeking compromise. So far, the literature has provided a lot of data on the difficulties in moving away from autocracy among Polish managers. Previous research by the author of this paper (cf. Kraczkla 2013, 2016) also provided similar data. The several-year time difference in the research projects being carried out may reveal the already established direction of changes in the implementation of the managerial function under the influence of modern educational influences and personal development progress among Polish managers.

5.6 Verification of the research hypotheses

The analyses of the collected empirical material conducted and presented in this paper and their psychological interpretation allow us to address the research questions and hypotheses formulated in the methodological part of the paper.

As a reminder, the main goal of the conducted research and analyses **was to seek answers to the following question – what conflict resolution styles do modern managers choose in the context of preferred behavioural strategies in stressful situations and to present the connections between both research categories that are so important in fulfilling the managerial function.**

When verifying the research hypotheses, the current state of knowledge in the field of organization and management sciences, managerial psychology and stress psychology was also taken into account. Two research tools were used in the paper: **the Coping Inventory For Stressful Situations questionnaire (CISS) and the Thomas-Kilmann Questionnaire (T-K).**

5.6.1 Verification of hypothesis H1

H1: Managers prefer a task-oriented approach to stress.

The conducted research revealed statistically significant differences in the choice of strategies of coping with stress. The managers surveyed preferred a style oriented on tasks (Task OC) compared to two other styles: a style oriented on avoidance (Avoidance OC) and a style oriented on the emotional experience of stress (Emotions OC). The interpretation of these results may suggest that managers are more willing to take actions aimed at solving the problem rather than avoiding stress or experiencing it emotionally. Managers' preference for task-oriented strategies suggests that these managers are more likely to take actions directly aimed at overcoming sources of stress. It is an approach based on identifying problems, looking for practical solutions and taking specific actions. Unlike avoidance strategies, which may lead to postponing problems, or strategies based on the emotional experience of stress, which may be less effective in solving problems, a task-oriented approach may produce faster and more lasting results. Managers' preference for task-oriented strategies may also indicate their tendency to take actions to control the situation and reduce the feeling of helplessness. By taking specific actions, managers can feel more confident and able to influence the situation, which can help to increase their personal effectiveness in managing stress.

Moreover, the analyses carried out showed that the tendency to use a task-oriented style of coping with stress was significantly more frequent among managers representing older age categories and managers with a higher level of education. This suggests that older managers and those with a higher level of education may be more inclined to prefer a task-oriented style of coping with stress due to their greater life experience, developed analytical skills, and cultural and social influence. These factors may shape their preferences in terms of ways of coping with stress, preferring an active and problem-solving approach. This may also indicate that the approach to coping with stress may be learnable and, along with managerial training, managers' ability to approach stress in a constructive manner may increase, minimizing escape and emotional strategies.

Ultimately, it can be said that managers' preference for task-oriented strategies can be interpreted as a sign of their tendency to take active actions aimed at solving problems and effectively managing stress, which may bring benefits both for the individual and for the organization as a whole.

Thus, hypothesis H1 was confirmed.

5.6.2 Verification of hypothesis H2

H2: Managers prefer partnership techniques for resolution of conflicts (based on collaboration and compromise).

The conducted research showed that the dominant strategy in the surveyed managerial group was the Compromising strategy, followed by the avoidance strategy (Avoiding) and the collaboration-oriented strategy (Collaborating). On the other hand, the least frequently used technique was the accommodation technique (Accommodating) and the competition technique (Competing). The Compromising strategy, dominant in the surveyed managerial group, involves concessions by both parties in order to reach an agreement and develop a solution that is beneficial to both parties. Compromise can also be used in situations where there is no desire for collaboration, but only for a quick resolution of the conflict, even at the cost of giving up some of your own interests. The collaborative strategy was used less often than the compromise strategy, which may suggest that managers may be less willing to make efforts to collaborate fully and seek win-win solutions. Nevertheless, in the established hypothesis, both strategies – collaboration and compromise – were assigned the dimension of partnership (based on the adopted theory of conflict resolution techniques by Thomas and Kilman) as opposed to the competitive strategy. It is also worth noting that the competition technique was hardly selected at all. Managers may be less willing to use this strategy due to its potentially destructive effects, such as deepening the conflict, deteriorating relationships between the parties, or lacking long-term benefits. Choosing other strategies such as compromise, avoidance, or collaboration may be preferred to maintain harmony and solve the problem effectively. It is also significant that a strategy based on adaptation is chosen less frequently, which may result from managers' concerns about the possible loss of their own interests or influence in a conflict situation. Managers may be more willing to negotiate and compromise rather than unilaterally concede in conflict. Although the avoidance strategy cannot be considered a partnership strategy, it is also a strategy whose goal is to maintain positive interpersonal relationships. Therefore, it seems that the partnership approach in the face of conflict situations is more preferred by modern managers.

An additional strengthening of the hypothesis is the fact that research has shown that older managers were more likely to show willingness to collaborate in conflict situations than their younger colleagues. Therefore, it can be assumed that developing a collaboration-oriented approach is strongly related to experience in performing a managerial function, and this result is optimistic that the desire to collaborate rather than compete increases with age. Of course, it is important to remember that age is not always a clear indicator of managerial experience or skills, but in a general sense, coping with conflicts in a collaborative manner.

Based on the above-mentioned research results, it is assumed that hypothesis H2 is confirmed and there are no significant grounds to reject it.

5.6.3 Verification of hypothesis H3

H3: Managers using different styles of coping with stress have significant differences in the choice of conflict resolution techniques.

The conducted research revealed a number of statistically significant relationships between strategies of coping with stress and conflict resolution techniques. It is clearly demonstrated that the more managers prefer a task-oriented approach to coping with stress, the greater their tendency to use both competitive and collaborative conflict resolution techniques. However, with a task approach to stress, the competitive technique applies to managers of a younger age category, while the partnership techniques – collaboration and compromise – apply to managers with a higher level of education. It is also proven that the more emotionally managers focus on stress, the more they are willing to use conflict resolution techniques based on collaboration and compromise (in relation to female managers) and avoid competitive strategies (in relation to male managers), as well as use avoidant conflict resolution techniques (in relation to younger managers). It was also proven that the avoidance strategy towards stress was associated with the intensification of competitive technique in conflict situations. In turn, reducing the intensity of the stress-avoidance strategy strengthened the surveyed managers' conflict resolution techniques based on collaboration and compromise in the sense of the group as a whole, and the adaptation technique in managers with a higher level of education. The above-mentioned results clearly indicate that managers prefer specific techniques for coping with conflicts, depending on their preferred approach to stress. Additionally, the observed differences in the choice of conflict resolution techniques depending on the age, gender and level of education of managers let us consider the comprehensive impact of various factors on preferences in coping with both stress and conflicts.

Based on the above-mentioned research results, it is assumed that hypothesis H3 is confirmed and there are no grounds to reject it.

Bibliography

- Cohen, J. (2013). *Statistical Power Analysis for the Behavioral Sciences*. Routledge. <https://doi.org/10.4324/9780203771587>
- Dallal, G. E. & Wilkinson, L. (1986). An analytic approximation to the distribution of Lilliefors' test for normality. *The American Statistician*, 40, 294–296.
- Dunn, O. J. (1961). Multiple comparisons among means. *Journal of the American Statistical Association*, 56(293), 52–64. <https://doi.org/10.1080/01621459.1961.10482090>
- Fisher, R. A. (1925). *Statistical Methods for Research Workers*. Edinburgh: Oliver and Boyd.
- Glass, G. V. (1965). A ranking variable analogue of biserial correlation: implications for short-cut item analysis. *Journal of Educational Measurement*, 2(1), 91–95. www.jstor.org/stable/1433839

- Greenhouse, S. W., & Geisser, S. (1959). On methods in the analysis of profile data. *Psychometrika*, 24, 95–112. <https://doi.org/10.1007/BF02289823>
- Kraczla, M. (2013). *Osobowościowe uwarunkowania przywództwa. Menedżerowie a specjaliści*. Dąbrowa Górnicza: Wydawnictwo WSB w Dąbrowie Górniczej.
- Mann, H. B. & Whitney, D. R. (1947). On a test of whether one of two random variables is stochastically larger than the other. *The Annals of Mathematical Statistics*, March 1947, 50–60. <https://doi.org/10.1214/aoms/1177730491>
- Mauchly, J. W. (1940). Significance test for sphericity of a normal n-variate distribution. *The Annals of Mathematical Statistics*, 11(2), 204–209. www.jstor.org/stable/2235878
- Pearson, K. (1895). Notes on regression and inheritance in the case of two parents. *Proceedings of the Royal Society of London*, 58, 240–242. <https://doi.org/10.1098/rspl.1895.0041>
- Pearson, K. (1900). X. On the criterion that a given system of deviations from the probable in the case of a correlated system of variables is such that it can be reasonably supposed to have arisen from random sampling. *The London, Edinburgh, and Dublin Philosophical Magazine and Journal of Science*, 50(302), 157–175. <https://doi.org/10.1080/14786440009463897>
- R Core Team. (2023). *R: A Language and Environment for Statistical Computing*. Vienna, Austria. Retrieved from www.R-project.org/
- Royston, J. P. (1982). An extension of Shapiro and Wilk's W test for normality to large samples. *Journal of the Royal Statistical Society. Series C (Applied Statistics)*, 31(2), 115–124. <https://doi.org/10.2307/2347973>
- Wickham, H. (2016). *Ggplot2: Elegant Graphics for Data Analysis*. New York: Springer-Verlag.

6 Application of research results for science and business practice

The results obtained as part of this research paper open the possibility of identifying a number of potential directions for further use, both in the context of scientific research and practical application. An extensive analysis of the collected data allowed for identifying areas that may be subject of deeper empirical research, which suggests the need for continued research on the discussed issues.

The results obtained in the course of research constitute an important basis for developing and expanding scientific knowledge about the research problems. They contribute to broadening the understanding of the mechanisms of action and the impact of specific factors in the research area. Moreover, it is possible to use those results to verify existing theories and formulate new research hypotheses, which may significantly contribute to the development of the field of science related to the discussed subject.

Exploring the issue of identifying ways of coping with stress draws attention to conflict as one of the main research categories that are closely related to the category of stress. The relationships between those two categories found in the research provide the latest knowledge about what strategies of coping with stress are chosen by contemporary managers in stressful situations and what preferences they determine for techniques used by those managers to resolve conflict situations. A particular advantage of the research refers to presentation of connections between both research categories. These types of conclusions are crucial in the context of understanding the behaviours and decisions made by contemporary managers in stressful situations.

The usefulness of the identified relationships for further scientific research is undeniable. A particular advantage of the presented research is attributed to demonstration of the interdependence between strategies of coping with stress and conflict resolution techniques, taking demographic variables into account as well. This holistic view of both issues allows for a more complete understanding of the dynamics of managerial behaviour in the context of the challenges observed in the modern business environment. Therefore, continued research in this area may lead to development of new theories and practical tools supporting the effective management of stress and conflicts in the workplace.

The relationships that are identified between strategies of coping with stress and conflict resolution techniques, taking into account the variables of gender, age, education and company size, are of significant importance for business practice. These findings provide valuable insights into how managers can effectively manage stressful situations and conflicts in the workplace. Consequently, understanding these interconnections is crucial to improving the effectiveness of activities undertaken in the business environment. This allows for development of an analysis of both adaptation mechanisms to stress and effectiveness of conflict management strategies in the organizational context. Studying those connections may lead to identification of potential areas of intervention and improvement of managerial skills in coping with stress and managing conflict situations.

Based on the results of the research, several important conclusions can be drawn regarding their practical application in the form of more detailed observations and proposals:

- the level of task-oriented coping style preferred by managers revealed in the research indicates the right direction in the approach to stress. Task activity, which involves transforming difficult situations through cognitive processes and taking specific actions to overcome them, is identified as the most effective adaptation strategy to stress. Therefore, it is recommended to support and empower managers in taking task-oriented actions in stressful situations. Also, in relation to managers who use an avoidance-oriented or emotion-oriented style of coping with stress, it is recommended to develop their awareness of the consequences of avoidant and emotional behaviour and encourage them to try to strengthen their task-oriented style.
- dominance of the compromise technique of resolving conflicts (Compromising) in the surveyed group of managers seems to be a highly desirable result, although it is worth noting that it may not necessarily indicate a preference for partnership and cooperation. Compromise can also be used in situations where there is no desire for cooperation, but only for a quick resolution of the conflict, even at the cost of giving up some of one's own interests that are important from the point of view of the organization's business goals. It is therefore worth suggesting that building awareness among managers in making efforts to fully cooperate and search for solutions beneficial to both parties is a must (the activities should not only seemingly be partnership-based).
- the dominance of the task-oriented style of coping with stress and the greater intensity of the technique based on cooperation in conflict situations revealed in the research among older managers may be related to their greater experience in managerial work. Especially since younger managers showed preferences for emotional reactions to stress and more often used conflict resolution techniques based on compromise. It is likely that older managers

had more time to accumulate knowledge and develop skills relevant to resolving conflict in a collaborative manner as part of their experiences with organizational stress. Although age is not always an absolute indicator of level of experience or managerial competence, those results suggest that it is possible to acquire certain behaviours during career development.

- encouraging managers to conduct an individual diagnosis of their personal tendencies in dealing with stressful and potentially conflict situations, seems to be an extremely important recommendation. Learning about one's own predispositions and established tendencies to react in a specific way to organizational difficulties lets managers understand their own behaviour and reactions. This awareness makes it possible to assess whether current trends favour effective coping with stress and conflicts, or whether it is necessary to develop a new, more effective approach. It is equally important to be aware of the consequences of different styles of coping with stress, both for managers and their employees. Because managers are responsible for managing their own stress and the stress of their employees, understanding the possibilities and consequences of dealing with stressful situations is extremely important.
- it also seems reasonable to recommend permanent development for managers in order to build their personal managerial effectiveness. Especially since the results of the research showed that managers with higher education more often revealed a task-oriented approach to difficult situations (than in the case of managers with secondary education). This goal can be achieved through appropriate training and personal development; managers can acquire stress management skills and techniques that promote a task-oriented approach and minimize escape and emotional strategies. Such training may include learning stress management techniques, building mental resilience, developing problem-solving skills and effective decision-making in difficult situations. Based on the research results, training and development programs can be developed to help managers identify their potential for experiencing stress and resolving conflicts, as well as building managerial skills in these areas.
- shaping the organizational culture of companies that promotes managerial effectiveness in dealing with stress and resolving conflicts also seems to be extremely important. Managers' preferences regarding stress management strategies and conflict approaches may also be shaped by organizational culture. Organizations that promote a task-based approach and active problem solving can attract and develop managers with these preferences. In turn, organizations with a culture that is more based on avoiding conflict or ignoring problems may be less inclined to promote task-oriented strategies among their managers.
- managers who operate in a professional sphere that is inextricably linked to experiencing numerous psychological burdens definitely need mechanisms

for regulating emotions, relaxation and the ability to regain balance after high-stress situations. Using a variety of psychological relaxation techniques can be crucial in achieving inner peace and restoring emotional balance. In this context, an important aspect is the education of managers about the potential consequences of poor coping with stress or lack of stress management skills. The effects of this lack of coping skills can be widespread, including loss of professional effectiveness and disruptions in interpersonal relationships, and may increase in intensity over time. However, health effects, such as depression, burnout, heart attacks and cancer, which are currently considered to be the so-called “managerial diseases”, are particularly important.

- the disclosed research results may also be a set of important tips for improving recruitment processes and assessing candidates for managerial positions. The results of this research can also serve as a basis for development of evaluation criteria when recruiting managers in the scope of the competencies covered by the research. Organizations may look for candidates who demonstrate the ability to cope with stress and effectively resolve conflicts or demonstrate potential in this area, which can bring tangible benefits to every modern organization.

To conclude, it should be noted that the submitted proposals for the practical use of research results should not be treated as final and absolute guidelines. They rather constitute some voice in a broader discussion and offer proposals aimed at supporting actions to prevent and alleviate the experience of stress and improve the ability to cope with conflicts. However, it is necessary to consider them as a contribution to further debates and reflection on effective stress and conflict management strategies. Continuing the analysis of managers’ behaviour under conditions of organizational stress is completely justified and desirable from a scientific and practical perspective. Further research will allow for a more detailed understanding of the mechanisms of reaction to stress and more effective development of tools and interventions to support managers in such situations. Therefore, further research is crucial for development of management practice and improvement of effectiveness of actions taken in the context of organizational stress.

Due to the above, it is necessary to conduct further empirical research in order to verify the obtained results and deepen understanding of the research problems. It is crucial to continue research papers based on the results already obtained, which will enable a more comprehensive analysis of problems and the use of their potential benefits for both science and practice. A valuable contribution to the development of scientific knowledge and society can be achieved through a systematic and interdisciplinary approach to the research problems discussed. The obtained results have much potential for practical application in various areas of social, economic and technical life.

The impact of the research results on practice can significantly improve the quality of life of individuals and the effectiveness of activities undertaken in various aspects of life, not only in the professional context. The analysed categories – stress and conflicts – have a universal dimension that covers all spheres of an individual's functioning, both personal and social.

In the context of personal life, understanding strategies of coping with stress and conflict resolution techniques can contribute to an individual's level of mental and emotional health. People who can effectively deal with stress and conflicts may experience a greater sense of control over their lives and develop better interpersonal relationships, which translates into overall life satisfaction.

In the area of social life, research results may be important for improving interpersonal relationships and reducing social tensions. Understanding the phenomenon of stress and taking constructive actions in stressful situations can contribute to building more harmonious relationships in the family, workplace or local community. Likewise, a better understanding of conflict mechanisms and ways of solving it can contribute to building a more open and constructive dialogue between people, which is conducive to building community and solving social problems.

Ultimately, the conclusions drawn from research on coping with stress and resolving interpersonal conflicts have the potential to contribute to a broad improvement in the quality of life of individuals and the effectiveness of activities undertaken in various areas of life. Their universal nature makes them an important tool not only in the professional field, but also in personal and social spheres, which emphasizes the importance of further research and implementation of the acquired knowledge in practice.

Conclusion

The research discusses the issue of stress in managers, which is an important aspect in the context of modern organizations. According to the literature on the subject, the managerial role often involves participation in situations that generate stress. The difficulties faced by today's managers are so diverse that it is safe to say that stress in a manager's job is inevitable. Stress factors related to managerial positions can be classified into many categories, but most often managerial stress comes from making complex decisions, processing excess information, taking risks, working under time pressure and being responsible for managing employee teams.

When asked about their biggest challenges, managers most often mention people-related problems. This area generates various situations including interpersonal conflicts, lack of motivation among subordinates or difficulties in introducing changes. The literature on the subject is abundant when it comes to research on occupational stress, employment conditions and stress-causing factors. Nowadays, however, more attention is paid to interpersonal relationships that are likely to result in conflict and that make it necessary to develop strategies for effective conduct in such situations. The ability to cope with stress becomes crucial, especially in the dynamic business environment in which rapid organizational changes place new demands on managers. Effective stress management in the context of conflict situations is therefore becoming a priority for modern managers.

The choice of the subject of the research is related to the research interests of the authors of this publication. The approach adopted is closely related to the state of contemporary knowledge in the field of organization and management sciences, occupational psychology, stress psychology and managerial psychology.

Based on the available literature, it is possible to observe that research on managerial stress focuses on identifying stress-causing factors related to the managerial role or comparing stress experiences of managers with other professional groups. There is much less research focusing on the analysis of

detailed relationships between ways of coping with stress and various variables that may affect the functioning of managers under conditions of organizational stress. A similar phenomenon concerns the issue of resolving conflicts in the area of managerial activities. Due to the rapid pace of development of modern organizations in a constantly changing reality, conflicts are a common phenomenon in interpersonal relations. It is important to understand how managers respond to conflicts, what conflict resolution strategies they use and what determines their choice of a specific response. This approach to conflicts is the result of an interdisciplinary understanding of phenomena (from the level of psychology and management sciences), which allows us to look at the behaviour of managers in conflict situations in a different way. This is about taking into account the individual's various predispositions and internal conditions, and not only conscious and rational decisions in response to external events.

This research tries to explore those details, thus examining how managers cope with stress and what impact this has on their attitudes in conflict situations.

For the purposes of this research, the issues of managerial stress and conflicts were treated primarily in the context of psychological considerations. The analyses undertaken in course of performing the research, the discussion of the results and the psychological interpretations made were conducted in relation to the stress theories and conflict concepts adopted in the research. Styles of coping with stress were considered using the categories of styles of coping with stress described by N.S. Endler and D.A. Parker, based on the cognitive-transactional theory of stress by R.S. Lazarus and S. Folkman. Styles of behaviour in conflict situations were defined in accordance with the theory formulated by K. Thomas and R. Kilmann describing reactions to conflict on the following two levels:

- measuring the attitude towards achieving individual goals; and
- measuring the focus on interpersonal relationships.

In the empirical part of the research, research tools adequate to the adopted concepts were used. The concepts adopted and the research tools developed by their creators are perfectly verified and have already proven useful in many studies. Thus, the adopted theoretical context is consistent with the methodological part of the research, which proposes research tools developed within the framework of the above-mentioned concepts, respectively: Coping Inventory For Stressful Situations (CISS) by N.S. Endler and J.D.A. Parker, and the Questionnaire of behaviour in conflict situations by K. Thomas and R. Kilmann.

The hypotheses put forward in the research refer to empirical verification of managers' preferences in the selection of ways employed to cope with stress and conflict resolution techniques, as well as the verification of differences in the selection of conflict resolution techniques by managers who use different strategies of coping with stress.

The research involved a group of 320 managers who met the criterion of performing a managerial function in terms of direct management of people. Two hundred and sixty-two complete test sheets were qualified for the final analyses.

In the research conducted, based on the results obtained using the indicated research tools, all research hypotheses H1, H2 and H3 made in the research were positively verified. It is empirically demonstrated that:

- managers prefer a task-oriented approach to stress,
- managers prefer partnership techniques for resolving conflicts, based on cooperation and compromise,
- there are significant differences between managers with different styles of coping with stress in the area of preferences for choosing different conflict resolution techniques.

The detailed descriptions contained in the research part of the paper were ultimately used to formulate final conclusions for further scientific research and practical recommendations for their implementation.

The obtained results have important cognitive and practical significance. They confirm the very close connection between intrapsychic phenomena and people's behaviour in real situations. They allow us to better understand the tendency for individuals to adopt specific behavioural styles, regardless of situational variables. The results of the conducted research on the interdependence between ways of coping with stress and styles of behaviour in conflict situations allow for designing a number of practical actions aimed at increasing managers' control over behaviour in conflict, and thus improving their effectiveness in resolving organizational conflicts.

The above statement may be of great importance in preparing people to effectively perform managerial functions. The results of the presented research seem to indicate that an integral part of such preparation and entry into the role should be attributed to building awareness of assessing the sense of using specific methods of conduct in stressful conditions. The ability to adequately use specific strategies in relation to specific organizational situations is equally important. In a similar way, it is worth building awareness of personal tendencies and internal conditions for preferred behaviour in conflict situations. The importance of being aware of personal tendencies to act in a certain way, both in terms of coping with stress and resolving conflict situations, cannot be overestimated. Self-awareness is crucial to understanding your own actions. It can facilitate mutual understanding in a work team, improve communication and reduce interpersonal conflicts.

To conclude, it can be said that the obtained empirical results justify the accuracy of the choice of the research perspective and provide interesting final conclusions. Capturing the relationships between styles of coping with stress and ways of reacting to conflict provide good insight into the mechanism of human

actions and behaviour. This also opens up the field for future research, because despite the progress achieved in this research and other available sources, there are still many ambiguities and controversies regarding the managerial role and its stressful nature. In line with the authors' intention, it is worth perceiving the conducted research to be some launchpad for further research and for further analyses aimed at understanding the impact of intrapsychic phenomena on behaviour that so far may have seemed to be determined strictly by the adopted function, organizational culture or expectations of the environment. In the light of the results obtained, further research on psychological categories in the context of management sciences and their practical implementation seems to be extremely interesting.

Index

Note: Page numbers in *italics* indicate figures and in **bold** indicate tables on the corresponding pages.

- accommodation in conflict management 108
- Adamiec, M. 5
- affiliate leadership 23
- age differences in managerial behaviour 148–159, **149–151**, 152–159, 220–222
- alarm phase 48
- Alessandro, T. 23–25
- allostasis 49
- ambiguity of manager's work or role 69
- Ameca humanoid robot 29, 30
- anger 98
- Antonovsky, A. 51–52
- Appelo, J. 25–26
- artificial intelligence (AI) 28–36
- Attention Deficit Trait (ADT) syndrome 67–68
- authentic leadership 21–22
- authoritarian-benevolent style 12
- authoritarian-despotic style 12
- authoritarian management 13, 19
- autocratic style 10–11
- autocrat managers 14
- avoidance in conflict management 107
- avoidance-oriented managers 72, 230

- balanced management 13
- Bamford, M. 22
- Bartkowiak, G. 8
- Bass, B.M. 4, 20, 21
- behavioural approach 10
- behavioural attitude 106–107
- behavioural theories 10

- benevolent autocrat managers 14
- Berge, P. 35
- Bernard, C. 46
- Bertelli, P. 35
- Beutell, N. J. 61–62
- Bieniok, H. 106
- Bird, B. 35
- Blake, R. 13, 14
- Blanchard, K. 18, 26
- Bohm, F. 102
- Bolden, R. 4
- boss, definition of 2–3
- Boyatzis, R. 22
- Brandy, B. 112
- bureaucrat managers 14
- Burgess, G. 109
- Burgess, H. 109
- burnout syndrome 62–63
- Burns, J.M. 4
- business tandems 34–35

- Cannon, W. 47, 49
- Carver, C.S. 71
- Chanel, C. 35
- chatbots 29
- chronic/cold conflict 94
- club management 13
- coaching leadership 23
- cognitive dissonance 98
- cognitive flexibility 1
- Coleman, P.T. 110
- commitment trap 98
- common goals 111

- company size and managerial behaviour 170–181, **171–174**, *175–180*, 224–226
- competence conflict 96
- competition 98–99; in conflict management 108
- competitive context of conflict 98
- complex tasks 16–17
- compromise 108, 109
- compromiser managers 14–15
- conflict: difficult-to-resolve 109; emotions as key category in management of 104–112; essence and types of 91–99; between formal and informal groups 104; functional 103–104; hierarchical 103; of interest 97; between line and staff 104; multi-faceted sources of 99–104; as research category 87–91; structural 97; of values 97; *see also* strategies for conflict resolution and coping with stress
- conflict circles 96
- conservation of resources 52–53
- constitutional model 26
- consultative style 12–13
- consulting 15
- contingency theory 16
- cooperation 15; in conflict management 108
- cooperative context of conflict 98
- Coping Inventory for Stressful Situations questionnaire (CISS) 119–120, 127, 242; analysis of managerial behaviour in stressful situations using 128–131, **129**, *130*; correlational relationships between T-K scale and 183–189, **184**, *185*
- coping with stress 70–77; *see also* strategies for conflict resolution and coping with stress
- Covey, R.S. 26
- cultural causes of conflict 100
- Dahrendorf, R. 89–90
- data conflict 96
- Davenport, T.O. 65
- decision-making freedom 16
- Decrane, A.C., Jr. 26
- deinfluentialization of power 27
- de Jonge, J. 56
- delegating style 19
- delegation 15–16
- Demitras, O. 8
- democratic style 11, 13, 23
- demographic variables in managerial behaviour 136–183, 217–226, 228–229; age 148–159, **149–151**, *152–159*, 220–222; company size 170–181, **171–174**, *175–180*, 224–226; conclusions on 181–183; education **160–163**, 160–170, *164–170*, 222–224; gender 136–148, **137–140**, *141–147*, 217–220
- Denecken, S. 28
- deserter managers 14
- Deutsch, M. 98
- developer managers 14
- difficult-to-resolve conflict 109
- digitalization 28
- directive managers 19
- directness-secrecy 23–24
- director/director style 25
- distress 48–49
- distributed leadership 27
- diversity management 32
- Drucker, P. 65
- Duffy, R. 35
- dynamic leadership styles 10
- economic conflict 96
- education and managerial behaviour **160–163**, 160–170, *164–170*, 222–224
- effectiveness, management 14–15
- emotional conflict 96
- emotional leadership styles 22–23
- emotion-oriented managers 72, 230
- emotion-regulating attitude 72
- emotions in conflict management process 104–112
- Encyklopedia Zarządzania 2
- Endler, N.S. 71, 72, 119–120, 128–131, **129**, *130*, 242
- ethical and moral leadership 26
- eustress 48–49
- Evans, M. 19
- evolutionary theory of leadership 18
- executive managers 15
- exhaustion phase 48
- exploitative-autocratic style 12
- Feder, B.J. 35
- feelings 104
- Fiedler, F.E. 16–18, **17**

- fight 98–99
 Folkman, S. 50, 72, 73, 242
 Fontana, D. 57
 forcing 109
 Frankenhaeuser, M. 56
 Freudenberg, H.I. 62
 Frijda, N.H. 105
 functional causes of conflict 100–101
 functional conflict 103–104
- Garavani, V. 35
 Gasiul, H. 105
 gender differences in managerial
 behaviour 136–148, **137–140**,
 141–147, 217–220
 General Adaptation Syndrome 48
 Giammetti, G. 35
 Goleman, D. 22
 Greenhaus, J.H. 61–62
 group conflict 94
 Gubachev, Z. 56
- Hamelink, C.J. 28
 Harding, S.D. 65
 harmonizing in conflict management 109
 Hegel, G.W. 88
 Hersey, P. 4, 18
 Hess, T. 28
 Heszen-Niejodek, I. 75–76
 heuristic methods 111
 Hewlett, B. 35
 hidden conflict 95
 hierarchical conflict 103
 Hobbes, T. 88
 Hobfoll, S. 52–53
 House, R. 19
 human resources administration 31–32
 human resources management 31–32
- ideological conflict 104
 ignoring 108
 image exchange sessions 110–111
 impermanence 34
 impoverished management 13
 incompatibility 93
 integrating style 19
 interactional attitude 106–107
 interference of third parties in conflict
 management 109
 intergroup leadership 26
 interpersonal conflict 94
 intrapersonal conflict 94
 irrational conflict 96
 Izard, C.E. 105
- Jackson, S.E. 69
 Jacobs, M. 35
 Jago, A.G. 4
 Jemkins, J.M. 105
 Jobs, S. 36
 Juczyński, Z. 47
- Kadgien, Ch. 33
 Killmann, R. 107, 120, **121**
 Kilmann, R. 117, 242
 Klein, C. 35
 Kouzes, J.M. 4
 Kozak, A. 6
 Koźmiński, A.K. 26
 Kożusznik, B. 18
 Kraczkla, M. 6, 62, 66, 102
 Krohne, H.W. 71
 Kuhlmann, N. 33
- Laschinger, H. 22
 Laurell, S. 102
 Laurent, Y.S. 35
 Lazarus, R.S. 50, 72, 73, 242
 leadership 5–6; authentic 21–22;
 constitutional model of 26; distributed
 27; ethical and moral 26; evolutionary
 theory of 18; intergroup 26; levels of 6,
 7; limited 26; neuroleadership and
 27–36; psychology of 6; remote
 26; shared 27; situational 19–20;
 terminology related to 1–7
 leadership styles 8–22; authentic
 leadership model 21–22; authoritarian-
 benevolent 12; authoritarian-despotic
 12; autocratic 10–11; behavioural
 approach to 10; consultative 12–13;
 decision-making freedom and 16;
 democratic 11, 13; emotional 22–23;
 evolutionary theory of leadership
 and 18; evolution of personal
 and situational 22–27; liberal 11;
 management effectiveness 14–15;
 managerial situations and 16–18, **17**;
 maturity level and 18–19; numbered
 13–14; qualification approach to 10;
 sharing of power and 15–16; situational
 approach to 10; static and dynamic 10;

- transactional and transformational
 - 20–21; X and Y theory of 11–12
- Le Blanc, P. 56
- Leduchowska, Ż. 26
- Levin, K. 56
- liberal style 11
- Likert, R. 12
- limited leadership 26
- Lippitt, R. 10
- load 50
- Łobejko, S. 28
- Luthans, F. 103–104

- Machiavelli, N. 9
- Mack, R.W. 93
- Majewska-Opielka, I. 4
- manager-consultant 12–13
- manager-democrat 13
- managers and management: defined 2–3;
 - inspiring 5; potential 5; qualities of good 3; specificity of stress in work of 64–70; styles of 8–22, 17; terminology related to 1–7; *see also* leadership
- Marx, K. 89
- Maslach, C. 62
- Maxwell, J.C. 4–5, 6, 7
- McCarthy, J. 28
- McEwen, B. 49
- McGregor, D. 8, 11, 12–13
- McKee, A. 22
- mental tension 93
- Merecz, D. 60
- Miller, S.H. 71
- missionary managers 14
- Młokosiewicz, M. 59–60
- moods 104
- Moore, Ch. W. 96
- Moos, H.E. 73
- moral conflict 104
- motivational conflict 104
- Mouton, J. 13, 14
- Mucha, J. 93
- multi-faceted sources of conflict
 - 99–104

- negative stress 59
- neuroleadership 27–36
- Nietzsche, F. 88
- Northouse, P.G. 4
- numbered leadership styles 13–14
- Nusche, D. 8

- Oatley, K. 105
- objective conflict 96
- objective stress 51
- occupational stress 53–64; effects of 59–64; sources of 55–58
- Ogińska-Bulik, N. 47
- Oleksyn, T. 2–3, 4
- open conflict 95
- open door policy 12
- oppressive-autocratic style 12
- organizational conflict 96
- orientation towards people and tasks 23
- Owczarczyk, B. 28
- Oyster, C.K. 97

- Packard, D. 35
- Parker, D.A. 72, 242
- Parker, J.D. 71
- Parker, J.D.A. 119–120, 128–131, 129, 130
- Parsons, T. 88
- participatory managers 20
- participatory style 19
- paternalistic style 12
- path-to-goal model 19–20
- peaceful coexistence 109
- Penc, J. 6, 67
- perceived conflict 95
- perception distortions 98
- Perdeus, W. 67
- personal causes of conflict 101
- Pieriegud, J. 28
- Platinum Rule 23–24
- plus-minus-interesting 111
- Pocztowski, A. 60
- positive stress 59
- Posner, B.Z. 4
- postponing 108
- potential conflict 94
- power sharing 15–16
- Prada, M. 35
- prescriptive leadership 22
- primal leadership 22
- problem-solving attitude 72
- processual-normative leadership 23
- Pruitt, D. 91
- psychological stress 51

- qualification approach 10
- qualitative overload 68
- quantitative overload 68

- Ratajczak, Z. 57
 rational conflict 96
 Razumov, I. 56
 real conflict 94
 realistic conflict 95
 recommending 15
 Reddin, J.W. 14
 relationship builder/relater style 24
 relationship conflict 96–97
 remote leadership 26
 remote management 26
 reorientation 108
 research results 241–244; application of
 236–240; *see also* strategies for conflict
 resolution and coping with stress
 resistance (adaptation) phase 48
 responsibility, manager 68–69
 Reykowski, J. 51
 Rigby, D.R. 36
 robots 29–30, 31
 role conflict 69
 role-playing 111
 Rost, J.C. 4
 Royackers, L. 28
 Rózanowski, K. 28
 Rożnowski, B. 67
 Rubin, J. 91
 Ruch, F. 53
- salutogenic concept of stress 51–52
 saving face 98
 Schaefer, J.A. 73
 Schaufeli, W. 56
 Scheier, M.F. 71
 Schmidt, W.H. 15
 Schuler, R.S. 69
 Schwab, K. 28
 Schwartz, B. 35
 Sculley, J. 36
 secrecy 24
 selling 15
 sense of coherence 52
 sense of comprehensibility 52
 sense of manageability 52
 sense of meaning 52
 separation 108
 Seyle, H. 48–49, 55
 shared leadership 27
 sharp/heated conflict 94
 Sikora, J. 95–96
 Sikorski, Cz. 8, 99
- silence 111–112
 Simmel, G. 89
 simple tasks 16–17
 situational approach 10
 situational leadership 19–20
 situational theories 10
 Smółka, P. 5
 Snyder, R.C. 93
 social action 93
 social conflict 96
 socializer/socializer style 24
 social maturity 18
 social norm of reciprocity 98
 Starowicz, A. 54
 static leadership styles 10
 stealth control 26
 stereotypes 104
 Stogdill, R.M. 4
 Stoner, J. 92
 strain 50
 strategies for conflict resolution
 and coping with stress: analysis
 of statistical results in 127–128;
 application of research results on
 236–240; characteristics of research
 group on 122–125, 123–124;
 correlational relationships between
 CISS scale and T-K scale 183–189,
 184, 185; demographic variables
 in 136–183, 217–226, 228–229;
 differences in intensity of 226–228;
 discussion of research results on
 215–231; dominant 215–217; method
 of conducting research on 122;
 psychological measurement methods
 for 119–120, **121**; relationships
 between 183–215; research paper
 on 117–118; sources of research
 questions and hypotheses on 118–119;
 using Coping Inventory for Stressful
 Situations questionnaire (CISS)
 119–120, 127, 128–131, **129**, 130;
 using Thomas-Kilmann Questionnaire
 120, **121**, 127, 132–136, **133**, 133;
 verification of research process in
 231–234
 Strelau, J. 51
 stress 241–244; burnout syndrome
 and 62–63; as dynamic relationship
 between person and environment
 49; effects of 59–64; emotions

- and 106; leading concepts and operationalization of the term 46–53; objective 51; occupational 53–64; prevention and intervention for 76–77; psychological 51; as reaction to unpleasant stimulus 49; salutogenic concept of 51–52; specificity of manager's 64–70; as stimulus 49; subjective 51; tools and methods for dealing with professional 70–77; *see also* coping with stress
- structural causes of conflict 100
- structural conflict 97
- subjective stress 51
- supportive managers 20
- swapping roles 111
- Tannenbaum, R. 8, 15
- task-oriented managers 20, 72, 229–230
- tasks, simple and complex 16–17
- team or democratic management 13–14
- technical maturity 18
- terminology of management and leadership 1–7
- testing 15
- Theory of Homeostasis* 47
- theory X 11
- theory Y 12
- thinker/thinker style 24–25
- Thomas, K. 117, 120, **121**, 242
- Thomas, K.W. 107
- Thomas-Kilmann Questionnaire 120, **121**, 127, 132–136, **133**, 133, 242; correlational relationships between CISS scale and 183–189, **184**, 185; differences between conflict resolution techniques and qualitative variables in 189–215, **190**, 191, **192**, **195–196**, 196, **198–211**, **213–214**
- Toffler, A. 90–91
- Tomaszewski, T. 51
- Tosii, H.I. 99
- traditionalist attitude 106–107
- trait theories 10
- transactional leadership model 20
- transformational leadership model 20–21
- unrealistic conflict 95
- values and goals conflict 96
- Van Vugt, M. 4
- virtual teams 26–27
- visionary leadership 23
- Vroom, V.H. 18
- Walker, J. 35
- Walter, H. 58
- Wankel, Ch. 92
- Wąsikowska, B. 33
- Wawrzyniak, A. 33
- Weber, M. 89
- Weintraub, J.K. 71
- Wertheimer, P. 35
- White, R.K. 10
- Wong, C.A. 22
- work 53
- work overload 68
- Wujec, B. 26
- Wziętek-Staško, A. 112
- X and Y theory 11–12
- Yetton, P.H. 18
- Zieleniewski, J. 8
- Zimbardo, P.G. 53, 105