



## BEHAVIORAL BIASES IN CONFLICT RESOLUTION IN THE FINANCIAL SECTOR: EMPIRICAL EVIDENCE FROM BULGARIA

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### ABSTRACT

Conflicts in organizations are inevitable and have an impact on individual and organizational performance. Individual behavioral traits like belief perseverance biases, information processing biases and emotions can be both sources of conflicts and barriers to conflict resolution. We identify a significant research gap on behavioral biases in resolution of workplace conflicts and opportunity for transfer of knowledge in combining conflict management theory and behavioral biases approach.

**Objectives:** The main purpose of the paper is to examine behavioral biases in resolving conflicts in financial sector organizations in Bulgaria and explore the relationship between behavioral biases and conflict resolution.

**Methods/Approach:** Based on a Google forms questionnaire we investigate the perceived level of conflict resolution, the inclination to 17 behavioral biases and collected demographic information from 231 employees. We apply descriptive statistical analysis, Cronbach's Alpha reliability test, one-sample t-test, Cohen's d coefficient and Spearman's Rho correlation analysis.

**Results:** The findings reveal that employees consider their conflicts as highly resolved. They show overconfidence, conservatism, confirmation, self-attribution, optimism, representativeness and herding bias, halo and horn effect. Multiple positive correlations between pairs of biases are found. Higher positive correlation is observed between conservatism and confirmation bias, whereas higher negative correlation is found between conservatism and out-group bias. We identify positive and significant correlations between conservatism, confirmation, overconfidence, optimism, herding, regret aversion bias (errors of commission), halo effect and the level of conflict resolution.

**Conclusions:** The paper provides original findings on behavioral biases that financial employees are prone to, on the relationships between these biases as well as on the positive relationship between certain biases found and the level of conflict resolution.

**Keywords:** employees' conflicts, behavioral biases, conflict resolution, financial sector

**JEL classification:** D23, D74, G41, M14

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### INTRODUCTION

Workplace conflicts are an unavoidable reality. They arise in any organization where people with different opinions, behaviors and priorities work together to achieve common goals. Conflicts should not be neglected as they have an impact on individual and organizational performance. Studies showed that the most significant negative effect of workplace conflicts is on employee well-being (CIPD, 2015, 2020). Negative outcomes are usually related to anxiety, stress, decline in motivation or commitment, loss of self-confidence and deteriorated relationships (CIPD, 2015, 2020; CPP, 2008; OPP, 2008). Unmanaged or poorly managed workplace conflicts



also lead to significant costs to organizations – lost work hours, poor management decisions, employee absenteeism, increased turnover, drop in productivity, etc. (Buss, 2011; Lazan, 2015; Mihaylova, 2021). On the other hand, when addressed effectively, conflicts have the potential to boost productivity and creativity, lead to a better understanding of others, and find better solutions to problems (CPP, 2008; OPP, 2008; Psychometrics Canada, 2009; Mihaylova, 2021).

The acceptance of the inevitability of conflicts and their constructive dimensions is embedded in the contemporary understanding of their resolution. The efforts are aimed at minimizing the dysfunctional consequences of conflicts and enhancing their constructive functions so as to improve organizational learning and organizational effectiveness (Rahim, 2023). An essential aspect of constructive conflict resolution is having a good understanding of their dimensions in an organizational context. A step towards that is identifying and analyzing sources of conflict and barriers to conflict resolution.

Among a wide range of sources of conflict, behavioral biases can have a significant impact on workplace conflict. On the one hand, behavioral biases can lead to ongoing workplace conflicts as the involved parties have difficulty overcoming psychological barriers to mutual agreement (Ben-Ner et al., 2009; Cheung et al., 2020). On the other hand, these biases can also lead to suboptimal outcomes for organizations as decisions are based more on emotional reactions than rational analysis (Everett & Fairchild, 2015; Oschinski et al., 2021; Rahman Rahawarin, 2023), which would affect organizational effectiveness. Recognizing these biases is essential to comprehending conflict dynamics and can provide valuable insights into constructive conflict resolution. By understanding and addressing these biases, organizations can foster constructive interactions among employees and work toward creating a healthier and more harmonious work environment.

Previous studies (Ivantchev, 2013, 2017, 2021; Nedev, 2018, 2019a, 2019b) have examined the impact of behavioral biases on financial decision-making. Researchers have also investigated sources of workplace conflict in specific sectors of Bulgarian economy (healthcare (Raykova et al., 2011; Raykova et al., 2018), public sector (Bankova, 2019; Chorbadzhiyska, 2013), other sectors (Mihaylova, 2021). We are not aware of any research on behavioral biases as a substantial factor in conflict dynamics in organizations and their impact on conflict resolution in the financial sector. The insufficient level of development of this field both worldwide and in Bulgaria determines the research interest in it.

The main purpose of the paper is to examine behavioral biases in resolving conflicts in financial sector organizations in Bulgaria and explore the relationship between behavioral biases and conflict resolution.

The following research questions are defined: 1) Do employees in the financial sector manifest behavioral biases? and 2) What is the relationship between behavioral biases and conflict resolution in the financial sector?

While studies have been conducted separately on behavioral biases and on workplace conflict, there is a lack of empirical research on behavioral biases in resolution of workplace conflicts. The present study is the first we know of to provide empirical evidence on the relationship between behavioral biases and workplace conflict in Bulgarian organizations and to a great extent worldwide and therefore, it contributes to under-researched area.



## LITERATURE REVIEW

### *Conflicts in organizations*

There is no generally accepted definition of organizational conflict. The different views on its definition contribute to reveal its specific characteristics in an organizational context. For the purpose of the study, conflict is defined as a dynamic process of open confrontation arising from the interaction of two or more interdependent parties (individuals or groups) because of perceived incompatible differences (in interests, needs, goals, values, opinions or in resources, power, control, etc.) (Mihaylova, 2022).

A broader classification of conflicts in organizations includes two types of conflicts: intraorganizational (i.e., conflicts within an organization) and interorganizational (i.e., conflicts between two or more organizations) (Rahim, 2023). Intraorganizational conflicts are classified based on the levels at which they occur and include intrapersonal, interpersonal, intragroup, and intergroup conflict (Gordon, 1993; Rahim, 2023; Uhl-Bien, Schermerhorn Jr. & Osborn, 2016). Intrapersonal conflict can occur when an organizational member is expected to perform certain tasks and roles that do not align with their expertise, interests, goals, and values. Conflict between two or more organizational members belonging to the same or different hierarchical levels or units is referred to as interpersonal conflict. Intragroup conflict is a conflict among members of a group or between two or more subgroups within a group on group's goals, tasks, procedures, etc. Among all the conflicts described, interpersonal conflicts are the most frequently occurring conflicts in organizations and arise in a variety of ways (Mescon et al., 2020). They can be either on a professional basis (competition for limited resources, power, prestige, etc.) or on a personality basis (resulting from a clash of incompatible values, opinions, personalities). Interpersonal conflicts are also the most studied types of conflicts by researchers (Bankova, 2019; CIPD, 2015, 2020; CPP, 2008; Mihaylova, 2021; 2022; OPP, 2008; Psychometrics Canada, 2009; Raykova & Semerjieva, 2019).

### *Behavioral biases as sources of conflicts and barriers to conflict resolution*

Conflict can arise as a result of various antecedent conditions (events, problems, etc.). Yulk and Wexley (1985) describe six main groups of causes of conflict: competition for resources, task interdependence, jurisdictional ambiguity, status problems, communication barriers, and individual traits. According to Robbins (1998) there are three major categories of factors that have the potential to cause conflict: communication, structural and personal factors. Personal behavior factors refer to the individual's value system and the individual characteristics of employees. As discussed by Kreitner and Kinicki (2012) conflicts can arise in a number of conditions, including: incompatible personalities or values, overlapping or unclear job boundaries, competition for limited resources, inadequate communication, interdependent tasks, organizational complexity, unreasonable or unclear policies, standards, or rules, unreasonable deadlines or extreme pressure, unmet expectations, unresolved or suppressed conflict. Mullins (2016) defines four groups of potential sources of organizational conflict: individual, group, organizational and the age gap. Individual sources include attitudes, personality characteristics or particular personal needs, illness or stress. According to Buchanan and Huczynski



(2023) workplace conflicts can be classified in three broad headings: over interpersonal issues, e.g. personality clash (relationship conflicts), over the goals and content of work, e.g. describe or solve a problem (task conflicts) and over how a task is accomplished, e.g. task allocations (process conflicts).

Thus, conflicts inflict substantial costs for all the parties involved (CIPD, 2015, 2020), which is why conflict resolution is a central topic that might increase general well-being. Examining the underlying forces of conflict resolution is crucial for organizations' management, as we have already discussed the benefits of constructively handling conflicts. Mnookin & Ross (1995) define three major types of barriers to conflict resolution. First, tactical and strategic barriers include rational actions to maximize one's short and long-term goals by misrepresentation of one's true interests and aspirations. Such actions hamper reaching efficient agreements for both sides in the conflict. Second, psychological barriers embrace cognitive and motivational biases in the realm of social process that influence parties how they process information and evaluate risks, which has nothing to do with self-interest. Third, organizational and institutional factors that restrict the free flow of information and communication between parties. Other aspects in this category include multiple interest groups and the principle-agent problem.

Although the discussed classifications for both causes of conflicts and barriers to conflict resolution demonstrate a broad range of potential factors and still do not cover all, one group of factors leading to conflict stands out that of personal factors related to the individual traits of employees in an organization. Individual behavioral characteristics such as inclination to belief perseverance, information processing and emotions are significant sources of conflicts as well as might act as barriers to conflict resolution. These factors are not rational and do not align with calculated attempts to outcome maximization by disputing parties. Behavioral biases are unavoidable human traits and as such can have a significant impact in conflict dynamics leading to misunderstandings and escalating disputes.

### *Behavioral biases*

Behavioral biases represent the subjective inclination of individuals to make unreasoned judgments in favor of a particular preference. Biases result in making irrational decisions. Cognitive errors are due to deficiencies in processing information and statistical data, or in the way memory functions, which are largely subconscious processes of the mind. Emotional biases arise under the influence of feelings as well as from intuition (Pompian, 2021, pp. 24, 27, 28).

### *Cognitive Biases: Belief Perseverance Biases*

Conservatism bias assumes that when confronted with new information about a phenomenon, people often continue to cling to their previous understandings of it, which are based on previous data and assessments (Baker & Ricciardi, 2014, p. 560). Thus, individuals overestimate their prior beliefs and underreact or even do not react at all to new data (Copur, 2015, p. xxv).

Confirmation bias is a mode of human behavior in which individuals seek and notice primarily that information which confirms their existing beliefs. In support of their view, they reinterpret (Copur, 2015, p. 102) or even ignore all information that contradicts their understandings and judgments, giving great



importance to all those data that are in line with their beliefs (Baker & Ricciardi, 2014, p. 55). Employees might overinvest in employer's stock based on intraoffice buzz in regard to overoptimistic future prospects. Such behavior leads to high risk-taking (Pompian, 2021, p. 50). Confirmation bias plays an essential role in making certain ideas go viral. As a result, public debates, especially on socially significant issues, tend to deepen divisions and polarize public opinion (Del Vicario et al., 2017).

In-group favoritism is associated with stereotyping, prejudice, and discrimination. Jannati et al. (2023) find out that sell side equity analysts have more positive views about CEOs of their own "type" that is they produce less favorable forecasts for firms headed by CEOs from different demographic groups (ethnicity, race, or CEO names). Ben-Ner et al. (2009) suggest that those individuals that belong to the in-group tend to be treated more favorably than those who belong to the out-group in most of the identity categories. A point to consider is that the costs of discrimination and identity-based favoritism include not only unfair treatment of people, but also conflicts, inefficient job assignments and incorrect promotion practices.

Representativeness bias consists in estimating the probability of an event coming true based on its similarity to a certain stereotype, ignoring the underlying statistical proportion and the sample size of the data (Mengov, 2010, p. 153). Thus, in the context of investment decision making, the bias represents the tendency of investors to overestimate newly incoming information as well as small samples (Pompian, 2012, p. 30). Koech et al. (2020) find out that representativeness heuristic affected the investment decisions of SMEs, which also has an effect on their financial performance. The research points out that every decision that is made with the influence of representativeness heuristic has a general increase of 16.9% in financial performance.

Egidi & Narduzzo (1997) show that path dependent behavior is a significant part of our learning behavior, and it can often lead to us being trapped in suboptimal strategies. However, in some situations players who choose irrational and routinized solutions are more efficient than rational players.

#### *Cognitive Biases: Information Processing Biases*

Halo effect occurs when our overall positive impression of a person is based on a single characteristic. If our first impression is positive, the subsequent judgments we make will be colored by this first impression (Chandra, 2016, p. 14.18). Lv et al. (2023) find out that halo effect affects Human Resource managers during the hiring process of talents. Halo effect is positively correlated with negative perfectionism, whereas critical thinking is capable of diminishing the misjudgments by halo effect.

Self-attribution bias represents the inclination of individuals to attribute all the successes they have realized in their actions to their own talent and sagacity. At the same time, failures are reported as manifestations of bad luck and are considered due to external factors (Copur, 2015, p. 100). Thus, CEOs tend to construct portfolios concentrated in the stocks of the companies they control (Pompian, 2021, p. 119). Doukas & Petmezas (2007) confirm that managerial overconfidence is indeed driven by self-attribution bias. Naveed & Taib (2021) confirm that investors affected by overconfidence and self-attribution bias are likely to make suboptimal investment choices, with self-attribution bias posing a greater risk to rational decision-making.



Optimism and wishful thinking bias causes people to delude themselves into believing that a project has a chance of succeeding and to ignore rational weighing of gains, losses, and probabilities (Kahneman, 2012, p. 331). In the management literature, West et al. (2009) suggest that team optimism has strong positive impact on outcomes such as cohesion, coordination, cooperation, and overall team satisfaction. Bracha & Brown (2012) claim that individuals tend to be more optimistic or ambiguity seeking in areas in which they consider themselves more knowledgeable or skillful (familiar), and on the other hand, to be pessimistic or ambiguity averse when investing in unfamiliar markets.

Etgar et al. (2024) find out that ChatGPT 4 shows signs of implicit gender bias in multiple aspects. It offers less risky financial advice to the profiles which have more feminine professions. The Large Language Models (LLMs) tend to give advice using more words, more objective terms and less foreign words. Brock & De Haas (2023) show that there are no evident explicit biases in the process of evaluating a loan on a gender basis. However, the study finds out that there is evident implicit bias. Female applicants are 26 percent more likely to face a requirement of guarantor as a condition to the loan, even though there are no differences in the credit rating of the applicant compared to the male applicants to the same loan.

Zitzewitz (2001) shows that analysts tend to not only exaggerate their current private information, but they also exaggerate their old information. Momtaz (2021) shows that investors fail to identify moral hazards initially and that exaggerated projects in terms of future prospects acquire substantially more funding in significantly less time. Thus, investors turn out to be incapable of detecting and ignoring this bias.

Jang et al. (2016) provide evidence for the existence of horn effect in the US equity markets, as stocks with low reputation garner worse results when the news regarding their earnings are bad compared to high-reputation stocks.

### *Emotional Biases*

Overconfidence bias assumes that people tend to overestimate themselves, their skills and knowledge, and their access to information (Sedlarski & Dimitrova, 2014, p. 199). Investors therefore underestimate risks and overestimate expected returns, and engage in excessive trading (Pompian, 2021, p. 147). Dias et al. (2019) indicate that both entrepreneurs and managers demonstrate representativeness and overconfidence bias in their decision-making processes. These agents make decisions with little information or no background market information. Other authors (Koellinger et al., 2007; Robinson & Marino, 2015), however, suggest that overconfidence can contribute to generating value in the early phases of a business. Everett & Fairchild (2015) argue that increasing overconfidence produces two conflicting effects – it induces an entrepreneur to increase the riskiness of a venture and drives higher entrepreneurial effort, increasing the likelihood of a successful exit.

The affect heuristic means that our emotional disposition towards an object (“like it”, “dislike it”) guides our beliefs about its benefits and risks (Kahneman, 2012, p. 137). Slovic et al. (2002) suggest that affect heuristic enables individuals to be rational actors in many situations, but not in all. Skagerlund et al. (2020) show that the affect heuristic is a robust phenomenon which appears in the evaluation of preferences. Authors



show that general intelligence, arithmetic performance, numeracy/risk literacy and cognitive reflection could mediate the tendency to use the affect heuristic.

Often times, people refrain from making certain decisions because they fear that they may turn out after the outcome revealed to have been less than optimal. The goal is to avoid the potential regret of taking action, as refraining from such may be the better alternative (Copur, 2015, p. 153). Arlen & Tontrup (2015) show that regret-aversion bias has a serious impact on people's decisions. Chandra (2016) differentiates between two types of errors people might later regret. Errors of commission stem from actions taken based on incorrect judgment, while errors of omission result from a failure to act when action would have been beneficial. People experience higher regret when making errors of commission.

Cheung et al. (2020) examine reactive devaluation during conflicts arising on a constructional project. The study finds that reactive devaluation is present in disputes. The study develops five taxonomies of reactive devaluation, which are all present in the negotiation methods of the questioned practitioners: (1) reluctance to change one's own opinion; (2) doubts about a counterparty's abilities; (3) overconfidence; (4) biased information processing, and (5) mistrust toward the counterparty. Reactive devaluation is often responsible for the rejection of proposals.

Status quo bias represents the lack of inclination in humans to make changes in their current situation (Baker & Nofsinger, 2010, p. 578). Consequently, investors will stick to their currently available portfolios, their current understandings, and will not change them quickly (Copur, 2015, p. 167). Thus, they will miss lucrative opportunities. Bekir & Doss (2020) show an evident link between risk-averse people and status quo bias.

Regret aversion bias can also lead to following herding behavior. Feeling part of the multitude means less regret when we fail. The bursting of the tech bubble in the early 21st century shows that herd behavior can also be risky (Kahneman, 2012, p. 454). Even rational agents may exhibit a tendency to herd behavior, underestimating their own analysis and available information (Szyzka, 2013, p. 30). This is how hedge funds operate. Ahn et al. (2024) suggest that economic uncertainty links business cycles and herding behavior. The link is stronger during recessions compared to economic booms. Adiputra & Nathaerwin (2024) evaluate the influence which herding bias has on investment decisions of Gen Z students in Jakarta as strong.

## **METHODOLOGY**

### *Procedure*

The study is conducted in 2024 using an online questionnaire in Google forms. The questionnaire is designed by the authors and consists of three sections. The first section includes an item about the perceived resolution level of employees' most recent conflict at the workplace. The second section consists of 19 statements for 17 different behavioral biases. The biases are identified on the basis of the literature review. The chosen biases are as follows: overconfidence bias, halo effect, illusion of control bias, conservatism bias, confirmation bias, out-group bias, self-attribution bias, optimism and wishful thinking bias, affect heuristic, representativeness bias, status quo bias, reactive devaluation, exaggeration bias, herding bias, horn effect, regret-aversion bias,



and implicit bias. Two statements are used for testing for affect heuristic. The first one tests general affinity towards one's coworker assuming close relation with them and the second one tests the same principle under the condition of diverging opinions. Two statements are used for testing for regret-aversion bias. The first one is related to errors of commission and second one is related to errors of omission. In the third section respondents are asked to provide demographic information including their gender, age, educational background, type of position in the organizational hierarchy and years of work experience as well as information about the financial organization (size and location).

*Participants*

The detailed descriptive statistics of the demographic variables of the study are displayed in Table 1.

**Table 1.** Demographics of Respondents of the Sample

<b>Demographic Variables</b>	<b>Frequency</b>	<b>Percentage</b>
<b>Gender</b>		
Male	89	38.5
Female	142	61.5
<b>Age</b>		
Up to 24 years old	69	29.9
25-42	96	41.6
43-59	59	25.5
60 years old and above	7	3.0
<b>Education background</b>		
Primary education	2	0.9
High School Education	38	16.4
Bachelor' degree	77	33.3
Master' degree	112	48.5
Doctoral degree	2	0.9
<b>Job Position</b>		
Employee	167	72.3
Managerial position	48	20.8
Senior managerial position	16	6.9
<b>Work Experience</b>		
Less than 1 year	25	10.8
1-5	59	25.5
6-10	41	17.7
11-20	53	23.0
21-30	38	16.5
31 years and above	15	6.5
<b>Size of the Organization</b>		
Up to 9 employees	31	13.4
10 – 49 employees	25	10.8
50 – 249 employees	43	18.6
250 – 499 employees	40	17.3
500 employees and above	92	39.9
<b>Location of the Organization</b>		
Capital	201	87.0
District city	23	10.0
Small city or village	7	3.0

Source: Own calculations

A total of 231 full-time employees from organizations in the financial sector in Bulgaria participated in the study. Of these, 38.5% are male and 61.5% are female. Approximately two fifths of respondents are between 25 and 42 years old (41.6%). Regarding the educational background, almost half of the employees have a master's or a doctoral degree (49.4%). Most respondents (72.3%) are non-managers and 27.7% are managers.





Depending on the work experience, the largest share among their demographic categories are employees with experience up to 5 years (36,3%). Respondents from large enterprises represent the biggest group in the sample (57,2%). Most organizations are located in the capital of Bulgaria (87%).

*Measures*

*Conflict resolution.* The extent to which the employee workplace conflict has been resolved is measured with a five-point Likert scale (1 – Strongly disagree, 2 – Disagree, 3 – Neither agree nor disagree, 4 – Agree, 5 – Strongly agree). The response “Strongly agree” indicates completely resolved conflicts.

*Behavioral biases.* Employees are asked to indicate the extent to which they agree with the 19 statements for the biases on a five-point Likert scale (1 – Strongly disagree, 2 – Disagree, 3 – Neither agree nor disagree, 4 – Agree, 5 – Strongly agree). The response “Strongly agree” indicates complete inclination towards a behavioral bias.

In order to examine whether the items for the biases form a reliable scale, Cronbach’s coefficient alpha is measured. The results are summarized in Table 2. The results reveal acceptable reliability (> .70) for each of the items for the biases.

**Table 2.** Reliability Statistics

Cronbach’s Alpha	Alpha Cronbach’s Alpha Based on Standardized Items	N of Items
0,800	0,799	19

Source: Own calculations

A Student’s one sample *t*-test is performed to compare the mean value of the perceived level of conflict resolution and the mean values of the 19 variables for the 17 behavioral biases against the middle of the scale (value 3).

A Spearman’s Rho correlation analysis is conducted to examine the relationship between the level of conflict resolution and the behavioral biases as well as the relationship between each pair of the behavioral biases.

The data from the study are processed in Microsoft Excel and IBM SPSS Statistics 25.

**RESULTS AND DISCUSSION**

The summary of the descriptive statistics related to conflict resolution and the behavioral biases examined is presented in Table 3. Out-group bias, affect heuristic 1, status quo bias, reactive devaluation, affect heuristic 2, implicit bias and regret-aversion bias (errors of omission) show a mean value less than 3. All the other variables are above 3.

The results show negative skewness and kurtosis values for the conflict resolution variable, and they are greater than -1.



The skewness is negative for all the biases except for status quo bias, reactive devaluation, exaggeration bias and regret-aversion bias (errors of omission). The skewness values are between -2 and +2 for overconfidence bias, conservatism bias, confirmation bias, out-group bias and implicit bias, which is generally acceptable (Hair et al., 2022, p. 66). There are no skewness values beyond -2 and +2 that suggest substantial nonnormality.

The kurtosis values show different results with negative values for 12 biases and positive values for 7 biases. The kurtosis values for out-group bias and implicit bias exceed +1, while the values for the conservatism bias and confirmation bias are above +2, which suggest a too peaked distribution for these two variables.

**Table 3.** Descriptive Statistics

Variable	N	Mean	Std. Deviation	Median	Skewness	Kurtosis
Conflict resolution	231	3.75	1.200	4.00	-0.767	-0.358
Overconfidence bias	231	3.94	1.041	4.00	-1.068	0.969
Halo effect	231	3.77	1.090	4.00	-0.722	-0.133
Illusion of control bias	231	3.13	1.128	3.00	-0.212	-0.786
Conservatism bias	231	4.30	0.856	4.00	-1.541	2.755
Confirmation bias	231	4.21	0.960	4.00	-1.617	2.789
Out-group bias	231	1.91	1.078	2.00	1.360	1.292
Self-attribution bias	231	3.31	1.141	3.00	-0.342	-0.625
Optimism and wishful thinking bias	231	3.42	1.072	3.00	-0.228	-0.692
Affect heuristic 1	231	2.83	1.152	3.00	-0.001	-0.988
Representativeness bias	231	3.69	0.921	4.00	-0.866	0.670
Status quo bias	231	2.23	1.085	2.00	0.830	0.162
Reactive devaluation	231	2.29	1.113	2.00	0.598	-0.543
Exaggeration bias	231	3.06	1.154	3.00	0.009	-0.864
Herding bias	231	3.53	1.050	4.00	-0.416	-0.441
Affect heuristic 2	231	2.88	1.087	3.00	-0.052	-0.798
Horn effect	231	3.14	1.092	3.00	-0.166	-0.751
Regret-aversion bias (errors of commission)	231	3.10	1.090	3.00	-0.228	-0.810
Implicit bias	231	1.73	1.090	1.00	1.627	1.973
Regret-aversion bias (errors of omission)	231	2.72	1.203	3.00	0.194	-0.962

Source: Own calculations

In order to examine if there are statistically significant differences in the mean values of conflict resolution and every behavioral bias, a Student's one-sample *t*-test is used. Respondents' responses are measured on a five-point Likert scale, and value of the cut-out is 3 as it is taken as neutral answer. The outcomes of the *t*-test are presented in Table 4.

The results of the *t*-test show that the mean value of conflict resolution is statistically significantly different from the middle of the scale (value 3) and is closer to a greater level of conflict resolution ( $M = 3.75$ ,  $SD = 1.20$ ,  $N = 231$ ). The coefficient Cohen's *d* shows a medium effect size of the one-sample *t*-test for conflict resolution ( $t(231) = 9.48$ ,  $p = 0.00$ ,  $d = 0.62$ ) (Cohen, 1988; Sawilowsky, 2009). This result indicates that most employees in the financial sector tend to consider that their conflicts are resolved. These findings are consistent with the results of previous study (Mihaylova, 2022) which examines conflict resolution in different sectors in Bulgaria. Employees in both studies report high levels of resolution of their conflicts.

The results of the *t*-test indicate that the mean values of illusion of control bias ( $M = 3.13$ ,  $SD = 1.13$ ,  $N = 231$ ), exaggeration bias ( $M = 3.06$ ,  $SD = 1.15$ ,  $N = 231$ ), affect heuristic 2 ( $M = 2.88$ ,  $SD = 1.09$ ,  $N = 231$ ), and



regret-aversion bias (errors of commission) ( $M = 3.10, SD = 1.09, N = 231$ ) are not statistically significantly different from the value from the scientific hypothesis – 3 (illusion of control bias ( $t(231) = 1.80, p = 0.72, d = 0.12$ ), exaggeration bias ( $t(231) = 0.74, p = 0.46, d = 0.05$ ), affect heuristic 2 ( $t(231) = -1.63, p = 0.10, d = -0.11$ ), and regret-aversion bias (errors of omission) ( $t(231) = 1.45, p = 0.15, d = 0.10$ ).

**Table 4.** One-Sample *T*-Test Outcomes

Variable	t-value	Sig. (2-tailed)	Cohen's <i>d</i>
Conflict resolution	9.482	0.000	0.62
Overconfidence bias	13.718	0.000	0.90
Halo effect	10.682	0.000	0.70
Illusion of control bias	1.808	0.072	0.12
Conservatism bias	23.069	0.000	1.52
Confirmation bias	19.119	0.000	1.26
Out-group bias	-15.386	0.000	-1.01
Self-attribution bias	4.096	0.000	0.27
Optimism and wishful thinking bias	5.894	0.000	0.39
Affect heuristic 1	-2.285	0.023	-0.15
Representativeness bias	11.428	0.000	0.75
Status quo bias	-10.792	0.000	-0.71
Reactive devaluation	-9.750	0.000	-0.64
Exaggeration bias	0.741	0.459	0.05
Herding bias	7.645	0.000	0.50
Affect heuristic 2	-1.634	0.104	-0.11
Horn effect	1.988	0.048	0.13
Regret-aversion bias (errors of commission)	1.448	0.149	0.10
Implicit bias	-17.683	0.000	-1.16
Regret-aversion bias (errors of omission)	-3.556	0.000	-0.23

Source: Own calculations

The mean value of the other behavioral biases in the study is statistically significantly different from the middle of the scale (value 3), and is:

- closer to showing overconfidence bias ( $M = 3.94, SD = 1.04, N = 231$ ), halo effect ( $M = 3.77, SD = 1.09, N = 231$ ), conservatism bias ( $M = 4.30, SD = 0.86, N = 231$ ), confirmation bias ( $M = 4.21, SD = 0.96, N = 231$ ), self-attribution bias ( $M = 3.31, SD = 1.14, N = 231$ ), optimism and wishful thinking bias ( $M = 3.42, SD = 1.07, N = 231$ ), representativeness bias ( $M = 3.69, SD = 0.92, N = 231$ ), herding bias ( $M = 3.53, SD = 1.05, N = 231$ ) and horn effect ( $M = 3.14, SD = 1.09, N = 231$ ).
- closer to showing no out-group bias ( $M = 1.91, SD = 1.08, N = 231$ ), affect heuristic 1 ( $M = 2.83, SD = 1.15, N = 231$ ), status quo bias ( $M = 2.23, SD = 1.09, N = 231$ ), reactive devaluation ( $M = 2.29, SD = 1.11, N = 231$ ), implicit bias ( $M = 1.73, SD = 1.09, N = 231$ ) and regret-aversion bias (errors of omission) ( $M = 2.72, SD = 1.20, N = 231$ ).

The interpretation of the coefficient Cohen's *d* shows the effect size of the one-sample *t*-test (Cohen, 1988; Sawilowsky, 2009), as follows:

- very large effect for conservatism bias ( $t(231) = 23.07, p = 0.00, d = 1.52$ ) and confirmation bias ( $t(231) = 19.12, p = 0.00, d = 1.26$ ).
- large effect for overconfidence bias ( $t(231) = 13.72, p = 0.00, d = 0.90$ ), halo effect ( $t(231) = 10.68, p = 0.00, d = 0.70$ ), out-group bias ( $t(231) = -15.39, p = 0.00, d = -1.01$ ), representativeness bias ( $t(231) = 11.43, p = 0.00, d = 0.75$ ), herding bias ( $t(231) = 7.65, p = 0.00, d = 0.50$ ), horn effect ( $t(231) = 1.99, p = 0.05, d = 0.13$ ), affect heuristic 1 ( $t(231) = -2.29, p = 0.02, d = -0.15$ ), status quo bias ( $t(231) = -10.79, p = 0.00, d = -0.71$ ), reactive devaluation ( $t(231) = -9.75, p = 0.00, d = -0.64$ ), exaggeration bias ( $t(231) = 0.74, p = 0.46, d = 0.05$ ), affect heuristic 2 ( $t(231) = -1.63, p = 0.10, d = -0.11$ ), and regret-aversion bias (errors of omission) ( $t(231) = -3.56, p = 0.00, d = -0.23$ ).



(231) = 11.43,  $p = 0.00$ ,  $d = 0.75$ ), status quo bias ( $t(231) = -10.79$ ,  $p = 0.00$ ,  $d = -0.71$ ), reactive devaluation ( $t(231) = -9.75$ ,  $p = 0.00$ ,  $d = -0.64$ ), and implicit bias ( $t(231) = -17.68$ ,  $p = 0.00$ ,  $d = -1.16$ ).

- medium effect for herding bias ( $t(231) = 7.64$ ,  $p = 0.00$ ,  $d = 0.50$ ).
- small effect for self-attribution bias ( $t(231) = 4.10$ ,  $p = 0.00$ ,  $d = 0.27$ ), optimism and wishful thinking bias ( $t(231) = 5.89$ ,  $p = 0.00$ ,  $d = 0.39$ ), affect heuristic 1 ( $t(231) = -2.29$ ,  $p = 0.02$ ,  $d = -0.15$ ), horn effect ( $t(231) = 1.99$ ,  $p = 0.05$ ,  $d = 0.13$ ), and regret-aversion bias (errors of omission) ( $t(231) = -3.56$ ,  $p = 0.00$ ,  $d = -0.23$ ).

These results indicate that:

- most employees in the financial sector tend to be affected by overconfidence bias, halo effect, conservatism bias, confirmation bias, self-attribution bias, optimism and wishful thinking bias, representativeness bias, herding bias and horn effect.
- most employees in the financial sector tend to be unaffected by out-group bias, affect heuristic 1, status quo bias, reactive devaluation, implicit bias and regret-aversion bias (errors of omission).

The obtained results that the employees working in the Bulgarian financial sector are optimistic are in line with similar research on that topic previously. Ivantchev (2017, p. 93) claims that the investors on the Bulgarian Stock Exchange AD manifest optimism bias in the period between 2004 and 2007. These are the years featuring significant market boom on the Bulgarian financial market. In particular Ivantchev (2017) examines and proves that the Bulgarian stock market functioned as a “hot market” in terms of increased rate of initial public offering in the studied time frame.

However, the conclusion that financial employees and investors on the Bulgarian financial market are optimistic contradicts the analysis of Hofstede Insights (2024). It is claimed that Bulgarians are pessimistic, given the extremely low score on indulgence index. Thus, Ceschi et al. (2014, p. 72) claim that pessimistic thinking in regard to losses creates the basis for the emergence of disposition effect, loss aversion bias, sunk costs fallacy, and regret aversion bias. Our empirical results show statistical insignificance for the optional manifestation of regret aversion bias (errors of commission) for Bulgarian employees in the financial sector. In addition, our second metrics for regret aversion bias (errors of omission) turns out to be statistically significant, but its mean value is 2.72, which indicates that our respondents do not display regret aversion bias. However, it should be borne in mind that Hofstede’s six-dimensional cultural model considers purely national behavioral features. The current research is focused solely on Bulgarians working in the financial sector.

In regard to our results for employees in the financial sector in Bulgaria displaying higher levels of overconfidence bias we can discuss the research by Ivantchev (2013, p. 157). The author investigates the levels of overconfidence of investors on the Bulgarian Stock Exchange AD between mid-2006 and mid-2012. He finds out that overconfidence is also part of the behavior on the Bulgarian financial market with men being more overconfident than women. In addition, Ivantchev (2021) refers to a study, generated by ING in 2011



about financial literacy in Bulgaria to highlight that respondents display overconfidence in their ability to personally manage their own finances, as 75% of them have positively answered to that question.

Our research shows that employees in the financial sector in Bulgaria do not display implicit bias that assumes one's unconscious negative behavior against specific group of people based on race, age, gender, etc. (American Psychological Association, 2024). We might associate our finding for the absence of implicit bias with the low score of Bulgaria at the individualism index by Hofstede Insights (2024). The Bulgarian society is considered collectivistic, as the relation between employer and employee are rated as close, hiring and promotion are a matter of one's surrounding, family and friends are of great importance. Another index by Hofstede Insights in line with our result for implicit bias is the dimension "masculinity – femininity". Bulgaria scores relatively low and is considered a feminine nation that appreciates mutual understanding and assistance, equality, as well as quality of life. According to Hofstede Insights (2024) Bulgarians generally do not show off their social status, their basic life goals are related to having enough free time and flexibility, and conflict resolution occurs through negotiation and compromise.

Based on the previous discussion for the Bulgarian society generally considered as collectivistic, we could also find a reference to our result that employees in financial sector are relatively prone to herding bias.

Our empirical results demonstrate that Bulgarian employees in the financial sector are highly conservative, as they are reluctant to acquire and employ innovative working methods. This observation is again in line with the national cultural index of uncertainty avoidance for Bulgaria as of Hofstede Insights (2024). The score is relatively high and assumes that innovation is thus not perceived as a desirable phenomenon, as it is of paramount importance for the individual to ensure his or her security both at work and in private. Bulgarians are emotional and feel a strong need for regulations regardless of their effectiveness. Bulgarians live fast, work hard, and accuracy and precision are essential.

Surprisingly, our empirical evidence shows that Bulgarian employees in the financial sector do not manifest status quo bias. This finding also aligns with the Hofstede index of long-term orientation for the Bulgarian society. Bulgarian society is evaluated as pragmatic, taking into account the current circumstances when evaluating certain actions, and is able to adapt easily to the changing environment, and this applies to traditions. In addition, Bulgarian businesses have a high propensity to save and invest, showing persistence and perseverance in pursuit of goals set.

The Spearman's Rho correlation analysis reveals multiple correlations between different pairs of behavioral biases. The results of the correlation analysis are presented in Table 5.



**Table 5.** Correlation Matrix of Study Variables

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1	–																			
2	.221**	–																		
3	.198**	.335**	–																	
4	0.026	.163*	.239**	–																
5	.241**	.263**	.214**	0.071	–															
6	.271**	.234**	.217**	0.049	.541**	–														
7	-0.066	0.034	0.032	.169*	-.414**	-.302**	–													
8	0.074	.331**	.213**	0.11	0.039	-0.051	.269**	–												
9	.149*	0.127	.214**	0.114	.257**	.219**	0.055	.293**	–											
10	0.005	.154*	.199**	.314**	0.042	0.071	0.122	0.038	-0.002	–										
11	0.028	.292**	.354**	.134*	.182**	.135*	0.072	.300**	.284**	.134*	–									
12	-0.028	-0.075	.144*	.256**	-.291**	-.130*	.379**	.188**	0.005	.236**	0.098	–								
13	-0.086	0.055	0.12	.246**	-.201**	-.183**	.493**	.240**	0.064	.357**	0.128	.455**	–							
14	0.051	.308**	.159*	0.082	0.099	0.054	0.002	.256**	.252**	0.041	.149*	.134*	0.048	–						
15	.194**	.132*	.189**	0.12	.256**	.170**	-0.075	0.015	0.089	.264**	.143*	0.045	0.016	-0.021	–					
16	-0.066	0.127	.223**	.302**	-0.008	0.015	.194**	.157*	.130*	.440**	.263**	.289**	.361**	.163*	0.087	–				
17	-0.044	0.126	.351**	.160*	-0.022	0.012	.173**	.195**	0.056	.215**	.333**	.213**	.316**	0.124	.148*	.364**	–			
18	.140*	.194**	.186**	0.061	0.038	0.121	.193**	.267**	0.047	.243**	.246**	.215**	.309**	0.107	.181**	.332**	.357**	–		
19	-0.019	0.012	-0.045	.132*	-.263**	-.236**	.417**	0.118	-0.019	.169**	-0.015	.341**	.337**	.159*	-0.014	.289**	.143*	0.079	–	
20	-0.01	-0.001	0.097	0.02	-.150*	-0.008	.213**	.145*	-0.023	.144*	0.117	.363**	.194**	0.028	.149*	.223**	.233**	.417**	.152*	–

1. Resolution of conflicts, 2. Overconfidence bias, 3. Halo effect, 4. Illusion of control bias, 5. Conservatism bias, 6. Confirmation bias, 7. Out-group bias, 8. Self-attribution bias, 9. Optimism and wishful thinking bias, 10. Affect heuristic, 11. Representativeness bias, 12. Status quo bias, 13. Reactive devaluation, 14. Exaggeration bias, 15. Herding bias, 16. Affect heuristic 2, 17. Horn effect, 18. Regret-aversion bias (errors of commission), 19. Implicit Bias, 20. Regret-aversion bias (errors of omission).

Source: Own calculations

$p \leq .05$ ; \*\*  $p \leq .01$  (2-tailed)



Most of the correlations found are either weak or moderate, except for the correlation between conservatism bias and confirmation bias, which is strong ( $r_s(231) = .54, p < .01$ ). The strong relationship between these two behavioral biases indicates that employees in the financial sector, who tend to be more conservative, also show high levels of confirmation bias. As conservatism bias and confirmation bias are with higher mean values, the strong positive correlation between them suggests that respondents tend to manifest them both. Previous research on behavioral biases confirms in experiments that respondents display simultaneously confirmation and conservatism bias (Charness & Dave, 2017, p. 11; Dave & Wolfe, 2003).

The majority of correlations found are positive and show a tendency for employees to have both of the respective pair of biases. Negative statistically significant relationships are found between the two biases with higher mean values conservatism bias and confirmation bias and other biases. There are negative correlations between conservatism bias and out-group bias ( $r_s(231) = -.41, p < .01$ ), status quo bias ( $r_s(231) = -.29, p < .01$ ), reactive devaluation ( $r_s(231) = -.20, p < .01$ ), implicit bias ( $r_s(231) = -.26, p < .01$ ), and regret-aversion bias (errors of omission) ( $r_s(231) = -.15, p < .05$ ). When considering the negative relation between conservatism and out-group bias, we can refer to scientific literature on political conservatism. Thus, it is claimed that increased level of political conservatism justifies hostility against outgroups.

However, our results indicate completely opposite observations that might not be explained with liberalistic views and attitude among Bulgarian employees in the financial sector, since our study indicates high conservatism, but with lack of outgroup negativism (De Zavala et al., 2010).

The same argumentation might be used to explain why our results indicate a negative relation between conservatism bias and reactive devaluation and implicit bias respectively. About the negative correlation between conservatism and status quo bias we might refer once again to Hofstede Insights (2024) and the documentation that the Bulgarian society is averse to implementing innovative working styles, whereas it is long-term oriented and adaptive to changing environment. This argumentation illustrates why we also observe positive correlation between status quo and out-group bias as well as between status quo and implicit bias.

The relationship is also negative between confirmation bias and out-group bias ( $r_s(231) = -.30, p < .01$ ), status quo bias ( $r_s(231) = -.13, p < .05$ ), reactive devaluation ( $r_s(231) = -.18, p < .01$ ) and implicit bias ( $r_s(231) = -.24, p < .01$ ). These results suggest that although the respondents in the financial sector show a high tendency towards conservatism and confirmation bias, it is not usual for them to show some of the other biases at the same time.

Our correlation results illustrate that there is some relationship between representativeness bias and halo effect ( $r_s(231) = .35, p < .01$ ). This indication is in line with (Chan et al., 2004) who claim that halo effect illustrates the logic of representativeness bias since it stands as an example how a single positive trait of a company might be representative of the whole population. The same argumentation might be applied to explain the positive correlation between representativeness bias and horn effect ( $r_s(231) = .33, p < .01$ ), but this time relying on a negative feature. The authors also claim that representativeness and conservatism bias are opposite to one another in terms of their effect on asset mispricing, as the former one results in overreaction and the



latter one in underreaction to firm-specific information by investors. However, we observe that in our analysis of financial employees these two biases are not that strongly related ( $r_s(231) = .18, p < .01$ ). What is more, (Chan et al., 2004) argue that investors usually are both conservative – clinging to their current beliefs, and overconfident – in their own analysis. We find that this also tends to be true for financial employees ( $r_s(231) = .26, p < .01$ ). We also indicate positive relation between representativeness bias and self-attribution bias ( $r_s(231) = .30, p < .01$ ). Other researchers also document this observation. Research on financial decisions of individual German investors reveals that respondents manifest self-attribution bias, representativeness heuristic, herding bias and endowment effect (Nguyen & Schübler, 2012).

Another indicated relationship in our analysis is between self-attribution and overconfidence bias ( $r_s(231) = .33, p < .01$ ) which is in line with Doukas & Petmezas (2007) who confirm that managerial overconfidence is indeed driven by self-attribution bias. Managers often attribute their initial success to their own abilities, becoming overconfident and pursuing more deals. Daniel et al. (1998) present the same relationship in the realm of securities' mispricing. Moreover, they associate overconfidence with conservatism and confirmation bias. In our analysis we observe similar correlation between overconfidence and confirmation bias ( $r_s(231) = .23, p < .01$ ) as between the former and conservatism bias. In addition, we also observe positive correlation between self-attribution and optimism bias ( $r_s(231) = .29, p < .01$ ). Research literature claims that investors who are prone to self-attribution and optimism bias display overconfidence bias. Only experienced investors are less inclined to overconfidence as they manage to learn over time (Trehan & Sinha, 2017).

Our research results indicate positive correlation between affect heuristic 1 and illusion of control bias ( $r_s(231) = .31, p < .01$ ). Basically, we might argue that if an employee establishes his/her judgement at workplace based on affect, this might also be associated with an illusion of control, since a specific positive predisposition on any matter, might go along with an irrational feeling of being able to control the unknown final outcome and vice versa. If someone is feeling to exercise control risky events, then the employee might also like what he/she is in charge of, i.e., familiarity associations, feelings of skillfulness, knowledgeableness.

What is more, we indicate positive correlation between overconfidence bias and halo effect in the behavior of employees in the Bulgarian financial sector ( $r_s(231) = .34, p < .01$ ). Such a relationship is already documented in research of social reaction to overconfidence. Bushuven et al. (2024) conclude that overconfident medical educators might display overconfidence to their students, which might create halo effect in students' perceptions of the lecturer. Thus, if the lecturer teaches wrongly some aspects of a different specialty like health economics, students would not question the expertise and accuracy of the educator. As it might be logically expected, halo and horn effect are positively correlated in our results for employees ( $r_s(231) = .35, p < .01$ ). This means that financial employees are prone to extrapolate one's qualities based on a single positive or negative trait, and these are reinforcing each other.

Bracha & Brown (2012) claim that illusion of control bias is one of the main factors which contributes to optimism bias (example: rolling a dice softly for low numbers or hard for high numbers is an example of





illusion of control bias). However, we cannot identify a statistically significant relationship between illusion of control bias and optimism bias.

Kahneman (2012) assumes that regret aversion bias can also lead to following herding behavior. Feeling part of the multitude means less regret when we fail. Associative memory encompasses notions of the normal course of reality, and every atypical action humans take directs their attention to an alternative conventional one that serves as a basis for comparison. This leads to an even stronger sense of regret when we have acted differently from our usual way and have been wrong. Our correlation result between herding and regret aversion bias is positive and statistically significant, but relatively low (errors of commission –  $r_s(231) = .18$ ,  $p < .01$  and errors of omission –  $r_s(231) = .15$ ,  $p < .05$ ).

Zitewitz (2001) suggests that overconfidence bias might be related to exaggeration bias whether on a conscious or on a subconscious level. Strategic reason for consciously exaggerating could lead to more clients and higher trading volumes, whereas implicit exaggerating might be associated with the fact that agents personally value their own analysis more than the consensus. We indeed recognize such positive relationship –  $r_s(231) = .308$ ,  $p < .01$ .

Our results indicate that Bulgarian financial employees do not display reactive devaluation ( $M = 2.29$ ,  $SD = 1.11$ ,  $N = 231$ ). Cheung et al. (2020) claim that overconfidence is the most important indicator leading to reactive devaluation, documented as available within construction negotiation conflicts as well as other factors like reluctance to change one's own opinion, doubts about a counterparty's abilities, biased information processing and mistrust toward the counterparty. Our correlation results show that reactive devaluation is positively correlated with out-group bias ( $r_s(231) = .49$ ,  $p < .01$ ), status quo bias ( $r_s(231) = .46$ ,  $p < .01$ ), affect heuristic 1 ( $r_s(231) = .36$ ,  $p < .01$ ), affect heuristic 2 ( $r_s(231) = .36$ ,  $p < .01$ ) and horn effect ( $r_s(231) = .32$ ,  $p < .01$ ). Actually, Bulgarian employees in the financial sector do not tend to manifest all these biases except for horn effect. It is logical that these biases are positively correlated to each other since they all represent how an employee might judge other colleagues' actions based on their past conflict history, intimacy, a single negative trait or just emotions. The same applies to the positive correlation between horn effect and affect heuristic 2 ( $r_s(231) = .36$ ,  $p < .01$ ). In line with this discussion our results indicate a positive relationship between regret aversion bias (errors of commission) and both affect heuristic 2 ( $r_s(231) = .33$ ,  $p < .01$ ) and horn effect  $r_s(231) = .36$ ,  $p < .01$ ).

According to Copur (2015, p. 17) investors exhibit a lower level of status quo bias when they are under the influence of positive emotions. The factors determining the bias are framing, investor emotions and access to information. We could confirm that emotional biases are related to status quo bias: reactive devaluation ( $r_s(231) = .46$ ,  $p < .01$ ), regret aversion bias (errors of omission) ( $r_s(231) = .36$ ,  $p < .01$ ), affect heuristic 2 ( $r_s(231) = .29$ ,  $p < .01$ ), but not to overconfidence bias. Oschinski et al. (2021) claim that many of the employees in three German municipalities are skeptical of the implementation of new information systems with skepticism and are afraid of losing control or being replaced. Thus, we also indicate a positive relationship between status quo bias and illusion of control bias ( $r_s(231) = .26$ ,  $p < .01$ ).



The positive correlation between out-group and implicit bias might be explained by the observation that Bulgarian financial employees do not display either of these inclinations. This indicates that people do not disregard outgroup members or agents from different social groups ( $r_s(231) = .42, p < .01$ ).

Last, we observe moderate correlation coefficients between the two pairs: regret aversion – errors of commission and of omission ( $r_s(231) = .42, p < .01$ ), as well as affect heuristic 1 and 2 – ( $r_s(231) = .44, p < .01$ ). This result is expected, although the strength is not as high, as one may anticipate. The reason is that when analyzing affect heuristic, we have asked the respondents assuming slightly different scenarios first in general and second in a conditional situation. The same applies to regret aversion bias – obviously it matters whether financial employees avoid decisions and actions after a negative experience (errors of commission) and because of inaction that might turn out advantageous (errors of omission). Although the mean value for regret aversion bias (errors of commission) is not statistically significant from 3, it is still slightly higher than the mean value for omission, which is indicative of the conclusion that people are generally more regretful of actions than of reluctance to act (Chandra, 2016).

The Spearman's Rho correlation analysis also reveals several statistically significant relationships between conflict resolution and behavioral biases, as follows:

- There is a weak and statistically significant positive correlation between conflict resolution and overconfidence bias,  $r_s(231) = .22, p < .01$ .
- There is a weak and statistically significant positive correlation between conflict resolution and halo effect,  $r_s(231) = .20, p < .01$ .
- There is a weak and statistically significant positive correlation between conflict resolution and conservatism bias,  $r_s(231) = .24, p < .01$ .
- There is a weak and statistically significant positive correlation between conflict resolution and confirmation bias,  $r_s(231) = .27, p < .01$ .
- There is a weak and statistically significant positive correlation between conflict resolution and optimism and wishful thinking bias,  $r_s(231) = .15, p < .05$ .
- There is a weak and statistically significant positive correlation between conflict resolution and herding bias,  $r_s(231) = .19, p < .01$ .
- There is a weak and statistically significant positive correlation between conflict resolution and regret-aversion bias (errors of commission),  $r_s(231) = .14, p < .05$ .

The results of the correlation analysis indicate that employees in the financial sector with high levels of overconfidence bias, halo effect, conservatism bias, confirmation bias, optimism and wishful thinking bias, herding bias and regret-aversion bias (errors of commission) tend to resolve their conflicts to a higher extent. This empirical finding indicates that behavioural biases may positively affect the process of conflict resolution between employees in the Bulgarian financial sector.

No relationship is found to exist between the level of conflict resolution and illusion of control bias, out-group bias, self-attribution bias, affect heuristic 1, representativeness bias, status quo bias, reactive



devaluation, exaggeration bias, affect heuristic 2, horn effect, implicit bias and regret-aversion bias (errors of omission). So, these behavioral biases have no relation to the level of conflict resolution in the Bulgarian financial sector.

We observe no correlation between out-group bias ( $M = 1.91$ ,  $SD = 1.08$ ,  $N = 231$ ) and the level of conflict resolution. Ben-Ner et al. (2009) note that the costs of discrimination and identity-based favoritism include not only unfair treatment of people, but also conflicts, inefficient job assignments and incorrect promotion practices. However, we find that employees in the Bulgarian financial sector are not subject to out-group bias, and this is unrelated to their conflicts.

West et al. (2009) claim that in management literature team optimism has strong positive impact on outcomes such as cohesion, coordination, cooperation, and overall team satisfaction. Optimism motivates team members to confidently handle complex environments and to be positively tuned. We find that Bulgarian employees in the financial sector are prone to optimism and wishful thinking bias ( $M = 3.42$ ,  $SD = 1.07$ ,  $N = 231$ ). The correlation between optimism bias and the level of conflict resolution is  $r_s(231) = .15$ ,  $p < .05$ , which is tough low, but still indicates that possibly higher optimism has positive effect on conflict resolution. Other authors like Gervais & Goldstein (2007) and Wang et al. (2014) however claim that team performance can be boosted if one member is displaying overconfidence. We find positive correlation between overconfidence bias and level of conflict resolution ( $r_s(231) = .22$ ,  $p < .01$ ).

A limitation of the study is the convenience sample, which consists of employees in the financial sector to whom the researchers were able to gain access. Therefore, the sample is not representative, and the results cannot be generalized. Another potential weakness of the study is that the assessment of conflict resolution is based on respondents' opinion. The lack of consideration for the perspective of the other party in the conflict, coworkers, and managers of the respondents concerns about potential subjectivity and one-sided interpretation of the findings. Despite these limitations, the study provides original findings on the relationship between behavioral biases and conflict resolution within financial sector organizations in Bulgaria and thus, it contributes to this under-researched area.

## CONCLUSION

The paper highlights the importance of recognizing various behavioral biases that can have an influence on employee conflict resolution in organizations. Being aware of and understanding behavioral biases can help employees to navigate through them and deal with their workplace conflicts more effectively.

Our main research findings might be summarized as follows. First, investigating the Bulgarian financial sector for conflict resolution level, we find that employees consider to great extent their conflict resolved. Second, our findings reveal that financial employees tend to be strongly conservative and confirmative. They also display overconfidence, halo effect, representativeness, optimism and wishful thinking, herding, self-attribution bias and horn effect in their behavior. They are not inclined to out-group bias, affect heuristic, status quo bias, reactive devaluation, implicit bias and regret aversion bias (errors of omission). Third, we identify



multiple positive correlations between pairs of biases that allow us to conclude that employees show a tendency to manifest certain combinations of behavioral biases. The strongest positive relationship is between conservatism and confirmation bias. In addition to the higher mean values of these two biases, this correlation suggests that financial employees tend to manifest them both. Moreover, the negative correlations found include both conservatism and confirmation bias on the one hand and out-group bias, status quo bias, reactive devaluation and implicit bias on the other hand respectively. These findings suggest that while employees in the financial sector have a strong inclination to conservatism and confirmation bias, they are unlikely to manifest some of the other biases simultaneously. Last, we find that some of the behavioral biases tested indicate a positive correlation with the level of conflict resolution. These biases are overconfidence, conservatism, confirmation, herding, regret aversion (errors of commission), optimism and wishful thinking bias and halo effect. This may be indicative that certain behavioral biases have a positive effect on the process of conflict resolution between employees in the Bulgarian financial sector.

Our research contributes to both behavioral theories and conflict resolution in finance by identifying inclinations toward specific cognitive and emotional judgements. It also contributes to the intersection between these areas as a way of transfer of knowledge. Internationally, research literature on behavioral biases is predominantly focused on investors' behavior, not on employees in the financial sector, and lacks sufficient examination of the cross-section between conflict resolution and behavioral inclinations. To the best of our knowledge, research has not yet focused on analyzing conflicts among financial employees in Bulgaria, and on manifestation of behavioral biases.

Our research could be useful for managers of organizations operating in the financial sector in Bulgaria to better understand behavioral aspects of conflict resolution and put these issues into practice when developing strategies to deal with interpersonal conflicts.

The current paper reveals main behavioral biases that financial employees are prone to, the relationships between these inclinations as well as the relationship between the biases found and the level of conflict resolution. Possible further research might examine the causal relationship between the level of conflict resolution and the major biases found in employee behavior as underlying factors in conflict dynamics. To get a deeper insight into the financial sector, further research can analyze the results by various demographic factors, such as age, gender, education background, job position, work experience, etc.

### **Conflict of interests**

The authors declare no conflict of interest.

### **Author Contributions:**

Conceptualization, I.M. and B.N.; methodology, I.M. and B.N.; software, I.M. and B.N.; validation, I.M. and B.N.; formal analysis, I.M. and B.N.; investigation, I.M. and B.N.; resources, I.M. and B.N.; data curation, I.M. and B.N.; writing—original draft preparation, I.M. and B.N.; writing—review and editing, I.M. and B.N.; visualization, I.M. and B.N.; supervision, I.M. and B.N.; project administration, I.M. and B.N.; funding acquisition, I.M. and B.N.

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## Data Availability Statement:

The data presented in this study are available on request from the corresponding author.

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