

# Analyzing Decision-Making Styles: Army vs. Business students in Croatia

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**Abstract.** *This research is a continuation of previous research in which two instruments for analysing the individuals' decision-making styles are applied to the population of students. The first is the Rowe instrument (used to identify the dominant decision-making style among analytical, behavioral, conceptual, and directive). The second is Scott & Bruce instrument (used to identify the dominant decision-making style among rational, intuitive, spontaneous, dependent, and avoidant styles). Now again, both were applied to a new sample. However, in both cases, we talk about the army and business students from the same faculties. The first sample was collected in 2020 (before COVID-19), and the second was collected in 2022 (after the COVID-19). We used descriptive statistics, t-tests with one-way ANOVA, and the  $\chi^2$  test in the data analysis. We analyzed the two samples separately and made the analysis on the joint sample, and finally, we analyzed some subsets. Significant differences were not identified in many cases, but not all. The distribution of 2022 students per Rowe's dominant decision styles differs significantly from that of students in 2020. The distribution of 2022 army students per Bruce & Scott's dominant decision styles is significantly different from the distribution of 2020 army students. There are significant differences in dominant decision-making styles using Scott & Bruce's instrument in students with respect to high school education and type of students.*

**Keywords.** Decision-making styles, army students, business students, Rowe, Scott & Bruce, instrument

## 1 Introduction

How people think to make decisions is considered a decision-making style (Scott & Bruce, 1995). There are several approaches to analyzing the decision-making styles. Some approaches are related to the number of people included in the process of decision making as a criterion for differing different styles.

Here we differ in basic styles: autocratic and democratic (Ali, 1993; Dyczkowska & Dyczkowski, 2018; Lührs et al., 2018; Sikavica et al., 2014). The second approach uses the way of thinking and/or tolerance of uncertainty as a criterion for differing different styles (Abdelsalam et al., 2013; Robbins et al., 2016; Scott & Bruce, 1995; Thunholm, 2004).

Analyzing decision-making styles has been an ongoing research topic for decades. In the situation characterized by the COVID-19 virus, analyzing the topic can have additional importance since the strict measures could affect people's thinking and the way they make decisions. This research is not related to analyzing if some populations changed their way of decision-making in the post-COVID period compared to the before-COVID period. However, we will analyze decision-making styles concerning the time component.

In our previous research conducted in 2020 (before the COVID-19), we analyzed the differences in decision-making styles in the population of students in the fields of informatics, business, army, and navy (Kostanjevac et al., 2021). Now, we bring the results of the analysis of the decision-making styles in the student population of students in the fields of business and the army. The sample is different, but still, we can compare the differences between those two samples. Additionally, we present the analysis of the decision-making styles results of those two samples separately and with respect to the demographic characteristics of students. Finally, we give the results of decision-making styles analysis on two subsamples, those with respect to the gender of the students.

The paper is organized as follows. In Section 2, we present two decision-making style approaches (Rowe/Robbins and Scot & Bruce) used in the research. In Section 3, we give a brief overview of other authors' research related to applying decision-making styles in different contexts, including student populations. Further, in Section 4, we present the methodology of the paper and research questions. In Section 5, we present the results of the research. Finally, in Section 6, we discuss future research.

## 2 Decision-making styles by Rowe and by Scott and Bruce

### 2.1 The Decision Style Inventory by Rowe and Boulgarides

According to Rowe and Boulgarides, The Decision Style Inventory is an instrument that distinguishes persons by their mode of decision-making and tolerance for ambiguity, grouping them into four styles - analytical, conceptual, behavioral, and directive styles. A pre-designed questionnaire should be filled in by persons in different positions and further analyzed to identify their dominant decision-making style. Based on the questionnaire, it is identifiable how the person approaches problem-solving, how he interacts with other organization members, and how the individual's approach is harmonized with the dominant decision-making style (A. J. Rowe & Boulgarides, 1983).

The analytical style is characteristic of those who deal with complex situations, and think logically, solve problems well because solutions are based on real and verified information (Al-Omari, 2013; Boulgarides & Cohen, 2001; Connor & Becker, 2003; A. J., Rowe & Davis, 1996; A. J., Rowe & Mason, 1987). They have a high tolerance for ambiguity and are kept in written reports (A. J. Rowe & Boulgarides, 1983). This style is positively correlated with Allport Theoretical Value because of the empirical, critical, and rational approach (Boulgarides, 1984).

Further, the conceptual style uses a creative person-oriented toward people and solving social problems. It is led by intuition, makes long-term decisions decentralized, and is ready to risk. They are often considered idealists who take care of values and ethics (Al-Omari, 2013; Boulgarides & Cohen, 2001; Connor & Becker, 2003; A. J., Rowe & Davis, 1996; A. J., Rowe & Mason, 1987). They have high cognitive complexity and negatively correlate with Economic and Aesthetic Values (Boulgarides, 1984).

The preference for behavioral style is shared by people who are focused on other people. When making decisions, they listen actively, accept suggestions, are not inclined to conflict, and involve other people in the decision-making process (Rowe & Boulgarides, 1983). They are oriented towards short-term decisions because making difficult decisions creates problems and discomfort for them (Al-Omari, 2013; Boulgarides & Cohen, 2001; Connor & Becker, 2003; A. J., Rowe & Davis, 1996; A. J., Rowe & Mason, 1987). The behavioral style is negatively correlated with theoretical and political values and positively with social and religious values (Boulgarides, 1984).

The directive style is used by a person who is inclined to direct other people and very focused on work to achieve results as quickly as possible (Boulgarides, 1984). Such persons often act

authoritatively and uncompromisingly and decide quickly using a small amount of information. Therefore, they aim to make short-term decisions (A. J. Rowe & Boulgarides, 1983). They are characterized by low tolerance to ambiguity and low cognitive complexity and are oriented towards structure and information by verbal means (Al-Omari, 2013b; Boulgarides & Cohen, 2001; Connor & Becker, 2003; A. J., Rowe & Davis, 1996; A. J., Rowe & Mason, 1987). The Directive style positively correlates with Allport Economic and Political Values recognizable by materialism, striving for results, and power (Boulgarides, 1984).

### 2.2 The General Decision-Making Style by Scott and Bruce

The decision-making style can be specified based on the General Decision-Making Style by Scott and Bruce. The General Decision-Making Style was created as an upgrade of the proposed models by Harren (1979) and Phillips, Pазienza, and Ferrin (1984). It distinguishes between five decision styles: rational, intuitive, dependent, avoidant, and spontaneous (Scott & Bruce, 1995).

Rational style is used by persons who approach decision-making logically and structured. Decisions relate deliberately, and the decision-maker assumes personal responsibility.

Unlike a rational style, intuitive style relies on intuition, impressions, and feelings. Great attention is paid to detail in decision making, but it makes a decision relatively quickly (Gambetti et al., 2008; Scott & Bruce, 1995).

In the dependent style, before making a final decision, a person consults and seeks advice from other persons. It can be seen from the above that decision-makers do not have much confidence in themselves when solving problems and making important decisions (Scott & Bruce, 1995; Urieta et al., 2022).

The avoidant style is used by the person who tries to delay the decision by avoiding or withdrawing (Motvaseli & Lotfizadeh, 2016; Scott & Bruce, 1995).

A person with a dominant spontaneous style is characterized by making sudden and unplanned decisions (Scott & Bruce, 1995; Weerasekara & Bhanugopan, 2022).

## 3 Previous applications of Rowe and Scott & Bruce instruments

In addition to authors whose expertise was in business decision making and decision-making styles, various researchers used Rowe's and Scott & Bruce's instruments to recognize dominant decision-making styles. In most new research, researchers tried to find a correlation between decision-making styles and

other variables. The application of presented instruments was often conducted on the student population and in business, and some of the researches are listed below.

Palmiero and associates researched the relationship between verbal and visual divergent thinking and students' dominant decision-making styles. The 186 students of psychology at L'Aquila University participated in the survey. The assessment of the decision-making styles was carried out based on the Italian version of the GDMS test. The results of the tests confirmed the hypothesis that the rational decision-making style plays the most important role in divergent reasoning, while the intuitive style has little significance (Palmiero et al., 2020).

The assessment of personality's influence on emotional intelligence (E.I.) and decision-making styles was carried out by researchers on 296 medical students at Lebanese University. The GDMS test was used to identify decision-making styles, and the results suggest that the E.I. has a positive effect on the intuitive style and a negative impact on the avoiding and dependent style (el Othman et al., 2020).

The relationship between decision-making styles identified by the GDMS test and cognitive styles determined by Motvaseli and Lotfizadeh was analyzed in a survey conducted on 162 Iranian students. It was found that cognitive style has a positive impact on decision-making styles and that there is a need to develop cognitive style and introduce it into the educational system (Motvaseli & Lotfizadeh, 2016).

Urieta and associates examined the relationship between personality, decision styles, and the frequency of problematic smartphone use (PSU). There were 1,562 participants, out of which 556 were students. The results showed that avoiding, dependent and spontaneous styles had a positive relationship with PSU. On the other hand, there is negative relationship between PSU and of rational and intuitive styles (Urieta et al., 2022).

The research from Indonesia with the goal of determining the relationship between the management accounting system (MAS) and the decision-making style of Cooperatives' managerial performance was conducted in Ponorogo on 54 cooperative managers. The conclusions of the study show that "MAS did not affect managerial performance, and the decision-making style had a positive effect on managerial performance" (Efendi & Kusuma, 2021).

The following study, which was applied to 194 participants, aimed to determine the impact of the default rules in making decisions on financial investments. The default rules can improve financial decisions in individuals whose dominance is rational, avoiding, and dependent styles (Gambetti et al., 2022).

Based on the Decision Style Questionnaire, another survey was conducted and found that organizational commitment and satisfaction with the

job are linked to the "decision-making styles of deputy vice-chancellors in Malaysian public Universities" (Khairunneezam Mohd Noor, 2020).

The same instrument was applied in studying the relationship between leadership styles and decision-making styles with 108 school principals from the Russaif Education District in Jordan. The results revealed that there is "no significant correlation between decision making styles and leadership styles of school principals" (Al-Omari, 2013a).

## 4 The methodology

The research in this paper was conducted among undergraduate students from two fields (and cities in Croatia): army students from Zagreb and business students from Varaždin.

The data were collected using a survey that included questions from two instruments (Rowe instrument and Scott and Bruce instrument) that followed the several general questions related to the demographic data (gender, study year, institution, the type of high school education). The first dataset was collected in 2020, and the second was in 2022.

We differ seven datasets in this research:

- DS1: joint 2020&2022 dataset,
- DS2: 2020 dataset,
- DS3: 2022 dataset
- DS4: Male subset of DS1
- DS5: Female subset of DS1
- DS6: Army subset of DS1
- DS7: Business subset of DS1

The collected data were analyzed using the M.S. Excel and Medcalc, and methods that were applied included the descriptive statistics, t-test, ANOVA, and  $\chi^2$  test.

There are several research questions in this research:

1. Is there a difference in achieved results in decision-making style types by Scott & Bruce with respect to demographic data in the first five datasets?
2. Is there a difference in achieved results in decision-making style types by Rowe with respect to demographic data in the first five datasets?
3. Is there a difference in the distribution of dominant decision-making style types by Scott & Bruce with respect to demographic data in the first five datasets?
4. Is there a difference in the distribution of dominant decision-making style types by Rowe with respect to demographic data in the first five datasets?
5. Is there a difference in achieved results in decision-making style types by Scott & Bruce with respect to the year in DS1, DS6, and DS7?

6. Is there a difference in achieved results in decision-making style types by Rowe with respect to the year in DS1, DS6, and DS7?
7. Is there a difference in the distribution of dominant decision-making style types Scott & Bruce with respect to the year in DS1, DS6, and DS7?
8. Is there a difference in the distribution of dominant decision-making style types by Rowe with respect to the year in DS1, DS6, and DS7?

## 5 Results and discussion

Now we bring the answers to the research questions.

### 5.1 Demographic data about the respondents

The demographic data about the respondents are presented in Table 1.

**Table 1.** Demographic analysis about the students

Demographic characteristics	Year	Values	Nr. of students	%
Gender	2020	Male	47	34,30
		Female	90	65,69
	2022	Male	35	28,00
		Female	90	72,00
Age	2020	20	26	18,97
		21	67	48,90
		22	30	21,89
		23	9	6,56
		24	4	2,91
		29	1	0,72
		2022	20	5
	21		64	51,20
	22		39	31,20
	23		15	12,00
	24		2	1,60
	Year of study	2020	2 <sup>nd</sup>	30
3 <sup>rd</sup>			107	78,10
2022		2 <sup>nd</sup>	5	4,00
		3 <sup>rd</sup>	120	96,00
High school education	2020	vocational	65	47,44
		grammar school	72	52,55
	2022	vocational	69	55,20
		grammar school	56	44,80
Type of student	2020	army	65	47,44
		business	72	52,55
	2022	army	40	32,00
		business	85	68,00

There are 262 students in total: in DS1, 137 in DS2, 125 in DS3, 82 in DS4, 180 in DS5, 105 in DS6, and 157 in DS7. Most of the students in DS1, DS2 and DS3 are female students and 22 years old from the third year of study. In the 2020 dataset, more students graduated from the grammar school program, and in 2022, more students graduated from the vocational high school program.

### 5.2 Research question 1

Several t-tests with one-way ANOVA were conducted to respond to the first research question: input variables were related to the demographic characteristics, and output variables were scores achieved by respondents in the Scott & Bruce test. The methods were applied to five datasets. The full results for DS1 are presented in Table 2. The columns R, I, A, D, and S are related to the information about achieved averages of scores in the Scott & Bruce test for respected decision-making style (R = rational, I = intuitive, A = avoidant, D = dependent, S = spontaneous). Rows *p* are t-test and one-way ANOVA test scores.

**Table 2.** Scott & Bruce styles analysis (DS1)

DC	Values	R	I	D	A	S
Gender	Male	19,36	18,86	16,21	12,32	14,94
	Female	19,98	19,51	18,12	13,10	14,67
	<i>p</i>	<b>0,04</b>	0,07	<b>0,00</b>	0,23	0,46
Age	20	19,45	18,77	16,65	11,03	14,48
	21	19,79	19,67	17,50	12,78	15,18
	22	20,10	18,72	17,83	13,17	13,74
	23	19,71	20,00	18,33	14,21	15,63
	24	20,67	18,17	16,00	13,50	13,50
	29	21,00	16,00	11,00	11,00	11,00
	<i>p</i>	0,81	0,05	0,30	0,20	0,05
	Year of study	2 <sup>nd</sup>	19,20	18,74	16,66	11,03
3 <sup>rd</sup>		19,87	19,38	17,63	13,13	14,70
<i>p</i>		0,20	0,19	0,19	<b>0,01</b>	0,48
High school education	vocational	20,21	19,68	17,69	12,46	14,34
	grammar school	19,30	18,87	17,30	13,20	15,16
	<i>p</i>	<b>0,01</b>	<b>0,01</b>	0,44	0,20	0,06
Type of student	army	19,60	19,28	16,64	11,53	15,32
	business	19,90	19,31	18,08	13,73	14,38
	<i>p</i>	0,41	0,92	<b>0,01</b>	<b>0,00</b>	<b>0,03</b>

From the summary table for the first research question of t-tests and one-way ANOVA implemented, we can draw several conclusions for DS1:

- There is no significant difference in scores achieved in Scott & Bruce test between groups based on demographic characteristics in most cases.
- There are significant differences in rational and dependent styles between male and female

students. Female students more often apply both rational and avoidant styles.

- There is a significant difference in dependent style with respect to age.
- There are significant differences in rational and intuitive styles between students who graduated from vocational school and grammar school. Students who graduated from vocational school more often apply rational and intuitive styles.
- There are significant differences between army and business students in avoidant, dependent, and spontaneous styles. While army students more often apply the spontaneous style, business students often apply the avoidant and dependent style.

Due to the limitation in the number of pages, we will not present full results like Table 1 for other datasets. Here, we bring the most interesting conclusions:

- There is no significant difference in scores achieved in Scott & Bruce test between groups based on demographic characteristics in other datasets in most cases.
- DS2: Female students more often apply a dependent style than male students. Third-year students more often apply avoidant style than second-year students. Similarly, business students more often apply an avoidant style than army students.
- DS3: Female students more often apply a dependent style than male students. Business students more often apply a dependent style than army students. Students who finished vocational study programs more often apply rational and intuitive styles than students who finished grammar school.
- DS4: Male business students more often apply avoidant style than male army students.
- DS5: Female business students more often apply avoidant style than female business students, while female business students more often apply spontaneous style than female army students.

### 5.3 Research question 2

Several t-tests with one-way ANOVA were conducted to respond to the second research question. In Table 3, we bring a summary results table related to DS1.

Here are the conclusions:

- Female students more often apply behavioral style than male students.
- There are significant differences in analytical style with respect to gender, age, year of study, and type of students.

When analyzing other datasets, we brought the following conclusions (A = analytical, B = behavioural, C = conceptual, D = directive):

- DS2: No significant differences detected.
- DS3: Male students more often apply the analytic style, while female students apply the conceptual and behavioral styles.
- DS4: Male 3<sup>rd</sup>-year students more often apply directive style than male 2<sup>nd</sup>-year students.
- DS5: No significant differences detected.

**Table 3.** Rowe styles analysis (DS1)

DC	Values	D	A	C	B
Gender	Male	75,11	83,15	74,13	67,61
	Female	73,10	77,44	75,70	73,77
	<i>p</i>	0,30	<b>0,00</b>	0,38	<b>0,00</b>
Age	20	70,29	84,42	77,61	67,68
	21	74,07	80,03	74,38	71,52
	22	76,17	76,00	75,09	72,74
	23	70,63	75,92	76,42	77,04
	24	70,50	83,50	75,50	70,50
	29	66,00	106,00	82,00	46,00
	<i>p</i>	0,39	<b>0,02</b>	0,86	0,21
Year of study	2 <sup>nd</sup>	69,31	84,80	78,40	67,49
	3 <sup>rd</sup>	74,43	78,44	74,70	72,43
	<i>p</i>	0,06	<b>0,01</b>	0,13	0,10
High school education	vocational	73,03	78,00	75,79	73,18
	grammar school	74,50	80,64	74,56	70,30
	<i>p</i>	0,42	0,14	0,46	0,15
Type of student	army	73,46	82,03	73,63	70,89
	business	73,94	77,46	76,24	72,36
	<i>p</i>	0,80	<b>0,01</b>	0,12	0,48

### 5.4 Research question 3

Several  $\chi^2$  tests were conducted to respond to the third research question: input variables were related to the demographic characteristics, and output variables were the dominant decision-making style using the Scott & Bruce test. Columns I, D, R, S, and A contain information about the distribution of students' dominant styles in the Scott & Bruce test.

When analyzing Table 4, we can conclude that there are significant differences in dominant decision-making styles in DS1 with respect to high school education and type of students.

In DS2, there is a significant difference among students in dominant decision-making style with respect to the type of students. Further, in DS3, there is a significant difference in the dominant decision-making style with respect to gender. In DS4, there is a significant difference among students in dominant decision-making style with respect to the type of students.

**Table 4.** Dominant Scott & Bruce styles (DS1)

DC	Values	R	I	D	A	S	SUM
Gender	Male	39	29	9	5	3	85
	Female	86	49	32	7	3	177
		$\chi^2=4,255, cv=0,126, p=0,372$					
	20	18	8	4	0	1	31
	21	57	43	22	4	5	131
	22	34	20	11	4	0	69
	23	10	7	4	3	0	24
	24	5	0	0	1	0	6
	29	1	0	0	0	0	1
			$\chi^2=24,057, cv=0,297 p=0,239$				
Year of study	2 <sup>nd</sup>	18	12	4	1	0	35
	3 <sup>rd</sup>	107	66	37	11	6	227
		$\chi^2=2,040, cv=0,087 p=0,728$					
High school education	vocational	26	11	53	6	8	94
	grammar school	26	9	56	1	1	104
		$\chi^2=10,832, cv=0,199 p=0,028$					
Type of student	army	67	51	32	4	3	157
	business	58	27	9	8	3	105
		$\chi^2=12,438, cv=0,213 p=0,014$					

### 5.5 Research question 4

Several  $\chi^2$  tests were conducted to respond to the fourth research question: input variables were related to the demographic characteristics, and output variables were the dominant decision-making style using the Rowe test. Columns A, B, C, and D contain information about the distribution of students' dominant styles in the Rowe test.

**Table 5.** Dominant Rowe styles (DS1)

DC	Values	D	A	C	B	SUM
Gender	Male	14	37	5	12	68
	Female	34	57	19	46	156
		$\chi^2=7,231, cv=0,177 p=0,064$				
	20	2	15	10	4	31
	21	22	50	27	32	131
	22	17	20	16	16	69
	23	6	6	6	6	24
	24	1	2	3	0	6
	29	0	1	0	0	1
			$\chi^2=15,916, cv=0,239 p=0,387$			
Year of study	2 <sup>nd</sup>	12	10	3	10	35
	3 <sup>rd</sup>	36	84	59	48	227
		$\chi^2=10,865, cv=0,200 p=0,012$				
High school education	vocational	28	43	28	35	134
	grammar school	20	51	34	23	128
		$\chi^2=4,943, cv=0,136 p=0,176$				
Type of student	army	29	52	36	40	157
	business	19	42	26	18	105
		$\chi^2=2,143 cv=0,103 p=0,543$				

When analyzing Table 5, we can conclude that there is a significant difference in the dominant decision-making style using the Rowe instrument in DS1 with respect to the year of study (however, we should be careful with this conclusion due to the high difference in a number of students in each set). There is no significant difference in the dominant decision-making style using the Rowe instrument in other datasets.

### 5.6 Research question 5

In research questions 5-8, we can see the differences between 2020 and 2022 datasets and possibly discuss the role of COVID-19.

Similar analysis as in RQ1 was applied to respond to the fifth research question, but now with respect to the year. The results are presented in Table 6.

**Table 6.** Scott & Bruce styles – analysis by year

Sample	Year	R	I	D	A	S
DS1	2020	19,43	19,06	17,21	12,58	14,75
	2022	20,15	19,55	17,80	13,13	14,75
	<i>p</i>	<b>0,04</b>	0,14	0,24	0,33	0,98
DS6	2020	19,70	18,98	17,38	13,80	14,36
	2022	20,05	19,58	18,65	13,65	14,38
	<i>p</i>	0,46	0,17	<b>0,03</b>	0,84	0,96
DS7	2020	19,13	19,15	17,03	11,23	15,20
	2022	20,35	19,47	16,00	12,02	15,52
	<i>p</i>	<b>0,03</b>	0,55	0,25	0,34	0,64

Business students in 2022 significantly more apply rational style than business students in 2020. Army students significantly more apply dependent style than army students in 2020.

### 5.7 Research question 6

Similar analysis as in RQ2 was applied to respond to the sixth research question, but now with respect to the year. The results are presented in Table 7.

**Table 7.** Rowe styles – analysis by year

Sample	Year	D	A	C	B
DS1	2020	71,62	80,78	76,03	71,56
	2022	76,08	77,65	74,26	72,00
	<i>p</i>	<b>0,01</b>	0,07	0,28	0,82
DS6	2020	72,95	81,06	76,62	69,34
	2022	76,17	76,23	74,42	73,16
	<i>p</i>	0,14	<b>0,03</b>	0,28	0,14
DS7	2020	70,13	80,46	75,38	74,01
	2022	75,87	80,67	73,92	69,52
	<i>p</i>	0,07	0,94	0,61	0,16

Students in 2022 significantly more often apply directive style than students in 2020. Army students in

2020 significantly less apply analytic style than army students in 2020.

### 5.8 Research question 7

Similar analysis as in RQ3 was applied to respond to the sixth research question, but now with respect to the year. The results are presented in Table 8.

The distribution of 2022 army students per Scott & Bruce's dominant decision styles is significantly different from the distribution of army students in 2020.

**Table 8.** Scott & Bruce dominant styles – analysis by year

Sample	Values	R	I	D	A	S	SUM
DS1	2020	70	39	15	7	6	137
	2022	55	39	26	5	0	125
	$\chi^2=10,557, cv=0,197, p=0,032$						
DS6	2020	40	16	6	7	3	72
	2022	32	28	21	4	0	85
	$\chi^2=15,342, cv=0,298, p=0,004$						
DS7	2020	30	23	9	0	3	65
	2022	23	11	5	1	0	40
	$\chi^2=4,612, cv=0,205, p=0,329$						

### 5.9 Research question 8

Similar analysis as in RQ4 was applied to respond to the sixth research question, but now with respect to the year. The results are presented in Table 9.

**Table 9.** Rowe dominant styles – analysis by year

Sample	Year	D	A	C	B	SUM
DS1	2020	17	56	38	26	137
	2022	31	38	24	32	125
	$\chi^2=10,785, cv=0,199 p=0,012$					
DS6	2020	13	31	0	11	55
	2022	21	21	19	24	85
	$\chi^2=22,226, cv=0,370 p=0,0001$					
DS7	2020	4	25	0	15	44
	2022	10	17	5	8	40
	$\chi^2=11,060, cv=0,341 p=0,011$					

The distribution of 2022 students per Rowe's dominant decision styles is significantly different from the distribution of students in 2020. This conclusion is the case in all three analyzed datasets.

## 6 Conclusion

In this paper, we were dealing with analyzing the decision-making styles of the population of business and army students from Croatia. The data were collected in 2020 and 2022. We analyzed the use of different decision-making styles by Scott & Bruce and

Rowe instruments and identified differences among students with respect to demographic data.

Special attention is passed to analyzing the differences among students with respect to the year when the data were collected. The identified differences can be partly analyzed in the light of COVID-19 influence: COVID-19 changed the way how people reason while making decisions. However, we must not exclude other variables, especially if we know that respondents in 2020 and 2022 were not the same participants.

This paper continues the previous research and covers some of the analyses announced then as future research. Additionally, discussing the minimal decision-making style (less dominant, rarely used style) and introducing the intensity of dominance are to be done in future research. The intensity of dominance can be investigated by (1) analyzing the scores achieved by the dominant decision-making style and all scores achieved by all other styles; and (2) analyzing the scores achieved by the dominant style and the second-best dominant style. In addition, correlation analysis can be applied: (1) correlation between dominant styles per two instruments, (2) correlation between minimal styles per two instruments, and (3) correlation between dominant and minimal styles. The correlation analysis should also consider the intensity of dominance.

## Acknowledgments

This work has been fully supported by the Croatian Science Foundation under the project IP-2020-02-5071.

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