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SCIENCE DIPLOMACY IN THE NEGOTIATION OF INTERNATIONAL BUSINESS CONTRACTS: A CRITICAL ASSESSMENT

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Abstract: *This study investigates the significance of science diplomacy at the convergence of politics, diplomacy, and science, emphasizing its heightened relevance in contemporary geopolitics and economic development. The aim was to elucidate the role of science diplomacy in optimizing negotiation outcomes concerning international business contracts by examining students' perceptions of its impacts in such contexts. A theoretical analysis was initially conducted to identify the main themes shaping our questionnaire by employing a comprehensive research strategy that combines quantitative and qualitative methods. Data collection was carried out through a survey using a five-point Likert scale. The study revealed the students' positive evaluation of science diplomacy, indicating their recognition and appreciation of its utilization in enhancing negotiation outcomes over international business contracts. While political leadership remains crucial in economic negotiations, our findings underscore the significant impact of science diplomacy in promoting international economic relations and facilitating domestic companies' access to global markets. This research significantly contributes to our understanding of the multifaceted role of science diplomacy in global knowledge dissemination and problem-solving. It elucidates the importance of science diplomacy in international relations and academia, emphasizing its constructive impact on addressing complex challenges.*

Keywords: *International Relations; Scientific Diplomacy; Communication; Negotiation; Development; Contracts*

INTRODUCTION

Science diplomacy is a highly active research field. An increasing number of scientists are investigating this discipline by studying new contemporary phenomena, the forms of their manifestation, and their influences on the current global political, economic, and scientific scene. Simultaneously, science diplomacy also examines past political and economic discussions, negotiations, conflicts, disagreements, and negotiation techniques to clarify, define, and highlight omissions in previous actions. As a diplomatic activity, science diplomacy also involves utilizing science and technology - technological advancements in the principles of reconciliation - to encourage dialogue and cooperation among individuals, organizations, and nations, primarily fostering local and international relations.

Thus, science diplomacy implies an interdisciplinary field that includes the construction and strengthening of bilateral and multilateral relations, combining the fields of politics, economy, science, technology, innovation, and foreign affairs - each with clear definitions of competence, associated actors, and levels that belong to them.

The Madrid Declaration on Science Diplomacy from 2019 reviews science diplomacy and its determination in geopolitical and economic terms and indicates that science diplomacy is often used to advance broader foreign policy goals that are related to issues such as democracy, sustainable development, energy, and others (S4D4C 2019).

While peace and progress through international cooperation in science have been discussed since the 1940s, science diplomacy was first publicly designated by the US State Department during Obama's tenure as a distinctive diplomatic approach to advancing US foreign policy priorities in the countries of the world (Office of Science and Technology Policy 2009). Researchers then applied this term to studying numerous scientific activities, related policies, organizations, and institutions, and their activities.

In contemporary business conditions, the techniques of diplomatic work are similar despite the variety of the organization, which is contributed by globalization and the related conditions in the system of international business relations. However, we believe that focusing each negotiator on science diplomacy can significantly contribute to developing a sound model based on the needs of business organizations and establishing an efficient economy. The reason lies in the interaction and mutual influence of economy and politics on the world scene and the overlap of politics, economy, and culture that promote the actions of governments and their international business entities. Therefore, economic interests are the first and most important factor in strengthening relations between governments concerning political ones. In other words, economic cooperation is the primary means of political or cultural cooperation between countries.

Consequently, integrating business mediation into the theory and practice of negotiation is essential for this approach, which should not be regarded as an art but as a logical process derived from knowledge, ultimately leading to improved business outcomes. Within this framework lies the significance of science diplomacy and its capacity to foster cooperation between countries, which can be sustained despite political disparities. However, given the existing lack of consensus and the necessity for further study in negotiation literature, our research question emerges: What role does science diplomacy play in the negotiation of international business contracts?

THEORETICAL FRAMEWORK

Communication and Business Negotiation

Every society's fundamental and ubiquitous need, from its primary forms to the present day, is the exchange of messages - information, that is, communication. Hercigonja (2017) states that through everyday communication, a person enters a negotiation environment where he achieves the goals he has disclosed through his concessions and offensive and defensive activities (Hercigonja 2017). Thus, negotiation becomes a principle and a method whose primary goal is to solve a particular problem, consider a specific situation, or give it a new or improve an existing expression. Negotiation is a complex process, and it is a process of rationally resolving problems or conflicts of interest between two or more parties who may share the same or different culture (Hercigonja 2017).

Kennedy (2003) emphasizes the fundamental significance of negotiation in attaining desired outcomes within interpersonal engagements. He characterizes negotiation as an explicit and voluntary exchange among individuals sharing reciprocal goals. Kennedy's definition portrays negotiation as a process wherein mutually beneficial terms are delineated between parties with aligned interests (Kennedy 2003). On the other hand, Fisher and Ury (1981) view negotiation as a principal approach for fulfilling personal objectives through interactions with others. Their depiction of negotiation underscores iterative communication strategies that foster consensus amidst both convergent and divergent interests among involved parties (Fisher and Ury 1981).

For Hercigonja (2017), "negotiation is a process of discussion between two or more parties to reach an agreement that is acceptable to both parties (...) a process of diplomatic problem-solving to achieve the satisfaction of both parties" (Hercigonja 2017, 11).

Dobrijević (2011) states that negotiation takes place personally and professionally, but there is a drastic difference between negotiation on the business scene and everyday negotiation. The author observes that a person who successfully negotiates in private life, with the final adequate and desired product of that process, does not have to be a successful negotiator in the business or international scene.

In the business and political sense, the purpose of negotiations becomes a successful agreement, that is, a successful deal. However, all these processes depend on many factors such as own resources, forms of diplomacy, characteristics of diplomacy, public relations, marketing, negotiation goals, methods and changes, and initial capital. When it comes to diplomatic negotiation, it refers to communication between diplomatic missions and ministries (usually foreign affairs) or diplomatic representatives, and in this sense represents the most complex form of communication.

For Berković (2006), diplomatic communication is how authorized bodies and persons who represent subjects of international law communicate with each other so that they can perform specific tasks in the field of international relations necessary for the normal functioning of the state as efficiently as possible. The author further notes that in the processes of diplomatic communication, there is a difference between official (between bodies within the scope of their authority), personal (between high-ranking officials on relevant issues), and private (between high-ranking persons on private, non-official issues) (Berković 2006).

For Kraljević and Vilović (2019), what is characteristic of every type of diplomatic correspondence are merit, a specific tone and style, and a unique external appearance, paying attention to the expression of respect for the person to whom the letter is addressed. The first impression in communication is significant because it determines the relationship between sender and recipient (state) (Kraljević and Vilović 2019). Differences certainly exist in all forms of negotiation, and both theory and practice show this, especially when it comes to international negotiations and concluding business contracts. The primary diplomatic protocol conditions them and depends from country to country. Berković (2006) thinks that divergences are present, but the Anglo-Saxon (British) or continental (French) protocol is most often used, with an emphasis on their ever-increasing simplification (Berković 2006).

Many public or private companies are expanding their activities to develop internationally in today's business environment. However, one of the essential aspects of these

activities is learning the skill of negotiation, which, although often underestimated, is very important for those who want to expand their activities in international business since this process involves comparing the expectations, interests, positions, and viewpoints of the negotiators.

Science Diplomacy in the Negotiation of International Business Contracts

Science diplomacy plays a crucial role in the development of international policies. Despite the long history of science in international relations, "science diplomacy" is a relatively new term. Targeting research areas, business sectors, foundations, and think tanks supporting research and innovation contributes to finding and promoting solutions to global challenges. Therefore, scientific relations between countries must also have a diplomatic dimension because science diplomacy is a matter of the public external action of the countries that implement it. In this regard, Gluckman et al. (2017) list three categories of actions that are used to strengthen science diplomacy and its roles in international business negotiation processes. The first of them are actions designed to advance the national needs of the country, then actions designed to address cross-border interests, and actions designed to meet global needs and challenges. In this context, Franić (2003) states that science diplomacy covers the diplomacy of knowledge and thus becomes the main prerequisite in the social sciences for the interaction of politics and research work to lead to social innovation that will benefit society (Franić 2003).

Thus, science diplomacy entails the utilization of scientific cooperation between nations to address shared challenges while fostering constructive international partnerships. Its role includes delineating and defining formal and informal technical, research, academic, or engineering instructions within international relations and global policymaking. Stone (2019) observes that the function of science diplomacy lies concurrently in the negotiation and interaction processes, serving as a bridge between scientists and officials engaged in diplomatic endeavors (Stone 2019). International scientific cooperation between:

> Institutions, scientists, and experts is significant, not only from the aspect of opening the system of science and education to fresh ideas and control of international standards but also because of scientific diplomacy. By logic, scientists have permanently moved and contacted foreign colleagues more easily in international relations than other compatriots from their country, even during the Cold War. Namely, top scientists and professionals participate in international cooperation during their scientific and research work and present the results at conferences, symposia, seminars, and other gatherings (Franić 2003, 28).

Regarding negotiations, whether on a local or global scale, and contracts formed between two or more parties, adherence to international law and related rules and regulations suggests that the process is inherently unpredictable in today's context.

This necessitates a complex and comprehensive approach to resolving a problem, topic, or conflict. Tomašević Lišanin (2004) observes:

> Above all, negotiation as a special skill can no longer be left to or delegated to a few skilled and experienced professionals, as was generally the case in the past.

> Increasing and significant strategic emphasis placed on the management of relations with suppliers, an integrated approach to the sale of the company's products and services, and an increased reliance on external growth through acquisitions and strategic alliances have made negotiations significantly more complex, dynamic and with a more direct impact on the achievement of overall business success. All these changes and challenges offer an opportunity to create a new organizational capability (p. 148).

The author Tomašević Lišanin (2004), referencing Weiss, underscores the strategic importance of adhering to Jeff Weiss's guidelines for negotiation within corporate settings, as presented in the Harvard collection of scholarly works on principled negotiation (37, 96-99). Weiss (2004) delineates a five-stage framework for bargaining, with initial emphasis placed on internal procedural harmonization. Subsequent stages involve the formulation and dissemination of precise directives. Weiss advocates for negotiators to uphold stringent performance criteria, cautioning against prioritizing the lowest purchase price at the expense of broader business objectives. He stresses the need for managers to apprise negotiation teams of critical interests, evaluation criteria for potential solutions, decision thresholds for exiting negotiations, and optimal alternative strategies to the presumed agreement (Tomašević Lišanin 2004, 148-149).

The third phase involves the preparation stage, where standards are questioned, and guidelines are used to equip negotiators, employing various technologies to enhance their readiness for the process. In this phase, the role of science diplomacy is particularly prominent.

The fourth phase signifies the negotiation process itself. All activities from the preceding stages culminate in this phase, and the negotiation outcome hinges upon it. The conclusion of international business contracts also occurs during this phase as a direct result of negotiations.

The fifth and final phase of negotiations encompasses the revision stage, involving the analysis and assessment of negotiation outcomes, signed agreements, and the negotiation process itself. Notes may also be recorded regarding the behavior of the other party. Such insights are incorporated into the tools and databases utilized by the respective group and other organizational units in preparation for future negotiations (Weiss 2004).

Problematizing science diplomacy and its role in negotiating international business and other contracts, Young et al. (2020) think it requires a broader understanding of science in international or economic relations. The authors want to point out that it is much broader than the infiltration and inclusion of science in geopolitical and economic thinking and action. The same authors state that science diplomacy is used to denote actors and practices.

They divided actors into three categories: 1) political/diplomatic actors, 2) science-based actors, and (3) scientific administration/management-based actors (Young et al. 2020, 1).

Unlike political/diplomatic actors, the other two categories use science diplomacy to a lesser or higher degree with a specific difference. For them, science diplomats are those brought in by the government to help the processes with their knowledge. At the same time, some of them consider themselves activists in the field of science diplomacy.

According to Young et al. (2020), the third type represents the so-called science administration, those who deal with international issues and have responsibilities that imply a

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certain degree of diplomatic activity. Here, the role of science diplomacy is reflected in activities such as creating projects, grants, and managing activities.

Regarding the relationship between science and international politics, Bueger (2015) distinguishes three generations. The first generation is focused on politics as such. The second generation focuses on epistemic discourse and how knowledge (discourse) affects global order and politics.

According to Bueger (2015), research in the history of science diplomacy would benefit most from establishing an approach that provides the conceptual tools and vocabulary to explain how scientific discoveries shape international space and its dynamics. The third generation is also helpful for science diplomacy because it understands the relationship between science and global politics at a higher level and, through analysis, includes a wide range of professional practices. Epistemic practices are configurations of material and bodily activities (doings and sayings), forms of knowledge (rules, habits, projects, or affections), and objects and artifacts (technologies and things) (Bueger 2015).

Thus, the role of science diplomacy in negotiating international business contracts and in the broader context of global politics and the economy is manifold. Positioned at the intersection of science, technology, innovation, and increasingly education policy, foreign policy, and international relations, its impact is far-reaching. According to Manners (2002), within the political sphere of Europe, diplomacy is intricately linked to peace, human dignity, freedom, democracy, equality, the rule of law, human rights, pluralism, tolerance, justice, solidarity, gender equality, non-discrimination, sustainable development, and good governance. Stokes and Selin (2014) further note that mutual recognition, regardless of origin, has been identified as a value permeating international science and politics and a prerequisite for collaboratively addressing global social challenges.

Problematizing the role of science diplomacy in the context of negotiating international business contracts, the European Union (2019) notes its multiple roles and values. The first is the value to citizens - governments, diplomats, and researchers are encouraged to recognize and demonstrate science diplomacy as a fundamental and universal tool for improving international relations (European Union 2019). At the same time, science diplomacy possesses methodological diversity. It also has a demonstrable impact. All positive effects of science diplomacy can be evaluated and measured. If there are adverse side effects, it is possible to analyze them with an assessment and a scientific approach. At the same time, science diplomacy includes an element of collaboration and inclusion. The concept can be seen at the local, regional, national, and international levels.

This innovative model brings new management and coordination mechanisms that must be managed in dialogue with all stakeholders (European Union 2019).

On the other hand, science diplomacy also lies in capacity building principles. All participants in international business contracts and negotiations, in general, benefit from science diplomacy and exchange processes because they integrate interdisciplinary, interactive training models. At the same time, these models are both intergenerational and transnational, which enables a wide dispersion of activities. All this allows diplomats to strengthen their capacities and make diplomacy more prosperous.

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This capacity building goes hand in hand with the need to establish new positions in science diplomacy, such as scientific advisors in foreign ministries, scientific staff in embassies, etc., which will also encourage new career paths for science diplomacy professionals (European Union 2019).

At its core, science is independent and an exceptional and appropriate tool for dealing with global challenges. At the same time, science becomes the basis for improving international relations. In this regard, science must be independent and free so that potential ideological goals do not distort it. Science, nowadays, participates in the geopolitical scene along with technology. Science, technology, and innovation:

> can support diplomatic efforts in many ways. The Paris climate agreement is one of the most prominent recent examples of science enabling an international agreement. Science has always been the backbone of multilateralism, fostering cooperation among researchers worldwide. Science can help gain interest in non-like-minded countries and lead to tangible results, e.g., making multilateral institutions ready for the challenges of the 21st century (European Union 2022).

Dall et al. (n.d.) assert that political and diplomatic values are significant objectives for science diplomacy initiatives. Peace and development, for instance, are commonly recognized as the ultimate goals of science diplomacy, as reflected in the official documents of the European Union. Participants negotiating international business contracts frequently encounter the paradox of maximizing their interests while acknowledging the potential for reaching agreements through cooperation. However, conflicts arising from divergent goals and ideas often emerge. It is precisely under these conditions that a connection between science diplomacy and negotiation can be identified - negotiation becomes a crucial skill for advancing science diplomacy, and science within the negotiation context facilitates compromises founded on mutual respect and pertinent knowledge.

Kaltofen and Acuto (2018) think that science diplomacy is not only a meeting of science and diplomacy but a practical union of epistemic and diplomatic practice (Kaltofen and Acuto, 2018). In this regard, it is suggested that a fuller understanding of this alliance, which is fundamentally very practical and valuable, can structure negotiation practices and theories at both the micro and macro levels, using a systematic, scientific view of the pragmatic foundations of diplomacy. Science and technology are:

> constantly at the heart of international affairs today. Whether it's climate change negotiations, pandemic fears, security threats, or sustainable development agendas, the role of scientists and scientific information in world politics permeates the spectrum of global political challenges like never before (Kaltofen and Acuto 2018, 15).

Science diplomacy's role in negotiating international business contracts extends to defending scientific values and academic freedom, thereby upholding research ethics and scientific integrity. Furthermore, it involves advocating for equality and diversity, promoting the openness of science, data transparency, and freedom of information and knowledge, all rooted exclusively in scientifically substantiated facts.

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RESEARCH METHODOLOGY

Research Framework

Professionals in higher education seem increasingly to have a responsibility to think about how to increase students' awareness of a particular topic. Therefore, in this study, we intend to present ideas about the importance of science diplomacy by dealing with specific aspects of the correlation of science and economics in diplomatic activities.

Research conducted in the first half of 2023, focusing on the role and importance of science diplomacy in negotiating international business contracts, has paved the way for increased awareness and importance of this topic in academic circles. This study involved 190 respondents from two universities in Kosovo, namely "Haxhi Zeka" University Faculty of Law (Bach. and MA) in Pec and "Ukshin Hoti" (Bach) University Faculty of Law in Prizren.

Students from Haxhi Zeka University Law School, General Law Program (Bach.), and International and European Law (MA) participated in the study. At the same time, students from the General Law Program (Bach.) of the Faculty of Law of Ukshin Hoti University participated in this research, as this university offers only a Bachelor's degree study. The questionnaire was distributed directly during the lecture to all students to ensure a high response rate. Before that, the background, meaning, and possible effects of this research were explained to the students. Completing the survey was voluntary, and the data collected could not be identified, so the anonymity of the data was preserved.

This study used a complex combination of quantitative and qualitative methods to analyze the researched facts and collect data to find the main topics on which the questionnaire was developed. The values of the qualitative approach are primarily in its hermeneutic dimensions, which call for inner logic, deeper meaning, and purpose in human activities and social phenomena, questioning those who experience or participate in them. For this purpose, it focuses less on cause-and-effect relationships between phenomena and more on values, meanings, attitudes, beliefs, etc. (Džogović and Bajrami 2023, 165).

During the statistical data processing, the goal was to get answers from students active in international political-economic relations and diplomatic and consular law courses. The instrument used is a survey questionnaire with 24 statements related to the research subject and two questions related to gender and the faculty from which the respondents come. In addition to more straightforward tests such as t-test and ANOVA, more complex statistical tests were used, namely regression analysis and multiple analysis of variance (MANOVA).

Before processing, the data was tested with factor analysis, which proved statistically significant. This analysis, which helps identify the underlying factors that explain the correlations between variables, defined the factors very well and grouped the statements into seven elements, which proved to be an excellent move in further data processing.

Research Hypotheses

This article aimed to explore students' understanding and their views on the role and importance of science diplomacy as one of the most important economic tools to help optimize the outcome of negotiations in international trade contracts. The specific goal was to deepen the field of science diplomacy, which requires international scientific communication and effective research and innovation cooperation.

Following the objective of the research, the following hypotheses are posed:

H1. There is no statistically significant difference between male and female students in the perception of the role and importance of science diplomacy in negotiating international business contracts.

H2. There is no statistically significant difference between students according to the department they follow in the perception of the role and importance of science diplomacy in the negotiation of international business contracts.

H3. Science diplomacy involves a good knowledge of data analysis and critical thinking, managing the effects of scientific uncertainty, distinguishing science from pseudoscience, and identifying credible sources of information, thereby contributing to uncovering common interests and achieving better results in negotiating international business contracts.

RESEARCH RESULTS AND DISCUSSION

Hypothesis Verification Results

Before starting the analysis of the hypotheses put forward, it is necessary to carry out a factor analysis according to the research carried out and the complexity of this research.

Table 1: KMO and Bartlett's Test (Source: Authors' analysis in SPSS)

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy		.607
Bartlett's Test of Sphericity	Approx. Chi-Square	832.233
	Df	274
	Sig.	.000

Table 1 shows that the KMO indicator is 0.607, and Bartlett's test is significant because of Sig. = .000, and the factor analysis is justified. The same can be explained by an already known fact and a way of checking whether the factor analysis is justified or not, which is by observing whether the value of the Kaiser Meyer Olkin Measure of Sampling (KMO) indicator is equal to or greater than 0.6 and whether the value of the Bartlett Test of Sphericity is significant, i.e., whether Sig. is 0.05 or less. In our case, as we mentioned at the beginning of this paragraph, the justification of the factor analysis was confirmed.

Table 2: Total Variance Explained (Source: Authors' analysis in SPSS)

Total Variance Explained						
Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	4.134	16.781	17.781	4.268	17.782	17.782
2	2.020	10.122	27.403	2.430	10.124	27.906
3	1.771	7.378	35.284	1.771	8.008	35.284
4	1.558	6.492	41.776	1.558	7.492	41.776
5	1.121	5.131	46.907	1.232	6.139	46.907
6	1.175	4.896	51.803	1.175	5.896	51.803
7	1.102	4.593	56.396	1.102	4.593	56.396
8	1.069	4.454	60.850			
9	.932	3.443	64.760			
10	.873	3.637	68.371			
11	.841	3.504	71.875			
12	.755	3.146	75.021			
13	.697	2.903	77.924			
14	.648	2.701	80.625			
15	.630	2.624	83.249			
16	.595	2.479	85.728			
17	.551	2.295	88.022			
18	.537	2.237	90.259			
19	.478	1.992	92.251			
20	.463	1.929	94.180			
21	.398	1.658	95.839			
22	.388	1.615	97.453			
23	.317	1.322	98.776			
24	.294	1.224	100.000			

Table 2 shows how many components or factors we choose. According to the Kaiser criterion, we are only interested in components with a value of 1 or more. To determine how many components meet this criterion, we refer to Table 4. In our case, the first seven components have eigenvalues greater than 1. These seven components explain more than 60% of the variance.

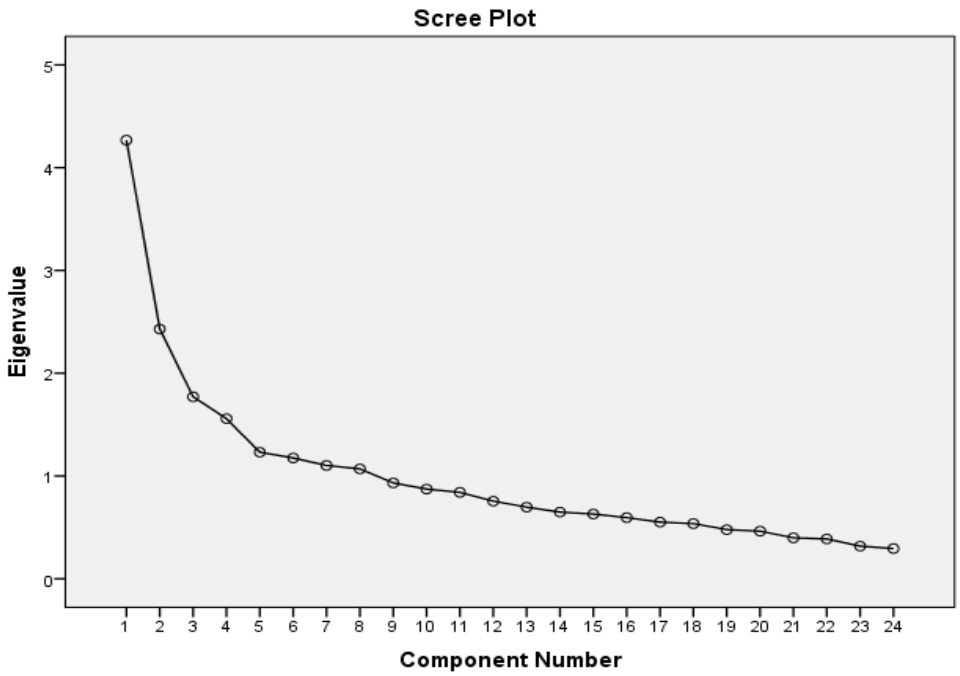


Diagram 1: Screen Plot (Source: Authors' Analysis in SPSS)

If we look at Diagram 1, which represents the Screen Plot, i.e., the curve diagram, components 1 to 7 explain a much larger part of the variance than the other components. Based on this diagram, it is recommended to separate seven components, i.e., seven factors. There may be some other components or factors. Still, knowing the essence of factor analysis, the concept of interpreting the results, and how we interpret them, we can say that we do not follow strict and solid statistical rules.

Table 3: Factors of the Factor Analysis (Source: Authors' analysis in SPSS)

Ordinal Number	Factor	Question/Assertion
1	Complexity	1.,3.,4.
2	Differences_negotiation	2., 22., 23.
3	Contract	4., 15., 17.
4	Defining_science	5., 6., 7., 9., 10.
5	Importance	8., 14., 16., 18.
6	Diplomat	11., 12., 13.
7	Investment	19., 20., 21.

Hypothesis 1. There is no statistically significant difference between male and female students in the perception of the role and importance of science diplomacy in negotiating international business contracts.

Table 4: T-Test: Differences in the Perception of the Role and Importance of Science Diplomacy Between Male and Female Students (Source: Authors' analysis in SPSS)

Independent Variables		N	M	SD	t-value	*p*
Gender	M	89	2.9925	.28089	-1.002	.242
	F	101	2.9526	.24274		

Table 4 shows that the value of t = -1.002 and its significance is Sig. = .242, above the threshold value of 0.05. Analyzing this issue, we see that there is no statistically significant difference between respondents regarding gender, where the value is M = 2.9925 for male respondents and F = 2.9526 for female respondents, and with a higher standard deviation for female respondents SD = .24274 compared to male respondents SD = .28089. This, therefore, indicates the absence of a statistically significant difference between respondents' gender in the perception of the role and importance of science diplomacy in negotiations on international business contracts.

Understanding the importance of science diplomacy in negotiating international business contracts regarding women's views and attitudes on this issue is a complex topic that requires a nuanced approach. Our explanatory research approach incorporated multiple perspectives to understand this topic comprehensively. In this way, we compared sensitive concepts using theoretical and empirical data sources, gaining insight into how both genders view science diplomacy and its role and importance in advancing the negotiation of international business contracts. Therefore, this study is an additional contribution to the current debate on the role of gender in science diplomacy and to the clarification of the complexity of this important topic in international business practice and the academic community. After extensive research on this topic, we have obtained some interesting findings regarding the perspectives of male and female students on the concept of science diplomacy in international business negotiations. Notably, our study indicates that gender is not a determining factor in how individuals perceive the importance of applying scientific knowledge to attain more favorable outcomes in the global marketplace. This finding underscores the notion that both men and women possess a sophisticated understanding of the value of scientific knowledge in international business.

Hypothesis 2. There is no statistically significant difference between students according to the department they follow in the perception of the role and importance of science diplomacy in the negotiation of international business contracts.

Table 5: Multivariate Significance Tests Among Students Based on Their Study Programs (Source: Authors' analysis in SPSS)

Effect		Value	F	Hypothesis df	Error df	Sig.	Partial Eta Squared
Intercept	Pillai's Trace	.744	432.781[b] 2	3.000	417.000	.000	.744
	Wilks' Lambda	.019	432.781[b]	3.000	417.000	.000	.744
	Hotelling's Trace	14.894	432.718[b]	3.000	417.000	.000	.744
	Roy's Largest Root	14.894	432.718[b]	3.000	417.000	.000	.744
T1	Pillai's Trace	.028	4.237	3.000	417.000	.000	.201
	Wilks' Lambda	.247	4.237[b]	3.000	417.000	.000	.201
	Hotelling's Trace	.028	4.237	3.000	417.000	.000	.201
	Roy's Largest Root	.028	4.237[c]	3.000	417.000	.000	.201

A series of multivariate significance tests tell whether the groups are statistically different by a linear combination of the dependent variables. Several indicators are available - Wilks's Lambda, Hotelling's trace, and Pillai's trace. However, the one that is most used in research and which best shows the results of statistical analysis is Wilks's Lambda, which many authors recommend. If we look at the value of Wilks's lambda, it indicates the level of significance of differences between groups. Here, it is 4.237, and its significance is 0.247, which suggests that there is no statistically significant difference between students according to the study program they follow in the perception of the role and importance of science diplomacy in negotiating international business contracts.

Students' understanding of the role and importance of science diplomacy in negotiating international business contracts also did not differ according to the study program they attended. The main factors that influenced their understanding of this research problem are the content of the study program and the available sources of contemporary literature. Their knowledge of issues related to the topic above is mainly shaped by their scientific training acquired within the scope of the program they attend at the university. The results revealed that students' perceptions were positively related to courses dealing with international political and economic relations, diplomatic-consular law, economic diplomacy, and international negotiations. This suggests that the quality of teaching across all programs plays an essential role in understanding the negotiation of international commercial contracts. In this context, most respondents agree that science diplomacy benefits all parties negotiating international business contracts, as it integrates multidisciplinary educational models.

Table 6: Between-Subjects Effects Test Results: Students' Attitudes Towards Their Department at the Faculties Regarding the Research Topic (Source: Authors' analysis in SPSS)

Source	Type III Sum of Squares	Df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	.482[a]	4	73.443	133.482	.103	.000
	172.634[b]	4	4.129	60.085	.060	.004
Intercept	413.236	1	525.385	950.154	.059	.412
	169.700	1	132.727	1213.191	.049	.424
T1	415.477	4	63.431	122.241	.062	.212
	16.311	4	7.998	32.083	.008	.017
Error	11.613	218	.442			
	19.656	218	.210			
Total	242.020	223				
	344.081	223				
Corrected Total	423.027	222				
	62.244	222				

The Tests of Between-Subjects Effect results in Table 6 shows whether the difference is visible for all measures or only for some. Since, in our case, it is indicated in Table 5 that there is no statistically significant difference, it does not need to investigate the differences by all criteria because the previous multivariate tests are not significant, which is an indicator of, if not the same, then very similar attitudes on this basis.

Hypothesis 3. Science diplomacy involves a good knowledge of data analysis and critical thinking, managing the effects of scientific uncertainty, distinguishing science from pseudoscience, and identifying credible sources of information, thereby contributing to uncovering common interests and achieving better results in negotiating international business contracts.

Table 7: Correlation Coefficient and Coefficient of Determination (Source: Authors' analysis in SPSS)

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	988[a]	.971	.279	38.499

Table 7 shows that the results of R (correlation coefficient) and R2 (determination coefficient) are very important. This table shows that R = .988. The value of R2 (R Square) is R2 = .971. Therefore, the role and importance of science diplomacy in negotiations of international business contracts can be explained by an aggregate variable with a percentage of even 97%, which includes knowledge of data analysis and critical thinking, managing the effects of scientific uncertainty, distinguishing science from pseudoscience, and recognizing credible sources of information - the error in estimation or Std.Error of the Estimate values to 38,499, which represents a minimal error, and the results of R and R2 can be taken as reliable, but certainly taking into account the Adjusted R Square data that confirms those above.

Table 8: ANOVA (Source: Authors' analysis in SPSS)

Model		Sum of Squares	Mean Square	F	Sig.
1	Regression	79298.221	1244.043	18.432	.000[b]
	Residual	79448.259	342.473		
	Total	158746.480			

Table 8. ANOVA shows the F coefficient and its significance Sig. Its value is F = 18.432, statistically significant at the conclusion level p<0.01 because of its Sig. Value. = 0.000. It also shows that the overall regression is significant. The Sum of Squares and the Mean Square represent results that ultimately do not affect the conclusion on whether the regression is significant or not. The conclusions drawn are based on the data presented in Table 5, specifically the F and Sig. values.

Table 9: Beta Coefficients (Source: Authors' analysis in SPSS)

Coefficients[a]						
Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	94.082	9.322		13.229	.000
	nez_nast	71.488	1.144	.832	2.494	.000

In this analysis, the variable "nez_nast" functions as the predictor variable to evaluate the regression's efficacy. The coefficients are detailed in Table 9, denoted "Coefficients", wherein the Beta coefficient serves to quantify the magnitude of the predictor variable. Notably, the Beta coefficient registers at 0.832, with a t-value denoting statistical significance ($p < 0.001$). However, within this framework, the Standard Error (Std.Error) value of 1.144 and the coefficient "B" value of 71.488 lack statistical significance. Consequently, the conclusion articulated after the preceding paragraph is reaffirmed.

Seven factors of the factor analysis were decisive in defining the hypotheses (Table 3). We chose three based on the overall rating. At the beginning of the statistical analysis with a t-test, it was determined that there is no statistically significant difference between genders regarding the understanding of the concept of science diplomacy. The next step was to examine the difference between students according to the department of study they follow at the Faculty of Law of the University "Haxhi Zeka" (Bach. and MA) and the Faculty of Law of the University "Ukshin Hoti" (Bach.) in Prizren in the context of the perception of the role and importance of science diplomacy in negotiations on international business contracts whose non-existence was also confirmed. An important indicator that should be considered when trying to understand the importance and role of science diplomacy in global business is that it affects the discovery of common interests of the negotiating parties and achieves better results in negotiations on international business contracts.

The plurality of respondents believes that science diplomacy requires experts with a strong foundation in international political and economic relations, diplomatic history, and international public law, as well as a combination of this knowledge, specialized skills, and mental flexibility. In addition, the survey results show that almost all respondents agree that science diplomacy will improve economic and trade relations as the main focus of international relations in the 21st century since it plays a vital role in international business negotiations, finding common interests, and building a better future. For these reasons, diplomats and researchers should promote science diplomacy as a leading tool in developing and improving international business and international relations.

Expected Scientific Contribution

The scientific contribution of the article is in popularizing the importance of science diplomacy in negotiating international business contracts. The authors emphasize the need for objective, scientifically relevant criteria of diplomacy that should be applied regardless of economic, political, and legal differences between nations. In this context, the article represents a valuable contribution to the scientific community, shedding light on a topic often neglected in the business sector.

This study offers several valuable insights, both theoretical and practical, including a better understanding of science diplomacy and its central role in international business relations. In addition, the article promotes further research in international business diplomacy that deserves wider scholarly attention.

This article points to the value and effectiveness of science diplomacy in negotiating international business contracts. At a time when the internationalization of research and development has intensified competition between countries in some key technologies, the activity of science diplomacy is a new vision of the world that emphasizes negotiating power.

CONCLUSION

Science diplomacy is a strategic approach that involves leveraging scientific knowledge and actions to foster better international relations and encourage global cooperation. According to studies conducted by Ruffini (2022), this approach prioritizes core values such as trust, understanding, and transparency (p. 90). In today's highly interconnected world, it's crucial to recognize the interdependence of different types of diplomacy, including economic, cultural, scientific, and technological approaches. However, it's also essential to maintain the specificity of scientific efforts to align with a country's national self-determination and concentrate on developing those directly involved in scientific work. In this way, science diplomacy can help promote mutual understanding, build trust, and facilitate collaboration among countries across the globe.

Success in international business requires a specialized approach that recognizes each country's unique needs and interests. This is where science diplomats have a vital role to play. Their experience in identifying shared interests and building bridges between national and global economies is invaluable. Thus, through their efforts, science diplomats are helping to

develop international cooperation, paving the way for a better future at all levels of political-economic development. Therefore, science diplomacy is a complex and nuanced approach that requires the joint work of scientific experts, policymakers, and diplomats. The ultimate goal is to use scientific knowledge and expertise to advance nations' interests worldwide. This can include responses to various challenges, such as economic downturns, climate change, public health crises, and security threats. In this context, by combining the resources and expertise of scientific research and development, countries can work to achieve common goals and create a more harmonious and cooperative world order.

In our opinion, directing science diplomacy to ministries means new roles for diplomats, which should include employers from universities and scientific institutions. Therefore, universities must focus more on training science diplomats. In these circumstances, a connection can be found between science diplomacy and negotiations: negotiation becomes a critical skill in developing science diplomacy, and science in the negotiation context leads to a compromise based on mutual respect and relevant information.

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CRediT AUTHOR STATEMENT

Suada A. Džogović: conceptualization, methodology, software, original draft preparation and supervision. **Anita Cucović:** conceptualization, data curation, writing, reviewing and editing. **Armand Krasniqi:** visualization, investigation, writing and validation.

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