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Section 1. Agriculture

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ECONOMIC EFFICIENCY OF IN VITRO CULTIVATION TECHNOLOGY OF BRACON HEBETOR

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Abstract

The article is aimed at determining the economic efficiency of the technology of in vitro propagation of the *Bracon hebetor* Say species. The propagation of entomophages in biolaboratories around the world requires large expenses. This requires barley, wheat, corn, margarine, milk and a lot of time. All this leads to an increase in economic costs. In vitro propagation of entomophages leads to savings in these costs. The article analyzes the reduction of economic costs using the technology of in vitro propagation of the *Bracon hebetor* Say species. This is the first part of the scientific research, the information will be supplemented in subsequent articles.

Keywords: *Economic efficiency, bracon, entomophag, in vitro, artificial medium, hemolymph, inhabitation, result*

JEL: *Q16*

Introduction

Nowadays the safety of foodstuff is considered as one of the world global problems. More than 60 countries are suffering from this problem in the world. Increasing population of our country and exceeding demand for quality food, cultivating agricultural products and searching new sources of rearing is becoming problem. That's why our motherland is paying attention widely to provide people with the safety of foodstuff in order to cultivate ecological healthy food and protect environment (Khabiba Khidoyatova and Rasul Jumaev 2024; Jumaev R. A. 2016; Jumaev R. A., Kimsanboev X. X., Adilov M. M., Rustamov A. A., 2017).

It is required much financial expenses to rear entomophags in laboratories in order to cultivate agricultural products and protect pests. In our Republic exist biolaboratories separate more than 140–150 thousand tons barley, maize, wheat to culture entomophags. It means that it causes great loss for food

industry (Khabiba Khidoyatova and Rasul Jumaev 2024; Jumaev R. A. 2016; Jumaev R. A., Kimsanboev X. X., Adilov M. M., Rustamov A. A., 2017).

To carry artificial mediums in rear entomophags is considered as the best way and it notes the duties of directions such as produce them, save and select effective sorts (Khabiba Khidoyatova and Rasul Jumaev 2024; Jumaev R. A. 2016). In rear parasite entomophags, using artificial mediums widely and automatizing them gives much opportunity to solve above mentioned problems (Jumaev R. A., Kimsanboev X. X., Adilov M. M., Rustamov A. A., 2017; Jumaev R., 2023; Li Li-ying, Liu Wenhui. 1997).

It was investigated scientifically by learning inhabitation of bracon parasite entomophag. In this article creating artificial diets medium for growing bracon parasite entomophag in biolaboratories, choosing productive diet medium and learning inhabitation of bracon parasite entomophag, which reared in artificial way, was investigated scientifically (Khabiba Khidoyatova and Rasul Jumaev. 2024; Jumaev R., 2023; Jumaev R., Sobirov T. R., Azimova M. B. 2021; Li Li-ying, Liu Wenhui. 1997).

Bracon is reared widely in biolaboratories as an effective parasite which is against for rodent pests of agricultural plants. It was widely spread in Uzbekistan and other countries of the world. By developing biological methods of learning insects for struggling against pests in the field of researching by these organisms is being payed attention much more. However, in spite of this few researches were done in the field of developing these organisms artificially. That's why we chose this branch (Khabiba Khidoyatova and Rasul Jumaev. 2024; Jumaev R. A., Kimsanboev X. X., Adilov M. M., Rustamov A. A., 2017; Jumaev R., 2023; Jumaev R., Sobirov T. R., Azimova M. B., 2021).

Methods of research

Preparing of artificial mediums. The basic ingredient of medium is prepared insect hemolymph and in addition it is added chicken yolk, solution of cow milk (10 gr /100 ml water). In each 100 ml mixture, 40–60 thousand i.u of gentamisin is added. The mixture of diets are shown at the 6th table.

It is defined there is albumen, oil, water when it is checked ingredients of master caterpillar's type that belong to bracon in nature. Ingredients of caterpillar resemble each other. That's why it is taken as a base hemolymph of wax moths' caterpillar to rear properly in laboratory. Besides, *Heliothis armigera* Hb, *Agrotis segetum* Sciss and cabbage white moths' pupal liquid is used for research.

When it dries, by cutting a small part of the tail or pressing to disjoin liquid, it is pulled with special syringe.

Natural milk mixture is added to hemolymph. In this case 1 gr of dry milk is dissolved at 10 ml distilled water and chicken yolk is added diet medium and put at ultraviolet lamp. It is rotated for 5 minutes at 2000 second speed in centrifuge.

Picture 1. *Researcher Khabiba Khidoyatova is conducting in vitro technology and its economic analysis (Experiments of the laboratory, 2024 year)*

As a result, above separated additional oil and foam is distinguished. Diet medium should be kept in the clean, without microbe room and at 20 °C cool (Khabiba Khidoyatova and Rasul Jumaev. 2024; Jumaev R.A., Kimsanboev X.X., Adilov M.M., Rustamov A.A., 2017; Jumaev R., Sobirov T. R., Azimova M. B., 2021). After medium has been ready, it is placed in special artificial caterpillars which are cleaned with 75% ethyl spirit made of politilen.

Particular thermostat, test-tube 50-PX, politilen material 4mm, spirit 75%, ultraviolet lamp, petri plate, antiseptic pipette, centrifuge 2500, medical syringe 5 ml are necessity (Khabiba Khidoyatova and Rasul Jumaev. 2024; Jumaev R. A., Kimsanboev X. X., Adilov M. M., Rustamov A. A. 2017; Jumaev R. 2023; Li Li-ying, Liu Wenhui. 1997).

A small part (1 x 1) of parafilm is extended 2x4 cm, absorbed in 75% alcohol for 15 minutes. Then it is dried with sterile printed paper, folded as a sack and fixed in order to stick both sides.0,5 ml of mediums is placed by pipette into each parafilm box. When parafilm box is fulled with mediums, it yields such depicted maggot.15–20 small holes are opened with sterile entomologic needle for properly prepared artificial caterpillars. All the processes of the preparation are required to carry out in sterile room (Khabiba Khidoyatova and Rasul Jumaev. 2024; Jumaev R. A., Kimsanboev X. X., Adilov M. M., Rustamov A. A. 2017; Jumaev R. 2023; Jumaev R., Sobirov T. R., Azimova M. B., 2021).

Diet mediums which are ready are put in test-tube (50-PX), a day ago flown and nourished bracon's (*Bracon hebetor* Say) female genders are flown in 1:5 proportion.

In order to separate 100 mostly effective diet mediums,3 kinds of diet mediums are prepared, they are investigated repeatedly 100 times. Their ingredients are following; (Khabiba Khidoyatova and Rasul Jumaev. 2024; Jumaev R. A., Kimsanboev X. X., Adilov M. M., Rustamov A. A. 2017; Jumaev R. 2023; Li Li-ying, Liu Wenhui. 1997).

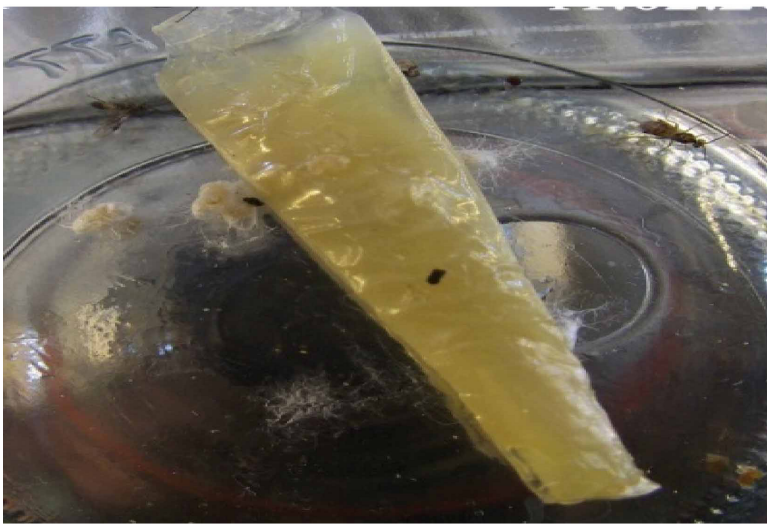
Results of the research

In each experiment 200 artificial caterpillar are formed from diet mediums of above structure and each of them is experienced 100 times.(1-picture).

We chose a type of bracon to be harmed with bracons. *Bracon hebetor* Say, this type is tolerant, durable in extreme condition. It is practiced by means of choosing convenient state in developing each type to be harmed diet mediums with bracon and in this condition it is put in thermostat.

Damaging the type of bracon with diet mediums at +28±1 °C temperature, at 68±3% moisture.

Picture 2. *Bracon hebetor Say artificial propagation technology (Experiments of the laboratory)*



To compare bracon generation of all diet mediums with tunla caterpillars, cotton-plant caterpillars are also damaged with bracon (1-table).

Table 1. *In vitro propagation of Bracon hebetor to determine the cost-effectiveness of artificial nutrient media compared to natural methods in in vitro technology. (Experiments of the laboratory), (+31±1 °C, RH 65±2%)*

Types of diet mediums and their ingredients' expenditure limit %			The amount of damage % with parasite for artificial caterpillar	Development degree of Bracon in diet mediums by days				All the numbers of generation days	Genders proportion ♂: ♀
				Egg	Larva	Pupa	Undone developing	Imago	
A									
A1	A2	A3	86,5	1,8±0,2	5,4±0,3	4,6±0,4	—	1,5±0,9	13,3±0,8	1:6
40,04	30,03	29,03							
B									
B1	B2	B3	61,3	1,3±0,5	3.3±0,9	4,8±0,9	1,8±0,2	—	12,2±0,5	1:1
45,01	28,02	26,07							
C									
C1	C2	C3	73,4	1,7±0,5	4,8±0,2	4.5±0,3	—	2,3±0,2	12±0,3	1:4
50,04	25,03	24,03							

The indexes of specifying bracon generation's developing artificially made caterpillars in different expenditure limit.

According to it, the first diet medium (A) organizes damaging degree with bracon 86,6% of all prepared diet medium, It takes about 13,3 days from eggs to imago (mature) period. Imagos live 5,8 days.It takes 1,8 days to birth larvae from eggs,5,4 days for larva period,4,6 days for pupa period.

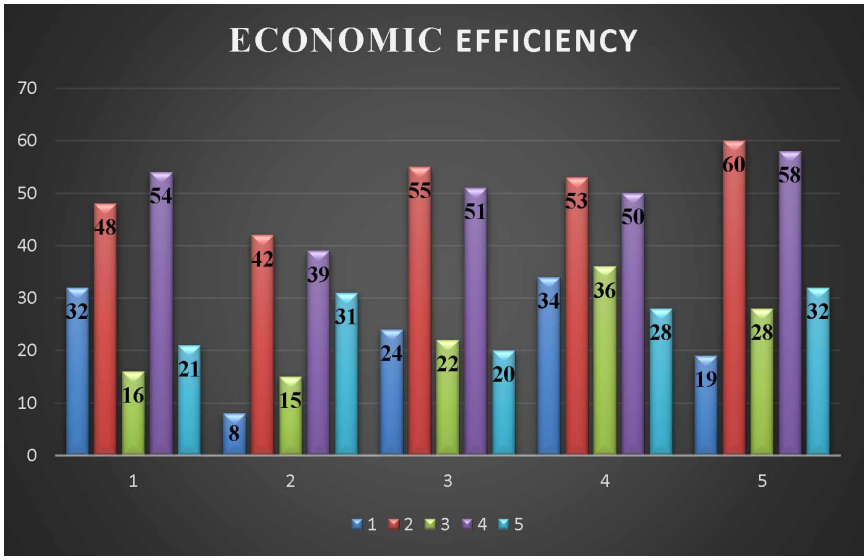
Picture 3. *Young scientist Khabiba Khidoyatova and Economist Islambek Asomutdinov are conducting scientific research to determine the economic efficiency of the in vitro propagation technology of the Bracon hebetor Say species. (Experiments of the laboratory, 2024 year)*

Genders of bracons which went out from medium are male: female proportion will be 1:6. In next diet medium (B) damaging degree of bracon mediums will be 61,3%. It takes 1,3 days to go out larvae from eggs, in diet medium caterpillars inhabit 3,3 days and transform to pupa. Pupa period continues 4,8 days, imagos develop a little and in pupa period they die in spite of observing their flying. In next mediums (C) bracon damage diet mediums till 73,4%. It takes 1,7 days to appear larvae from layed eggs and they begin to consume nutrition.

Larvae develop for 4,8 days in this diet mediums and pupa period includes 4,6 days. Genders of bracons flown from medium are male: females proportion is 1:4.

It is defined during research that prepared all diet mediums are detrimented with bracon generation, they layed their eggs there. But some of diet mediums die because of inconvenience for developing parasite generation.

Picture 4. *Young scientist Khabiba Khidoyatova and Economist Islambek Asomutdinov Young scientist Khabiba Hidoyatova are conducting scientific analyses to determine the economic efficiency of in vitro technology*



According to mediums' structure the portion of only wax moths hemolymph (A) is 40,4 and in this diet medium bracon parasites progress continuingly. The reason of it, there is average albumen and oil in the ingredient of hemolymph. They are convenient for developing parasite larva.

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Section 2. Economics and Management

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EVALUATION OF THE ROLE OF DIGITAL ENTREPRENEURSHIP IN ECONOMIC DEVELOPMENT: IN CASE OF THREE DIFFERENT REGIONS

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Abstract

Entrepreneurship has long been considered to have a direct and strong impact on the economic growth of a country by creating employment opportunities and increasing gross national income (GNI). However, in this era of fast-paced technological changes, owners should be able to combine traditional and radical production methods by accepting digitalization in the form of joining web platforms and becoming accessible online, to increase profitability and at the same time, help the country's imminent development.

This paper is a basic study aiming to describe the mutually beneficial relationship between digital entrepreneurship and economic growth on the example of three world regions: West Europe, East Europe, and Southeast Asia. The findings of this study will reveal the undisputable economic growth situation resulting from digital entrepreneurship due to the access for and employment of a wider population. Moreover, this study is presented as a reliable source of information for every individual and researcher on the details of digitalization in businesses, especially in the three case areas.

Keywords: *digital, entrepreneurship, online, technology*
JEL: *L26*

Introduction

In the last few years, the global markets have been filled with sales of innovative products and inventive manufacturing methods saving millions and generating just as much, all thanks to a growing magnitude of entrepreneurial activity in all the economies. An entrepreneur is a risk-taker who tends to pursue opportunities bigger than what his own resources can currently sustain. Entrepreneurs are also business owners and generators of ideas that will doubtlessly foster economic development by first and foremost reducing unemployment, redistributing income to more people in wider geographical areas, and increasing the gross national

income (GNI) by producing more output with more efficient use of assets (Dhaliwal, 2016). The benefits of an entrepreneur to a country's economy have long been researched and proven by various experts, the most well-known of which was developed by a famous economist Schumpeter going as far as in the beginning of the twentieth century. He described them as individuals not motivated by profit, but rather enablers of social gain simply measuring their success with money (Śledzik, 2013). However, the significantly less researched department of venture capital advancement is digital entrepreneurship.

This study aims to delve more into the advantages of digital entrepreneurship on economic activity, focusing on general areas like North America and West Europe, East Europe, and Southeast Asia. Differing development rates, varying access to the world web and political support in the chosen example regions will aid investigate the economic and business opportunities resulting heavily from the application of digitalisation.

The structure of the paper is as follows: beginning with the review of existing literature, then description of key objectives, limitations, followed by analysis based on the comprehensive statistics collected first- and second-hand, results evaluation according to the region division and conclusion revealing the essential digitalisation process underway for a strong future economy of any country.

Literature review

The term 'digital entrepreneurship' started gaining recognition among businesspeople and researchers in the late twentieth century, coinciding with the rapid and widespread diffusion of the Internet (Kollmann et al. 2021). As a relatively recent concept, its precise definition remains open to multiple interpretations, and its entire benefits are yet to be fully realised.

The process of digitization in businesses began slowly but it progressed rather quickly, sweeping all the traditional industries on its way. According to McKinsey's report, the difference between simple organisational and digital transformation is its long-term efforts for change and continuous improvement in an enterprise (McKinsey & Company, 2023). However, the term "digital transformation" along with "digital entrepreneurship" still signifies different things to different people.

The most cited article on the theme by Elizabeth Davidson and Emanuelle Vast, for instance, claims online entrepreneurship to be "the pursuit of opportunities based on the use of digital media and other information and communication technologies" (Davidson and Vaast, 2010). The authors propose a model of three interconnected digital venture opportunities: business– creation or digital transfer of enterprises via the World Web (e.g. Amazon.com); knowledge-based– wealth creation through information distribution, and institutional entrepreneurship that organises or transforms existing institutional standards. The similarity of all three structures, though, is said to be the endangerment of competitors' enterprises by disintegrating the traditional established organisations, as the newly, digitally set up businesses are more productive and cost effective.

The productivity surges and the growth of digital start-ups will eventually result in cross border sales, a point discussed by van Welsum in their "Enabling Digital Entrepreneurs" paper (Welsum, 2016). When supported by favourable economic conditions in the form ofappropriately skilled workforce and 'big data' regulations by governments, these digital enterprises will be better positioned to overcome both market entry and geographical barriers. This is particularly advantageous for developing countries, where digital entrepreneurship can fuel "the creation of new markets, the exploitation of existing markets and integration into global value chains". By tapping into a broader customer base, these nations stand to gain considerable economic advantages and expand their global presence.

From the discussions mentioned above, it is assumed that, despite some minor disadvantages, the advantages of digital entrepreneurship – such as lower costs, increased accessibility, reduced unemployment, and more – are proportionally greater. Although this topic has already been greatly researched, the aim and difference of this research lies in the thorough exploration of those pros and cons, carefully comparing the North American/West European, East European and East Asian regions in the context.

Research question

The primary questions this paper aims to answer are:

1. What is digital entrepreneurship and which industries does it currently cover?

2. What are the sample population's general attitudes and beliefs regarding digitalization in businesses?

3. What are the main benefits and challenges of digital entrepreneurship on economic development? Exploring on the basis of the example regions.

4. What role do governmental policies play in digitalization influencing the economy in North America/ West Europe, East Europe, and East Asia?

5. What is expected in the future of digital enterprises, a wider expansion into areas or unsustainable business practices?

Limitation

Digitalization took over the world and businesses specifically in a fast and ruthless manner. It became obvious over the years that to stay afloat in the digitised era, companies would need to be agile and adaptive, not fearing to innovate (Team EMB, 2024).

The regions were selected for their diverse levels of digitization, network access, political inclinations, and economic trajectories. This area division reflects several key factors: North America hosts the headquarters of many leading technology companies with Western European countries exhibiting similar high digital intensity in businesses, while Eastern Europe lags significantly behind; East Asian countries, at the same time, have shown a strong and growing presence in global online markets, keeping up with its competitors in an admirable way (European Commission, 2024; The World Bank, 2024; Park et al,. 2022). These variations provide a comprehensive perspective on how different regions are navigating the digital landscape.

Research methodology

The research is done on both the primary and secondary collected data. Primary data consists of an online questionnaire on the general participants' experience regarding digital entrepreneurship in their country. Secondary data includes but is not limited to journal articles and reports with vast statistical data on the research topic.

The collected responses, in total 119 where 40 represent North America/West Europe division, 40 belong to the East European participants, and 39 to Southeast Asian, were collected and analysed through an Excel platform. As the North American and West European respondents tended to represent similar patterned answers, it was decided to generalise them into one area. North America/Western Europe includes respondents from the U.S., U.K., Canada, France, and Germany, among others. Eastern Europe is primarily represented by Poland, Romania, the Czech Republic, Greece, and Serbia. Southeast Asia includes responses from countries such as Singapore, Malaysia, Indonesia, and Vietnam.

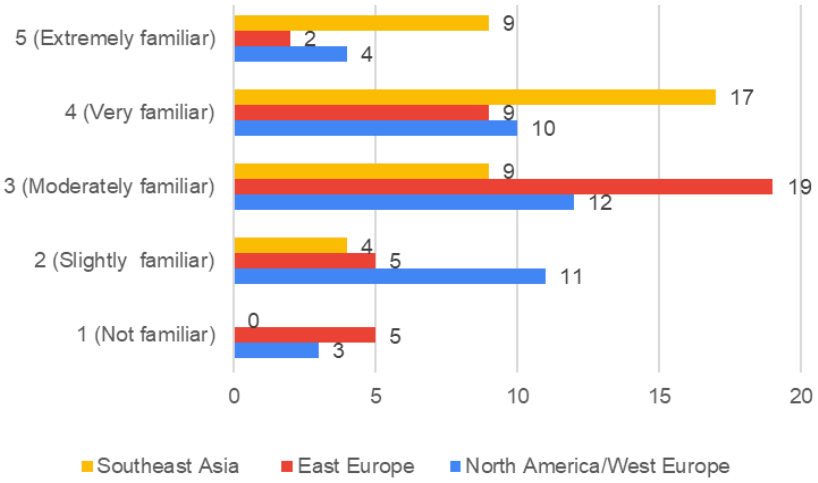
Discussion and survey results for empirical analysis

Although digital entrepreneurship emerged with the popularisation of the Internet, a significant shift occurred during the COVID-19 lockdown, when many traditional businesses rapidly transitioned to the technological landscape (O'Toole et al., 2020). This transformation allowed them to maintain customer interactions and operations online, adapting to the new realities of restricted physical access. However, even after the pandemic was dampened and life returned to normal, businesses continued to dominate the online market segments. In a world where nearly all information is filtered through technological platforms, embracing digital transformation is no longer optional but vital for companies to survive, retain existing customers, and attract new ones (O'Toole et al., 2020). Leaders with a forward-looking vision and a commitment to success through digital transformation not only reap these financial benefits but also build stronger, more satisfied customer bases, positioning their businesses for sustained growth (MIT Sloan Office of Communications, 2022). But is it true according to statistics? And do the consumers in North America, Europe and Southeast Asia actually benefit from digital entrepreneurship?

The insights into these critical questions were drawn from a questionnaire of 119 participants expressing their views, con-

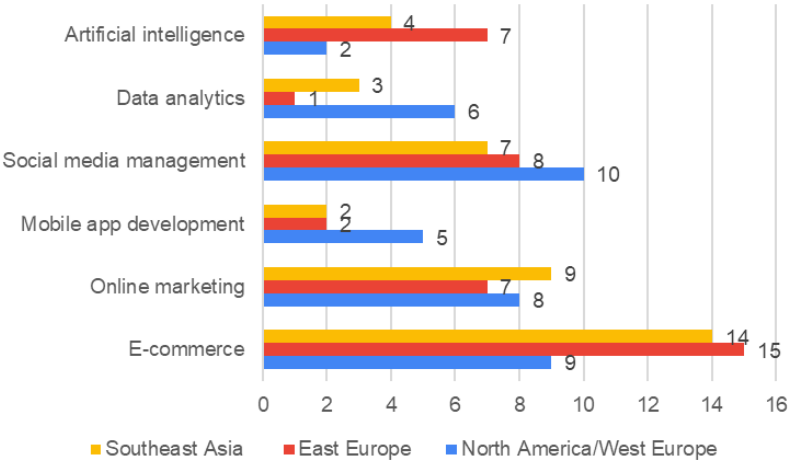
cerns, and predictions into the future of online businesses.

Figure 1. *'How familiar are you with digital entrepreneurship?'*



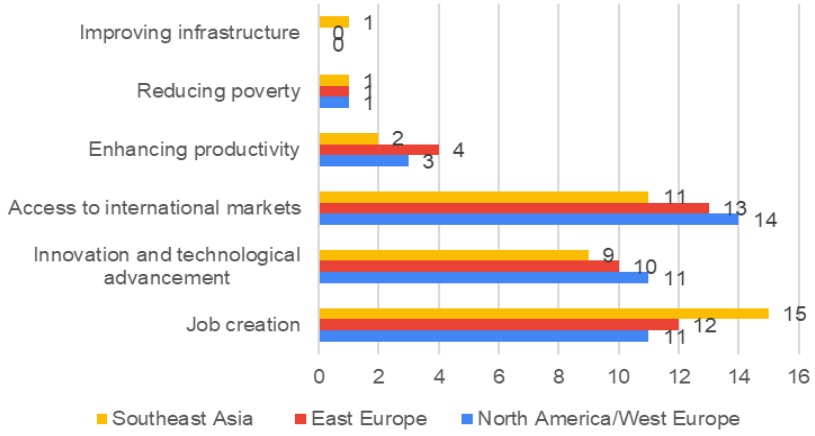
The two introductory questions in Figures 1 and 2 assessed respondents' familiarity and knowledge of the digital entrepreneurship sector, revealing Asian participants being predominantly 'very familiar' with this area, while the European and American majority reported being 'moderately familiar.' This disparity is not surprising, as many Asian governments have invested in high-quality digital infrastructure to support the growth of online businesses (Park et al., 2022). The benefits of such investment are illustrated in the second figure, where respondents express with which areas of digital entrepreneurship they are most familiar.

Figure 2. *'Which of the following areas of digital entrepreneurship are you most familiar with?'*



The widespread adoption of e-commerce across all regions, demonstrated in Figure 2, reflects its growing significance to both global consumers and producers, driven by the alignment of demand with supply. This trend may be attributed to the facilitation of decision-making, enabled by the vast quantity and quality of information available to customers in online marketplaces with just one click (Li, Kuo, and Russell, 1999). The ability to quickly find numerous substitutes across different brands and price points makes online shopping increasingly convenient. Producers, in turn, capitalise on the growing demand for online shopping by selling their products online, greatly reducing overhead costs such as rent, utilities, and labour wages (Briggs, 2024). The reduction in average costs, however, is just the tip of the "digital entrepreneurship" iceberg.

Figure 3. *'Which of the following areas do you believe are most impacted by digital entrepreneurship?*

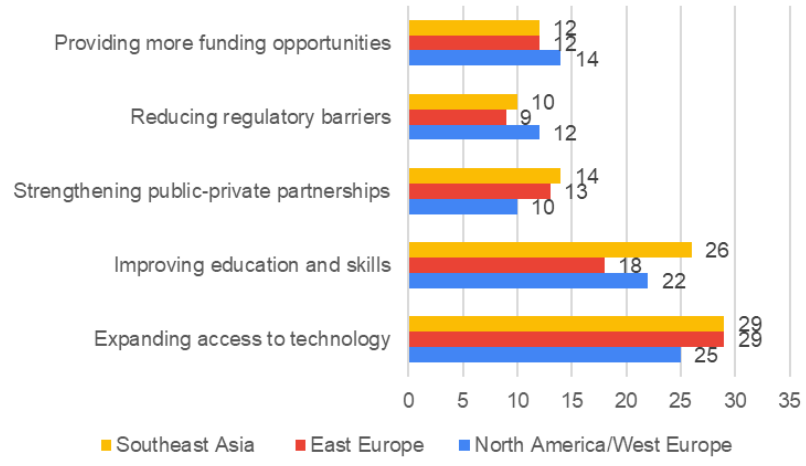


Following the surge in e-commerce users, a rise in international trade – identified as a favoured feature of digital businesses by respondents, as shown in Figure 3-is to be expected. Cross-border sales, once requiring significant resources, business experience, and multinational status, have now become significantly more accessible to small and medium-sized enterprises (SMEs) (Manyika et al., 2016). This development carries significant economic implications for every country involved, as it not only contributes to GDP through increased production of goods and services but also improves company performance and productivity in the face of highly competitive international markets. It is especially important for developing countries of Eastern Europe and Southeast Asia, where easy access to global markets through digitalization enables these economies to flourish and overcome the constraints of their small local markets.

The simplicity of cross-border trade and reduced entry barriers brought about by technological advancements allow any motivated and well-resourced individual to establish an enterprise. As is typical, any start-up business requires skilled personnel to operate, leading to another highly-rated benefit of digital entrepreneurship: job creation. Data collected between 2006 and 2016, for example, shows that nearly 40 percent of new jobs in OECD countries were created in digitally intensive sectors (OECD/European Union, 2019).

Additionally, in 2015, 86 percent of employment in the Netherlands was attributed to the online business sector, further highlighting the substantial impact of digitalization on employment.

Figure 4. *'What do you think are the biggest benefits of digital entrepreneurship on economic development?'*



In addition to providing job opportunities, technology-driven businesses also enhance the skill sets of the workforce, as shown in Figure 4. Employment in ICT-focused firms requires at least basic digital skills, which are lacking in 37 percent of the European Union(EU) labour pool, according to OECD data (OECD/European Union, 2019). To enhance productivity and fully integrate communication technologies into their daily activities, business leaders must use various training methods, such as video tutorials and app-based learning, to effectively impart the necessary knowledge. As an example, there was found a positive relationship between app training in digital skills for migrants and Greek entrepreneurs' willingness to embrace digitalization (Drydakis, 2022). In doing so, tech-oriented enterprises not only cultivate skilled employees for their own operations but also contribute to improving national workforce statistics and the country's overall growth rate.

Nonetheless, the country's growth rate cannot keep rising as long as access to technology is not available to most, which is a big issue in developing economies. Corresponding to the survey answers in Figure 5, statistics revealed that Internet penetration rate of North.

Figure 5. *'Do you believe digital entrepreneurship opportunities are equally accessible to all?'*

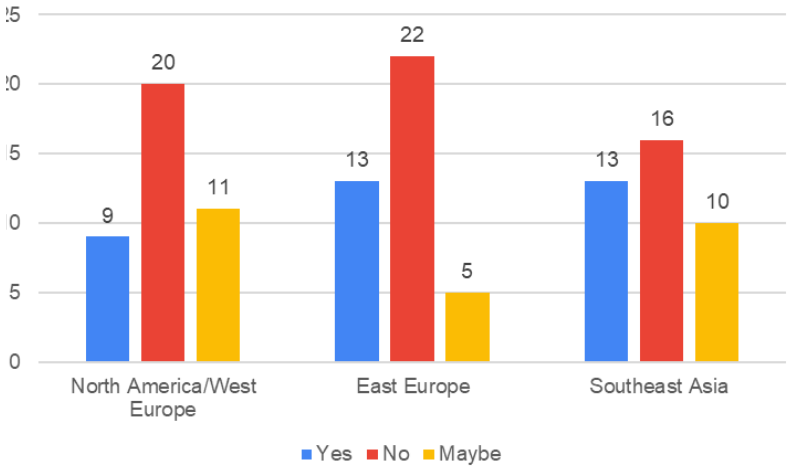
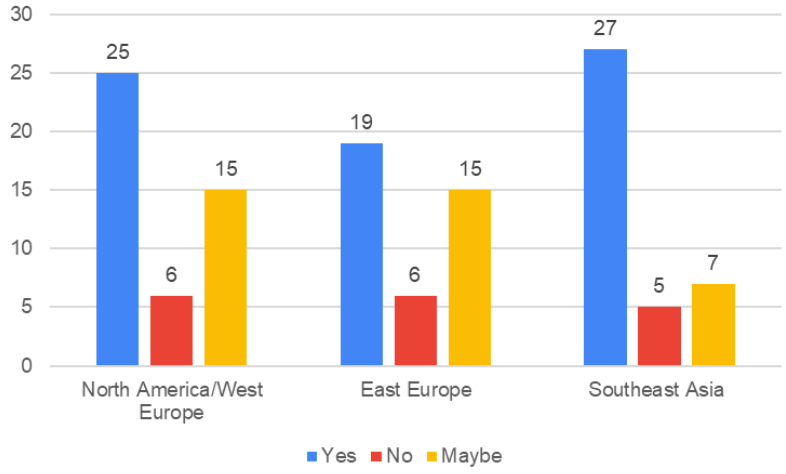


Figure 6. *'Do you believe digital entrepreneurship has the potential to disrupt traditional industries?'*



America/Western Europe is slightly higher than in Eastern Europe and 20 percent higher than in Southeast Asia (World Bank Group, 2024). The lack of equal technological access is particularly evident in the disparity between male and female digital entrepreneurs, with 72 percent of global digital entrepreneurs being male and only

28 percent female. A similar gap exists in basic internet usage, with 87 percent of men and 85 percent of women online in Europe (United Nations Publications, 2022). The convenience of organising online businesses, along with the resulting improvements in employee skills, can help address some of these constraints.

Despite all the benefits of digital enterprise, one of its critical concerns mentioned by participants in Figure 6 is the disruption of traditional industries. It is a recurring theme in the areas of technological advancements that old methods are replaced by new. Just as manual labour was replaced by machines during the Industrial Revolution, and machines are now being replaced by artificial intelligence, these shifts have become the norm. Such changes, although temporarily destabilising the economy, lead to a continuously revolutionized economic structure (Ivanović-Đukić, Stevanović, and Radjenovic, 2019).This transformation is inevitable, digital entrepreneurship swiftly taking over traditional industries, but it should be a prerogative of governments to ensure the smoothest adjustment period for its economy.

Regarding the state involvement, although the majority of survey respondents in Figure 7. express satisfaction with the development of digital entrepreneurship in their country, Figure 8 shows that most view government policies as only 'moderately supportive' of these advancements.

Figure 7. *'How do you feel about the development of digital entrepreneurship in your country?'*

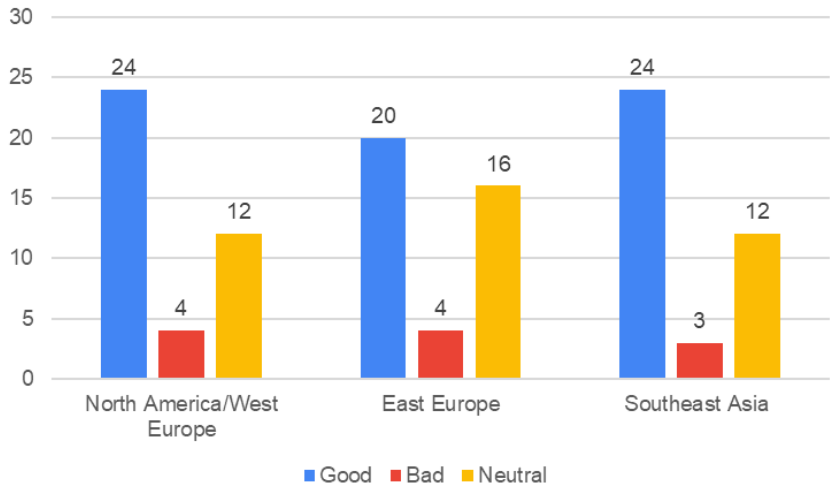
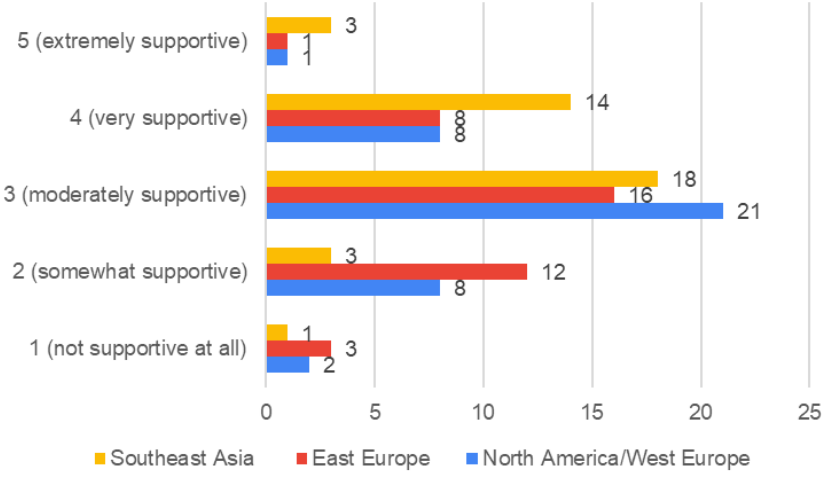


Figure 8. *'How do you perceive the role of government policies in supporting digital entrepreneurship?'*



Interestingly, 'very supportive' is the most common response among the Southeast Asian sample population, while 'somewhat supportive' is the predominant sentiment among respondents from Eastern Europe. One of the reasons could be because the Asian governments invest heavily in digital technological infrastructure, provide generous financial support to businesses of all sizes, create a suitable environment for business expansion and many more, all in the name of entrepreneurial development and investment into the technological sector. The Malaysian government, for instance, collaborated with private sectors to create attractive entrepreneurial ecosystems by significant funding and arrangement of networking hubs (Park et al., 2022).

In contrast, Eastern European policymakers should recognize the importance of digital entrepreneurship for their economies, increase institutional support, and ensure affordable high-speed internet infrastructure, particularly in rural areas, to engage more young entrepreneurs. For example, some of these essential actions have yet to be implemented in Croatia, one of the countries surveyed (Turuk, 2018). Ultimately, fostering a supportive ecosystem for digital entrepreneurship is essential for driving economic growth in both regions.

Figure 9. *'Do you think digital innovation has facilitated or will facilitate economic growth?'*

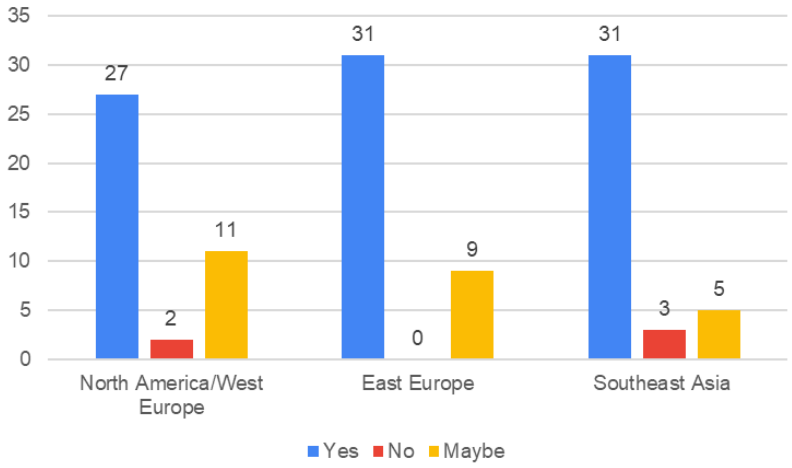
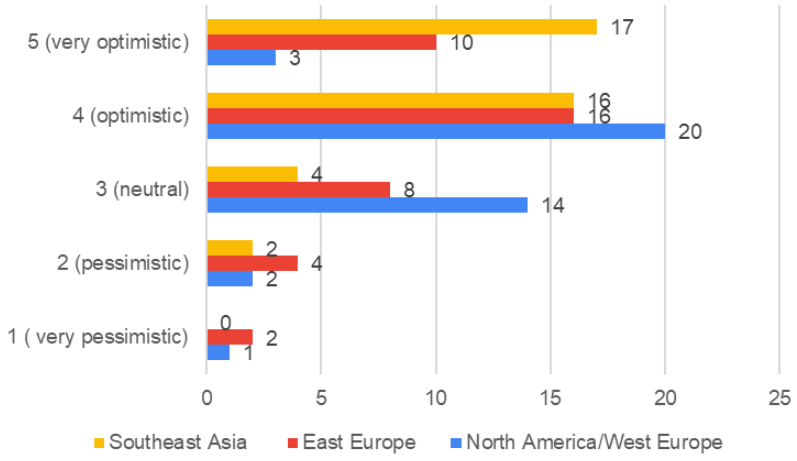


Figure 10. *'How optimistic are you about the future of digital entrepreneurship in the next 10 years?'*



Even though there are some hardships of digital entrepreneurship, especially in the traditional industry companies, the respon-

dents seem to have a confident outlook on the development.

Figure 9 and 10 display a collective belief in online businesses' beneficial influence on the country's economy and a strong faith in further changes.

With strengthened government support, improved financial aid, and an optimistic public attitude, it is extremely realistic to expect a higher return for companies and facilitated overall economic growth within tech-enabled enterprises.

Conclusion

The paper aimed to address the benefits and doubts regarding tech integration in an entrepreneurial landscape, a highly relevant discussion in the modern digitalized era. In the modern business environment, it is increasingly essential for companies not only to superficially adopt digital tools but to fully integrate technological advancements into their core, profit-oriented structures. Using the example of three global regions – North America/Western Europe, Eastern Europe, and Southeast Asia – it is evident that digital entrepreneurship is becoming the preferred approach to conducting business worldwide. Individual firms reach a wider customer base, get valuable insights about their target audience, and unquestionably earn higher profits, while simultaneously single-handedly contributing to national well-being through workforce skill enhancement, job creation, and engagement in international trade. And although the concern over disruptions to traditional industries is valid, supportive government policies and targeted investments can help to minimize these effects. Transitions from traditional to digital methods can be nerve-wracking and bothersome, yet the magnitude of digital entrepreneurship's positive impact on the economic development of a country justifies the effort. With persistence and adaptability, business owners can navigate these changes and fully realize the benefits of a digitally integrated economy.

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Section 3. Political science

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THE EVALUATION OF THE MODERN DIPLOMACY AND ROLE AND INFLUENCE OF AMBASSADORS IN THE CONTEMPORARY WORLD

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Abstract

This paper aims to review modern diplomacy and clarify the role and influence of Ambassadors in the contemporary world and to alter the attitudes of individuals who do not understand the role of diplomats or who believe it is an easy task.

Since the origin of diplomacy is generally bilateral, the rules and traditions established for bilateral diplomacy are almost entirely applied in multilateral diplomacy and even in summit diplomacy. In this respect, while discussing the methods of multilateral diplomacy and summit diplomacy, only the features that distinguish it from bilateral diplomacy will be stated.

In recent times, this topic has gained significant popularity as people often debate whether diplomats genuinely contribute to global peace and stability or if their roles are merely symbolic. Nevertheless, the research and news stories demonstrate the vital importance of ambassadors in forming relationships between nations, participating in discussions on global issues, and forging agreements to tackle major problems. Their involvement and cooperation are crucial in allowing people from diverse nations to live together in harmony. Furthermore, all accords and congresses imply that diplomats and their contributions will be required in the future.

Keywords: *diplomacy, ambassador, politics, digital diplomacy, power distribution*
JEL: *Z10*

Introduction

Political science is the field that delves into the study of politics, government, and political behavior. It encompasses an examination of how political systems operate, ranging from governance to relations. Within this discipline, various aspects are explored, including power dynamics, policy development, electoral processes, and the behaviors displayed by individuals and groups within contexts. Political science is divided into subfields such as politics, international relations, and political theory, each of which focuses on different aspects of politics. Through its analysis of power distribution, institutional roles, and policy impacts on societies,

science provides invaluable insights into the governing mechanisms of societies and the decision-making processes within politics.

An ambassador is the President's highest-ranking representative to a specific nation or international organization abroad. Ambassadors hold a position in the area of diplomacy as they serve as esteemed representatives of their respective countries abroad. Their primary duty revolves around advancing and safeguarding their home nations' interests while fostering productive relationships with host countries. Ambassadors actively engage in endeavors by conducting meetings and negotiations with government officials from both administrations and foreign nations alike. They diligently work towards furthering their country's foreign policy objectives while effectively advocating for interests and seeking solutions to shared challenges.

Additionally, ambassadors serve as sources of information and analysis by providing their governments with insights into the host country's political landscape along with economic trends and social developments.

This information is crucial, in order to make knowledgeable decisions regarding policy. Additionally, ambassadors actively take part in cultural and public diplomacy initiatives aimed at promoting understanding and advancing relations between nations. They attend events, deliver speeches and interact with communities to strengthen the bonds between countries.

Review of modern diplomacy

Digital diplomacy: With the change of conditions and technological possibilities, new methods and tools have begun to be used in diplomacy. The concept of classical diplomacy made the negotiations between the foreign affairs bureaucracy of the states and the bureaucracy of the interlocutor states understandable. However, states later found it important to influence the thoughts of the citizens of foreign states. In this sense, the concept of public diplomacy also came to the fore during the Cold War. In public diplomacy, states tried to gain the attention of the citizens of foreign states and influence their thoughts by using tools such as culture, tourism, art and education.

Today, with the increase in internet use, states use the digital field in the context of public diplomacy. Digital diplomacy is considered a form of public diplomacy. Today, digital diplomacy is called "diplomacy 2.0" or "net diplomacy" inspired by Web 2.0 (Manor, 2017). Digital diplomacy can be defined as a means of achieving diplomatic goals using the internet and technological communication tools (Sotiriu, 2015, p. 35). Ambassadors are the highest-ranking civil servants representing a state in a foreign country. Ambassadors have important responsibilities in developing and maintaining relations between states. So, Ambassadors continue their duties by strengthening their relations with state leaders, politicians, opinion leaders and civil society organizations in the countries they are in.

Table 1. *Interaction with Turkish Ambassadors on their own posts*

Country	Ambassador	Follower	Number of posts made by the ambassador in foreign languages	Likes	Comment	Retweet
Bulgaria	Aylin Sekizkok	2.395	2	84	–	33
Czech Republic	Egemen Bagish	1.3Mln	2	616	51	479
France	Ismail Hakki Musa	3.554	12	2436	238	1228
Spain	Jihad Erginay	2.563	–	–	–	–
Hungary	Ahmet Akif Oktay	517	1	–	–	–
Slovenia	Esen Altugh	126	2	6	2	–

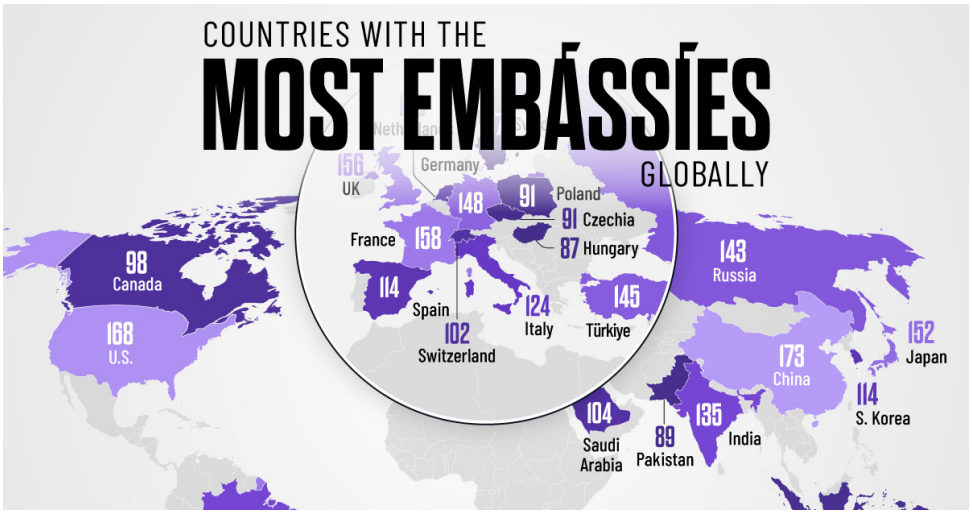
Although this issue is controversial, it is thought that ambassadors can help their country's decision-makers in policy-making because they know the country they are in well and follow the developments more closely (Sönmezoğlu, 2012, p. 460), however, there have been changes in the job descriptions of ambassadors and the expectations from them over time. The following table seems best example about digital diplomacy.

While some of the responsibilities included in the job descriptions of ambassadors are decreasing in importance, some are increasing. As states attach more importance to public diplomacy and work in the digital field, ambassadors are also given new responsibilities. While ambassadors continue their political activities by meeting with the politicians, foreign policy bureaucracy and civil society organizations of the country they are in, they are also expected to establish closer relations with the society in terms of public diplomacy activities. The opportunities offered by the digital field in terms of establishing relations with the society also attract the attention of ambassadors. Ambassadors became more visible on Twitter towards the end of the 2000 s. In fact, Chinese diplomats actively use Twitter despite it being banned in their country.

Understanding the role of ambassadors

The activity of gathering information about the country they are assigned to and reporting it to their capital is considered one of the most important functions of resident embassies. All kinds of topics that include all aspects and activities of a country, such as the country's economic situation, foreign policy, the strength of its armed forces, the health of its leader, internal balances of government, political parties, and election predictions, are included in the embassy reports.

Figure 1. *Most Embassies in the world*



Source: https://www.visualcapitalist.com/countries-with-the-most-embassies-around-the-world

Additionally, ambassadors involve themselves with cultural and public diplomatic initiatives aimed at improving cultural awareness among states and improving relations between countries around the world. They visit cultural activities, provide speeches, and interact with local people for better relationships. Ambassadors are essentially the spokespersons through which domestic affairs are communicated to the host nation while also ensuring that bilateral agreements between the two states are observed.

Diplomats do this through:

1. Negotiation: The ambassadors carry out discussions to promote the interests of their home countries and to make an agreement with the host's government. It will be successful if there is enough common ground between the diplomats.

2. Information Sharing: Their government receives important details about the

political position, economy, and social environment of the host nation which form the base for foreign policy-making decisions.

3. Relationship Building: Ambassadors build rapport between other ambassadors, local officials, government representatives, and important individuals that will facilitate the accomplishment of policy goals.

4. Public Diplomacy: They involve themselves in public relations, international intercourse, and educational activities that endeavor to build positive images of their nations. Through such means, ambassadors provide vital support in the crafting as well as the realization of their respective countries' forex policies.

For some individuals, those aspects may appear easy, but because people have diverse personalities and finding common ground can be challenging, it holds true regardless to the nation. When diplomats visit a foreign country and engage with theirerparts for the first time, it is essential for them to do proper research beforehand. This includes gaining insight into the country's history, traditions and past, which helps them better understand and interact with the diplomat from the host country, enabling them to make informed decisions. These factors mentioned are just a few examples, as numerous other considerations also play an important role in this process.

Embassies meticulously avoid the second type of "illegitimate" methods, which are described as espionage. Because if revealed by the government, situations may arise that would at least require an official apology, and in more serious cases, may even lead to the diplomats being declared persona non grata and extradited to their country.

The challenges to international negotiation

Drafting foreign policy agreements between countries can be a complex task fraught with challenges. Occasionally, conducting thorough research beforehand is insufficient, and even the most accomplished and competent diplomat may have challenges with certain issues.

There are many reasons for this close international relationship:

1. National interest: States often have divergent and sometimes conflicting interests, creating complex knowledge-seeking interactions.

2. International relations: The state of international relations, the degree of trust and past conflicts can significantly affect the ease with which foreign policy objectives can be advanced. 3. Global Context: The global political arena, replete with complex coalitions and alliances, casts its shadow on the pursuit of foreign policy objectives.

4. Cultural differences: Acknowledging and respecting the nuances of different cultures is essential for effective communication.

5. Ever-changing dynamics: The rapidly changing global environment, marked by economic crises and security risks, can undermine even the most well-conceived foreign policy objectives 6. Domestic Political Influence: The pressure exerted by domestic considerations and the influence of public opinion has a significant impact on the ability of the government to pursue a particular foreign policy.

Influence to home country

By holding diplomatic talks and negotiations with representatives of the host nation, they advocate their nation's interests and work to reach accords that will help them both. Then, through reporting on social, political, and economic events in the host nation, ambassadors offer insightful information. Their government uses this information to make well-informed decisions about foreign policy. Additionally, they have crisis management skills. When it comes to handling potential crises or disputes between their home nation and the host nation, ambassadors are essential. Their goal is to prevent escalation and find peaceful solutions. Through facilitating trade agreements, encouraging investment, and assisting domestic companies in establishing international contacts, ambassadors frequently seek to strengthen economic ties. In conclusion, ambassadors are working to maintain peaceful relations and promote cooperation with other nations.

Conclusion

The rapidly spreading technology in the world has caused the political and social framework of the old world's perception of diplomacy to change. The 21st century diplomacy, which can be called global diplomacy,

has ceased to be a diplomacy method only between states or governments.

Unlike the old diplomacy method, it has become a type of 'civil society diplomacy' that is used and applied in a much more comprehensive way. In fact, it appears before the society as a diplomacy method that the public also shares, open, global, in other words, new diplomacy, with practices aimed at the public, makes its subjective presence felt as a field of thought and practice. Diplomacy, which can be defined as an official activity carried out for peaceful purposes, has gone through many periods until it reached this stage. From the institution of consulate called "Prexenos" encountered in ancient Greek diplomacy to today's rapid transformation and change diplomacy brought about by globalization, it has come. In a world where communication has become global, traditional diplomacy methods have given way to new diplomacy methods. It is an accepted fact that globalization has a negative and corrosive effect on the size and capabilities of the state. The benefits of digital diplomacy are much greater within the scope of globalization. In this discipline, where the world's master diplomacy game-makers are involved, it is necessary to stay in the game and play by the rules.

In this process where digital diplomacy has come to the forefront and is advancing rapidly in the global world, our scientific work and similar research will be of special importance in creating institutional strategies based on the expectations of our country and individuals from universities and scientific studies.

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Section 4. Psychology

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ENHANCING EMOTIONAL INTELLIGENCE: THEORETICAL FRAMEWORKS AND PRACTICAL INTERVENTIONS

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Cite: *Asadov F. (2025). Enhancing Emotional Intelligence: Theoretical Frameworks and Practical Interventions. European Science Review 2025, No 1–2.* https://doi.org/10.29013/ESR-25-1.2-24-30

Abstract

This research explores the theoretical frameworks and practical applications of emotional intelligence (EI), emphasizing its role in individual and social functioning. Using the Mayer-Salovey-Caruso four-branch model, the study emphasizes the interrelationship between the perception, use, understanding, and management of emotions. The results confirm the validity of the four-factor model of EI and show that individuals in leadership roles exhibit higher EI scores, especially in emotion management and empathy. In addition, research highlights the effectiveness of social-emotional learning (SEL) programs in enhancing emotional and social skills in educational settings. Despite these advances, limitations such as reliance on self-report measures and cultural differences in emotional expression suggest a need for more objective methodologies and cross-cultural research. These insights strengthen the transformative potential of EI in personal and professional domains, paving the way for targeted interventions to develop emotional skills.

Keywords: *Emotional Intelligence, social-emotional learning, emotional development, leadership and emphaty*

JEL: *P46*

Introduction

Emotional intelligence (EI) has emerged as a cornerstone in understanding and improving human interactions in contexts ranging from interpersonal relationships to complex organizational dynamics. Defined as the ability to recognize, understand, regulate, and influence one's own and others' emotions, EI integrates emotional and cognitive domains, enabling individuals to manage life's challenges with greater adaptability and resilience. Moreover, although emotional intelligence is misrepresented in the media, it is actually scientifically proven to be a part of intelligence (Mayer, Salovey, & Caruso, 2004).

Research highlights the profound impact of emotional intelligence on critical life domains, emphasizing its role in men-

tal health, social competence, and decision-making. For example, high EI is associated with enhanced stress management, lower anxiety levels, and greater psychological resilience. In addition, the cluster of emotion-related self-perceived abilities and actions encompassed by the EI construct has been scientifically proven to be associated with academic performance. This has important implications, particularly for vulnerable or disadvantaged adolescents. (Schutte et al., 2001; Petrides, Frederickson, & Furnham, 2004). Similarly, students with emotional intelligence in education not only demonstrate better academic outcomes, but also demonstrate improved emotional regulation and interpersonal skills that contribute to long-term success (Durlak et al., 2011).

The origins of emotional intelligence as a concept can be traced back to the broader field of social intelligence. Thorndike (1920) originally defined social intelligence as the ability to understand and manage people effectively. He saw social intelligence as the ability to understand the behavior and emotional reactions of individuals and use this information to manage relationships. According to Gardner (1983) introduced a theory of multiple intelligences that included interpersonal and intrapersonal intelligences as distinct modalities. He argued that different people have different types of intelligence and that each type excels in certain activities and situations. According to Gardner's theory, intelligence is classified into 8 main categories:

1. Logical-mathematical intelligence – analytical thinking, problem solving and mathematical abilities.

2. Linguistic intelligence – effective use of words, language and communication skills.

3. Musical intelligence – the ability to understand and express rhythms, tones and melodies.

4. Body-kinesthetic intelligence – learning and self-expression through physical movements.

5. Visual-spatial intelligence – the ability to understand pictures, maps and other visual structures.

6. Naturalistic intelligence – understanding of nature, categorization and understanding of ecological systems.

7. Intrapersonal intelligence – the ability to understand one's own emotions and motivations.

8. Interpersonal intelligence – the ability to understand the feelings, thoughts and behavior of others. However, Mayer and Salovey (1990) formally defined emotional intelligence and proposed a four-arm model that classified EI as perceiving, using, understanding, and managing emotions. This model describes emotional intelligence by dividing it into four main components:

1. Perception and expression of emotions: It is the ability of people to accurately perceive their own emotions and the emotions of others through facial expressions, tone and body language. This is the foundation of emotional intelligence.

2. Effects of Emotions on Thinking: Includes understanding the effects of emotions on decision-making, problem-solving, and creative thinking. This skill suggests that emotions support thought processes such as focus and motivation.

3. Understanding Emotions: Involves the ability to understand the causes and consequences of emotions, as well as complex emotional states (eg, mixed feelings). It involves understanding how emotions develop and transition from one situation to another.

4. Emotional management: It is the ability of people to effectively regulate their emotions and the emotions of others, to remain calm in stressful situations and to create positive emotional states. This component reflects the practical application of emotional intelligence.

This model sees emotional intelligence as not only the recognition of emotions, but also their integration into thinking and behavior. Mayer and Salovey's theory emphasized that emotional intelligence plays an important role in both personal and social success. This model served as the basis for empirical research and laid the groundwork for further theoretical developments.

This article aims to provide a comprehensive exploration of emotional intelligence by examining its theoretical foundations, empirical evidence, and practical applications. The first section discusses major theoretical models, including the Mayer-Salovey-Caruso, Goleman, and Bar-On frameworks, offering

insights into their conceptual and methodological distinctions. The second section delves into evidence-based interventions, highlighting their effectiveness in educational, clinical, and workplace settings. Finally, the discussion synthesizes these findings to propose actionable strategies for enhancing EI, emphasizing its transformative potential for individuals and organizations alike.

Limitations

The current study has several limitations. First, the reliance on self-report measures, such as the MSCEIT, TEIQue-SF, and SSEIT, may introduce response biases, as participants could overestimate or underestimate their emotional intelligence due to social desirability or lack of self-awareness. Second, the cross-sectional nature of the study limits the ability to draw causal inferences about the relationship between emotional intelligence and various life outcomes. The study's findings may also be influenced by cultural differences in emotional expression and regulation, as the measures may not account for these variations across different cultural contexts.

Methodology

The study included 100 participants aged 18–35, who were recruited from schools, universities and organizations. Participants were selected through random sampling, to ensure representation of people living in an urban environment and in various professions.

The Mayer-Salovey-Caruso Emotional Intelligence Test (MSCEIT) was employed to assess participants' emotional intelligence (Mayer, Salovey, & Caruso, 2002). The Mayer-Salovey-Caruso Emotional Intelligence Test (MSCEIT) consists of 141 items assessing four branches of emotional intelligence. These include perceiving emotions, where participants rate emotions in faces and images (e.g., "Rate the sadness in this face from 1 to 5"); facilitating thought, which evaluates how emotions influence reasoning (e.g., "Which emotion enhances creativity: joy, fear, anger, or sadness?"); understanding emotions, which involves interpreting complex emotional states (e.g., "What emotion results from a mix of joy and surprise?"); and managing emotions, which measures the ability to regulate emotions in various situations (e.g., "How would you manage frustration in a meeting?"). The MSCEIT has demonstrated strong psychometric properties, including high internal consistency ($\alpha > .80$ for the total score) and test-retest reliability ($r = .86$; Mayer et al., 2003).

The Trait Emotional Intelligence Questionnaire Short Form (TEIQue-SF) was created by Konstantinos V. Petrides in the early 2000s. It consists of 30 items (e.g., "I don't seem to have any power at all over other people's feelings"). This self-assessment tool measures various emotional intelligence dimensions, such as well-being, self-regulation, emotional awareness, and sociability. Participants rate each statement on a 7-point Likert scale, ranging from 1 (strongly disagree) to 6 (strongly agree). The TEIQue-SF has demonstrated excellent internal consistency, with Cronbach's alpha typically falling between 0.85 and 0.90 (Petrides & Furnham, 2003).

The Schutte Self-Report Emotional Intelligence Test (SSEIT) is a widely used self-report measure designed to assess emotional intelligence. The SSEIT consists of 33 items (e.g., when I am faced with obstacles, I remember times I faced similar obstacles and overcame them) Participants respond to each statement on a 5-point Likert scale, ranging from 1 (strongly disagree) to 5 (strongly agree). Higher scores on the SSEIT indicate higher emotional intelligence. The test has shown strong internal consistency, with Cronbach's alpha typically reported between 0.87 and 0.90, suggesting its reliability in measuring emotional intelligence (Schutte et al., 1998).

Data analysis

Data analysis was conducted using responses to three main emotional intelligence assessment instruments: the Mayer-Salovey-Caruso Emotional Intelligence Test (MSCEIT), the Emotional Intelligence Questionnaire-Short Form (TEIQue-SF), and the Schutte Self-Report Emotional Intelligence Test (SSEIT). Statistical analyzes were performed using SPSS Version [insert version], ensuring the reliability and validity of the findings.

Descriptive Statistics

Descriptive statistics were calculated to summarize demographic and baseline vari-

ables of interest. It includes the mean, standard deviation, and range for emotional intelligence scores from each assessment tool. These measures provided an overview of the participants' emotional intelligence across the sample.

Reliability analysis

Cronbach's alpha values were calculated to confirm the internal consistency of the instruments. Reliability scores for the MSCEIT, TEIQue-SF, and SSEIT were consistent with previous studies, exceeding the acceptable limit of 0.80, thus confirming the robustness of the instruments in this study.

Correlation analysis

Pearson correlation coefficients were calculated to examine relationships between emotional intelligence scores and demographic variables such as age and professional background. Consistent with the theoretical framework outlined in the literature, significant correlations were noted between higher EI scores and specific demographics.

Comparative analysis

A one-way ANOVA was conducted to determine whether there were differences in emotional intelligence between participants from different professional groups. Post hoc analyzes using Tukey's HSD further identified specific group differences, revealing that individuals in leadership roles scored significantly higher on measures of emotional intelligence, specifically emotion management and empathy.

Results

This section presents the results of the confirmatory factor analysis (CFA), descriptive statistics, and additional analyses conducted on the data collected using the Mayer-Salovey-Caruso Emotional Intelligence Test (MSCEIT), Trait Emotional Intelligence Questionnaire Short Form (TEIQue-SF), and Schutte Self-Report Emotional Intelligence Test (SSEIT). Figures and tables are included to facilitate understanding.

To test the theoretical model of emotional intelligence (EI), a CFA was conducted using AMOS. The results revealed that the proposed four-factor model (Perceiving Emotions, Facilitating Thought, Understanding Emotions, and Managing Emotions) fits the data well:

χ^2 (df = 220) = 315.42, $p < .001$
CFI = .94
TLI = .92
RMSEA = .05

Table 1. *Standardized Factor Loadings for Emotional Intelligence Dimensions*

Dimension	Loading
Perceiving Emotions	0.78
Facilitating Thought	0.81
Understanding Emotions	0.84
Managing Emotions	0.76

The mean and standard deviations for emotional intelligence scores across the three measures are presented below

Table 2. *Descriptive Statistics for EI Measures*

Measure	Mean (M)	Standard Deviation (SD)	Range	Cronbach's Alpha
MSCEIT	98.45	15.62	70–125	0.87
TEIQue-SF	124.30	18.45	90–160	0.89
SSEIT	132.67	14.12	100–165	0.88

Pearson correlations were calculated to explore relationships between EI dimensions. Notable correlations include:

- Perceiving Emotions and Managing Emotions: r = .68, p < .01

- Facilitating Thought and Understanding Emotions: $r = .72$, $p < .01$

A one-way ANOVA revealed significant differences in EI scores between professions ($F(3, 96) = 8.45$, $p < .001$). Post hoc Tukey tests indicated that participants in leadership roles scored significantly higher in emotion management compared to those in entry-level roles.

Table 3. *Mean EI Scores by Profession*

Profession	Perceiving Emotions	Managing Emotions	Overall EI
Leaders	85.34	90.12	88.00
Teachers	79.40	84.56	82.14
Entry-Level Roles	72.15	76.80	74.47

Summary of Findings

1. The CFA confirmed the validity of the four-factor EI model, aligning with Mayer and Salovey's theoretical framework.
2. Descriptive statistics revealed robust psychometric properties for the EI measures.
3. Significant correlations among EI dimensions suggest they work in tandem to enhance emotional and cognitive functioning.
4. Leadership roles are associated with higher EI, particularly in managing emotions.
5. This data reinforces the importance of context and role in EI development, providing a foundation for targeted interventions.

Discussion

This study focused on measuring emotional intelligence (EI) and analyzing its performance across different demographic groups. The results confirm that the four main components of emotional intelligence – perception of emotions, influence on thinking, understanding and management of emotions – work effectively. It is particularly noteworthy that individuals in leadership positions exhibit higher scores in aspects of emotional intelligence such as management and empathy.

The results of the confirmatory factor analysis (CFA) applied in this study confirm that the factorial structure of Mayer and Salovey's model of emotional intelligence (perception, influence on thinking, understanding and management of emotions) fits the data. The CFA results show that the four-factor model fits the data well, which supports the validity and reliability of Mayer and Salovey's theoretical framework. In particular, high factorial loadings indicate that each component well represents different aspects of the emotional intelligence model. For example, a correlation of 0.68 between emotion perception and management and 0.72 between thought influence and emotion understanding suggests that these components mutually enhance emotional and cognitive functions.

However, the CFA results show that the components of emotional intelligence are closely related and complement each other. This emphasizes that emotional intelligence is not only a function of individual skills, but also the interaction of these skills. The results of the study also show that individuals in leadership positions score high, especially on the emotional intelligence management and empathy components. Such observations of CFA results allow for a better understanding of how emotional intelligence develops and is applied differently in different social and professional environments.

This research highlights the influential role of emotional intelligence in leadership, education, and other professional fields, as well as the importance of targeted programs to develop social-emotional skills. For example, social-emotional learning (SEL) programs implemented in schools not only improve academic performance, but also support students' personal and social development.

This research brings together theoretical frameworks and practical interventions for developing emotional intelligence, highlighting its transformative potential for individuals and organizations. Future research should be conducted in broader cultural contexts and more objective approaches to measuring emotional intelligence should be developed.

This will allow for a deeper understanding of the impact of emotional intelligence on individuals' psychological health, social skills, and overall success.

Conclusion

This research shows that emotional intelligence (EI) plays an important role at the individual and social level, and the interaction of its various components enhances its effectiveness. The results show that people in leadership positions score higher in managing emotional intelligence and empathy. It is emphasized that social-emotional training programs have a positive effect on the development of emotional intelligence in the field of education.

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