Estimating Ukrainians' approval of European Union values using artificial intelligence

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Abstract

This article aims to assess the worldviews and beliefs of respondents that have developed in Ukraine regarding the European Union using artificial intelligence (AI). The study examines the changes in attitudes and beliefs regarding the implementation of European Union values in society. The paper represents an attempt to understand the survey result with the use of AI. The estimation of Ukrainian citizens' values shows the growing tendency of Ukrainians to adhere to the values of democracy, personal freedom, the value of personal life toward the European Union beliefs. The study shows insufficient satisfaction with European values and beliefs in society due to the insufficient compliance with the law. Creation opportunities and encouraging people to spread views and beliefs of European Union values will support the adoption and dissemination of democratic values.

Keywords democratic values, artificial intelligence, European Union, integration.

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1. Introduction

The article aims to analyze the role of artificial intelligence (AI) in assessing how the worldviews and beliefs of respondents in Ukraine have changed in the context of European Union integration.

AI is by far the most hyped technology of the last decade, including Virtual Reality and Blockchain. Leveraging new business models and synergies, AI applications are becoming more prevalent. Taking a long-term view of AI as an economic engine and adequately educating its workforce will provide significant benefits to nations, businesses, and even independent entrepreneurs. Modern AI can simultaneously perform a significant number of tasks that were previously done by humans. This significantly speeds up the process of completing tasks, their quantity, and the quality of scientific research. It also allows you to solve research and methodological problems and better understand the nuances and peculiarities of social groups and their behavior.

Values are rational rules of behavior that determine how one should behave in certain life situations in each society. Values influence changes in political and economic behavior and motivate people in the decision-making process. Universal values include respect for human dignity, freedom, equality, respect for human rights, including the rights of minorities, pluralism, non-discrimination, tolerance, justice, solidarity, and equality between men and women.

Inglehart and Welzel (2005) proposed a categorization of values into postmaterialist, which includes a person's self-actualization, mutual aid, or charity, and materialist, which includes security and money. A postmaterialist approach to values strengthens the concept of the open market and promotes the further development of European values, especially by expanding qualities such as freedom, tolerance, and inclusiveness. The ability to maintain and improve the effectiveness of democratic institutions is a core objective of European values.

Traditional values in Ukrainian society have been replaced by materialistic values since the country's independence in 1991. Reforms in the judiciary, administration, and decentralization have failed to lay a firm foundation for democratic institutions or spread the principles of a democratic society that are common in Europe. The split within society between different political party supporters represented the Orange Revolution and the Revolution of Dignity.

The war in Ukraine has a long conflict history in which different narratives appeared, among them one that strongly reflects and even supports Russia's imperialist ambitions and the long-planned discursive preparation of its war of aggression against Ukraine. This narrative insinuates that the conflict began with an alleged "expansion" of the Western Défense alliance NATO, but it negates the beginning of Russia's 2014 invasion of Ukraine in Crimea and Eastern Ukraine, in which Russian military was consistently and deliberately deployed. Moreover, a breach of the Minsk Agreements by Ukraine, rather than fundamentally by Russia, is frequently alleged, as are alleged systematic crimes by the Ukrainian government in Russian-occupied Eastern Ukraine, for which no serious evidence can be cited. This narrative can also be recognized in the formulation that the Ukrainian Revolution of Dignity in 2013/14 is not referred to as a civic revolution actively supported by more than 4 Mio. Ukrainian citizens, but rather as a "coup". This narrative, which clearly supports and legitimizes the Russian imperialist view towards Ukraine, is considered propagandistic in the historical and social sciences and has

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been comprehensively refuted by empirical studies, which nevertheless diminished its popularity only to a limited extent.

The list of European values is defined in the Maastricht Treaty, a statutory legal act of 1992 that legally established the European Union. The Maastricht Treaty established institutional rules. It noted the importance of the functioning of such institutions as democracy, the rule of law, justice, a competitive market economy, and a balanced and sustainable economy. European Union legal documents, such as the Copenhagen criteria for European Union membership, the Lisbon Treaty, the treaties implementing the European Union, and the constitution enshrine European values. The European values are regulated in these normative documents.

The World Values Surveys 2014 (2014) defined basic values in Ukraine. They included traditional and materialistic values in addition to the need to survive and feed the family. The surveys estimated that a lack of European values hinders the growth of democratic institutions.

Since signing the free trade agreement with the European Union, Ukraine has made significant progress in improving its economic institutions and implementing structural reforms. The economy is converting resources in response to market prices because implemented structural reforms.

The practice of the European Union shows that it is impossible to speed up the processes of EU integration. The creation of institutions that ensure an optimal balance between European and regional values is an important task for EU integration. The evaluation criteria are defined based on the application-oriented interdisciplinary approach. In highlighting the research questions, specific indicators were considered, considering traditions, mentality, and regional specifics in Ukraine.

As a result of the online interviews, data were grouped into main categories and subcategories of values. The received research collected results asserted the vital problems of social economic development and proposed policy recommendations for the dissemination of democratic values of the European Union. The adaptation of the social humanitarian principles and beliefs, respect for human dignity and rights, and the rule of law will contribute to the rapid democratization of society and functioning institutions.

2. Review of the Literature

Literature analysis proves that AI is already an incredibly popular field in scientific research. AI facilitates the gathering, processing, and interpretation of social data in scientific surveys. The AI category in the IT services sector grew by 21.9% annually to $18.8 billion due to customer demand for specialists to develop production AI solutions. As businesses sought assistance with AI management, business procedures, and talent acquisition strategies, the category of AI business services increased by 24.2% compared with the previous year (McKinsey report, 2022).

The amount of money flowing into AI start-ups has grown steadily over the past decade. By 2021, the market for AI-related services had a total value of $24 billion, up to 22.4% of the previous year. The venture capital research firm Dealroom predicts that investors will pour approximately $90 billion into AI startups this year, up from about $60 billion in 2020

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(Venture Capital and Private Equity, 2022). A study by McKinsey estimated that by 2030, AI will have contributed $13 trillion in realized value to the world economy. Because it is still challenging to develop various AI models, little has been put into practice. According to Deloitte, 93% of businesses believe that AI plays a significant role in fostering growth and innovation in the industrial sector (Soral et al., 2023).

The ability of AI to analyze enormous volumes of data rapidly and effectively is one of the main reasons for its importance in scientific study design. AI systems can sort through this enormous amount of data on human behavior to find patterns and trends that humans are unable to manually spot. AI can perform activities previously performed by humans in parallel. This raises the number of tasks and their amount while also enhancing the quality of scientific research. Maknickiene (2022) emphasized an evolutionary computation function of AI that is used for optimization by extracting specific variances from huge datasets using a few significant estimations. Typically, these methods employ swarm intelligence, evolving genetic algorithms, and genetic programming. Researchers have attempted to enhance and adapt these methods to recent problems.

AI usage in social sciences leads to deep perceptions and thoughts, upending pre-existing notions and enhancing our comprehension of social relations. The study of value concepts can benefit from using AI, which can help create more focused and specialized research methodologies.

A person's value system consists of the opinions and convictions they have accumulated throughout their life. The problem of values becomes relevant during the period of devaluation of cultural traditions and the change in government forms in society.

Value is viewed from two perspectives: as a notion describing the unconditional and unquestionable underpinnings of human existence, and as the significance of things, phenomena, and processes for an individual, social grouping, and society at large. The concepts and standards of human existence, society, and state that define European values are global. It is crucial that these ideals are respected and fully adhered to in European society.

Fundamental liberal human rights and freedoms, democratic tenets of the state system, and legal and social states form the basis of European ideals. European values are referred to be "liberal-democratic" since they combine liberal and democratic principles.

The analysis of existing concepts of values confirms that the theoretical and practical application of democratic values and institutions offers broad perspectives for well-being improvement, compliance with legal and economic norms in society, and democratic institutions.

Dymchenko et al. (2021) estimate the monetary worth of any good and consider the importance of any good valuable and beneficial. Shkalina (2020) determines the role of the system of values as a connecting link between European values and national-cultural manifestation (Shkalina, 2020). The behavioral approach to value theory comprises multiple functional values. According to Ciuk et al. (2018), political conduct is correlated with income level, and wealth and value choices are similar across testing groups after ideology control. The inability to use the advantages of economic, technological, and scientific changes has caused a sociocultural crisis. Rabie (2013) argues that due to the dominance of consumerism

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and liberalism the conflict of values and ideas between various groups, represented by cultural, ethnic, and religious minorities, rapidly increased. Traditional beliefs and convictions continued to hold in these groups.

Baron (2003) compares moralistic ideals in which people attempt to force their values on others' behavior while occasionally overtly disregarding the nature of others' goods (utility). The author asserts that people make decisions based on systematically non-utilitarian principles, and as a result, they obtain outcomes that conform to their values instead of outcomes that produce the best conclusion.

As said by Gataullin & Lebedev (2011), "the architectonics of the transformative post-ideological area determines the extent of human freedom as a consumer." Consistent with a survey of recent works and approaches to European value evaluation, a sizeable section of the Ukrainian population changed their attitudes toward post-socialist values and conceptions and turned against these postulates.

Dalevska (2017) highlighted inconsistencies in the growth of civilizations. The destruction of social norms that have been nationally institutionalized and the creation of international conflicts are forces driving the evolution of the global economic and political structure. Institutional change comprises the development of new organizations in global civil society. Rubinski (2013) stresses the need to establish a singular civilization space and defines the place of Russia as a singular, organic, and irreplaceable part of European civilization. Most importantly, the value relations of the people living in the vast continent of Eurasia. Kozyreva (2020) analyzed neopartenalistic model in Russia that confirmed the legacy of the post-Soviet economic model, dominated by huge corporations and state ownership. In the modern world, where communities of people exist in isolation from one another, Fukuyama (2004) proposed that a few types of shared value systems are necessary for the peaceful coexistence of civilizations.

This literature review supports the general knowledge of contemporary concepts. AI applications increase the quality of surveys in the market for scientific research by developing creative and individualized surveys that cater to societal wants and preferences. A new strategy is required in industry because of the digital revolution, and AI is a key component of this process. Although technology is evolving rapidly, businesses still need to know why they want to use it. The required investment will then be motivated by the company's needs (AI Matters 2023, 2023). Value concepts highlight ideas of trust, dignity, responsibility, self-realization, and democratic institutional development. The dissemination of European Union values will directly lead to a transition from a paternalistic model of relationships to a democratic model of governance, institutions, beliefs, ideals, and values. The formation of a new set of reciprocal relationships built on trust, shared accountability, and transparency leads to a balance between the state and citizens.

3. Methodology

This study used an approach based on interview assessment and the use of AI for data analysis to detect groups and subgroups within a population that have unique forms of behaviors, beliefs, habits, and values. Between September 1 and October 31, 2022, a survey was

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conducted to evaluate the basic values defined in public opinion surveys for Ukrainian citizens. The questionnaire in the online application form served as an organizational tool for survey estimation. The questionnaire was based on the World Values Survey methodology, which focused on fundamental principles, including honesty, patriotism, readiness to sacrifice oneself, and willingness to forgive others. The questionnaire organization reflected the interdisciplinary approach and specifics of the traditional beliefs, ideals, traditions, and values of the common people in Ukraine.

The poll employs a 5-point Likert Scale that swings from one extreme attitude to another and is known as a satisfaction measure. Respondents' responses were part of a multivariate assessment procedure. Importance was divided into the following categories: especially important -5, low important -4, important (3); less important (2); and not important (1). The following responses selected by respondents: fully satisfied (5), lowly satisfied (4), slightly satisfied (3), less satisfied (2), and not satisfied (1)

An evaluation of the significance of and satisfaction with value categories reveals which aspects of the value system should be improved to reflect European values more closely, as well as which aspects of the value system are important to various groups of the population. A questionnaire was created to conduct the estimation, and respondents were asked to score the significance of each satisfaction indicator on a scale of 1 to 5, with 1 being the least significant and 5 the most important.

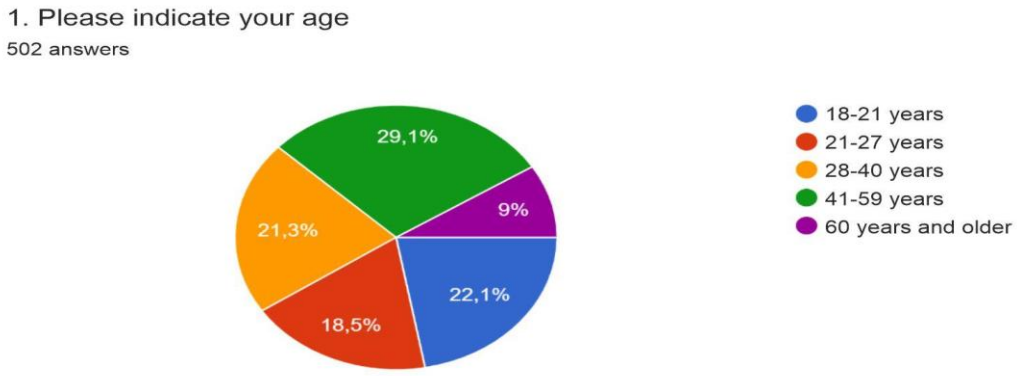


Figure 1. Age of respondents

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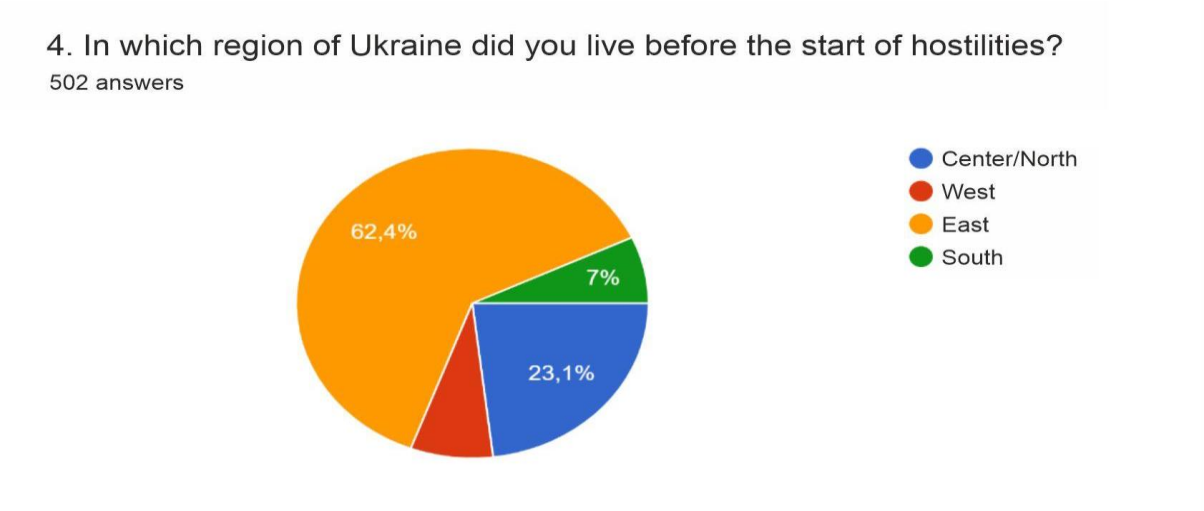


Figure 2. Regions of respondent's residence

The adjusted factors showing each factor's relative relevance or "share" in the total satisfaction of responses were then calculated using AI the resulting scores. Four value criteria and 18 subcategories in the questionnaire describe various facets of how European values are formed and perceived in Ukraine. Figure 1 illustrates the age groups, where 29.1% of the survey participants were between 41 and 59 years of age. Of the respondents, 21.3% were aged between 28 and 40 years old. The group aged between 18 and 21 years comprised 22.1%, and the remaining nine percent were aged 60 years or older. Figure 2 shows that 62.4% of Ukrainian respondents resided in the east. The Center/North of Ukraine indicated that 23.1% of respondents and 7% of applicants lived in the center, and the remaining respondents mentioned the West of Ukraine.

Table 1through six blocks depict the estimation findings of the importance and satisfaction model, which reveal a mismatch between importance and satisfaction for the value subcategories in the respondents' responses.

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Table 1. Estimation of the importance and satisfaction values model in Ukraine

№	Block	№	Subcategory	Importance	Satisfaction	Zone	Final
1	Compliance with the law	1	Business, work	4.00	2.50	Discomfort zone	-1.50
		2	Compliance with the law, a guarantee of rights and freedom of citizens	4.00	3.33	Zone of indifference	0.67
		3	Corruption	2.33	2.00	Loyalty zone	0.33
		4	Judiciary	3.33	3.33	Loyalty zone	0.00
		5	Confidence in judicial institutions	4.00	2.67	Discomfort zone	-1.33
2	Democracy	6	Participation in elections	4.00	4.00	Loyalty zone	0.00
		7	Membership in parties and public organizations	3.89	3.00	Zone of indifference	-0.89
		8	The level of democracy	3.00	3.00	Loyalty zone	0.00
		9	The level of the liberality of the political regime	4.33	3.00	Discomfort zone	-1.33
		10	The level of Ukrainization of society	4.00	3.33	Zone of indifference	-0.67
3	Personal freedom	11	Political culture	3.00	4.00	Zone of overpayment	1.00
		12	Compliance with human rights	4.33	3.33	Discomfort zone	-1.00
		13	Respect for human dignity	5.00	3.00	Discomfort zone	-2.00
		14	Legal equality	4.67	3.00	Discomfort zone	-1.67
		15	Ability to migrate, freedom of movement, and choice of residence	3.33	4.00	Zone of indifference	0.67
4	Human freedom	16	Tolerance for human rights	3.00	3.00	Loyalty zone	0.00
		17	Absence of discrimination based on race, nationality, and gender	4.67	3.00	Discomfort zone	-1.67
		18	Absence of discrimination against women	4.50	3.67	Zone of indifference	-0.83
		19	LGBT rights acceptance	4.00	4.33	Zone of indifference	0.33
		20	Attitude toward people with disabilities	5.00	4.67	Loyalty zone	-0.33
		21	Ethical values and norms	5.00	4.67	Loyalty zone	-0.33
		22	The level of trust in society	2.67	3.33	Zone of indifference	0.67
5		23	Importance of peace	4.50	4.00	Zone of indifference	-0.50

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	Value of human life	24	Personal life	4.50	4.33	Loyalty zone	-0.17
		25	Family values	5.00	4.50	Zone of indifference	-0.50
6	Economic values	26	Income level (salary, pension, scholarship)	3.67	3.00	Zone of indifference	-0.67
		27	Fiscal freedom and tax burden	4.67	2.33	Discomfort zone	-2.33
		28	Freedom of entrepreneurship	3.33	3.50	Loyalty zone	0.17
		29	Freedom of labor	3.67	3.00	Zone of indifference	-0.67
		30	Financial freedom	4.00	2.33	Discomfort zone	-1.67
		31	Protection of property rights	4.00	2.50	Discomfort zone	-1.50

Source: author's values estimations.

Additionally, each criterion's response satisfaction was independently evaluated. Each variable that influences respondent satisfaction has a unique significance and meaning. Every individual has a distinctive internal view of and beliefs about European ideals. The survey questionnaires reflected the beliefs and interests of a wider range of people and communities, making them representative and specific.

This means that the questionnaires used to gauge importance and satisfaction should indicate not only the overall level of respondents' satisfaction, but also its subcategories. A total of 502 respondents resided in Ukrainian territory (apart from occupied territories). The interview assessment and the use of AI were applied to effectively capture the thirty-one sub-categories and the complexity of various social groupings and reflect regional specifics. When using AI, criteria were set for the results of the online questionnaire estimation. AI provides its own methods for categorizing human behavior and identifying individuals who adhere to paternalistic or European ideals. When performing such research, AI has the advantage of not considering the emotional component, allowing us to present more logical analysis possibilities. When sociological survey data are evaluated using AI, it is possible to obtain results that support its applicability and dependability using various data sources.

Result/Hypothesis

The main hypothesis of this study is that the estimation using AI of Ukrainians' commitment to the beliefs, ideals, and values of the European Union increased after the start of a full-scale war.

4. Findings and Discussions

Since claiming its independence, Ukraine has pursued a programme intended to advance European principles to diverge from post-Soviet values. The Ukrainian state is attempting to diverge from post-Soviet ideals and ensure European values based on respect for fundamental human rights. By signing the Deep Comprehensive Trade Neighborhood Policy and Ukraine-

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European Union Association Agreement, Ukraine set the road for closer engagement with the European Union. The European Council officially recognized Ukraine as a European Union candidate on June 23, 2023.

The questionnaire consists of six basic value categories. They are compliant with law, democracy, personal freedom, human freedom, the value of human life, and economic value. The selection of value categories represents the key value qualities of European Union values and is based on the generalized information collected in prior studies. We continued the value analysis with the subcategories to provide an in-depth description of the obtained results.

The six value assessment blocks assessed statements from 1 to 5 (where 1 = entirely disagree and 5 = completely agree) in terms of importance and satisfaction. The first block of compliance with the law contains five sub-categories: business work, compliance with the law, guarantee of rights and freedom of citizens, corruption, judiciary, and confidence in judicial institutions.

These subcategories reflect the functioning of the legal environment and existing problems with providing legal services. The choice of values reflects fundamental beliefs, ideals, traditions, and social norms.

The first block is an assessment of compliance with the law, which contains the following subcategories: business work, compliance with the law, guarantee of rights and freedom of citizens, corruption, judiciary, and confidence in judicial institutions (See table 1). The rule of law captures the number of agents who have faith in and abide by social norms. Compliance with the law characterizes legal relations in society concerning the quality of contract enforcement, property rights, police, courts, and the likelihood of crime and violence. For 92.6% of respondents, the issue of legal compliance was of utmost importance. They highlight the value of a fair legal system for society. The question about the satisfaction of the given aspects of life in Ukraine dealt with an estimation of the level of compliance with the rule of law in Ukraine. Of the people assessed, 38.2% doubted the existence of strict control over corruption at various levels of business relationships. In the discomfort zones, 43.6% of the respondents believed that Ukraine's legal and regulatory environment makes it easy for them to transact business. Less than 50 % of applicants were partly satisfied with the ease of doing business in Ukraine (See Table 1, Figure 3). The population assessed that the most involved in corruption were state authorities. In 2020, 72.2% considered that all or most of these bodies were involved in corruption. According to this indicator, Ukraine was closer to Greece (58.0%) and Romania (69.0 %). (Ukraine in the World Values Survey 2020).

Thirty percent of the applicants considered judicial processes in Ukraine open and accessible. Satisfaction with the level of justice of decisions made by judges corresponded to 23 %. A comparison of the survey results and previous estimations supports the crucial role of political and legal reforms in establishing democratic institutions, civil societies, and democratic states based on the rule of law and property rights (Nosova, 2023). Despite having an established legal system, Ukrainians often fail to comprehend and put it into practice, failing to make use of the advantages of civil rights and freedoms guided by ideals or imposed by dishonest authorities or survival techniques. This establishes the concept of well-being at the individual, societal, and governmental levels, and obstructs the growth of democracy and the execution of

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changes on the ground. As a result, it is necessary to alter the patterns of participation to enhance public initiatives and the execution of national democratic reform programs.

The second block of values includes subcategories assessment of democracy defined by participation in elections, membership in parties and public organizations, the level of democracy, the level of the liberality of the political regime, the level of Ukrainization of society (See Table 1).

In Ukraine, political culture is still developing, and democratic structures are extremely fragile. There are examples of undemocratic behavior within democratic institutions, and political players are unaware of the fundamental principles of a democratic system, such as respect for opposing viewpoints. Furthermore, due to claims that they are politically biased and prone to corruption, democratic organizations are not considered genuine. The judiciary, which encompasses the Constitutional Court, the police, and the civil service, are all included in this (Bertelsmann Stiftung's Transformation Country Report, 2022). Of the respondents, 83.2% consider that elections and referendums in Ukraine must be transparent and are based on democratic principles. 53.8 % support the Ukrainization of society as important for the normal development of the country (Ukrainian language, history, and culture). The presence of parties and public organizations in Ukraine corresponds to the basic principles of democracy, considering 50% of the applicants. The discomfort zone shows the level of liberality of political regimes. Of most Ukrainians, 74.4 % assert that the political regime in Ukraine should be liberal, whereas 58 % of respondents point out that they are dissatisfied with the liberality of the political system in Ukraine. The obtained results confirm that there are issues with attempts to build an open civil society and attempt to integrate it into the outside world and the relationship with global democratization processes.

The estimated third block of the personal freedom survey included the subcategories of political culture, respect for human rights, respect for human dignity, legal equality, possibility of migration, freedom of movement, and choice of residence (See table 1). Observance of human rights, respect for human dignity, and legal equality referred to zones of discomfort. Respondents answered the following questions, "Rate how much you agree with the statement about European integration with equal conditions for all." Personal freedom means being satisfied with your personal life, having the flexibility to pursue your passions professionally, and being debt-free. The survey results show that 80% of respondents emphasize respect for human dignity as one of the basic principles of personal freedom. Respect for human rights, respect for human dignity and legal equality referred to areas of discomfort. 41% of the applicants were not satisfied with the given aspects of life in Ukraine, regardless of age, nationality, and religion. They considered it important that personal rights be respected so that they could feel free.

It mentioned that only 25.8 % of people were satisfied and supported the idea that representatives of different races, genders, and social spheres are equal at the legislative level. Of Ukrainians, 36.8% approve of satisfaction with the level of the rule of law in Ukraine. The estimated results confirm the deteriorating performance of personal freedom after aggression against Ukraine (See Table 3). This led to freedom limitations due to martial law, and the ranking of degrees of freedom was aggravated. Political rights received a score of 20 (40) and civil liberties received a score of 28 (60), making it a partially free nation in Ukraine in 2023 compared to 2022. The previous year's rating was 61 (100) (Freedom in the World 2023,

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2023). Freedom House's group evaluated the degree of freedom using ten political rights indicators and 15 civil liberties. It was mentioned that only 25.8% of people are satisfied and support the idea that representatives of different races, genders and social spheres have equal rights at the legislative level. Among Ukrainians, 36.8% say they are satisfied with the level of the rule of law in Ukraine. The estimated results confirm the deterioration of personal freedom after the aggression against Ukraine (see Table 3). This resulted in restrictions on freedom due to martial law, and the ranking of degrees of freedom deteriorated. Political rights received a score of 20 (40) and civil liberties a score of 28 (60), making Ukraine a partially free country in 2023 compared to 2022. In the previous year, the score was 61 (100) (Freedom in the World 2023, 2023). The Freedom House group assessed the level of freedom using ten indicators for political rights and 15 for civil liberties.

The fourth block estimation of human rights highlights responses to the question of the importance of being tolerant and not allowing discrimination based on race, nationality, and gender. Questions defining the fulfillment of personal aspirations include the level of satisfaction with tolerance of human rights, absence of discrimination based on race, nationality and gender, absence of discrimination against women, acceptance of LGBT rights, attitudes towards people with disabilities, ethical values, and norms. Europe is associated not only with the values that govern society, but also with completely individualistic values. The interpretation of personal freedom is very different in Ukraine. People perceive it as ranging from freedom of religion, freedom of speech, freedom to choose a partner (including same-sex partners), respect for the personal space of the person, freedom to choose a profession, and freedom of movement in the EU (How Ukrainians Perceive European Values, 2017).

Human rights define the fundamental rights to life and liberty, freedom of opinion and expression, and the right to work and education. These universal rights apply to each of us, regardless of nationality, gender, national or ethnic origin, color, religion, language, or any other status. Ukraine's data in the World Values Survey show that Ukrainians have the lowest trust in people they meet for the first time (28.8%), and it has not changed much compared to 2011 (27.4%). The results of the previous survey evaluations show that the percentage of those who believe that most people can trust has increased from 23% in 2011 to 30% in 2020. (Ukraine in World Values Survey, 2020). Our survey assessment confirms a low level of trust in society and state institutions in Ukraine after Russian aggression. Less than half of respondents (44%) say they are satisfied with and trust the functioning of state institutions (president, parliament, regional authorities, and power structures). The subcategory of absence of discrimination based on race, nationality and gender appears in the discomfort zone.

The result confirms the existence of contradictions in terms of importance and satisfaction in society (see Table 1). The research underlines the problems of ethical values and norms in the society. A specific policy must be proposed to spread the values of the European Union regarding tolerance of certain behaviors (abortion, same-gender relations, discrimination based on race, nationality, and gender). Multiculturalism, openness, and tolerance towards others are challenges for corporate cultures.

The fifth block estimation of value of human life shows that Ukrainians highly respect it and consider it among the most valuable things in life (See table 1). In the 2017 survey, most respondents (61.2%) believe that "peace" is the most important thing for Ukrainians today,

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while respect for human life comes second (How Ukrainians Perceive European Values, 2017).

Human life is the greatest value, according to most respondents to the Gradus Research in 2022 (92% agreed). More than 80% of respondents agreed with statements relating to mutual aid, trust, freedom, and human rights. According to 76% of respondents, social peace is the most important value. Although there was a minor increase in the proportion of respondents who did not think following orders from superiors was the most important thing, they were still outnumbered by those who did. (Social Trends 2023 from Gradus Research, 2023). The survey results confirmed that the value of human life is among the most valuable things in life of Ukrainians (See table 1). The survey estimation confirms that the value of human life remains the most sought-after and highly valued values. The value of human life is at the top of the respondents' estimations. The answers to the question of how satisfied you with the given aspects of life in Ukraine are (1 - completely not satisfied, 5 - completely satisfied) on the importance of peace, personal life, and family values demonstrate that most applicants responded that they were mostly satisfied with the given aspects of life with the following subcategories.

The sixth block estimates economic values, which comprise the subcategories of income level, fiscal and tax system, entrepreneurship, labor and financial freedom, and protection of property rights. The respondents answered the questions of the importance of receiving income pursuing a place in society and the conditions for self-realization. The survey's analysis of economic values is underlined by responses to the questions, "How satisfied are you with the conditions of development and the degree of business protection" (1 - not at all satisfied, 5 - completely satisfied) - attitude toward work, "professional competencies," "the material well-being of workers," "enterprise freedom," "a system of remuneration," and "protection of property rights." According to the estimation results, 35.2% of respondents were dissatisfied with tax burden and financial freedom, 66.2% were dissatisfied with financial freedom, and 37.4% were dissatisfied with the protection of property rights (See table 1).

The survey, conducted by the Kyiv International Institute of Sociology (KIIS) from October 21–23 2022, demonstrated that ninety percent of Ukrainians think their country will be a rich member of the European Union in ten years. Eighty-eight percent of Ukrainians said they expected their country to be rich and a member of the European Union in ten years. While twenty-six percent of them disagree, sixty-three percent of them fully share this opinion. Only five percent of respondents have gloomy predictions (Prishlyak, 2022).

The research results reflect the specifics and complexities of estimated social groups and make the results affordable, inclusive, and representative. Most respondents are not satisfied with the speed and completion of the fundamental necessary procedures of adapting principles, rules, regulations, and the accession process to the European Union, according to our assessment results of adherence to European Union values. Education, culture, and information policies need to foster the shift of traditional beliefs. Majority of respondents highlight to speed dissemination of fundamental principles and practices, norms, regulations procedures necessary for the application of principles, values, norms, and regulations for European Union integration. The use of AI in analyzing the results of a survey of respondents made it possible to examine large volumes of information and identify patterns in the distribution of statistical data. As a result of processing statistical data, the commitment of

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Ukrainians to European values was revealed. The specific groups within the population were identified, defined specific forms of behaviors and characteristics.

5 Conclusions

Digital technologies create new opportunities and new challenges for scientists to provide deep analysis of social-economic, political themes, etc. Digital transformation brings benefits to the organization, intensifies a strong competitiveness, innovation, customer satisfaction, reputation, and profit. However, there is a need to put results into practice, make it accessible and open to the world community. The AI application offers insights into social structures and explains the behavior forms of people. To keep ahead of changes in the market and society, businesses must adapt to the global challenges.

The findings of a survey results were analyzed using AI, which allowed for the analysis of massive amounts of data and the discovery of patterns in the distribution of statistical data. Processing statistical data allowed for the identification of Ukrainians' adherence to European principles and values. The distinct groups within the population are recognized and defined by their behaviors and characteristics.

The transformation of social-political values to European Union values relates to the process of democratization in Ukraine. Estimation of the effectiveness of democratic institutions; promoting the rule of law; human rights and the protection of individual freedoms; economic institutions, and political institutions directed to define the strategy for future Ukrainian development.

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