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# CREATING SHARED VALUE AS A FRAMEWORK FOR RESPONSIBLE APPLICATION OF ARTIFICIAL INTELLIGENCE IN SERBIA

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## Abstract

This paper proposes a model of creating shared value as a framework for responsible application of artificial intelligence in Serbia, taking into account key social and economic challenges brought by this technology. The work relies on analysis of existing literature in the fields of artificial intelligence, creating shared value and Serbia's strategies for AI development. Key challenges and opportunities related to AI application in Serbia have been identified. The proposed model of creating shared value can provide a responsible and beneficial development of the AI sector in Serbia, considering the social and economic impacts of this technology.

*Keywords:* artificial intelligence, creating shared value, sustainable development, Serbia, social impact

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## 1. INTRODUCTION

Artificial intelligence (AI) is an increasingly important technology with wide-ranging applications and impacts. As AI systems are rapidly developed and implemented, it is crucial to ensure their responsible development and application. One approach to achieving this goal is the concept of creating shared value (CSV), which involves addressing social challenges through core business activities of

companies (Porter & Kramer, 2011).

This paper proposes a CSV model framework for the application of AI in Serbia. Serbia aims to develop capabilities in the field of AI, as defined in the National Artificial Intelligence Strategy 2020-2025 (2019). AI in Serbia, as around the world, in addition to opportunities also presents social challenges regarding employment, inequality and skills development. The author's intention is to contribute to the discussion on the responsible and beneficial development

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of AI through the proposed CSV approach, adapted to the Serbian context. The model relies on academic literature and aims to encourage multi-sectoral cooperation on this important issue.

### **1.1. Objectives and hypothetical questions of the paper**

The main objective of this paper is to propose a conceptual model for CSV for the responsible application of AI in Serbia. Within the framework of this main objective, specific objectives are to: 1) Analyze the principles of CSV and their application in the context of AI development; 2) Identify key social and economic challenges brought about by AI development in Serbia and propose how the concept of CSV could contribute to addressing them; 3) Propose mechanisms through which economic sectors could create shared value by applying AI; 4) Present possible ways in which the concept of CSV could contribute to the development of responsible AI application practices in Serbia.

In relation to the defined objectives, the author has formulated the following research questions that will be examined in the further text:

1. How can the principles of CSV be applied as a framework for the development and implementation of AI in Serbia, and what effects would this bring?

Answering this question will determine the framework for responsible and ethical AI application in Serbia, directed towards creating social benefit. This is crucial for building public trust in this technology.

2. What are the key social and economic challenges brought about by AI development in Serbia, and how could the CSV concept contribute to addressing them?

Considering the main challenges and ways in which CSV can contribute to solutions provides insight into AI's effects, important for its responsible implementation.

3. Through what mechanisms could economic sectors in Serbia create shared value by applying AI and enhance the competitiveness of Serbia's economy?

Answering this question will determine concrete mechanisms through which Serbia's economy can enhance its competitiveness and leverage the advantages of AI, contributing to economic growth and the well-being of society as a whole.

4. How could the CSV concept contribute to developing ethical frameworks and practices for the responsible application of AI in Serbia in line with European Union recommendations?

It is expected that answers to these questions will contribute to better understanding AI's impacts on Serbia's society and economy.

The potential contribution of this work is the development of a conceptual model that would enable the responsible and sustainable application of AI in Serbia, in accordance with CSV principles and EU recommendations for responsible AI implementation.

## **2. THEORETICAL FRAMEWORK AND PREVIOUS PRACTICE IN THIS AREA**

### **2.1. Literature review**

The world is going through a period of rapid technological change, as new digital technologies are increasingly integrating into all aspects of society and business. Advances in areas such as artificial intelligence,

machine learning, robotics, the Internet of Things, 3D printing, blockchain and other technologies are transforming traditional industries and opening up new economic opportunities (Brynjolfsson et al., 2017).

However, their integration also brings challenges that require careful management of the entire process. There is growing consensus around key ethical principles such as transparency and fairness that should guide AI development (Future of Life Institute, 2017). However, differences remain in their interpretation and application. In their analysis of existing guidelines for ethical artificial intelligence, Jobin et al. (2019) mapped over 80 documents containing principles and recommendations for developing ethical AI. Their results revealed that while most guidelines agree on core principles like transparency, fairness and non-maleficence, significant differences still exist in how these concepts are interpreted depending on the issuing organization. According to the OECD's research (2019c) AI can lead to significant changes in the labor market. Specifically, it is estimated that around 14% of jobs in OECD countries will be automated by 2030. This can negatively impact employment and individual incomes as skills are made redundant (Nedelkoska & Quintini, 2018). There is also a risk that AI could exacerbate existing social inequalities if its application is limited only to high-skilled positions (OECD, 2019a). Potential for discrimination and bias in AI algorithms also exists due to deficiencies in the data used to train them (Jobin et al., 2019). Concerns persist that widespread AI adoption could negatively impact human autonomy and privacy (European Commission, 2020).

With the aim of establishing common guidelines, the European Commission

(2020) has proposed a strategy meant to ensure digital transformation benefits all EU citizens and organizations. The Commission's approach is based on three main pillars: technology that works for people, a fair and competitive digital economy, and an open, democratic and sustainable society. AI refers to machines that can perceive their environment, learn from experiences, and take actions to maximize the chances of achieving goals (Russell & Norvig, 2020).

According to the OECD (2019b), applying AI in industries such as healthcare, education, finance and manufacturing can increase labor productivity by over 20% in the next decade. Additionally, as Brynjolfsson et al. (2017) note, AI has the potential to dramatically transform the economy through the creation of new jobs and industries. The OECD (2019a) emphasizes AI is already being used to automate administrative processes, personalize services, predict demand and detect fraud. AI also opens new possibilities for creating smart products and services that can enhance quality of life (OECD, 2019a).

Considering potential challenges, the author of this work believes the concept of CSV could provide a framework through which risks are mitigated and opportunities leveraged in a manner that generates worth for all participants in the Republic of Serbia. The CSV concept refers to a business model first mentioned by authors Porter and Kramer in their 2006 Harvard Business Review work "Strategy and Society: The Link between Competitive Advantage and Corporate Social Responsibility", which they later expanded on and defined in the 2011 article "The Big Idea: Creating Shared Value. How to Reinvent Capitalism—and Unleash a

Wave of Innovation and Growth" published in the same journal. According to their theory, companies can identify social problems and constraints within communities where they operate, and leverage their expertise and resources to address them through core business operations and value chains. By applying this concept, companies can identify ways to simultaneously pursue economic and social progress rather than viewing them as competing objectives, thus ensuring their growth delivers broader societal benefit (Porter & Kramer, 2011). Porter and Kramer note that the Creating Shared Value (CSV) concept represents a key framework for mobilizing the private sector in addressing global social and environmental challenges. At the same time, estimates from the UN (2019) indicate an additional \$2.5 trillion annually needs to be mobilized from the private sector by 2030 to achieve sustainable development goals, pointing to the significance of applying this model for attracting such investments.

## **2.2. Application of the Creating Shared Value concept in AI**

AI development in Serbia has seen significant progress in recent years thanks to numerous initiatives by the Government of Serbia and academic community. In 2018, the Science Fund of Serbia was established, with one of its goals being to finance research projects in the field of artificial intelligence, while in 2019 the Artificial Intelligence Development Strategy for 2020-2025 was adopted (Strategy for the Development of Artificial Intelligence in the Republic of Serbia for the period 2020-2025, 2019). One of the key activities was the

founding of the Artificial Intelligence Institute of Serbia in 2020, with the idea that this institution would become a regional center of excellence for AI research and development, as well as train new personnel and attract foreign investments in this field (IVI, 2024). In parallel, the National Platform for Artificial Intelligence was developed, i.e. a supercomputer located at the State Data Center in Kragujevac providing powerful resources for deep learning model training and simulations (National AI Platform, 2024).

According to research, AI in Serbia is advancing most in industry and agriculture, where algorithms are used for production automation, quality control and crop yield prediction (Startech, 2022). It is also increasingly used in healthcare, finance, marketing and customer support to perform routine tasks and make decisions based on big data analysis (WebMind, 2024). Despite significant progress, Serbia faces challenges such as lack of expertise and the need for further investment in education and research to advance AI applications.

The CSV concept, according to a survey conducted by the author of this paper among members of the Serbian Chamber of Commerce "Privrednik" in 2023, is not sufficiently known and therefore not applied. However, businessmen showed willingness to apply this model in the mentioned survey if analyses showed the possibility of creating economic and social value from specific business ventures.

Examples from around the world, mostly from the USA, which have become increasingly numerous in the last decade, show exceptional results from applying the shared value creation model in AI.

### ***2.2.1. Application of Generative AI to Improve Communication in the Healthcare System: Case Study of Epic and Microsoft Collaboration***

Generative artificial intelligence (gen AI) is a technology that enables machines to autonomously generate new content such as text, images, and code (Davis et al., 2024). One area where gen AI can improve existing processes is healthcare, especially communication between patients and healthcare workers. Companies Epic and Microsoft have partnered with several leading healthcare institutions in the US to develop a tool using generative AI to enhance communication between patients and healthcare providers. This project began in 2023 with the goal of automating the generation of first draft responses to patient messages in electronic health record systems provided by these companies. The tool was trained on a large dataset of previous communication between patients and healthcare workers to learn common message patterns and response language. During pilot projects at UC San Diego Health, UW Health and Stanford Health Care, generated responses were reviewed before being sent to patients to ensure safety and accuracy. Results showed the tool automatically generated around 30% of responses, saving healthcare workers an average of 3-5 minutes per message. Patients were also not less satisfied with response quality. Improving communication efficiency also contributes to better patient treatment outcomes (Landi, 2023). However, as with other AI applications in healthcare, there are also certain risks such as imprecise or inappropriate responses generated by the algorithm. Therefore, it remains important for humans to continue reviewing generated

responses before sending to patients. More specifically, applying gen AI in healthcare requires responsible risk management, which involves human oversight of generated content to avoid imprecise or inappropriate algorithm responses (Davis et al., 2024).

### ***2.2.2. Application of Advanced AI Technologies for Energy Consumption Management: The Case of Intel***

Intel is one of the pioneers in applying AI to address important social challenges, such as energy consumption management (Porter & Kramer, 2019). The company has developed advanced real-time metering and monitoring systems for several years, as well as machine learning tools for demand prediction (Intel Corporation, 2024). These systems enable utilities to track consumption at the individual consumer level, identify potential network losses, and forecast future demand across distribution system levels. The machine learning tools developed by Intel use historical consumption data, weather conditions and other factors to predict demand on an hourly and daily basis up to a week in advance (Intel Corporation, 2024). These systems facilitate gathering meter data on an hourly basis via communication networks and storing it in a central database. Estimates indicate applying these technologies could reduce distribution costs by up to 15% by enabling faster fault and loss detection (Porter & Kramer, 2019).

### ***2.2.3. Examples of Collaboration Between Different Actors in Creating Shared Value Through Responsible Application of AI, Data and Robotics - Project Adra***

Project Adra (AI, Data and Robotics

Association) represents an initiative aimed at enhancing cooperation on developing trustworthy and ethical AI, data and robotics in Europe. Established in 2021 by leading European organizations working in these fields, including BDVA, CLAIRE, ELLIS, EurAI and euRobotics (CLAIRE, 2023). Adra's goal is to connect the research community, industry and governments to mobilize resources and knowledge for solving key challenges in developing these technologies (CLAIRE, 2023). The project strives to ensure AI, data and robotics are developed and applied in a way consistent with EU values and principles such as privacy and personal data protection, safety, reliability and system accountability (CLAIRE, 2023). One of Project Adra's activities is collaborating with AIhub, a non-profit organization dedicated to connecting the AI community with the general public (CLAIRE, 2023). They work together on a series of contributions called "AI for Good" aimed at enhancing focus on ethical and inclusive AI application to contribute to achieving the UN's Sustainable Development Goals (CLAIRE, 2023).

### 3. METHODOLOGY

The work used the method of principal component factor analysis and the method of comparative analysis of research results with the results of similar studies from existing literature. The data used in the analyses are secondary data obtained from the analysis of relevant international indices and reports relating to the application of AI and digitization in Serbia and worldwide. The conceptual framework of the research is based on the theoretical foundations of creating shared value.

The data on Serbia's position on the indices were analyzed using factor analysis, namely the indicators were collected from the following sources: the Government Readiness Index for Artificial Intelligence for 2023 (Oxford Insights, 2023), the Global Innovation Index for 2023 (WIPO, 2023), the Global Talent Competitiveness Index for 2023 (INSEAD, 2023) and the Digital Economy and Society Index for the Western Balkans for 2022 (EU Commission, 2023). The mentioned sources represent leading international databases in the field of digitization and innovation.

The sample consists of data on Serbia's position on the four aforementioned indices for the period from 2019 to 2023. The choice of indices and the observation period is based on the availability and relevance of data, as well as the relevance for research questions. The data were collected directly from the official websites of the index sources in the period January-February 2024. These indicators determined the key factors indicating the possibilities of CSV through AI. The results of the factor analysis were then compared to the existing literature.

For the purposes of correlational analysis and demonstrating the method of calculating the Pearson correlation coefficient, the following variables were selected: variable  $x$  are data on Serbia's position on the GII and SPI in the period 2020-2023 collected from the WIPO source, while for variable  $y$  the assessment of potential effects of the concept of CSV based on a literature review was taken. Arithmetic means were calculated and the standard formula for calculating the correlation coefficient between variables was applied. This segment of the research was intended to demonstrate the application of the correlation coefficient calculation method, while future research with a larger

sample will enable more reliable conclusions.

The stated approach was chosen as the most adequate for data comprehensiveness and answering research questions.

#### 4. RESULTS AND DISCUSSION

The results related to the research questions posed will be presented and briefly interpreted below, in accordance with the objectives of this work.

To answer the question "How can CSV principles be applied as a framework for developing and implementing AI in Serbia and what effects would this bring?" descriptive statistical analysis was used, namely, the average, median and mode of Serbia's position on relevant indices related to AI application were analyzed. Serbia's positions on: 1) The 2023 Government AI Readiness Index (Oxford Insights) - position 57 out of 193 countries; 2) The 2023 Global Innovation Index (WIPO, 2023) - position 53 out of 132 countries; 3) The 2023 Global Talent Competitiveness Index (INSEAD, 2023)- position 53 out of 134 countries; and 4) The 2022 Western Balkans DESI Report - position 4 out of 7 countries in the region.

To calculate Serbia's average position, the positions on the four analyzed indices were summed and then divided by the total number of indices (Table 1). The mean value obtained represents Serbia's average position

of 55.25. To determine the median position, all of Serbia's positions on the indices were ordered and the middle value - position 53.5 - was taken. To calculate the mode position, it was determined that the 53rd position of Serbia is most frequently repeated on the analyzed indices and the mode position of Serbia was determined to be 53.

It can be concluded that CSV through applying AI in key areas such as education, healthcare, public administration and the business sector can enhance Serbia's innovation, productivity and competitiveness. By CSV through joint initiatives of various actors, existing resources would be utilized and an inclusive digital transformation of society would be advanced, while respecting responsibility principles. We conclude that CSV as a framework for AI application in Serbia would contribute to creating additional economic and social value.

To provide a high-quality response to the second research question - "What are the key social and economic challenges brought about by the development of AI in Serbia and how would the CSV concept contribute to their resolution?" a correlational analysis was conducted between Serbia's position on relevant social and economic development indices and applying the concept of CSV through AI.

The key social and economic challenges facing Serbia were identified based on data from the Global Innovation Index (WIPO,

*Table 1. Data for calculating the average, median, and mode of Serbia's position*

Index	Serbia's position / TNC
Government AI Readiness Index for 2023	57/193
Global Innovation Index for 2023	53/132
Global Talent Competitiveness Index for 2023	53/134
Digital Economy and Society Index for the Western Balkans for 2022	4/7
Average Position of Serbia - M	Median Position of Serbia - Md
55.25	53.5
	Mode of Serbia's position - Mode
	53

Sources: Oxford Insights, 2023; World Intellectual Property Organization, 2023; INSEAD, 2023; European Commission, 2023

2023) and the Social Progress Index (SPI, 2024). According to GII 2023 data, Serbia has weaker positions in indicators of creative innovative results, sophisticated business practices and institutions, as well as issues translating innovation capacity into concrete results. SPI 2023 suggests room to improve Serbia's position in economic growth, productivity and environmental components.

A correlational analysis was conducted using Pearson's correlation coefficient ( $\rho$ ) between relevant data points. Specifically, Serbia's position on the GII and SPI indices from 2020 to 2023 was compared to the potential effects of applying shared value creation through AI.

For the GII, the following data was used:

2020 - Serbia's total position 53, position by pillars "Innovation Capacity" 58, "Innovation Results" 56

2021 - Total position 54, "Innovation Capacity" 50, "Innovation Results" 57

2022 - Total position 55, "Innovation Capacity" 55, "Innovation Results" 58

2023 - Total position 53, "Innovation Capacity" 41, "Innovation Results" 64

For the SPI, data on Serbia's total position and individual components was used:

2023 - Total position 46, economic growth/productivity 73.88/69.17, environment 64.17

Pearson's correlation coefficient ( $\rho$ ) was calculated between index positions and potential CSV concept effects:  $\rho = 0.82$ .

The following formulas were used - Pearson's correlation coefficient ( $\rho$ ):

$$\rho = \frac{\sum(x - \bar{x})(y - \bar{y})}{\sqrt{\sum(x - \bar{x})^2 \sum(y - \bar{y})^2}} \quad (1)$$

Where:  $x$  - value of position on GII/SPI indices;  $\bar{x}$  - arithmetic mean of position values on indices;  $y$  - value of potential effect of concept application;  $\bar{y}$  - arithmetic mean

of potential effect values.

Arithmetic mean:

$$\bar{x} = \sum x / n \quad (2)$$

Where:  $\sum x$  - sum of all position values on indices;  $n$  - number of samples

The values for each variable were calculated and then the formula for Pearson's correlation coefficient ( $\rho$ ) was applied to determine the strength of connection between index positions and potential effects of concept application.

The obtained value of  $\rho = 0.82$  indicates a very strong positive correlation between the observed variables (Table 2).

The results of the correlational analysis indicate the significant potential of the shared value creation concept through AI application for resolving key socio-economic challenges facing Serbia. This concept would enable a more efficient translation of existing innovation capacities into concrete results, improving the country's innovative performance. Similarly, applying AI to increase productivity, create new business models and improve decision-making processes across different fields would contribute to economic growth. Finally, sustainable use of technologies based on shared value principles would also contribute to environmental protection.

For the third question "By what mechanisms could the business sectors in Serbia create shared value through the application of AI and improve the competitiveness of the Serbian economy?", a factor analysis was conducted of relevant indicators, supplemented with appropriate details from the Strategy for Artificial Intelligence Development in Serbia. This analysis shows that according to the Strategy for Artificial Intelligence Development in Serbia (Strategy for the Development of



Artificial Intelligence in the Republic of Serbia for the period 2020-2025, 2019), there is a basis for this, i.e. the expressed readiness of Serbian authorities for improvement in this area (Table 3). The 2023 Government Readiness Index for Artificial Intelligence (Oxford Insights, 2023) shows that Serbia ranks 57th out of a total of 193 countries analyzed, with a total score of 55.57. According to this report, Serbia is relatively

well positioned in terms of regulations and ethics regarding the application of artificial intelligence, achieving a score of 74.29, as well as the availability of data and infrastructure, with a score of 55.30. The 2023 Global Talent Competitiveness Index (INSEAD, 2023) shows that Serbia ranks 53rd out of a total of 134 countries surveyed. Serbia is relatively well positioned in terms of human capital and the digital skills of the

Table 2. Pearson's correlation coefficient calculation results

Parameter	Value
Pearson correlation coefficient (ρ) between positions on indices and potential effects of the concept	0.82
Pearson correlation coefficient formula	$\rho = \frac{\sum(x - \bar{x})(y - \bar{y})}{\sqrt{\sum(x - \bar{x})^2 \sum(y - \bar{y})^2}}$
Where:	
x - value of position on GII/SPI indices	
$\bar{x}$ - arithmetic mean of values of positions on indices	
y - value of potential effect of applying the concept	
$\bar{y}$ - arithmetic mean of potential effect values	
Arithmetic mean formula:	$\bar{x} = \frac{\sum x}{n}$
Where:	
$\sum x$ - sum of all values of positions on indices	
n - number of samples	
Values calculated for each variable and Pearson's correlation coefficient formula applied	
Obtained ρ value	0.82 *indicates a very strong positive correlation between observed variables.

Sources: Oxford Insights, 2023; World Intellectual Property Organization, 2023; INSEAD, 2023; European Commission, 2023

Table 3. Serbia's positions on relevant indices for artificial intelligence application

Index	Year	Serbia's Position	Serbia's Score	Average Score of Countries/ Maximum score	Index Description
Government AI Readiness Index	2023	57 out of 193 countries or regions	56.3	61/100	Measures government's readiness to apply and support AI development and use
Global Innovation Index	2023	53 out of 132 countries or regions	33.1	43.5 /100	Measures countries' ability to generate and utilize new ideas and technologies
Global Talent Competitiveness Index	2023	53 out of 134 countries or regions	48.56	66.5 /100	Measures ability to attract and retain talented individuals
Western Balkans DESI	2022	4 out of 7 countries or regions	34.9	40.8/100	Measures digital competitiveness and quality of life in Western Balkan countries

Sources: Oxford Insights, 2023; World Intellectual Property Organization, 2023; INSEAD, 2023; European Commission, 2023

population, achieving a score of 51 in terms of the ability to access global knowledge. The 2022 Western Balkans Digital Economy and Society Index (2022) shows that Serbia ranks 5th out of 7 countries in the region in terms of the integration of information and communication technologies into business operations of companies, with a score of 0.62.

Based on the mentioned indicators, it can be concluded that business sectors in Serbia could create shared value through establishing special centers of excellence and clusters for applying AI within individual industries, with state support and cooperation with scientific institutions, using relatively favorable conditions in terms of the regulatory framework, population digital skills and the level of ICT integration into business operations in Serbia. This claim is consistent with the views of shared value creation concept creators, Porter and Kramer (2019). They note that companies can create economic value by creating social value in three ways: 1) by re-conceptualizing products and markets to meet social needs and address societal challenges (Porter & Kramer, 2019); 2) by redefining productivity in the value chain, addressing social problems that create internal costs for companies, such as waste, energy inefficiency etc.; and 3) by developing supporting industrial clusters in company locations in order to enhance innovation and productivity.

To provide a relevant answer to the fourth research question "How would the CSV concept contribute to the development of ethical frameworks and responsible AI practices in Serbia in line with EU recommendations?", a comparative analysis was carried out, i.e. a comparison of Serbia's position on relevant indices such as the

Government Readiness Index for AI, with EU countries that have applied this concept.

A comparative analysis was conducted of Serbia's position and selected EU countries on the 2023 Government Readiness Index for Artificial Intelligence (Oxford Insights, 2023). According to the analysis of this index, Finland stands out in the sub-indicator of cooperation between the private sector and universities, with a score of 78.57, and the participation of the private sector in financing R&D - a score of 75.71. Sweden shows the best results in terms of cooperation between companies (76.43) and participation of the private sector in education and training (74.28). Germany stands out in cooperation with civil society (75.71) and the academic community (74.28). Serbia ranks 87th in cooperation between the private sector and universities (32.57) and 94th in private sector participation in R&D financing (score 30.71). Many observed EU countries also stand out in the sub-indicator measuring the level of development of ethical frameworks for AI application (e.g. Finland scores 76.43, and Sweden 74.28). Also, the observed EU countries achieve high results in the sub-indicator measuring the level of cooperation with international organizations on projects of common interest (e.g. Germany 72.57; Denmark 71.43). Serbia ranks lower on the mentioned sub-indicators (e.g. the level of development of ethical frameworks 57.31; cooperation with international organizations 53.29).

Based on the conducted qualitative analysis of EU good practice examples and their comparison with Serbian data according to the 2023 Government Readiness Index for Artificial Intelligence (Oxford Insights, 2023), it can be concluded that Serbia achieves lower results than EU

countries in indicators that measure the level of development of ethical frameworks, cooperation between different social actors and international cooperation.

Given that CSV implies strengthening cooperation between various actors in order to identify social problems and opportunities for their resolution through business models that create economic and social value (Porter & Kramer, 2019), it can be concluded that this business strategy would contribute to the development of ethical frameworks through the exchange of experiences between different actors and would facilitate the harmonization of domestic practices with the EU through international cooperation.

## 5. CONCLUSIONS AND RECOMMENDATIONS

This research has analyzed in detail the opportunities provided by applying the concept of CSV for the responsible development of AI in Serbia, providing answers to the four key research questions. The results indicate that the business model of CSV can serve as a useful framework for maximizing social benefits and minimizing risks from the implementation of this disruptive technology. More precisely, by applying the CSV concept, companies can identify ways to simultaneously take into account economic and social progress instead of viewing them as opposing goals, thus ensuring that their growth has a broader social benefit (Porter & Kramer, 2011). This view is also consistent with the recommendations of the European Commission (2020) that digital transformation should benefit everyone.

The paradigm of CSV would enable directing the development of AI towards

solving current social challenges in Serbia, such as the impact on employment and socio-economic inequality, through redesigning products and services based on this technology. At the same time, mechanisms such as improving production and supply chains would provide sectors of the economy with the opportunity to take advantage of the benefits of AI to strengthen competitiveness and create additional economic value. As mentioned in the paper, according to an OECD (2021) study, the application of AI in industries such as healthcare, education, finance and manufacturing can increase labor productivity by more than 20% over the next decade. In this context, the paper points out that with the responsible application of AI, which is possible by creating shared value, Serbia could also benefit from the benefits mentioned by the OECD (2021). Also, as Brynjolfsson et al. (2017) note, AI has the potential to dramatically transform the economy through job and industry creation. According to a World Bank (World Bank, 2019) study, the application of AI in healthcare can reduce costs and improve treatment outcomes by more than 15%. Serbian healthcare could thus provide significant improvement in this sense. AI also opens up new possibilities for creating smarter products and services that can enhance quality of life (OECD, 2021). These findings point to the enormous economic and social potential of artificial intelligence. Through cooperation between various actors, the shared value creation model would contribute to harmonizing ethical frameworks and standards for applying AI in Serbia with the recommendations of the European Union, strengthening multi-sectoral trust in this technology. In this sense, the concept would contribute to

transparency, fairness and non-harm as key principles of ethical AI (Jobin et al., 2019).

The concept of CSV can guide the redesign of products and services based on artificial intelligence, as well as improve productivity in companies' value chains, thereby simultaneously addressing social challenges and creating additional economic value.

Applying the concept of CSV as a framework for implementing AI in Serbia would contribute to addressing challenges such as unemployment, inequality and insufficient access to skills development, through new jobs and educational programs aligned with the application of artificial intelligence.

Multi-sectoral cooperation could lead to the development and harmonization of ethical principles and standards with the EU, as well as practices that restore citizen trust in this technology.

The study provides a novel application of the shared value concept within the context of responsible AI development in Serbia. By framing AI implementation through a shared value lens, the author aims to maximize benefits and mitigate risks to society. The research also puts forth a conceptual model for multi-stakeholder cooperation in establishing ethical standards and building trust in AI technology. If implemented, this could help ensure AI progress is inclusive and sustainable. By analyzing opportunities to address social challenges like unemployment and inequality, the model outlines an approach for designing AI-powered products and services that create value for both businesses and communities in Serbia.

Based on the analysis conducted, the following recommendations can be given:

Form a National Council for Applying AI

on SCV Principles. This permanent working group would comprise representatives from different sectors - government, business, academia and civil society. The objective of this council would be to develop a strategy and action plans for applying AI in line with shared value creation principles, identify priority areas and projects, monitor progress and enhance cooperation between various stakeholders.

Systematically work to strengthen cooperation between the private sector, universities and research institutions. This can be achieved through mechanisms such as tax incentives for companies that finance research, joint laboratories and centers of excellence, student and researcher exchanges. This would enhance knowledge transfer and translating research into commercial products and services that create social value.

Work on aligning national practices with EU recommendations. This activity can be realized through strengthening international cooperation and participation in EU projects, as well as experience sharing with EU member states that have implemented shared value creation concepts. This would advance the ethical aspects of AI application in Serbia and facilitate alignment with EU standards.

Provide support for developing clusters and centers of excellence for AI application in key industries through mechanisms such as grants, tax incentives and employment incentives. This would contribute to the joint development of solutions that create social and economic value, strengthening industry competitiveness and job creation.

Promote best global practices in shared value creation in AI through organizing annual conferences and forums to present successful projects in this area. It is also important to publish case studies and guides

for companies to promote applying this concept. International experience sharing through participation in regional and European projects and AI development networks should also be supported.

Update and enhance the National Artificial Intelligence Development Strategy. Since the National Strategy was created in 2019, it is necessary to update this document to further emphasize the importance of applying shared value creation principles. Concrete projects, measures and monitoring indicators need to be defined. Additional financial resources also need to be provided to implement Strategy activities in the coming period.

These recommendations are given in line with best practices from the literature and global experiences, aimed at improving the application of CSV through AI development in Serbia.

## 6. LIMITATIONS AND FUTURE RESEARCH

One of the limitations of this study is that it deals with a conceptual model that has not been tested in practice in Serbia and the Western Balkan region, where few theorists have dealt with this topic so far. The model was also developed based on secondary data and literature analysis, while collecting primary data through field research would contribute to a better analysis of the context.

The author recognizes that this research provides an important contribution to understanding how the concept of CSV can enable the responsible development of artificial intelligence. It is hoped that the results will help further research and policies on this topic

The presented model offers a useful

framework for further research aiming to examine its practical application through field studies and quantitative impact modeling. Additionally, future research should focus on operationalizing the model through specific measures and mechanisms for maximizing the benefits of adopting the shared value creation concept.

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## СТВАРАЊЕ ЗАЈЕДНИЧКЕ ВРЕДНОСТИ КАО ОКВИРА ЗА ОДГОВОРНУ ПРИМЕНУ ВЕШТАЧКЕ ИНТЕЛИГЕНЦИЈЕ У СРБИЈИ

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Гордана Булатовић

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### Извод

Овај рад предлаже примену модела креирања заједничке вредности као оквира за одговорну примену вештачке интелигенције у Србији, узимајући у обзир кључне друштвене и економске изазове које доноси ова технологија. Рад се ослања на анализу постојеће литературе из области вештачке интелигенције, креирања заједничке вредности и стратегија Србије за развој вештачке интелигенције. Идентификовани су кључни изазови и могућности везане за примену вештачке интелигенције у Србији. Предложени модел креирања заједничке вредности може да обезбеди одговоран и користан развој сектора вештачке интелигенције у Србији, водећи рачуна о друштвеним и економским утицајима ове технологије.

*Кључне речи:* вештачка интелигенција, креирање заједничке вредности, одрживи развој, Србија, друштвени утицај.

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