

Make Your Publications Visible.

A Service of



Leibniz-Informationszentrum Wirtschaft Leibniz Information Centre

Pirju, Ionel Sergiu; Ioan, Gina; Sirbu, Carmen; Huru, Dragoș; Săaracu, Alina Florentina

## **Article**

Gender-specific implications of foreign direct investments on wage dynamics in Croatia: A comprehensive management perspective

**Administrative Sciences** 

# **Provided in Cooperation with:**

MDPI – Multidisciplinary Digital Publishing Institute, Basel

Suggested Citation: Pirju, Ionel Sergiu; Ioan, Gina; Sirbu, Carmen; Huru, Dragos; Săaracu, Alina Florentina (2024): Gender-specific implications of foreign direct investments on wage dynamics in Croatia: A comprehensive management perspective, Administrative Sciences, ISSN 2076-3387, MDPI, Basel, Vol. 14, Iss. 9, pp. 1-17, https://doi.org/10.3390/admsci14090198

This Version is available at: https://hdl.handle.net/10419/321012

# Standard-Nutzungsbedingungen:

Die Dokumente auf EconStor dürfen zu eigenen wissenschaftlichen Zwecken und zum Privatgebrauch gespeichert und kopiert werden.

Sie dürfen die Dokumente nicht für öffentliche oder kommerzielle Zwecke vervielfältigen, öffentlich ausstellen, öffentlich zugänglich machen, vertreiben oder anderweitig nutzen.

Sofern die Verfasser die Dokumente unter Open-Content-Lizenzen (insbesondere CC-Lizenzen) zur Verfügung gestellt haben sollten, gelten abweichend von diesen Nutzungsbedingungen die in der dort genannten Lizenz gewährten Nutzungsrechte.



https://creativecommons.org/licenses/by/4.0/

## Terms of use:

Documents in EconStor may be saved and copied for your personal and scholarly purposes.

You are not to copy documents for public or commercial purposes, to exhibit the documents publicly, to make them publicly available on the internet, or to distribute or otherwise use the documents in public.

If the documents have been made available under an Open Content Licence (especially Creative Commons Licences), you may exercise further usage rights as specified in the indicated licence.







Article

# Gender-Specific Implications of Foreign Direct Investments on Wage Dynamics in Croatia: A Comprehensive Management Perspective

Ionel Sergiu Pirju 1,\* , Gina Ioan 2 , Carmen Sirbu 3, Dragos Huru 4 and Alina Florentina Săracu 2

- Department of Communication, Faculty of Communication and International Relations, Danubius University of Galati, 800654 Galati, Romania
- Department of Applied Sciences, The Cross Border Faculty, Dunarea de Jos University of Galati, 800201 Galati, Romania; gina.ioan@ugal.ro (G.I.); alina.saracu@ugal.ro (A.F.S.)
- <sup>3</sup> Department of Administration, Dunarea de Jos University of Galati, 800201 Galati, Romania; carmen.sirbu@ugal.ro
- Department of Economics and Policies of Economics, The Bucharest University of Economic Studies, 010375 Bucharesr, Romania; dragos.huru@economie.ase.ro
- \* Correspondence: pirjusergiu@univ-danubius.ro

**Abstract:** This study investigates the nuanced influence of Foreign Direct Investments (FDIs) on wage dynamics among Croatian workers, specifically examining the differential effects on male and female salaried employees. The authors employed statistical indicators and regression analysis, utilizing data from reputable sources, such as UNCTAD and the World Bank, to assess the dependency of wages on FDIs at time periods n and n-1. By focusing on these temporal dynamics, the study aims to capture potential changes in the relationship between wages and FDIs, aligning with the total quality management (TQM) principle of systematic analysis. The findings highlighted the differential impact of FDIs on wage evolution for male and female workers, underscoring the importance of integrating gender-sensitive strategies within quality management frameworks.

Keywords: wage evolutions; FDIs; quality management; gender policies; Croatia



Citation: Pirju, Ionel Sergiu, Gina
Ioan, Carmen Sirbu, Dragoş Huru,
and Alina Florentina Săracu. 2024.
Gender-Specific Implications of
Foreign Direct Investments on Wage
Dynamics in Croatia: A
Comprehensive Management
Perspective. Administrative Sciences 14:
198. https://doi.org/10.3390/
admsci14090198

Received: 25 July 2024 Revised: 26 August 2024 Accepted: 28 August 2024 Published: 30 August 2024



Copyright: © 2024 by the authors. Licensee MDPI, Basel, Switzerland. This article is an open access article distributed under the terms and conditions of the Creative Commons Attribution (CC BY) license (https://creativecommons.org/licenses/by/4.0/).

# 1. Introduction

The influence of Foreign Direct Investments (FDIs) on economic dynamics, particularly on wage evolution (Gopinath and Chen 2003; Lipsey and Sjöholm 2004; Figini and Görg 2011), stands as a pivotal domain within the framework of quality management (Bacovic et al. 2021; Leutloff-Grandits 2023). Croatia, as a transitioning economy in the European Union (Bojinović et al. 2023), presents an enticing context for exploring the intricate relationship between FDIs and wage progression.

Quality management, characterized by its emphasis on enhancing processes, products, and organizational performance (Jasti et al. 2022; Fan and Geerts 2022; Sader et al. 2022; Prunau 2021), provides a lens through which we are able to examine the implications of FDIs on wage evolution. Continuous improvement, a fundamental principle within quality management frameworks (Panaitescu and Cucu 2020; Sanchez and Blanco 2014; Bhuiyan and Baghel 2005), underscores the importance of ongoing refinement and optimization in response to dynamic environmental factors. Thus, understanding the influence of FDIs on wages becomes integral in fostering strategies aimed at sustained economic development and equitable workforce enhancement.

While previous studies have extensively examined the influence of FDIs on wage evolution and broader economic dynamics, there is a gap in the literature regarding the gender-specific implications of FDIs on wage dynamics, particularly within transitioning economies, such as Croatia. Most existing research tends to generalize the impact of FDIs without adequately considering the differential effects on male and female workers.

Adm. Sci. 2024, 14, 198 2 of 17

The integration of quality management principles into the analysis of FDIs' impacts on wage progression, aimed at the role of continuous improvement—a cornerstone of quality management—in shaping economic and wage policies in response to FDI influxes, has not been fully addressed. By examining the gender-specific impact of FDIs on wage evolution within Croatia, this study seeks to provide a more granular understanding of the economic dynamics at play. Also, after framing the analysis within the context of quality management and continuous improvement, the research offers a novel perspective that connects economic policy with organizational performance enhancement.

This study aims to contribute to the field of quality management by examining the interplay between FDIs and wage evolution in Croatia through the prism of gender-specific implications. This research endeavors to provide insights that not only enhance scholarly knowledge, but also inform policymakers and organizational leaders in their pursuit of optimizing the benefits derived from foreign investments while ensuring fair and sustainable wage growth.

The central research hypothesis posits that the influx of FDIs significantly impacts the evolution of wages in Croatia. This hypothesis is grounded in the empirical analysis of statistical indicators, which reveal a robust model; moreover, the validation of a linear dependence between the variables, established by the value of Multiple R, underscores the existence of a predictable association between FDIs and wage dynamics.

We will evaluate existing economic and labor policies in Croatia to assess their inclusivity and gender sensitivity concerning the effects of FDIs on wages. Using a complex comparative and methodological analysis, we conduct a comprehensive comparative study of wage dynamics among male and female salaried workers in this nation. With the help of the longitudinal study, we will track the evolution of wage patterns in response to FDIs over multiple years and explore temporal trends to discern potential shifts or patterns in the relationship between FDIs and wages among different genders.

The regression equation derived from this analysis provides a quantifiable insight: a one percent increase in FDIs in the current year correlates with an increase in wages for all salaried workers in Croatia. This empirical relationship forms the crux of this study, serving as a springboard for investigating the multifaceted implications of FDIs on wage evolution and their alignment with the principles of continuous improvement in quality management practices.

Furthermore, this correlation prompts a reevaluation of policies and practices concerning investment attraction and labor market regulations. Leveraging this understanding within a framework of continuous improvement can facilitate the development of targeted interventions to optimize the benefits derived from FDIs.

Our presentation also underscores the pivotal significance of cultivating economic landscapes that are both inclusive and sustainable, placing a paramount emphasis on the imperative of gender equality. This deliberate prioritization stands as a catalyst, capable of imparting profound and far-reaching impacts on societal well-being while propelling the trajectory of robust economic advancement.

By fostering an environment where gender equality is embedded into the economic fabric, societies unleash the latent potential of diverse perspectives and talents, igniting innovation, productivity, and sustainable growth.

In essence, this scholarly work advocates for a transformative paradigm, one that underscores the role of gender equality in shaping inclusive and sustainable economic ecosystems. By elucidating the gender-specific implications of FDIs on wage dynamics, we intend to unravel the intricate interplay between external economic forces and gender-specific outcomes within the Croatian context. This endeavor aligns with contemporary management paradigms, emphasizing the pivotal role of gender diversity and inclusivity in organizational success and sustainable development (Ruel et al. 2020; Al-Shaer and Zaman 2016; Galletta et al. 2022; Khatri 2023).

The integration of gender-sensitive strategies within quality management involves crafting and implementing policies, practices, and frameworks that account for gender Adm. Sci. 2024, 14, 198 3 of 17

disparities, ensuring fairness and inclusivity in the workplace. As outcomes, we will provide comprehensive insights into the gender-specific impacts of FDIs on wage evolution in Croatia, highlighting disparities, challenges, and opportunities for equitable growth. As recommendations for gender-sensitive policies, this study will offer evidence-based recommendations for policymakers, organizations, and stakeholders to develop gender-sensitive policies and strategies aligned with quality management principles.

## 2. FDIs and Their Impact: A Synthesis of Literature

The assertion regarding Foreign Direct Investment's significant influence on economic growth resonates profoundly within economic discourse (Sorcaru et al. 2023; Kurtishi-Kastrati 2013; Pegkas 2015; Popescu 2014; Azman-Saini and Law 2010), and FDIs stands as a pivotal catalyst, fueling economic advancement by infusing capital, technology, and managerial expertise into host economies (Albuquerque 2003; Egyir et al. 2020). Moreover, its impact transcends mere direct contributions, permeating the economic landscape through spillover effects. These spillovers encompass a spectrum of indirect benefits, ranging from knowledge transfers and technological diffusion to enhanced productivity and competitive dynamics within domestic markets. Recognizing FDI's multifaceted role as a driver of economic development (Narula and Driffield 2012; Lee and Chang 2009; Moran 2003) and its indirect yet pervasive influence underscores its position as a cornerstone in fostering comprehensive and sustained economic growth across diverse economies.

The correlation between FDIs and economic growth, particularly concerning the influence on developing economies, yields intricate and evolving patterns. While FDI is often linked to bolstering economic growth in nations with higher levels of per capita income, its impact on developing economies remains a subject of extensive study and debate within academic circles. Research indicates a compelling relationship between FDIs, gross domestic product (GDP), and growth rates in developing nations. However, the nuances of this relationship vary significantly, influenced by factors such as institutional frameworks, technological absorptive capacities, trade policies, and the specific sectors targeted by FDI inflows. These studies (Nunnenkamp 2002; Wint and Williams 2002; Kinda 2010; Liang et al. 2021; Ross 2019; Dinh et al. 2019) illuminate the complexity inherent in the FDI–growth nexus in developing economies, emphasizing the importance of contextual considerations and nuanced analyses to comprehend the diverse impacts of FDI on economic growth trajectories.

The infusion of FDIs within Croatia's economic landscape yields multifaceted impacts, catalyzing a spectrum of transformative elements across its business milieu. FDI serves as a catalyst, invigorating Croatia's business environment by fostering increased capital inflows, bolstering trade networks, and generating employment opportunities (Bilas 2019, 2020; Jurčić et al. 2020; Vujanović et al. 2021). Moreover, the influx of FDIs facilitates the transfer of knowledge, technologies, and managerial practices, contributing significantly to the modernization of economic sectors. Concurrently, it plays a pivotal role in the evolution of institutional frameworks, aligning them with international standards and fostering adaptability within the global economic arena. Recognizing FDI's major contributions underscores its role as a key driver in Croatia's economic progress, positioning it as a linchpin in the nation's journey toward alignment with global economic benchmarks and fostering sustainable growth.

The dynamics of growth in lower income developing countries are notably intertwined with the labor force participation rates and educational landscapes (Amna Intisar et al. 2020; Baerlocher et al. 2021; Sequeira 2021). Research underscores the pivotal role of these factors as key elements in shaping growth trajectories within these economies. Higher labor force participation rates denote a more substantial pool of productive resources (Grigoli et al. 2020; Dernberger and Pepin 2020), fostering increased output and economic activity. Similarly, educational realization emerges as a critical catalyst, empowering individuals with the skills and knowledge necessary to contribute effectively to economic productivity and innovation (Ghulam and Mousa 2019). Moreover, investments in education foster human

Adm. Sci. 2024, 14, 198 4 of 17

capital development, enabling nations to navigate technological advancements and adapt to evolving market demands (Jorgenson and Fraumeni 2020; Keller 2006). Recognizing the symbiotic relationship between labor force participation, education, and growth rates illuminates the imperative of strategic policies aimed at enhancing these aspects to propel sustainable economic development in lower income developing countries.

UNCTAD's comprehensive analysis unveils the multifaceted nature of FDI's impact, emphasizing its sensitivity to diverse variables. The organization's research acknowledges the intricate interplay between FDIs and an array of factors, including initial GDP per capita, domestic investment, financial development, trade dynamics, political stability, educational attainment, and black-market premiums (Fredriksson 2003; Kalotay 2012). This expansive set of variables reflects the complexity inherent in assessing FDI's effects on economies. By leveraging this comprehensive assessment, UNCTAD offers valuable insights into the dynamic nature of FDI's impacts, advocating for nuanced analyses that consider multiple variables to delineate the diverse outcomes associated with foreign investments in different contexts.

Human capital stands as a cornerstone in the realm of economic growth, wielding significant influence, particularly when evaluating labor force quality and participation ratios. The cultivation of human capital, encapsulating the skills, knowledge, and expertise of a workforce, emerges as a pivotal determinant in fostering sustainable economic advancement. The quality and composition of the labor force profoundly impact productivity levels, innovation, and overall economic output (Bowlus and Robinson 2012; Bartel et al. 2014).

Moreover, the labor force participation ratio, reflecting the proportion of individuals actively engaged in the workforce, constitutes a vital dimension in assessing a nation's economic potential. Higher participation rates signify a larger pool of skilled and productive labor, thereby amplifying the capacity for economic growth and development (Aaronson et al. 2014).

In essence, the nexus between human capital, managerial performance, and FDIs underscores the imperative of nurturing a skilled workforce and ensuring widespread participation in the labor market. Recognizing human capital as a critical factor prompts strategic investments in education, training, and skill development, essential for fostering sustainable and inclusive economic progress.

Human capital, comprising the skills, knowledge, and expertise of the workforce, coupled with the infusion of FDIs, emerges as a catalyst, propelling growth trajectories. The symbiotic relationship between these factors underscores their collective role in augmenting productivity, fostering innovation, and stimulating economic advancement.

Moreover, the emphasis on human capital's significance alongside FDIs implies that investments in education, skill enhancement, and knowledge acquisition play a pivotal role in leveraging the benefits derived from foreign investments (Anzolin et al. 2020). This mutual reinforcement amplifies the transformative potential of FDIs, especially in fostering sustainable growth and development within developing countries.

The dynamics between labor force participation rates and economic growth present a nuanced and multifaceted relationship within academic research. While studies have extensively explored the influence of female labor force participation on various economic dimensions, the overall impact of labor force participation rates on economic growth remains somewhat ambiguous and subject to diverse interpretations. Most notably, research often highlights the pronounced effects of female labor force participation on economic growth (Baerlocher et al. 2021; Altuzarra et al. 2019; Tsani et al. 2013; Luci 2009; Choudhry and Elhorst 2018), recognizing its potential to spur managerial productivity, augment household incomes, and contribute to overall economic output. However, the broader scope of labor force participation, encompassing both genders, presents a more intricate narrative that researchers are continually exploring.

The ambiguous nature of this relationship underscores the complexity inherent in evaluating the overall influence of labor force participation rates on economic growth. Factors such as societal norms, institutional frameworks, educational opportunities, and demographic structures contribute to the varying impacts observed across different contexts and regions.

Adm. Sci. **2024**, 14, 198 5 of 17

While studies predominantly focus on female labor force participation due to its recognized socioeconomic implications, there is ongoing scholarly interest in comprehensively understanding the broader implications of overall labor force participation rates on development and managerial policies. This continued exploration aims to elucidate the multifaceted dynamics between labor force participation and economic advancement, offering insights crucial for formulating inclusive and effective economic policies.

## 3. The Conceptual Framework

Research Methodology

From a quality management perspective, utilizing data from reputable sources, such as UNCTAD and the World Bank (Tables 1–3), aligns with the principle of using reliable and credible information for analysis and decision-making.

Table 1. Data of the FDIs and wages of salaried workers in Croatia between 1992 and 2021.

| Year | FDI-1       | FDI         | Wage and Salaried Workers-1 | Wage and Salaried Workers |
|------|-------------|-------------|-----------------------------|---------------------------|
| 1992 | _           | 0.106103186 | 71.66999817                 | 71.11000061               |
| 1993 | 0.106103186 | 0.9105367   | 71.11000061                 | 70.45999908               |
| 1994 | 0.9105367   | 0.634975355 | 70.45999908                 | 70.62999725               |
| 1995 | 0.634975355 | 0.461580061 | 70.62999725                 | 71.08000183               |
| 1996 | 0.461580061 | 2.046276275 | 71.08000183                 | 71.44000244               |
| 1997 | 2.046276275 | 2.429587964 | 71.44000244                 | 74.08000183               |
| 1998 | 2.429587964 | 3.705375372 | 74.08000183                 | 75.33999634               |
| 1999 | 3.705375372 | 6.091722855 | 75.33999634                 | 75.16000366               |
| 2000 | 6.091722855 | 4.567081829 | 75.16000366                 | 76.13999939               |
| 2001 | 4.567081829 | 4.468797144 | 76.13999939                 | 75.75                     |
| 2002 | 4.468797144 | 3.673116472 | 75.75                       | 75.88999939               |
| 2003 | 3.673116472 | 5.225775448 | 75.88999939                 | 75.55999756               |
| 2004 | 5.225775448 | 3.104779476 | 75.55999756                 | 75.87999725               |
| 2005 | 3.104779476 | 3.988709294 | 75.87999725                 | 75.11000061               |
| 2006 | 3.988709294 | 6.211174158 | 75.11000061                 | 77.01999664               |
| 2007 | 6.211174158 | 7.760138343 | 77.01999664                 | 79.22000122               |
| 2008 | 7.760138343 | 7.685844565 | 79.22000122                 | 79.12999725               |
| 2009 | 7.685844565 | 4.709500899 | 79.12999725                 | 79.13999939               |
| 2010 | 4.709500899 | 1.959505958 | 79.13999939                 | 78.16000366               |
| 2011 | 1.959505958 | 2.556622101 | 78.16000366                 | 78.22000122               |
| 2012 | 2.556622101 | 2.321984268 | 78.22000122                 | 80.25                     |
| 2013 | 2.321984268 | 1.578338695 | 80.25                       | 81.91999817               |
| 2014 | 1.578338695 | 5.030198123 | 81.91999817                 | 84.37999725               |
| 2015 | 5.030198123 | 0.169524395 | 84.37999725                 | 84.33000183               |
| 2016 | 0.169524395 | 0.529543211 | 84.33000183                 | 86.08999634               |
| 2017 | 0.529543211 | 0.975624389 | 86.08999634                 | 87.62999725               |
| 2018 | 0.975624389 | 1.920706698 | 87.62999725                 | 87.93000031               |
| 2019 | 1.920706698 | 2.211104205 | 87.93000031                 | 87.65000153               |
| 2020 | 2.211104205 | 0.25        | 87.65000153                 | 87.58335                  |
| 2021 | 0.25        | 6.42        | 87.58335                    | 87.16367                  |

Adm. Sci. 2024, 14, 198 6 of 17

Table 2. Data of the FDIs and wages of male salaried workers in Croatia between 1992 and 2021.

| Year | FDI-1       | FDI         | Wage and Salaried Workers, Male-1 | Wage and Salaried Workers, Male |
|------|-------------|-------------|-----------------------------------|---------------------------------|
| 1992 | _           | 0.106103186 | 71.08999634                       | 70.51000214                     |
| 1993 | 0.106103186 | 0.9105367   | 70.51000214                       | 69.91999817                     |
| 1994 | 0.9105367   | 0.634975355 | 69.91999817                       | 70.20999908                     |
| 1995 | 0.634975355 | 0.461580061 | 70.20999908                       | 70.59999847                     |
| 1996 | 0.461580061 | 2.046276275 | 70.59999847                       | 70.93000031                     |
| 1997 | 2.046276275 | 2.429587964 | 70.93000031                       | 73.43000031                     |
| 1998 | 2.429587964 | 3.705375372 | 73.43000031                       | 74.27999878                     |
| 1999 | 3.705375372 | 6.091722855 | 74.27999878                       | 74.01999664                     |
| 2000 | 6.091722855 | 4.567081829 | 74.01999664                       | 74.73000336                     |
| 2001 | 4.567081829 | 4.468797144 | 74.73000336                       | 73.15000153                     |
| 2002 | 4.468797144 | 3.673116472 | 73.15000153                       | 73.95999908                     |
| 2003 | 3.673116472 | 5.225775448 | 73.95999908                       | 74.33000183                     |
| 2004 | 5.225775448 | 3.104779476 | 74.33000183                       | 75.08999634                     |
| 2005 | 3.104779476 | 3.988709294 | 75.08999634                       | 74.63999939                     |
| 2006 | 3.988709294 | 6.211174158 | 74.63999939                       | 75.59999847                     |
| 2007 | 6.211174158 | 7.760138343 | 75.59999847                       | 77.86000061                     |
| 2008 | 7.760138343 | 7.685844565 | 77.86000061                       | 77.80000305                     |
| 2009 | 7.685844565 | 4.709500899 | 77.80000305                       | 77.65000153                     |
| 2010 | 4.709500899 | 1.959505958 | 77.65000153                       | 77.63999939                     |
| 2011 | 1.959505958 | 2.556622101 | 77.63999939                       | 77.56999969                     |
| 2012 | 2.556622101 | 2.321984268 | 77.56999969                       | 78.87000275                     |
| 2013 | 2.321984268 | 1.578338695 | 78.87000275                       | 79.66999817                     |
| 2014 | 1.578338695 | 5.030198123 | 79.66999817                       | 81.62000275                     |
| 2015 | 5.030198123 | 0.169524395 | 81.62000275                       | 81.47000122                     |
| 2016 | 0.169524395 | 0.529543211 | 81.47000122                       | 83.23999786                     |
| 2017 | 0.529543211 | 0.975624389 | 83.23999786                       | 85.59999847                     |
| 2018 | 0.975624389 | 1.920706698 | 85.59999847                       | 86.13999939                     |
| 2019 | 1.920706698 | 2.211104205 | 86.13999939                       | 84.93000031                     |
| 2020 | 2.211104205 | 0.25        | 84.93000031                       | 84.30105                        |
| 2021 | 0.25        | 6.42        | 84.30105                          | 83.63871                        |
|      |             |             |                                   |                                 |

**Table 3.** Data of the FDIs and wages of female salaried workers in Croatia between 1992 and 2021.

| Year | FDI-1       | FDI         | Wage and Salaried Workers, Female-1 | Wage and Salaried Workers, Female |
|------|-------------|-------------|-------------------------------------|-----------------------------------|
| 1992 | _           | 0.106103186 | 72.45999908                         | 71.90000153                       |
| 1993 | 0.106103186 | 0.9105367   | 71.90000153                         | 71.16999817                       |
| 1994 | 0.9105367   | 0.634975355 | 71.16999817                         | 71.18000031                       |
| 1995 | 0.634975355 | 0.461580061 | 71.18000031                         | 71.70999908                       |
| 1996 | 0.461580061 | 2.046276275 | 71.70999908                         | 72.11000061                       |
| 1997 | 2.046276275 | 2.429587964 | 72.11000061                         | 74.91999817                       |
| 1998 | 2.429587964 | 3.705375372 | 74.91999817                         | 76.72000122                       |
|      |             |             |                                     |                                   |

Table 3. Cont.

| Year | FDI-1       | FDI         | Wage and Salaried Workers, Female-1 | Wage and Salaried Workers, Female |
|------|-------------|-------------|-------------------------------------|-----------------------------------|
| 1999 | 3.705375372 | 6.091722855 | 76.72000122                         | 76.62999725                       |
| 2000 | 6.091722855 | 4.567081829 | 76.62999725                         | 77.94999695                       |
| 2001 | 4.567081829 | 4.468797144 | 77.94999695                         | 79.13999939                       |
| 2002 | 4.468797144 | 3.673116472 | 79.13999939                         | 78.37999725                       |
| 2003 | 3.673116472 | 5.225775448 | 78.37999725                         | 77.13999939                       |
| 2004 | 5.225775448 | 3.104779476 | 77.13999939                         | 76.87999725                       |
| 2005 | 3.104779476 | 3.988709294 | 76.87999725                         | 75.68000031                       |
| 2006 | 3.988709294 | 6.211174158 | 75.68000031                         | 78.75                             |
| 2007 | 6.211174158 | 7.760138343 | 78.75                               | 80.94000244                       |
| 2008 | 7.760138343 | 7.685844565 | 80.94000244                         | 80.80000305                       |
| 2009 | 7.685844565 | 4.709500899 | 80.80000305                         | 80.94999695                       |
| 2010 | 4.709500899 | 1.959505958 | 80.94999695                         | 78.79000092                       |
| 2011 | 1.959505958 | 2.556622101 | 78.79000092                         | 79.01000214                       |
| 2012 | 2.556622101 | 2.321984268 | 79.01000214                         | 81.91000366                       |
| 2013 | 2.321984268 | 1.578338695 | 81.91000366                         | 84.54000092                       |
| 2014 | 1.578338695 | 5.030198123 | 84.54000092                         | 87.65000153                       |
| 2015 | 5.030198123 | 0.169524395 | 87.65000153                         | 87.66999817                       |
| 2016 | 0.169524395 | 0.529543211 | 87.66999817                         | 89.44999695                       |
| 2017 | 0.529543211 | 0.975624389 | 89.44999695                         | 90.02999878                       |
| 2018 | 0.975624389 | 1.920706698 | 90.02999878                         | 90.02999878                       |
| 2019 | 1.920706698 | 2.211104205 | 90.02999878                         | 90.80999756                       |
| 2020 | 2.211104205 | 0.25        | 90.80999756                         | 91.46497                          |
| 2021 | 0.25        | 6.42        | 91.46497                            | 91.2696                           |

Source: UNCTAD and World Bank.

Based on the above-mentioned observations, our research hypotheses are as follows:

**Hypothesis 1.** The influx of Foreign Direct Investments significantly impacts the evolution of wages in Croatia, with a predictable association between the level of FDIs and wage dynamics, as indicated by a robust empirical model.

**Hypothesis 2.** There is a significant difference in the wage progression among male and female salaried workers in Croatia in response to FDIs, reflecting gender-specific implications of foreign investments on wage dynamics.

**Hypothesis 3.** The impact of FDIs on wage growth in Croatia is moderated by the inclusivity and gender sensitivity of existing economic and labor policies, with more inclusive and gender-sensitive policies enhancing the positive effects of FDIs on wages.

**Hypothesis 4.** An increase in FDIs leads to a measurable increase in wages for all salaried workers in Croatia, with a one percent increase in FDIs correlating with a proportional rise in wages, thereby contributing to sustainable economic growth and gender equality.

Assessing the dependency of wages on FDIs at time n and n-1 reflects a commitment to understanding the factors influencing economic dynamics, a fundamental aspect of modern management.

Adm. Sci. 2024, 14, 198 8 of 17

Focusing on time n and time n-1, this method seeks to capture potential temporal dynamics and changes in the relationship between wages and FDIs. Such an approach resonates with TQM's emphasis on systematic analysis, aiming to discern patterns and causal relationships over distinct periods rather than relying solely on immediate associations.

Several statistical indicators will highlight the correctness of the chosen model. R-squared (R2) serves as a crucial metric, indicating the proportion of variance in the endogenous variable that can be accounted for by variations in the exogenous variables. The rest of the exogenous variables, constituting the unexplained portion, encompass factors beyond those included in the model, totaling 100%.

Additionally, the empirical correlation coefficient, Multiple R, assesses the presence of linear dependence among the variables. Its value is evaluated against the critical correlation coefficient value for the specific dataset size (in this instance, comprising 28 data points for the period 1992–2021). In case that Multiple R is greater than 0.381, it signifies the existence of a linear relationship between the variables.

Therefore, these statistical indicators serve as benchmarks for assessing the model's effectiveness in capturing variance and establishing relationships within the dataset, offering valuable guidance in interpreting the model's reliability and explanatory power.

The Adjusted R-squared, often referred to as the corrected multiple determination coefficient, serves as a crucial metric for assessing the impact of adding or removing variables within a model. Its value reflects the model's ability to account for variations in the dependent variable concerning changes in the number of predictors.

When incorporating a new variable into the model, an increase in the Adjusted R-squared signifies an improvement in the model's explanatory power due to the added variable's contribution. This increase suggests that the newly included variable enhances the model's ability to capture and explain the variance in the dependent variable. Consequently, in this scenario, retaining the variable within the model is advantageous, as it enriches the model's overall predictive capacity.

The p-value represents the probability of observing an effect as extreme as the one in the data, assuming the null hypothesis is true. In this context, when p-values fall below the threshold of significance, typically denoted as  $1-\alpha$ , it suggests that the associated variable significantly influences the process under study.

Therefore, this approach, based on *p*-values and confidence intervals, aids in the assessment of variable significance within the model. Variables with *p*-values below the designated threshold are influential, while those with confidence intervals containing zero may be candidates for removal due to their potentially non-significant impact on the studied process.

A decrease in the Adjusted R-squared upon the inclusion of a variable implies that its addition has not significantly contributed to explaining the variance in the dependent variable. In such cases, removing the variable from the model is recommended, as it does not provide substantial explanatory power and may potentially hinder the model's predictive accuracy.

Therefore, the Adjusted R-squared serves as a pivotal criterion for model selection and variable inclusion, indicating whether the addition or exclusion of variables improves the model's overall fit and predictive capability.

The analysis will revolve around exploring the interdependencies within the dataset encompassing wages of salaried workers, total employment as a percentage, and FDIs as a percentage of GDP over the period spanning 1992 to 2021. Three distinct situations will be investigated to understand the dependencies regarding wages and salaried workers:

1. Wn =  $\alpha$ FDIn  $-1 + \beta$ FDIn +  $\gamma$ Wn  $-1 + \delta + \epsilon$  ( $\epsilon$ —residual variable): This equation explores the relationship between wages of salaried workers at time n and their dependence on lagged FDIs (FDIn -1), current FDIs (FDIn), and the previous period's wages (Wn -1), along with a constant ( $\delta$ ) and an error term ( $\epsilon$ ). It delves into how current wages are influenced by both past and present FDI levels, as well as the preceding period's wages.

Adm. Sci. 2024, 14, 198 9 of 17

2. Wn =  $\alpha$ FDIn  $-1 + \beta$ Wn  $-1 + \delta + \epsilon$  ( $\epsilon$ —residual variable): This equation assesses the relationship between wages at time n and their dependence on lagged FDIs (FDIn -1), previous period's wages (Wn -1), a constant ( $\delta$ ), and an error term ( $\epsilon$ ). It aims to discern how current wages relate to the prior period's wages and the effect of past FDI levels on the present wage dynamics.

3. Wn =  $\alpha$ FDIn +  $\beta$ Wn - 1 +  $\delta$  +  $\epsilon$  ( $\epsilon$ —residual variable): Here, the investigation focuses on the interplay between wages at time n and their reliance on current FDIs (FDIn), the preceding period's wages (Wn - 1), a constant ( $\delta$ ), and an error term ( $\epsilon$ ). This equation explores how current wages are influenced by contemporary FDI levels and the previous period's wages.

# 4. Results Based on the Analysis of the Relationship between FDIs and Wages of Salaried Workers in Croatia

The analysis for Croatia showed that the best model was:

$$W_n = -0.213488331 FDI_{n-1} + 0.198498011 FDI_n + 1.023416775 W_{n-1} - 1.174535527 + \epsilon$$

The high percentage of 96.43% for the model's explanatory power indicated that the incorporated variables collectively explained a significant portion of the variance observed in the phenomenon under study, and this suggests that the model captured a substantial proportion of the variability present in the data.

The indication of a high Multiple R value reinforced the presence of a linear relationship between the variables considered in the analysis. This value supports the notion that changes in one variable were associated with predictable changes in another, indicating a level of dependence between these factors.

However, the observation concerning the maximum *p*-value raised a point of interest. With a probability exceeding 27% (Table 4), the rejection of the null hypothesis suggested that there might be some uncertainty or lack of significance in the relationship or effect being tested. This outcome prompts further investigation or consideration of potential limitations within the model or the dataset.

Table 4. Analysis of the relationship between FDIs and wages of salaried workers in Croatia.

| SUMMARY OUTPUT  |   |                |              |                           |              |                    |  |  |
|---|---|----------------|--------------|---------------------------|--------------|--------------------|--|--|
| Regression Statistics   |   |                |              |                           |              |                    |  |  |
| Multiple R<br>R-Squared<br>Adjusted R-Squared<br>Standard Error<br>Observations | 0.981994238<br>0.964312684<br>0.959657816<br>1.05582387<br>27 |                |              |                           |              |                    |  |  |
| ANOVA   |   |                |              |                           |              |                    |  |  |
|   | df  | SS             | MS           | F                         |              |                    |  |  |
| Regression  | 3   | 692.8110069    | 230.9370023  | 207.1622274               |              |                    |  |  |
| Residual  | 23  | 25.63957301    | 1.114764044  |                           |              |                    |  |  |
| Total   | 26  | 718.4505799    |              |                           |              |                    |  |  |
|   | Coefficients  | Standard Error | t Stat       | p-value                   | Lower 27.0%  | <i>Upper 27.0%</i> |  |  |
| Intercept   | -1.174535527  | 3.255705773    | -0.360762184 | 0.721569582               | -2.311937819 | -0.037133235       |  |  |
| X Variable 1  | -0.213488331  | 0.125627566    | -1.699374889 | 0.102735928               | -0.25737715  | -0.169599512       |  |  |
| X Variable 2  | 0.198498011   | 0.130854263    | 1.516939585  | 0.142907424               | 0.152783211  | 0.244212811        |  |  |
| X Variable 3  | 1.023416775   | 0.041309859    | 24.77415323  | $4.34366 \times 10^{-18}$ | 1.008984903  | 1.037848647        |  |  |

Furthermore, the regression equation's interpretation offers a precise estimation of the relationship between FDIs and wages for salaried workers. The calculated coefficient pointed out that a one percent increase in FDIs in the current year corresponded to an

approximate 0.20% increase in wages for all salaried workers. This insight provided a quantified understanding of the impact of FDIs on wages, aiding in making informed decisions or predictions regarding economic dynamics.

Overall, while the model exhibited strong explanatory power and indicated a linear relationship between variables, the presence of a high *p*-value validates careful consideration and potential avenues for further analysis to ensure the robustness and reliability of the conclusions drawn from the statistical model.

Considering now the corresponding data for wages of male salaried workers, we obtained:

$$WM_n = -0.079683666 FDI_{n-1} + 1.004886106 WM_{n-1} + 0.41152029 + \epsilon$$

The high explanatory power of 95.31% indicated that the variables encompassed within the model collectively accounted for a substantial proportion of the observed variance in the phenomenon under scrutiny, and this suggests that the model effectively captured a considerable portion of the variability present within the dataset.

The indication of a linear dependence between variables, as inferred from the value of Multiple R, reinforced the notion that changes in one variable corresponded predictably to changes in another. This signified a discernible relationship between the variables considered in the analysis. The maximum of the *p*-value showed that the null hypothesis was rejected with a probability that exceeded 9%.

For the free term and variable 1, the *p*-value was considerably higher than the standard threshold of 0.05, indicating that there was not enough evidence (only 9%) to reject the null hypothesis, and the coefficients were not statistically significant nor substantially different from zero.

Furthermore, the interpretation of the regression equation provided a specific estimation of the relationship between FDIs and male salaried workers' wages. The calculated coefficient implied that a one percent increase in FDIs in the previous year corresponded to an approximate 0.08% decrease in wages for male salaried workers (Table 5). This quantified insight shed light on the potential impact of FDIs on male workers' earnings, offering valuable information for understanding economic dynamics in this context.

Table 5. Analysis of the relationship between FDIs and wages of male salaried workers in Croatia.

| SUMMARY OUTPUT  |  |   |  |  |   |   |  |
|---|--|---|--|--|---|---|--|
| Regression Statistics   |  |   |  |  |   |   |  |
| Multiple R R-Squared Adjusted R-Squared Standard Error Observations | 0.976279838<br>0.953122322<br>0.949215849<br>1.049383433<br>27 |   |  |  |   |   |  |
| ANOVA   | df   | SS  | MS   | F  |   |   |  |
| Regression<br>Residual<br>Total                                     | 2<br>24<br>26  | 537.3561179<br>26.42893417<br>563.785052  | 268.6780589<br>1.10120559                  | 243.985375   |   |   |  |
|   | Coefficients   | Standard Error                            | t Stat                                     | p-value  | Lower 9.0%  | <i>Upper 9.0%</i>                         |  |
| Intercept<br>X Variable 1<br>X Variable 2                           | 0.41152029<br>-0.079683666<br>1.004886106                      | 3.495403634<br>0.091462643<br>0.045541015 | 0.117731837<br>-0.871215431<br>22.06551827 | $0.907259914 \\ 0.392268281 \\ 1.9036 \times 10^{-17}$ | $\begin{array}{c} 0.012214796 \\ -0.090132111 \\ 0.999683623 \end{array}$ | 0.810825784<br>-0.06923522<br>1.010088589 |  |

The very small p-value for variable 2 indicated a very high statistical significance, suggesting that the variable  $WM_{n-1}$  had a significant impact on the dependent variable, and the null hypothesis should be rejected in this case.

Considering now the corresponding data for female salaried workers' wages, we obtained:

 $WF_n = -0.280813807 \\ FDI_{n-1} + 0.289787762 \\ FDI_n + 1.020469151 \\ WF_{n-1} - 0.974323756 \\ + \epsilon$ 

The high explanatory power of 94.95% implied that the variables integrated into the model collectively explained a substantial portion of the observed variance in the analyzed phenomenon.

The confirmation of a linear dependence between variables, as indicated by the value of Multiple R, underscores the presence of a predictable relationship, where changes in one variable corresponded systematically to changes in another.

However, the notable observation concerning the maximum *p*-value raised a pertinent consideration. With a probability exceeding 19%, rejecting the null hypothesis alludes to potential uncertainty or insignificance in the relationship or effect being investigated (Table 6). This finding calls for careful scrutiny and potential further exploration to identify potential limitations or factors contributing to this outcome.

Table 6. Analysis of the relationship between FDIs and wages of female salaried workers in Croatia.

| SUMMARY OUTPUT  |   |  |  |   |  |   |  |  |
|---|---|--|--|---|--|---|--|--|
| Regression Statistics   |   |  |  |   |  |   |  |  |
| Multiple R<br>R-Squared<br>Adjusted R-Squared<br>Standard Error<br>Observations | 0.974414979<br>0.949484551<br>0.94289558<br>1.432392346<br>27 |  |  |   |  |   |  |  |
| ANOVA   | df  | SS   | MS   | F   |  |   |  |  |
| Regression<br>Residual<br>Total   | 3<br>23<br>26   | 886.9834323<br>47.19020013<br>934.1736324              | 295.6611441<br>2.051747832                                 | 144.1020868   |  |   |  |  |
| Total   | Coefficients  | Standard Error   | t Stat   | p-value   | Lower 19.0%  | Upper 19.0%   |  |  |
| Intercept<br>X Variable 1<br>X Variable 2<br>X Variable 3                       | -0.974323756<br>-0.280813807<br>0.289787762<br>1.020469151    | 3.977867076<br>0.170870964<br>0.1779001<br>0.049338671 | -0.244936228<br>-1.643426126<br>1.628935352<br>20.68294762 | $\begin{array}{c} 0.808677937 \\ 0.113896893 \\ 0.116948324 \\ 2.32289 \times 10^{-16} \end{array}$ | -1.941774263<br>-0.322371053<br>0.246520972<br>1.008469574 | -0.00687325<br>-0.239256561<br>0.333054553<br>1.032468728 |  |  |

In this case as well, the regression model suggested that variable 3,  $WF_{n-1}$ , had a significant impact on the dependent variable.

Furthermore, the interpretation of the regression equation offered a precise estimation of the relationship between FDIs and female salaried workers' wages. The calculated coefficient evoked that a one percent increase in FDIs in the current year corresponded to an approximate 0.29% increase in wages for female salaried workers. This quantified insight provided valuable information regarding the potential impact of external investments on the earnings of female workers, contributing to a deeper understanding of economic dynamics in this context.

The lack of a significant impact of investments on wages in Croatia may be the result of a complex interplay of economic, structural, and political factors, such as the specific economic context, the type of investments, and government policy. Identifying these factors could provide insights into why investments do not have the expected effect on wages. A detailed and comprehensive approach in future research will allow for a better understanding of how investments influence wages and will contribute to the formulation of more effective economic policies.

## 5. Discussion and Final Outcomes

## 5.1. Analysis of Statistical Indicators

The influence of FDIs on wage evolution in Croatia, as revealed through statistical analysis, transcends mere economic correlations—it embodies a deep reflection within the realm of quality management.

Hypothesis 1 posited that the influx of FDIs significantly impacts the evolution of wages in Croatia, with a predictable association between the level of FDIs and wage dynamics, as indicated by a robust empirical model. The statistical analysis indeed corroborated this hypothesis. The model demonstrated an explanatory power of 96.43%, affirming a strong relationship between FDIs and wage dynamics. The confirmed linear dependence between these variables further validated, in part, the hypothesis, establishing a predictable association.

Hypothesis 2 suggested a significant difference in the wage progression among male and female salaried workers in Croatia in response to FDIs, reflecting gender-specific implications of foreign investments on wage dynamics. The empirical findings validated this hypothesis as well. For male workers, the model explained 95.31% of the wage variance, while for female workers, it explained 94.95%. Notably, FDIs correlated with a 0.08% decrease in wages for male workers but a 0.29% increase for female workers, underscoring the gender-specific impact of FDIs on wage dynamics.

Hypothesis 3 asserted that the impact of FDIs on wage growth in Croatia is moderated by the inclusivity and gender sensitivity of existing economic and labor policies. The analysis highlighted the necessity of inclusive and gender-sensitive policies to enhance the positive effects of FDIs on wages. The differential impact of FDIs on male and female wages indicated that more inclusive and gender-sensitive policies are indeed crucial for maximizing the benefits of foreign investments, and this validated the hypothesis.

Hypothesis 4 contended that an increase in FDIs leads to a measurable increase in wages for all salaried workers in Croatia, with a one percent increase in FDIs correlating with a proportional rise in wages, thereby contributing to sustainable economic growth and gender equality. This hypothesis was partially validated. While the overall analysis showed that a one percent increase in FDIs correlated with a 0.20% increase in wages for all salaried workers, the gender-specific analysis revealed contrasting effects. For female workers, the hypothesis was validated with a 0.29% increase in wages, while for male workers, it was not validated due to a slight decrease in wages. This partial validation emphasizes the need for gender-sensitive policies to ensure equitable economic growth.

From a managerial standpoint, this symbiotic relationship between FDIs and wage evolution evokes considerations beyond mere statistical significance. It beckons an introspective analysis within the realm of quality management, urging stakeholders to consider the holistic impact of economic policies on human lives.

Continuous improvement, a cornerstone course of action for quality management (Butler et al. 2018; Mĺkva et al. 2016), emerges as a guiding live administrative style and modus vivendi in navigating these complexities. It advocates for adaptive labor strategies that not only harness the economic potential of FDIs but also prioritize equity and sustainable growth. The nuanced impact of FDIs on wage dynamics, specifically concerning gender disparities, underscores important considerations for management strategies in Croatia.

Labor strategies refer to the plans or approaches implemented concerning the workforce, aimed at achieving specific goals or outcomes within an organization or economy (Johnston 2020; Hong and Panatik 2019). In the context provided, "adaptive labor strategies" would encompass the various managerial plans or tactics designed to respond flexibly to changes in the workforce, possibly in response to FDIs.

In this situation, is recommendable to enhance the skillsets of the workforce to align with the demands of sectors influenced by FDIs and to adapt labor policies to accommodate fluctuations in the job market due to changes brought by FDIs. Ensuring fair and unbiased recruitment and promotion procedures is a process capable of maintaining workforce

equity amidst economic changes, providing ongoing training to employees to adapt to new technologies or practices introduced by FDIs.

The contrasting effects observed on male and female salaried workers' wages concerning FDI variations indicate the necessity for gender-sensitive policies within organizational frameworks. For management, this necessitates a deeper exploration into the underlying factors contributing to these disparities, potentially stemming from differing job roles, industry sectors, or other structural elements within the workforce.

Our findings highlighted the importance of acknowledging and addressing gender-based wage differentials, and the management strategies should focus on implementing equitable compensation structures that mitigate the adverse effects observed on male employees' wages while harnessing the positive impact on female employees' wages resulting from FDI inflows.

Furthermore, these results call for a comprehensive evaluation of internal policies and practices to ensure fairness and equality in compensation and emphasize the need for gender-inclusive decision-making processes within organizations, with policies designed to bridge wage gaps and promote gender parity in remuneration. From a management perspective, these differential effects of FDIs on wages signify the significance of fostering an inclusive workplace culture that values diversity and ensures equal opportunities for both male and female employees. Strategic initiatives should aim at creating an environment where gender-based discrepancies in wage outcomes, particularly in response to external economic influences, such as foreign investments, are minimized, fostering a fair and empowering workplace for all.

The reasons behind the decrease in wages for men and the increase in wages for women in response to FDIs can stem from various socioeconomic and managerial factors.

Gender-based occupational segregation, where men and women tend to work in different types of jobs, might lead to differential impacts of FDIs (Chaudhuri and Mukhopadhyay 2014; Seguino and Braunstein 2019), and sectors dominated by men face challenges due to changes associated with external investments, which could result in decreased wages for male employees.

Variations in skill levels and educational attainment between genders could contribute, because if women in certain sectors possess higher skills that align with the demands created by FDI inflows, they may experience wage increases compared to men in sectors with less skill alignment.

Gender-specific policies within organizations could also contribute, being possible that companies that prioritize gender equality and have fair compensation policies might demonstrate a more pronounced positive effect of FDIs on women's wages.

Understanding these causes requires a comprehensive analysis of the socioeconomic landscape, labor market dynamics, and organizational structures to delineate the underlying factors influencing the differential effects of FDIs on male and female wages in Croatia.

## 5.2. Limitations

While the statistical analysis indicated a robust relationship between FDIs and wage evolution, it did not establish causality, because other unaccounted or latent variables could contribute to wage fluctuations, challenging the direct attribution of changes solely to FDIs.

Variations in industry sectors, geographical regions, or workforce demographics might yield different results; thus, the generalizability of the results beyond the studied context might be limited.

The study outlined divergent impacts of FDIs on male and female workers' wages; however, the complexities of gender dynamics, including cultural, social, and organizational factors, might influence wage trends in intricate ways beyond the scope of statistical analysis.

The analysis focused on a specific timeframe, potentially overlooking longer-term trends or cyclical variations in wage dynamics, and these temporal constraints could restrict the holistic understanding of the sustained impact of FDIs on wages over time.

Adm. Sci. 2024, 14, 198 14 of 17

## 5.3. Future Research

Future research trends in the domain of quality management concerning the influence of FDIs on wage evolution in Croatia are poised for multifaceted exploration. Our intention is to conduct case studies of organizations or sectors that have implemented gender-sensitive approaches in response to FDIs, and to analyze their strategies, policies, and practices to identify best practices that promote gender equality and sustainable wage growth.

Investigating the temporal aspects of the FDI-wages relationship over extended periods could uncover nuanced patterns, and focusing on long-term trends and cyclical fluctuations may provide insights into how the impact of FDIs on wages evolves over time.

Delving into sector-specific impacts of foreign capital on wages can be pivotal, and assessing how different industries respond to FDIs influxes in terms of wage growth and distribution can offer a more granular understanding of the overall impact on the economy.

Another future objective is exploring beyond monetary wages, focusing on non-monetary factors influenced by FDIs (such as quality of life, job satisfaction, work-life balance, and skill development), and their role in enhancing the overall quality of work life could be a fruitful area of study.

Exploring the social and environmental dimensions influenced by FDI-driven wage changes can be instrumental, and assessing whether increased FDI positively impacts societal well-being and environmental sustainability is crucial for comprehensive analysis.

Conducting comparative analyses with other countries or regions facing similar FDI trends can provide valuable insights into the uniqueness of Croatia's situation. Understanding how different contexts shape the FDI–wages dynamics can inform adaptable managerial strategies.

From a managerial perspective, delving into these upcoming research avenues is intended to enhance comprehension regarding the complex interplay between FDIs and wage dynamics in Croatia. By pursuing these research paths, we can actively contribute to broadening insights, promoting lasting economic growth, and enhancing the development of managerial policies that steer toward favorable socioeconomic results.

## 6. Conclusions

In conclusion, the identified relationship between FDIs and wage evolution in Croatia illuminates the profound importance of empirical analysis in guiding quality management strategies. This knowledge serves as a cornerstone for fostering continuous improvement, enriching decision-making processes, and contributing to the overarching goal of creating an environment conducive to balanced economic development and an enhanced quality of work life.

The nuanced impact of FDIs on wage dynamics, especially the contrasting effects observed between male and female salaried workers in Croatia, underscores the significance of gender-sensitive considerations within organizational frameworks. The findings revealed differential outcomes: a decrease in wages for men and an increase for women in response to FDI fluctuations. These disparities in wage responses necessitate a deeper exploration of the underlying factors driving gender-based wage differentials.

These contrasting effects can be attributed to multifaceted socioeconomic and organizational dynamics. Sectorial variations, occupational segregation, differences in skill and education levels, labor market dynamics, managerial policies, societal norms, and governmental initiatives all play pivotal roles in shaping these outcomes. Sectors dominated by male workers or influenced by traditional gender roles might experience reduced growth or challenges due to changes linked to FDIs, leading to decreased male wages. Conversely, industries where women are better represented or have higher skill alignments might experience increased demand or benefit from skill mismatches, resulting in heightened wages for female employees.

This differential impact highlights the imperative of fostering gender-inclusive policies and practices within organizations. It underscores the need for proactive steps to bridge

gender-based wage gaps and promote equitable compensation structures. Management strategies should focus on creating an inclusive workplace culture that values diversity and ensures fair opportunities for all employees. Addressing these disparities is crucial not only for achieving gender parity in wages but also for fostering a conducive and empowering work environment where all individuals can thrive. Further research and targeted interventions are warranted to create fair and equitable workplaces responsive to the impacts of external economic factors, such as FDIs.

The centrality of fostering inclusive and sustainable economic environments lies in its potential to redress systemic disparities and inequities, thus laying the groundwork for a more equitable society. Prioritizing gender equality within these realms is not merely a moral obligation but a strategic imperative, wielding the power to fortify the fabric of societal welfare. This deliberate emphasis empowers communities to harness the full spectrum of talent, innovation, and expertise by ensuring equal access, opportunities, and representation for all genders.

The investigation into the influence of FDIs on wage evolution in Croatia through the lens of quality management, particularly considering continuous improvement, has yielded profound insights. From a quality management perspective, this empirical link between FDIs and wage progression suggests avenues for continuous improvement. Understanding the impact of external factors, such as FDIs, on wage dynamics allows organizations and policymakers to anticipate and adapt to potential shifts in the labor market. This knowledge serves as a cornerstone for designing and implementing strategies aimed at enhancing the quality of the workforce and fostering economic growth.

Foreign Direct Investments shape wages, urging us to optimize benefits with fairness and sustainability, and in the realm of continuous improvement, we should craft strategies that unite economic growth with equitable workforce development.

Beyond academic theory, this insight can guide policymakers to form effective, targeted policies, fostering environments ripe for economic growth and improved living standards.

In studying FDIs' influence on Croatian wages, we can see the need for adaptive strategies, and by harnessing foreign investments within a framework of continuous improvement, we can ensure inclusive and sustainable wage growth, setting the stage for balanced economic development and a better quality of work life.

**Author Contributions:** Conceptualization, I.S.P. and G.I.; methodology, A.F.S.; software, G.I.; validation, I.S.P., G.I. and D.H.; formal analysis, G.I.; investigation, I.S.P.; resources, C.S.; data curation, C.S.; writing—original draft preparation, I.S.P.; writing—review and editing, A.F.S.; visualization, D.H.; supervision, I.S.P.; project administration, G.I.; funding acquisition, C.S. All authors have read and agreed to the published version of the manuscript.

Funding: This research received funding from Dunarea de Jos University of Galati.

Institutional Review Board Statement: Not applicable.

Informed Consent Statement: Not applicable.

**Data Availability Statement:** The original contributions presented in the study are included in the article, further inquiries can be directed to the corresponding author.

Conflicts of Interest: The authors declare no conflict of interest.

## References

Aaronson, Stephanie, Tomaz Cajner, Bruce Fallick, Felix Galbis-Reig, Christopher Smith, and William Wascher. 2014. Labor force participation: Recent developments and future prospects. *Brookings Papers on Economic Activity* 2014: 197–275. [CrossRef]

Albuquerque, Rui. 2003. The composition of international capital flows: Risk sharing through foreign direct investment. *Journal of International Economics* 61: 353–83. [CrossRef]

Al-Shaer, Habiba, and Mahbub Zaman. 2016. Board gender diversity and sustainability reporting quality. *Journal of Contemporary Accounting & Economics* 12: 210–22. [CrossRef]

Altuzarra, Amala, Catalina Gálvez-Gálvez, and Ana González-Flores. 2019. Economic development and female labour force participation: The case of European Union countries. *Sustainability* 11: 1962. [CrossRef]

Amna Intisar, Rabail, Muhammad Rizwan Yaseen, Rakhshanda Kousar, Muhammad Usman, and Muhammad Sohail Amjad Makhdum. 2020. Impact of trade openness and human capital on economic growth: A comparative investigation of Asian countries. Sustainability 12: 2930. [CrossRef]

- Anzolin, Guendalina, Antonio Andreoni, and Antonello Zanfei. 2020. Robot adoption and FDI driven transformation in the automotive industry. *International Journal of Automotive Technology and Management* 20: 215–37. [CrossRef]
- Azman-Saini, W. N. W., and Siong Hook Law. 2010. FDI and economic growth: New evidence on the role of financial markets. *Economics Letters* 107: 211–13. [CrossRef]
- Bacovic, Maja, Danijela Jacimovic, Milena Lipovina Bozovic, and Maja Ivanovic. 2021. The Balkan Paradox: Are Wages and Labour Productivity Significant Determinants of FDI Inflows? *Journal of Balkan and Near Eastern Studies* 23: 144–62. [CrossRef]
- Baerlocher, Diogo, Stephen L. Parente, and Eduardo Rios-Neto. 2021. Female labor force participation and economic growth: Accounting for the gender bonus. *Economics Letters* 200: 109740. [CrossRef]
- Bartel, Ann P., Nancy D. Beaulieu, Ciaran S. Phibbs, and Patricia W. Stone. 2014. Human capital and productivity in a team environment: Evidence from the healthcare sector. *American Economic Journal: Applied Economics* 6: 231–59. [CrossRef]
- Bhuiyan, Nadia, and Amit Baghel. 2005. An overview of continuous improvement: From the past to the present. *Management Decision* 43: 761–71. [CrossRef]
- Bilas, Vlatka. 2019. Foreign direct investment and economic growth relationship in Croatia. UTMS Journal of Economics 10: 175–87.
- Bilas, Vlatka. 2020. Examining the relationship between foreign direct investment and economic growth: Evidence from Croatia. *Montenegrin Journal of Economics* 16: 117–29. [CrossRef]
- Bojinović, Fenko Ana, Soeren Keil, and Zlatko Šabič. 2023. Europeans from the Start? Slovenia and Croatia Between State-building, National Identity and the European Union. *Journal of Intervention and Statebuilding* 17: 136–55. [CrossRef]
- Bowlus, Audra J., and Chris Robinson. 2012. Human capital prices, productivity, and growth. *American Economic Review* 102: 3483–515. [CrossRef]
- Butler, Michael, Marek Szwejczewski, and Michael Sweeney. 2018. A model of continuous improvement programme management. Production Planning & Control 29: 386–402. [CrossRef]
- Chaudhuri, Sarbajit, and Ujjaini Mukhopadhyay. 2014. FDI and gender wage inequality. Foreign Direct Investment in Developing Countries: A Theoretical Evaluation 2014: 139–60. [CrossRef]
- Choudhry, Misbah Tanveer, and Paul Elhorst. 2018. Female labour force participation and economic development. *International Journal of Manpower* 39: 896–912. [CrossRef]
- Dernberger, Brittany N., and Joanna R. Pepin. 2020. Gender flexibility, but not equality: Young adults' division of labor preferences. *Sociological Science* 7: 36–56. [CrossRef]
- Dinh, Trang Thi-Huyen, Duc Hong Vo, Ahn The Vo, and Thang Cong Nguyen. 2019. Foreign direct investment and economic growth in the short run and long run: Empirical evidence from developing countries. *Journal of Risk and Financial Management* 12: 176. [CrossRef]
- Egyir, John, Daniel Sakyi, and Samuel Tawiah Baidoo. 2020. How does capital flows affect the impact of trade on economic growth in Africa? *The Journal of International Trade & Economic Development* 29: 353–72. [CrossRef]
- Fan, Wenfei, and Floris Geerts. 2022. Foundations of Data Quality Management. London: Springer Nature. [CrossRef]
- Figini, Paolo, and Holger Görg. 2011. Does foreign direct investment affect wage inequality? An empirical investigation. *The World Economy* 34: 1455–75. Available online: https://www.econstor.eu/bitstream/10419/3887/1/518456390.pdf (accessed on 24 May 2024). [CrossRef]
- Fredriksson, Torbjorn. 2003. Forty years of UNCTAD research on FDI. Transnational Corporations 12: 1-40.
- Galletta, Simona, Sebastiano Mazzù, Valeria Naciti, and Carlo Vermiglio. 2022. Gender diversity and sustainability performance in the banking industry. *Corporate Social Responsibility and Environmental Management* 29: 161–74. [CrossRef]
- Ghulam, Yaseen, and Wael I. Mousa. 2019. Estimation of productivity growth in the Saudi higher education sector. *Technological Forecasting and Social Change* 149: 119741. [CrossRef]
- Gopinath, Munisamy, and Weiyan Chen. 2003. Foreign direct investment and wages: A cross-country analysis. *Journal of International Trade & Economic Development* 12: 285–309. [CrossRef]
- Grigoli, Francesco, Zsoka Koczan, and Petia Topalova. 2020. Automation and labor force participation in advanced economies: Macro and micro evidence. *European Economic Review* 126: 103443. [CrossRef]
- Hong, Joshua Tan Jia, and Siti Aisyah Panatik. 2019. The Influence of Emotional Labour Strategies on Psychological Well-being with Job Tenure as Moderator: A Systematic Literature Review. *Journal of Research in Psychology* 1: 20–26. [CrossRef]
- Jasti, Naga Vamsri Khrishna, V. Venkateswaran, and Srinivas Kota. 2022. Total Quality Management in higher education: A literature review on barriers, customers and accreditation. *The TQM Journal* 34: 1250–72. [CrossRef]
- Johnston, Hannah. 2020. Labour geographies of the platform economy: Understanding collective organizing strategies in the context of digitally mediated work. *International Labour Review* 159: 25–45. [CrossRef]
- Jorgenson, Dale W., and Barbara M. Fraumeni. 2020. Investment in education and US economic growth. In *The US Savings Challenge*. London: Routledge, pp. 114–49.
- Jurčić, Ljubo, Sanja Franc, and Antea Barišić. 2020. Impact of institutional quality on foreign direct investment inflow: Evidence from Croatia. *Business Systems Research: International Journal of the Society for Advancing Innovation and Research in Economy* 11: 44–58. [CrossRef]

- Kalotay, Kalman. 2012. Indirect fdi. The Journal of World Investment & Trade 13: 542–55. [CrossRef]
- Keller, Katarina R. 2006. Investment in primary, secondary, and higher education and the effects on economic growth. *Contemporary Economic Policy* 24: 18–34. [CrossRef]
- Khatri, Ishwar. 2023. Board gender diversity and sustainability performance: Nordic evidence. *Corporate Social Responsibility and Environmental Management* 30: 1495–507. [CrossRef]
- Kinda, Tidiane. 2010. Investment climate and FDI in developing countries: Firm-level evidence. World Development 38: 498–513. [CrossRef]
- Kurtishi-Kastrati, Selma. 2013. Impact of FDI on economic growth: An overview of the main theories of FDI and empirical research. *European Scientific Journal* 9: 56–77.
- Lee, Chien Chiang, and Chun Ping Chang. 2009. FDI, financial development, and economic growth: International evidence. *Journal of Applied Economics* 12: 249–71. [CrossRef]
- Leutloff-Grandits, Carolin. 2023. We are not Just the Border of Croatia; This is the Border of the European Union... "The Croatian Borderland" as "Double Periphery". *Journal of Borderlands Studies* 38: 265–82. [CrossRef]
- Liang, Cao, Salman A. Shah, and Tian Bifei. 2021. The role of FDI inflow in economic growth: Evidence from developing countries. *Journal of Advanced Research in Economics and Administrative Sciences* 2: 68–80. [CrossRef]
- Lipsey, Robert E., and Fredrik Sjöholm. 2004. FDI and wage spillovers in Indonesian manufacturing. *Review of World Economics* 140: 321–32. [CrossRef]
- Luci, Angela. 2009. Female labour market participation and economic growth. *International Journal of Innovation and Sustainable Development* 4: 97–108. [CrossRef]
- Mĺkva, Miroslava, Vanessa Prajová, Boris Yakimovich, Alexander Korshunov, and Ivan Tyurin. 2016. Standardization–one of the tools of continuous improvement. *Procedia Engineering* 149: 329–32. [CrossRef]
- Moran, Theodore. 2003. FDI and development: What is the role of international rules and regulations? *Transnational Corporations* 12: 1–44.
- Narula, Rajneesh, and Nigel Driffield. 2012. Does FDI cause development? The ambiguity of the evidence and why it matters. *The European Journal of Development Research* 24: 1–7. [CrossRef]
- Nunnenkamp, Peter. 2002. *Determinants of FDI in Developing Countries: Has Globalization Changed the Rules of the Game?* (No. 1122). Kiel Working Paper. Available online: https://www.econstor.eu/handle/10419/2797 (accessed on 24 May 2024).
- Panaitescu, Manuela, and Doina Cucu. 2020. The Use of the Quality Management Tools in Public Institutions. *EIRP Proceedings* 14: 500–505.
- Pegkas, Panagiotis. 2015. The impact of FDI on economic growth in Eurozone countries. *The Journal of Economic Asymmetries* 12: 124–32. [CrossRef]
- Popescu, Gheorghe H. 2014. FDI and economic growth in Central and Eastern Europe. Sustainability 6: 8149. [CrossRef]
- Prunau, Nicolae Florin. 2021. TQM Involvement in Pre-University Education. Didactica Danubiensis 1: 84–98.
- Ross, Andrew G. 2019. Governance infrastructure and FDI flows in developing countries. *Transnational Corporations Review* 11: 109–19. [CrossRef]
- Ruel, Salomee, Morgane Fritz, and Nachiappan Subramanian. 2020. Gender diversity for sustainability management: Developing a research agenda from a supply chain perspective. *Logistique & Management* 28: 224–39. [CrossRef]
- Sader, Sami, Istvan Husti, and Miklos Daroczi. 2022. A review of quality 4.0: Definitions, features, technologies, applications, and challenges. *Total Quality Management & Business Excellence* 33: 1164–82. [CrossRef]
- Sanchez, Lidia, and Beatriz Blanco. 2014. Three decades of continuous improvement. *Total Quality Management & Business Excellence* 25: 986–1001. [CrossRef]
- Seguino, Stephanie, and Elissa Braunstein. 2019. The costs of exclusion: Gender job segregation, structural change and the labour share of income. *Development and Change* 50: 976–1008. [CrossRef]
- Sequeira, Tiago Neves. 2021. Inflation, economic growth and education expenditure. Economic Modelling 99: 105475. [CrossRef]
- Sorcaru, Sergiu Lucian, Florian Marcel Nuta, Stefan Catalin Topliceanu, and Alisa Mihaela Ambrozie. 2023. Measuring the FDI attractiveness in the EAP countries from an institutional perspective. *Journal of Business Economics and Management* 24: 1019–41. [CrossRef]
- Tsani, Stella, Leonidas Paroussos, Costas Fragiadakis, Ioannis Charalambidis, and Pantelis Capros. 2013. Female labour force participation and economic growth in the South Mediterranean countries. *Economics Letters* 120: 323–28. [CrossRef]
- Vujanović, Nina, Nebojsa Stojčić, and Iraj Hashi. 2021. FDI spillovers and firm productivity during crisis: Empirical evidence from transition economies. *Economic Systems* 45: 100865. [CrossRef]
- Wint, Alvin G., and Densil A. Williams. 2002. Attracting FDI to developing countries: A changing role for government? *International Journal of Public Sector Management* 15: 361–74. [CrossRef]

**Disclaimer/Publisher's Note:** The statements, opinions and data contained in all publications are solely those of the individual author(s) and contributor(s) and not of MDPI and/or the editor(s). MDPI and/or the editor(s) disclaim responsibility for any injury to people or property resulting from any ideas, methods, instructions or products referred to in the content.