

Impact of Minimum Wage on Labour Market Institutions in Developing Countries: A Systematic Review

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ABSTRACT

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Minimum wages have become one of the most contentious economic interventions by the government. Minimum wages compress the wage structure and alter income distribution, primarily among wage earners. Since minimum wage policies are being implemented in most developing countries, it is essential to understand their effects to determine their efficacy. The minimum wage is not a new phenomenon that has inspired numerous relevant academic studies. Minimum wage systems should complement and strengthen other social and employment policies. However, few systematic reviews of the existing literature on the effect of minimum wage in developing nations have been conducted. The purpose of this article is to underline a comprehensive literature review on the impact of minimum wage on labour market institutions in developing countries. This study used the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) review method, utilising the Scopus and Web of Science journal databases. The search efforts resulted in a total of 22 articles that can be systematically analysed. Most importantly, the review identified four major themes: policymakers, firm management, poverty reduction, and low-wage workers. Overall, additional analysis of the four themes led to the identification of sixteen subthemes. Several recommendations are made regarding conducting further qualitative studies, using a specific and standard systematic review method to guide research in the context of minimum wages, and implementing complementary searching techniques.

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1. INTRODUCTION

Over the past several decades, there has been a growing interest in the role of minimum wages in promoting social justice and rebalancing the economy at the national level. The minimum wage system is globally diverse, with many different policy approaches to achieve their effective application. Some countries have established simple systems that apply one minimum wage for all employees, while others have more complex systems with multiple rates by sector of activity, occupation or geographical region (Monica & Maribel, 2021). Before the implementation of minimum wage, wage increments were identified to boost labour productivity and lead purchasing power toward competitive economic growth (Senasi, 2020). They can be a powerful instrument for advancing decent work objectives and a crucial supplement to efforts to strengthen social protection floors and reduce poverty. As many nations seek to bolster domestic growth sources, this has become more significant. Therefore, minimum wage policy decisions worldwide uphold the principle of providing their workers with a fair living wage (Senasi, Khalil, & Parasuraman, 2021).

In both developed and developing nations, minimum wages are a standard policy. The primary goal of the minimum wage is to protect workers by establishing a reasonable minimum wage. Since the late 1990s, numerous countries have implemented or strengthened their minimum wage systems. In 1999, the United Kingdom implemented a national minimum wage, quickly followed by Ireland and several former economies in transition in Eastern Europe. Recently, the United Kingdom announced its intention to gradually raise the minimum wage to a living wage by 2020 (Belser & Xu, 2018). The minimum wage has been reinstated in many emerging and developing economies across the globe. After 2005, Brazil began gradually increasing the federal minimum wage. In 2007, the Russian Federation implemented a new regional pay system and, more recently, a two-stage increase to bring the level to subsistence level. India is considering a legal reform extending the Minimum Wage Act's coverage from established ('scheduled') occupations to the entire wage-earning population. China established a provincial minimum wage system in 1994 and bolstered it with reforms in 2004. South Africa recently announced that a new national minimum wage would be implemented in 2018 to supplement the existing sectoral determinations enacted after the fall of apartheid. Cambodia, Cape Verde, Costa Rica, Malaysia, and Myanmar are a few nations that have strengthened their minimum wage structures (Belser & Xu, 2018).

Legislating a minimum wage has long been viewed as an attractive means of reducing inequality and promoting social justice. This usually does not necessitate significant financial investments. Politically, it is simple and easy to explain. It is a market-based approach (as opposed to tax and transfer) to reducing inequality (Fedorets & Shupe, 2021). The minimum wage is associated with the concept of fairness and prevents endless debates over who "deserves" government transfer. In many countries, minimum wages have been set so high as to be largely irrelevant to the labour markets they are supposed to regulate (Soares, 2018). For policy purposes, it is important to establish a sustainable minimum wage dynamic and understand how its effects vary across regions (Pantea, 2020). Statutory minimum wages are frequently used to improve the welfare of workers. Substitution of low-skilled and high-skilled labour may lead to wage increases for workers earning above the minimum wage (Neumark, 2018). The minimum wage has evolved from a policy instrument used selectively in a few low-wage industries to a much broader mechanism. Therefore, this paper contributes to understanding the effects of the minimum wage on the labour market in developing nations. The emphasis is highly relevant in developing countries because it is a deliberate and conscientious effort to revitalise the economic growth-oriented change process.

A systematic review is an examination of a clearly defined question that employs systematic and explicit methods to identify, select, and critically appraise relevant research in addition to collecting and analysing data from included studies. The results of the included studies may or may not be analysed and summarised using statistical techniques. Despite the abundance of research on the effects of the minimum wage, efforts to analyse the existing literature in these studies through a systematic review of prior research are still lacking. Although some studies have attempted a systematic review of the effects of minimum wage, their focus is not on groups residing in developing nations (Sotomayor, 2021). This article attempts to fill the gaps in understanding and identifying the effects of minimum wages on the labour market institutions of developing countries.

This paper review is guided by the central research question: What impact does a minimum wage have on the labour market in developing countries? The main focus of this study is to understand and identify how minimum wage can affect the labour market in developing countries. A particular focus was given to a group of developing countries because the issues faced in developing countries are somewhat different and broader than those faced by developed countries. Developing countries are more likely to have sectors not covered by minimum wage laws, and those sectors are considerably more significant than the uncovered sector in developed countries. Until now, there has been a shortage of studies that provide a comprehensive baseline on the effects of minimum wage on labour markets in developing nations. In addition, the first section of this study is vital because it focuses on the role of policymakers in providing a clearer picture of the consequences of implementing a minimum wage. The minimum wage is considered a reliable public policy to enhance the bargaining power of employees in the labour market, such as by increasing employment and productivity (Paun et al., 2021) and how a minimum wage increase combined with tax incentives affects labour outcomes (Campos-Vazquez et al., 2020). Intuitively, the sharp increases in the minimum wage can affect the capital (Chorna, 2021) or are usually indicated by a wage policy that stabilises the minimum wage (Wulansari, 2021). Second, little attention has been paid to evidence of how the minimum wage affects firm management. Although there have been many empirical studies on the effects of minimum wages on employment and prices, there have been relatively few studies on the relationship between minimum wages and firm profitability (Cuong, 2017). Several firm responses, including firm profitability, labour costs, and fluctuations in firm value in response to an increase in the wage floor, have been outlined to fully comprehend the impact of minimum wage on businesses (Bell & Machin, 2018). Moreover, many of the characteristics of low-quality occupations appear to be alternative adjustment mechanisms in light of the high wage costs that a higher minimum wage entails. While some of these practices are legal, reducing working hours is not one of them (Monica & Maribel, 2021).

Next came a popular and persuasive argument in favour of the impact of minimum wages on poverty reduction (Mansoor & O'Neill, 2021). A minimum wage rate is expected to increase a worker's financial capacity, resulting in a higher standard of living (Senasi et al., 2021). It may also affect the eligibility requirements for social benefits, as some workers may be excluded from receiving them but continue to live in poverty (Kurta & Oruc, 2020). From the perspective of labour market regulation, policymakers should seek to enhance labour force mobility, job security, and flexibility (Popescu et al., 2021). The effectiveness of a country's minimum wage policy depends on whether it can redistribute earnings to low-paid workers without causing employment loss (Ham, 2018) or substitute low-skilled workers with those with more human capital (Kurta & Oruc, 2020). Due to low skill requirements for the work involved or the high costs associated with worker migration to high-wage areas, low-wage occupations, such as the domestic work sector, influence wage determination in developing countries (Bryan & Morten,

2019). The imposition of a minimum wage may alter the distribution of wage offers and reduce inefficient unemployment (Cardoso, 2019).

The study has several significant impacts on the body of knowledge regarding minimum wage. By referencing the study, policymakers and other interested parties can comprehend the effects that must be considered when implementing the minimum wage. This will reduce the information gap between previous studies. This section explains why a systematic review is being conducted, while the next section discusses the methodology and PRISMA Statement (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) approach used. The third section reviews and synthesises scientific literature to identify, select, and assess relevant research. Finally, the final section identifies future research priorities.

2. METHODOLOGY

This section discusses the five major sub-sections used in the current study to retrieve articles on the impact of minimum wage on labour market institutions in developing countries: PRISMA, resources, inclusion and exclusion criteria, systematic review procedure, and data extraction and analysis.

2.1 Preferred Reporting Items for Systematic Reviews and Meta-Analyses

The PRISMA is a published standard for conducting a systematic literature review. Generally, publication standards are necessary to provide authors with relevant and essential information to evaluate and assess the quality and rigour of an examination. It identifies inclusion and exclusion criteria and attempts to examine an extensive database of scientific literature within a predetermined time frame. The PRISMA statement enables a thorough search for terms associated with the response of policymakers to the minimum wage and its effects. This methodology can monitor the impact of minimum wages on labour market institutions.

2.2 Resources

Scopus and Web of Science (WoS) were the two primary journal databases for the review. WoS is a robust database containing 33,000 journals covering over 256 disciplines, including interdisciplinary social sciences, social issues, and development and planning. It ranks these by three distinct metrics: citations, papers, and per paper. Scopus is the second database utilised in the review. It is one of the largest databases of abstracts and citations for peer-reviewed literature, with 22,800 journals from 5000 publishers worldwide. Scopus contains a variety of subject areas, including the social sciences, economics, business, management, and accounting.

2.3 Eligibility and Exclusion Criteria

For this analysis, several eligibility and exclusion criteria have been established. First, in terms of literature type, only article journals containing empirical data, namely review articles, were chosen. Excluded were all book series, books, book chapters, and conference proceedings. Second, non-English publications were excluded from the search efforts to avoid confusion and translation difficulties. Thirdly, a period of five years (between 2017 and 2021) was chosen, sufficient for observing the evolution of research and related publications. Fourth, as the review process concentrated on the influence of minimum wages on labour market institutions, articles indexed in economic indexes were chosen. Finally, in keeping with the intended emphasis on developing nations, only articles about developing countries were selected (see Table 1).

2.4 Systematic Review Process

The systematic review procedure included four steps. The review was conducted in November of 2021. The first phase consisted of the identification of the search terms. Utilising prior research and a thesaurus, similar or related keywords to minimum wage and labour market were used. At this stage, ten duplicate articles were eliminated after careful screening.

The second phase involved screening. At this point, 177 articles out of 254 that were eligible for review were eliminated. The third phase, eligibility, consists in accessing the full articles. Fifty-five articles were excluded after careful consideration because they did not focus on the impact of minimum wage, were not empirical studies, did not focus on the labour market, or did not focus on developing nations. The final stage of evaluation resulted in a total of 22 articles for qualitative analysis (see Figure 1).

2.5 Data Abstraction and Analysis

The remaining articles undertook evaluation and analysis. The focus was on specific studies that provided answers to the formulated questions. First, the data were extracted by reading the abstract and the full article (in-depth) to identify appropriate themes and sub-themes. Then, using content analysis, a qualitative analysis was conducted to identify themes regarding the impact of minimum wage on the labour market in developing nations.

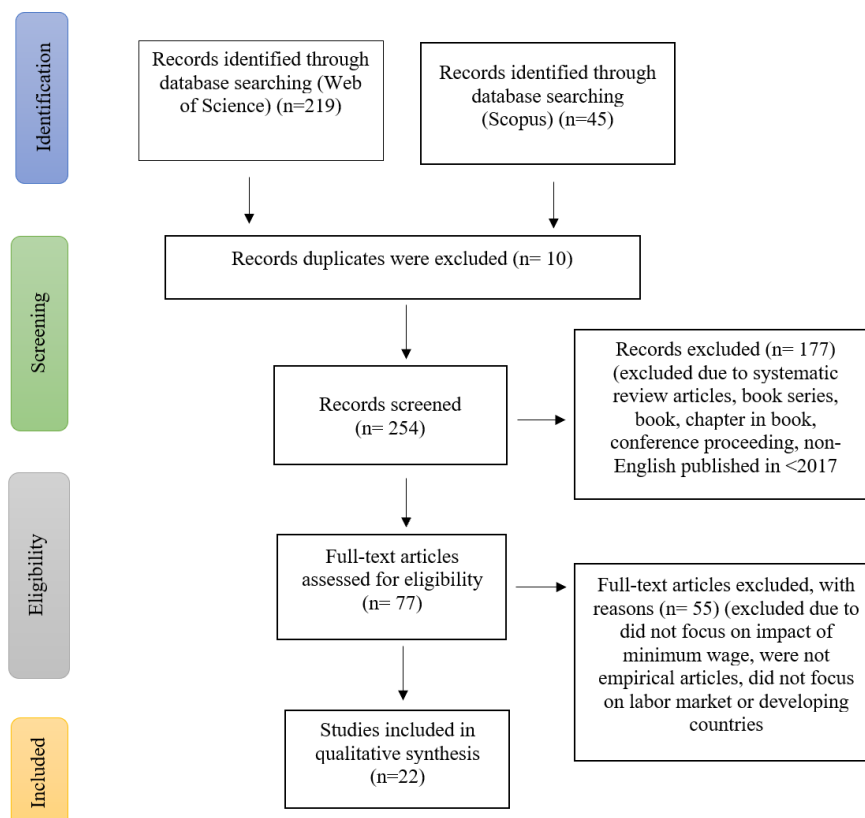


Figure 1 The Systematic Review Process

Table 1 Papers Selected for the Study

Authors/countries	Main study design	Policymaker				Firm Management				Reduce Poverty					Low Wage Worker		
		IE	IP	TI	WP	LC	IF	WH	FP	IS	SI	JS	HW	UR	LW	MG	ED
Paun et al. (2021)- Romania	QN	√	√			√									√		√
Campos-Vazquez et al. (2020)- Mexico	QN		√	√									√				
Kurta and Oruc (2020)- BiH	QN				√								√				
Popescu et al. (2021)- Romania	QL	√						√			√	√		√			
Sahin (2020)- Turkey	QN		√														
Alexandre et al. (2021)- Portugal	QN		√			√			√								
Cuong (2017)- Viet Nam	QN							√	√	√	√		√				
Campos-Vazquez & Esquivel, (2021)- Mexico	QN												√				√
Garcia-Louzao & Tarasonis (2021)-Lithuania	QN	√											√				√
Wulansari (2021)- Indonesia	QL		√		√					√	√						√
Katzkowicz et al. (2021)- Uruguay	QN																√
Mansoor & O’Neill (2021)- India	QN																
Ni and Kurita (2020)- Indonesia	QN				√	√			√	√			√				
Siregar (2020)- Indonesia	QN				√						√			√			
Pantea (2020) - Romania	QN		√					√						√			
Carpio et al (2019)- Thailand	QN			√						√			√	√			√
Pérez (2020)-Mexico	QN							√									
Sotomayor (2021)-Brazil	QN							√		√				√			
Monica & Maribel (2021)-Argentina	QN		√			√		√							√		
Ham (2018)- Honduras	QN	√			√			√		√			√			√	√
Gudibande & Jacob (2020)- India	QN	√														√	
Senasi et al. (2021)- Malaysia	QN		√	√		√		√		√					√		

Policy Maker

Firm Management

Reduce Poverty

Low-Wage Worker

IE= Increase Employment

LC= Labour Cost

IS= Improve Living Standard

LW= Low Skilled Worker

IP= Increase Productivity

IF= Increase Wage Floor

SI= Social Insurance

MG= Migration

TI= Tax Incentive

WH= Working Hours

JS= Job Security

ED= Education

WP= Wage Policy

FP= Firm Profitability

HW= High Wage Workers

UR= Unemployment Rate

QN= Quantitative; QL= Qualitative

3. RESULTS

The review resulted in four main themes and 16 sub-themes related to the impacts of minimum wage policies. The four main themes are policymakers (four sub-themes), firm management (four sub-themes), poverty reduction (five sub-themes) and low-wage workers (three sub-themes). The results provided a comprehensive analysis of the impact of minimum wage on the labour market in developing countries.

A total of three studies focused on Romania (Paun et al., 2021; Popescu et al., 2021; Pantea, 2020), Mexico (Campos-Vazquez et al., 2020; Campos-Vazquez & Esquivel, 2021; Pérez, 2020) and Indonesia (Wulansari, 2021; Ni & Kurita, 2020; Siregar, 2020). Two studies concentrated on the impact of minimum wage in India (Mansoor & O'Neill, 2021; Gudibande & Jacob, 2020) and one study covered 11 different countries, including Bosnia and Herzegovina (BiH) (Kurta & Oruc, 2020), Turkey (Sahin, 2020), Portugal (Alexandre et al., 2021), Vietnam (Cuong, 2017), Lithuania (Garcia-Louzao & Tarasonis, 2021), Uruguay (Katzkowicz et al., 2021), Thailand (Carpio et al., 2019), Brazil (Sotomwayor, 2021), Argentina (Monica & Maribel, 2021), Honduras (Ham, 2018), and Malaysia (Senasi et al., 2021).

Two studies used a qualitative approach, while the rest (20) used quantitative analytic methods. In terms of publication years, eleven articles were published in 2021, eight in 2020, and one article each in 2019, 2018, and 2017.

3.1 Impact of Minimum Wage on the Labour Market in Developing Countries

This section concentrates on the significant impact of the minimum wage on the labour market in developing countries. The four main themes discussed in this paper are a policymaker, firm management, reduced poverty and low-wage worker.

3.1.1 Policymaker

A total of 16 out of 22 studies focused on the role of policymakers when implementing the minimum wage. The most common understanding of the effect of minimum wage practices by policymakers is increasing employment (5 studies), while eight studies found that it relied on it to increase productivity. Three studies focus on tax incentives and five on the wage policy (Table 1).

The potential impact on employment has remained at the core of the minimum wage policy debate. According to leading economists, minimum wage increases have no discernible effect on employment. In theory, the effectiveness of a country's minimum wage policy is determined by its ability to redistribute earnings to low-wage workers without causing a loss of employment (Paun et al., 2021). For instance, if a company is the only employer in a particular market, it may be able to offer lower wages than would be the case if competition existed. In this case, a minimum wage can increase worker incomes without decreasing employment. Indeed, higher wages may increase employment by attracting more workers. In Honduras, exploiting considerable variation at the category level in wage floors and their net effects on labour market outcomes provides credible evidence of small employment losses (Ham, 2018). In India, implementing a minimum wage law could lead to an increase in employment, depending on the magnitude of the wage gap between the minimum wage and current market wages. In other words, given the degree of monopsony power to set wages, a relatively low minimum wage value of the worker's marginal product, the employer can pay the minimum wage and still employ more workers until the minimum wage equals the value of the marginal product. In the

short run, the impact of legislation at both the intensive (real wages) and extensive (employment) margins had a positive and statistically significant effect on real wages in the urban areas of four Indian states (Gudibande & Jacob, 2020). When wages are below marginal productivity in Lithuania, there is room for minimum wage increases that would not lead to job losses. Similarly, higher minimum wages could reduce job vacancies and turnover instead of destroying jobs (Garcia-Louzao & Tarasonis, 2021). Regarding participation in the Romanian labour market, the total employment rate (for 15-64 years old) reached a low of 57.6 per cent in 2005, then steadily increased in the following years, reaching a high of 65.8 per cent in 2019 (Popescu et al., 2021).

The minimum wage is also an indicator of labour productivity and the level of compensation in each country. If labour productivity increases due to a minimum wage increase, a rise in employment is expected (Monica & Maribel, 2021). In Malaysia, a study by Senasi et al. (2021) found that most Malaysian workers agree that a minimum wage increases labour productivity and that the government should now focus on the Productivity Linked Wage System (PLWS) to improve and propel Malaysia into a high-income nation. The inclusion of labour productivity is consistent with the findings that productivity has a positive and significant effect on wages in Indonesia, leading to increased employment (Tadjoeddin & Chowdury, 2018). Therefore, the government must comply with the minimum wage policy to guarantee fair and equitable wages for all workers.

Developing countries viewed that with limited tax bases and consequently limited resources for other labour market policies, minimum wages are utilised more frequently to improve a lot of low-skilled workers and poor individuals (Carpio et al., 2019). In the case of Malaysia, the government could provide tax relief and incentives to businesses that have implemented a minimum wage policy (Senasi et al., 2021). The minimum wage in Bosnia and Herzegovina is a component of the tax-benefit system in both administrative units (entities) of BiH, the Federation, and the Republic of Srpska (RS) and was developed under particular institutional and legal frameworks (Kurta & Oruc, 2020). In the Federation of Bosnia and Herzegovina, the minimum wage is set as a minimum net hourly wage, while in the Republic of Srpska, it is set as a minimum net monthly wage. There have been several periodic changes to the minimum wage in the federation and the RS, which are typically implemented at the end of the year and take effect the following year (Kurta & Oruc, 2020).

Global minimum wage policy decisions provide workers with a fair living wage. When we look at different countries, the debate over the impact of the minimum wage may become controversial. Since Joko Widodo (Jokowi) became the president, Indonesia's new wage policy mechanism has made history. The logic of this wage policy is problematic because economic factors are not the only determinant of wage increases. Instead of resolving the wage issue, Jokowi's low-wage policy formalises it. Jokowi's low wage is ceremoniously illegal (legally) and has also formalised wage inequality in the regional context (Wulansari, 2021). Before changing the minimum wage levels, it is critical to consider the policy's effects on the labour market and specific categories of workers (Siregar, 2020). Similar to other developing countries, the minimum wage in Honduras is high but poorly enforced in a segmented labour market. Evaluations of minimum wage policies frequently rely on variations in minimum wage structures. Imposing high minimum wages negatively affects labour markets, welfare, and compliance. The minimum wage policy of Honduras is not likely to serve as a model for other nations, but it may serve as a cautionary tale (Ham, 2018).

3.1.2 Firm Management

Firm management is mentioned in the studies as one of the measures to impact minimum wage. A total of 11 out of 22 studies focused on firm management to determine the impact of the implementation. Under this theme, four sub-themes emerged: labour cost, increased wage floor, working hours, and firm profitability. Five studies focused on labour costs, and two examined the increasing wage floor. Six studies mentioned working hours and firm profitability were also mentioned by three studies (Table 1).

The precarious state of financially distressed firms raises concerns about the impact of minimum wage policies. Business leaders often publicly express their concerns about the effects of wage cost increases, especially in sectors with a high minimum wage incidence and where labour costs account for a large portion of total costs. Previous studies have also revealed the impacts of increases in firm activity and financial conditions. The impact on firms' total costs in the short run is determined by their ability to pass on wage increases to consumers and the proportion of workers earning the minimum wage (Alexandre et al., 2021). The impact of minimum wage will be determined by firms' ability to change their capital-to-labour ratio. Firms' financial situation will worsen if they cannot fully offset the impact of the minimum wage increase (Paun et al., 2021). Firms in Indonesia are required to reduce employment when faced with the pressure of rising labour costs due to regulatory compliance. Since a firm's markup can be defined as the price or marginal cost ratio, a decrease in the value of the denominator (decreased labour cost) happens when a firm chooses to maintain commodity price stability to avoid losing customers is equivalent to an increase in the firm's markup. In the case of "markup," a firm's reduced labour costs due to minimum wage regulation are likely to increase profit. On the other hand, high-wage firms will see their profits (markup) decrease as their share of labour costs rises (Ni & Kurita, 2020). In Argentina, if firms can raise prices to transfer the increase in labour costs to consumers, this could explain the small observed employment response to minimum wage changes (Monica & Maribel, 2021). In the Malaysian context, the imposition of minimum wages would result in increased labour costs, harming the firm's profit margins and, in the long run, the closure of their businesses (Senasi et al., 2021).

Adding to this discussion, the subsequent effect of minimum wage is an increasing wage floor. Implementing a minimum wage would provide a wage floor, removing the worst excesses of low pay and worker exploitation (Dube, 2019). Identifying minimum wage effects entails comparing income distributions observed after wage floor increases to distributions depicting what would have happened in the absence of the increases. Because increases in the national wage floor are more binding in lower-income regions than in higher-income ones, Brazil can provide an effective identification strategy (Sotomayor, 2021). Although legal wage floors apply to employers and employees in Honduras, large businesses comply much more with minimum wage than small businesses (Ham, 2018). Surprisingly, even though it is not regulated, the public sector is mainly compliant. The minimum wage in Portugal is set for one month of full-time work. The minimum wage increased by 14.8% between 2014 and 2017. In October 2014, the minimum wage increased by 4%, from 485 to 505 euros per month. Despite the minor increase, the proportion of workers earning the minimum wage rose from 13.2 per cent to 19.6 per cent. In 2016, the government announced that the minimum wage would be 600 euros in 2019. In 2016, it was 530 euros, 557 euros in 2017, 580 euros in 2018, and 600 euros in 2019. During this period, the proportion of workers paid the minimum wage reached 25.7 per cent in 2017 (Alexandre et al., 2021).

Another issue to consider in studies on the impact of the minimum wage is the working hour. In Malaysia, a worker must work four days for twelve hours to earn the daily minimum wage

of RM63.48. It is a low wage for a statutory minimum wage increase in Malaysia from RM1,100 to RM1,200. Although the Malaysian government based its minimum wage policy decision on the recommendations of the National Wages Consultative Council and relevant stakeholders throughout the country, many parties have expressed mixed feelings about its implementation (Senasi et al., 2021). Firms in Vietnam can adjust to higher costs due to increased minimum wages so that working hours may be increased (Cuong, 2017). In Romania, it is worth noting that the government's labour-market support measures may result in fewer hours, with employees keeping their jobs (Popescu et al., 2021).

In some developing countries, current evidence indicates that raising the minimum wage hurts firm profitability. For example, Alexandre et al. (2021) found that minimum wage increases hurt profitability. Cuong (2017) explained that the minimum wage might be ineffective in Vietnam because some businesses pay their employees less than the minimum wage. Because these businesses may not pay the minimum wage, increased minimum wages do not affect their profitability. However, high-wage firms in Indonesia will see their profits (markup) decrease as their labour cost share rises (Ni & Kurita, 2020).

3.1.3 Reduce Poverty

A total of five sub-themes emerged under the reducing poverty theme, namely improve living standards (7 studies), social insurance (4 studies), job security (1 study), high wage workers (8 studies) and unemployment rate (5 studies) (Table 1).

Most of the world's countries currently exhibit substantial and expanding disparities in living standards. Studies by Carpio et al. (2019) found that the labour market analysis suggests that Thailand's minimum wage law is likely to have a positive impact on the welfare of individuals at the bottom of the distribution. This conclusion is supported by the analysis of the effect of the minimum wage on household consumption per capita and household poverty, which indicates that a 10 per cent increase in the minimum wage is associated with a non-negligible 2.1 percentage point decrease in household poverty. In Brazil, Sotomayor (2021) discovered that significant increases in the minimum wage are more likely to reduce poverty because statistics indicate that poverty and income inequality decreased by 2.8% and 2.4%, respectively, within three months of a minimum wage increase. Additionally, minimum wages can improve living standards. Ham (2018) investigated how minimum wages affect poverty in Honduras. The impact of the minimum wage on poverty in Honduras is theoretically ambiguous, and its direction is frequently determined empirically. Since informal jobs are predominantly low-wage part-time positions, earnings in the uncovered sector often fall below earnings in the covered sector. As a result, a growing informal sector could lead to income losses, pushing some individuals into poverty. However, minimum wages reduce poverty if the gains in income for the covered sector outweigh the losses. According to Vietnam's Labour Law, the minimum wage is intended to cover "the basis of an employee's cost of living who is employed in the most basic job under normal working conditions" (Cuong, 2017). In Malaysia, a shifting competitive advantage toward the high-paying labour market necessitates the implementation of a minimum wage policy, and the vast majority of low-skilled workers anticipate an improvement in their standard of living (Senasi et al., 2021).

Minimum wages have been justified to improve the welfare of workers at the bottom of the pay scale while also reducing inequality and promoting social inclusion. In Vietnam, Cuong (2017) found that many state enterprises base their wage scales on the minimum wage for labourers. It implies that as minimum wages rise, workers in state-owned businesses whose pay exceeds the new minimum wage may also receive wage increases or higher social insurance. The

implementation of minimum wage in Indonesia provides social protection for workers by establishing what is believed to be an appropriate wage floor, which supports the view that this policy has clear winners and losers (Siregar, 2020). Although the potential of minimum wage policy to increase labour income for low-paid workers, along with the associated reduced reliance on welfare benefits and enhanced perception of social fairness, should be considered alongside the potential costs of minimum wage increases (Garcia-Louzao & Tarasonis, 2021).

The studies about the job security effect of minimum wages are essential to improving the lives of those most vulnerable in the labour market. From the perspective of labour market regulation in Romania, policymakers should seek to increase job security. Also worthy of consideration are forms of employment such as freelancing and self-employment, both from the perspective of job security (pension, unemployment) and other perspectives (minimum wage, work schedule). Active labour market policies can be more practical than employment protection because they focus on protecting workers instead of jobs (Popescu et al., 2021).

Higher wages are usually established by the market, interest parties, or the government. Most countries have their regulations and adaptations for implementing the wage structure. Before implementing a minimum wage, wages were determined through voluntary negotiations and agreements between employer and worker representatives. Higher-waged employees will be more incentivised to keep their job to maintain their quality of life (Senasi, 2020). Recent studies by Garcia-Louzao and Tarasonis (2021) revealed that the potential of the minimum wage policy is to increase the labour income of low-income workers, thereby reducing their reliance on welfare benefits and enhancing their perception of social fairness. Moreover, (Campos-Vazquez et al., 2020; Campos-Vazquez & Esquivel, 2021; Cuong, 2017) research demonstrates that implementing a minimum wage can result in higher wages for workers at the bottom of the income distribution. For example, minimum wage increases in Honduras led to higher average wages in the covered sector and vice versa in the uncovered sector (Ham, 2018). In Thailand, minimum wages decrease inequality because the estimated effects on wage distribution are more significant at the bottom than at the top (Carpio et al., 2019). In contrast, businesses that offer higher average wages to their employees should be more resistant to the shock and less likely to alter their economic behaviour (Ni & Kurita, 2020).

Increasing the minimum wage may result in a higher unemployment rate because some employers and companies hire fewer workers. The Romanian labour market experienced low unemployment rates in the last period (3.9% in 2019). However, in the current context, growth trends are visible and unavoidable (4.3% in the first trimester of 2020, rising to 5.4% in the second) (Popescu et al., 2021). In his study, Sotomayor (2021) found that the minimum wage resulted in a renewed decline in poverty and inequality, indicating that potential unemployment costs were once again outweighed by benefits in the form of higher wages among working individuals. A 10 per cent increase in the lagged minimum wage variable is anticipated to reduce unemployment by 3 per cent. The negative and significant unemployment coefficient indicates that a decrease in formal employment due to an increase in the minimum wage not only shifts workers to the informal sector but also forces them to leave the labour force (Siregar, 2020). This decrease in unemployment is mainly attributable to the departure of workers from the labour force. Pantea (2020) found that increasing the minimum wage did not significantly impact high unemployment in Romania while highlighting policymakers' concern that increasing the minimum wage would substantially impact regions with pre-existing high unemployment rates. In Thailand, where unemployment is exceptionally low (1.2% on average), Carpio et al. (2019) find that the minimum wage has no statistically significant effect on unemployment, neither overall nor for specific subgroups of workers.

3.1.4 Low-Wage Worker

A total of 10 studies found that minimum wage relied on low-wage workers and is related to low-skilled workers (6 studies), migration (3 studies), and also education (3 studies) (Table 1).

The potential benefits of higher minimum wages derive from higher wages for affected workers, some of whom come from low-income or poor families. On the other hand, a higher minimum wage may discourage firms from employing the same low-wage, low-skill workers that minimum wages are designed to assist (Paun et al., 2021). If minimum wages reduce the employment of low-skilled workers, they are no longer a "free lunch" for low-income and poor families but rather a trade-off between benefits for some and costs for others. Studies by Campos-Vazquez and Esquivel (2021); Garcia-Louzao and Tarasonis (2021), and Wulansari (2021) show that there are negative effects on unskilled workers but not on skilled workers, with the negative effects being more severe in small businesses. The requirement to pay a minimum wage can also be viewed as an impediment to the expansion of a business and the hiring of workers, particularly those with fewer skills (Paun et al., 2021). In emerging economies, the minimum wage is frequently set at relatively high levels relative to average wages. As a result, a more significant proportion of the labour force is unskilled and earning at or near the minimum wage. Also, when the minimum wage is increased, job losses for non-production workers and low-skilled employees are more severe, possibly because their wages are close to or below their labour productivity (Monica & Maribel, 2021). In Malaysia, 63.7% of low-skilled workers agree that the minimum wage influences their attitude (motivation, effort, and commitment), skill development, and labour productivity practices (Senasi et al., 2021). Many academics have expressed a positive opinion in extensive discussions about the effects of minimum wage on low-skilled workers. A minimum wage motivates workers to put in more effort (Productivity Report, 2013). As a result, labour productivity is thought to arise due to workers' productive effort (effort intensification) due to the wages or incentives provided to them.

The effect of the minimum wage on migration is one of the most controversial issues in modern labour economics. As previous research has demonstrated, migrant workers typically have less access to human capital, so their access to occupations with better economic returns and prestige is frequently restricted (Zhang & Wu, 2017). With the rising migration rate, it is worth reconsidering the impact of a minimum wage increase on the labour market returns of workers (Yang & Gunderson, 2019). Due to the high costs associated with worker migration to high-wage areas, low-wage occupations, such as domestic work, are more likely to be monopolised in developing countries, where employers have more significant influence in wage setting. While wage floors reduce the likelihood of employment relative to unemployment, cross-industry migration is not precluded (Ham, 2018). The first supply-side factor in India is that higher minimum wages in treatment states resulted in an increase in the supply of domestic sector workers in these states as a result of both inter-sector and inter-state migration, resulting in the gradual disappearance of wage differential trends. Karnataka, a state in India's southwestern region that had already implemented the minimum wage law, discovered that domestic worker migration followed the same pattern as the other treatment states. Furthermore, there are no significant differences between Karnataka and other states regarding migration characteristics (Gudibande & Jacob, 2020). According to studies conducted by Katzkowicz et al. (2021), there was no migration of workers from other sectors into the domestic-work sector in Uruguay after the minimum wage was implemented.

The previous study also shaped the views about the effect of minimum wages on educational institutions. In Thailand, the minimum wage has a diminishing impact with increasing levels of

education. The wage elasticity to changes in the minimum wage ranges from 0.25 (not statistically significant) for university-educated workers to 0.61 (statistically significant at the 1% level) for workers with less than an elementary education (Carpio et al., 2019). In Thailand, the minimum wage significantly affects average wages, which decrease with education level, are concentrated among the young and elderly, and diminish for higher-earning workers. So far, the increasing minimum wage in Thailand has positively affected the average wages of covered employees and even workers with secondary education and those earning well above the wage distribution's median benefit from the wage increases. In addition, there are no significant effects of the minimum wage on the probability of working in the unprotected sector, except for a relatively significant positive effect for workers with higher levels of education (Paun et al., 2021; Ham, 2021).

4. DISCUSSION

This research aimed to conduct a systematic review of the existing literature on the effect of the minimum wage on the labour market in developing nations. The minimum wage is the lowest wage permitted by law or collective bargaining agreements. A comprehensive search of two databases has resulted in 22 articles on the impact of the minimum wage. This review's scope revealed four main themes and sixteen subthemes.

According to the perfect competency model of economic theory, increasing the minimum wage above the marginal productivity value of workers will lead to unemployment. This is because the labour demand elasticity will determine the job loss. In other market models, however, increasing the minimum wage may increase labour demand. For example, employers can offer lower wages in a monopsony labour market than in a competitive market. Therefore, a minimum wage would force these employers to pay more than the monopsony wage. Thus, employment can be increased if the minimum wage is set higher than the monopoly wage but lower than the perfect competence wage (Carpio & Pabon, 2017).

Some of the minor effects of minimum wage observed primarily in workgroups covered by collective bargaining agreements may be attributable to the strength of unions. The degree of minimum wage non-compliance varies based on the number of wage rates in effect and the design of the minimum wage system. In addition, compliance is contingent on establishing an appropriate minimum wage structure and rate in close collaboration with employers and worker's organisations (International Labour Organization, ILO, 2016). According to Sotomayor (2021), the implementation of the minimum wage significantly affects the distribution of earnings, particularly when the increases are large, or the wage floor is high relative to median earnings. Except for the late 1990s, when minimum wage increases were minimal, the density mass decreased around the initial value of the wage floor. It rose around the revised one, with the changes outweighing those occurring elsewhere in the distribution.

Understanding the impact of minimum wages on poverty necessitates comprehensively comprehending their effects at various points along with the wage distribution. This issue can influence how policymakers determine the minimum wage and who is eligible for it. For instance, when minimum wages are low relative to average wages (as in Brazil and Mexico), wages at the bottom of the wage distribution tend to increase. When minimum wages are high relative to average wages, as in Colombia and Honduras, they raise wages in the middle of the wage distribution but not at the bottom. In this instance, only those whose salaries are above the national median will be affected by minimum wage increases (since those earning less than the minimum wage are not directly affected by minimum wages). Consequently, the answer to whether the minimum wage can reduce poverty and inequality in developing nations is "yes."

Findings indicated that the relationship between the occurrence of poverty and the minimum wage is highly inelastic; the policy instrument requires continuous reinforcement; it is subject to diminishing returns; and it is not an effective strategy for combating extreme poverty (Sotomayor, 2021).

Minimum wages are unlikely to apply to higher-skilled workers when skill levels vary. Employers will shift away from less-skilled workers and toward more-skilled workers after a minimum wage increase. Even if the dis-employment effect among the least-skilled workers is significant, the employment declines may not appear noteworthy. This is crucial from a policy standpoint. The minimum wage is intended to assist workers with limited skills. The policy is less likely to achieve its objective if their employment declines significantly and they are laid off, resulting in displacement from their current job or difficulty finding a new job. Substitution of low-skilled and high-skilled labour may lead to wage increases for workers earning above the minimum wage. If the minimum wage is used as a benchmark, a minimum wage increase can shift the entire distribution (Perez, 2020). Furthermore, the potential for minimum wage policy to provide higher labour income for low-paid workers, along with the associated reduced reliance on welfare benefits and enhanced perception of social fairness, should be weighed against the potential costs of minimum wage increases, reduced employment, and higher prices.

In general, migrants with higher levels of education are more likely to benefit from minimum wage increases. This result is consistent with the findings of Mwangi et al. (2017). They discovered that the minimum wage harms low-skilled workers (defined as those with a secondary school education or less) but has no effect on employment for more educated workers. They argued that lowering the minimum wage for unskilled formal labourers can reduce unemployment in the short term and that the labour market adjustment process frequently entails rural-to-urban migration and formal-informal labour supply adjustments. Employers may comply with minimum wage standards and increase monthly, daily, and hourly wages while offsetting these increases in other ways, such as by increasing working hours, decreasing allowances, or eliminating other social benefits.

5. CONCLUSION

This systematic review highlights the impact of minimum wage on labour market institutions in developing countries. Increases in the statutory minimum wage in developing nations are intended to increase the income of low-wage workers, reduce in-work poverty, and boost labour force participation. Concerns exist, however, that significant increases in the minimum wage will reduce employment, particularly in nations where low labour costs are essential for competitiveness. Notably, whether the minimum wage is too high or too low is an empirical question, as economic theory offers little guidance regarding the optimal minimum wage level. Based on the systematic reviews conducted, four main themes, namely policymaker, firm management, reduce poverty, and low-wage worker, were identified, and their impact was extended to sixteen subthemes. The review offers several suggestions for future research. First, more qualitative studies are required because they provide in-depth analysis and explanations of the perspective of the minimum wage and labour market. Second, a specific and standardised method for conducting systematic reviews in the context of minimum wage research synthesis must be determined. Finally, future research should incorporate additional search techniques such as citation tracking, reference searching, and expert contact.

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AUTHOR CONTRIBUTION STATEMENT

NSAMI wrote all the sections that constitute the entire article: i.e., Introduction, Methodology, Results, Discussion, Conclusion, and References. SM conceived the study, coordinated it, and helped draft the manuscript. All authors read and approved the final manuscript.

DECLARATION OF CONFLICTING INTERESTS

The authors declare that they have no conflict of interest.

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