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# Media Coverage of the Labor Market in Vietnam - A Taxonomy Analysis

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#### Abstract

This study investigates how major online newspapers in Vietnam frame and report labor market information on the supply side. Motivated by the time lag and coverage limitations of official labor statistics, the study considers news media as a high frequency and complementary information source on labor conditions. Data for the analysis was collected from three ranked online newspapers in the period of a year. The results reveal that the news group presented *Job turnover status on the supply side* (A35) has the highest rate, while the news group described the *age* (A31) and *gender aspects of labor supply* (A32) receive comparatively less attention. Overall, 62% of articles employ thematic frames and 38% episodic frames, indicating a strong tendency to situate labor issues within broader structural and policy contexts. The three newspapers also exhibit distinct editorial orientations: vnexpress.net adopts a macro and policy-oriented perspective, thanhnien.vn emphasizes social and gendered dimensions, and nld.com.vn foregrounds the lived experiences and welfare of industrial workers. These results show that online newspapers not only play an important role in supplementing traditional information sources on the labor market situation but also highlight the multidimensional and practical problems of the labor market. This information can have interesting and meaningful implications for various stakeholders, including policymakers, labor users, and employees. It is also a suggestion for a more in-depth and detailed analysis of the news media's content.

Keywords: labor market, news media, Vietnam, taxonomy analysis, media coverage, online newspapers

#### 1. Introduction

The labor-market information reflects the demand-supplier situation, wage level, careers, skill level, and career orientation in a specific sector or period. This information is essential not only for laborers and businesses, but also for agencies and the government. It supports employees in meeting labor demand from the business and the labor market, thereby enabling them to be active in identifying suitable occupations and finding employment opportunities. While, the labor-market information brings businesses the changes in awareness, view as well as career trend of the employees, then, they make the appropriate adjustments in recuitment policies and employee benefits. To the government, labor-market information provides a portrait of one of the economy's key macroeconomic indicators, which serves as the basis for releasing investment and/or support policies to improve the performance of this index.

In Vietnam, labor data is primarily provided by state agencies like the General Statistics Office (GSO) and the Ministry of Labor, Invalids, and Social Affairs, as well as international organizations such as the World Bank. These organizations release data on a quarterly or annual frequency. However, official labor market data often comes with a time lag—a common issue worldwide. For instance, labor market statistics in the United States are published with a one-month delay; in Turkey, the delay is three months (Maas, 2019). Moreover, official labor statistics have several limitations, including a lack of coverage of the full labor market and insufficient information on migrant employees and the informal sector (Bailliu et al., 2019). To provide on-time labor-market information for relevant objects, an alternative resource is from social media, especially online news. This is high frequency resource. It, along with modern measurement and analysis methods, can give economic activities in general, as well as the labor market in particular, with real-time insights. This ability was mentioned and demonstrated in previous studies (Antenucci et al., 2014; Ryu, 2018; Nia et al., 2022).

This study aims to answer the following two questions: How is labor market information of the supply side represented in Vietnamese media? And what is the difference in the presented information among the online newspapers? To explore these, the authors proposed a three-level analysis frame to analyze labor market content from three well-regarded online

newspapers in Vietnam. This frame was built based on supply-demand theories and factors influencing the labor market. By leveraging advanced data collection and analysis techniques, this study accessed an online database related to labor market information, and provided a detailed analysis of one of categories related to the supply-side labor market situation. The findings not only supplement official information sources but also provide a multidimensional perspective on Vietnam's labor market in the current context for relevant objects.

# 2. Background

#### 2.1 Taxonomy Analysis and Analysis Framing in Journalism

Taxonomy analysis can be considered from two different perspectives: the general analysis frame and the detailed analysis frame. The former frame is often quite simple, has few levels, and is connected to the main and only goal of the provided information. Meanwhile, the latter frame often consists of many levels and focuses on a more in-depth analysis of the information's content with different implications.

In journalism, there are usually two approaches in framing theory, including equivalent frame and emphasis frame (Walter & Ophir, 2019). These frames belong to the general type, in which equivalent frames related to presenting different information but logical equivalence to make frame effects (Cacciatore et al., 2016). Whereas, the emphasis frame is based on the premise that the selected presentation of events and issues through focusing on different arguments, opinions, and events that affect the thoughts and reactions of audiences (Entman, 1993). An equivalent frame was usually applied in the issues that needed to be presented by logical formulas, whilst an emphasis frame was used in news stories that related to specific events and issues. The emphasis frame studies on news usually distinguishes "generic" frame and "specific-topic" frame (D'Angelo, 2018). In which, "generic" frame was generalized based on events and contexts. It is also referred to as a thematic frame (Kostadinova & Dimitrova, 2012). This frame usually relies on a broad context, focused on trends and data, to give audiences a comprehensive portrayal of a specific topic. Whereas, the "specific-topic" frame was often called "context" frame or "episodic" frame due to its relation to particular contexts.

Regarding the detailed analysis frame, it originates from the taxonomy theory proposed by Carl Linnaeus to classify systematically creatures in biology (Manktelow, M. 2010). The taxonomy theory aims to research the methods for building and employing structured classification systems, thereby organizing and arranging information hierarchically, investigating the relationships between concepts, phenomena, behaviors, or systems, and supporting the management and utilization of knowledge. To build a taxonomy system, it is necessary to have a taxonomy analysis process (which can be called frame analysis).

Taxonomy analysis/frame analysis is a qualitative research method used to build and organize information according to a hierarchical structure, from general to specific, to gain a deeper understanding of concepts, phenomena, behaviors, or systems. This method is derived from anthropology, linguistics, and social research and was developed by Bradley et al (2007). This method is often used to construct a taxonomy or framework for classifying topics or categories related to a research topic. The characteristics of frame analysis are the hierarchical analysis method and emphasize the relationship between categories and subcategories. Now, taxonomy analysis has been applied in many fields, such as in educational science (with a specific example being Bloom's learning capacity measure), in social sciences (for analyzing behavioral and opinions), in business and marketing (for classifying customers based on consumer behavior), and data management (for classifying, labelling data, and supporting in searching). The analysis frame can be built based on content or topic (for documents or interviews), role or function (for systems), or behavior (for anthropology or psychological analysis). In general, the frame analysis process includes the five steps as follows (Morville, 2010; Hedden, 2012):

- Determining the analysis goals.
- Collecting qualitative data (interviews, documents, observation).
- Coding data by identifying the main themes or concepts.
- Organizing codes into classification frames by dividing into categories or topics, and subcategories or more specific topics.
- Building a taxonomy tree to express the relationship between factors.
- Explaining and concluding.

In this study, a detailed analysis frame with three categories was proposed to analyze the situation of the labor market in Vietnam based on news media. Then, a category related to the labor market on the supplier side was applied to news on the three top-ranked online newspapers. Additionally, news was summarized into two categories within the general frame . All aim to answer the two research questions mentioned before.

# 2.2 Online Data and Forecasting the Labor Market

Online data has become an integral part of modern society, and the Internet provides users with vast amount of information. This information is not only beneficial for workers but also for businesses and policymakers. Nowadays,

workers are not only searching for job information at employment agencies but also in the media (including traditional media and online media). This comes from businesses changing their advertising forms as well as providing recruitment information on websites and job portals. Meanwhile, official departments and state agencies also use websites to declare information about the socio-economic situation through official reports, and announce policies along with related activities such as discussions, impact analysis.

According to Antenucci et al. (2014), social media provides potential alternative measures by constructing economic indicators and complementing traditional data sources collected from surveys and official data. The use of social media data to build economic indicators has a number of potential benefits, as follows:

First, social media data are often available in real-time and at high frequency. Such data can be helpful to policymakers and labor market participants who need to make decisions before official indicators are released. Such time series data can also be especially useful in identifying turning points of economic activity.

Second, social media data is a potential source of valuable information at a low cost, in contrast to traditional data, which is often costly for both respondents and data collection organizations.

Third, social media offers a typical way to observe economic activity. It represents natural interactions between individuals about daily life events without reference to specific economic concepts.

Fourth, in survey design, we usually frame the questions and then collect the data. Social media allows us to reverse this order and create surveys afterward.

In recent years, some studies have shown that information obtained from online searching data can be helpful in studies of social phenomena, for example, studies of poverty and inequality (Marchetti et al., 2015); studies of political attitudes (Kim & Johnson, 2006; Bruns & Nuernbergk, 2019; Ahmed et al., 2021); studies of human resource issues (Askitas & Zimmermann, 2015); studies of employment and income expectations (Chang & Massey, 2010; Schmidpeter, 2023), studies of labour immigrant migrant issues (Ahmed et al., 2021; Bodrunova & Smoliarova, 2022; Willnat et al., 2023). This is explained by the fact that the information users provide on the Internet reflects personal needs and social phenomena.

In the field of labor and employment, online data has been used for analyzing and forecasting. Several studies have ultilized online search data, particularly Google Trends (GT), to estimate phenomena and generate additional information for analysis and forecasting. Naccarato et al. (2018) combined GT data with official data from the Italian National Institute of Statistics to improve the forecast quality of youth unemployment. Adu et al. (2023) used GT data along with VAR and ARIMA models to forecast unemployment. Grybauskas et al. (2023) forecasted unemployment rates based on neural networks combined with GT searches such as job search, benefits, mental health, etc. Some studies use other online data, such as social media news to forecast the unemployment rate (Nia et al., 2022). Ryu (2018) used a combination of social media news (tweets), blogs, GT, and newspapers to forecast the unemployment rate in Korea. Other studies (Lukauskas et al, 2022) used sentiment analysis based on online data to develop new indicators for forecasting the unemployment rate.

To the best of our knowledge, our paper is the first to address the labor market in news media in the Vietnamese context.

#### 3. Data and Method

# 3.1 Scope and Criteria

The dataset used in this study is a primary dataset that was collected from three online newspapers in Vietnam with URL addresses including vnexpress.net, thanhnien.vn, and nld.com.vn. In which vnexpress.net is managed by the Ministry of Science and Technology, thanhnien.vn belongs to the Vietnam Youth's Federation, and nld.com.vn has the owner that is Ho Chi Minh City Party Committee. These were selected for collecting data due to the fact that they were ranked in the top 50 online newspapers with the highest access audiences (according to Similarweb.com), and they all have the category of labor or job. These categories were used for crawling data. Moreover, these online newspapers provide a more comprehensive view of the labor market in Vietnam which was previously described within the analytical framework.

To obtain a comprehensive portrait of employee status across various aspects, data was collected over one year from June 1st, 2024, to May 30th, 2025, based on a set of proposed keywords. These keywords were identified based on domain knowledge and the cultural and linguistic features. Besides that, criteria related to gender, age, quantity of employees, career situation of employees, and so on are also fundamental for filtering and eliminating newspapers from the dataset. Moreover, before data was automatic crawled by a self-built program, it was manually searched to evaluate the suitability of the resources and keywords.

#### 3.2 Tools and Ways for Collecting Data

Based on the details of the data sources and the period of time, news articles were crawled from a list of pages featuring labor and career-related categories for each newspaper. This crawling was carried out by a self-built program in the Python

programming language. The crawled data was stored in a .csv file format with fields including published time, title, the content of news articles, and URL addresses of the news articles. Here, the content of the news is only its abstract to save space for storage. Whereas URLs provide authors a way to access the complete content of each news article. To avoid duplication of news articles and to facilitate data processing, news articles from each source were collected separately. Moreover, to evaluate the crawled news coverage, the authors randomly manually checked the news from each category in a specific month.

# 3.3 The process of Analysis and Measuring

The process of analyzing and measuring information on news was performed in three steps as follows:

# Step 1: Filtering data

In this step, the news articles were scanned and read by the authors. As a result, noise news articles and/ or news articles irrelevant to the analytical aspects of the labor market situation were eliminated. For example, news articles only concern the career story of an individual ('Chàng giám đốc trẻ từng sốc vì học trái ngành'), or news articles present a fraud/cheating problem that employees met but not related to job or career ('Xuất hiện trang web tu vấn bảo hiểm xã hội giả mạo'). This filtering step created a high-quality dataset that was directly related to the aspects of the labor market situation.

## Step 2: Classifying data

Based on the analysis frame, the news articles in the filtered dataset were carefully read and analyzed before being assigned to the suitable category with the corresponding label. It is essential to note that a news article may reveal both policy information and employee unemployment statistics, as well as the recruitment demands of enterprises. Therefore, a news article can be assigned with some of the different labels. To classify a news article into a category, the authors used the concept and description of that category along with the key phrases that occurred in the news article. For example, a news article was assigned into the group related to regions if in that news article there was the appearance of regional phrases or provinces in Vietnam such as 'Hà Nội', 'khu công nghiệp phía Nam', etc. Or to assign a news article with a label related to the policy criterion group, it has to have at least one of the phrases such as 'Luật việc làm', 'trợ cấp BHXH', etc. Besides that, to avoid subjective bias, the authors cross-checked the labeling results of each individual.

## Step 3: Summarizing and analyzing data

After classifying the data with the proper labels, the news articles were counted to determine the number of news articles by the label of each group. The summarized result was used for analyzing the key information, and the implications of the labor market situation as provided in the online newspapers in Vietnam.

# 3.4 Analytical Framework

Based on supply-demand theories and factors influencing the labor market, an analytical framework is proposed. This framework is organized into two main groups, group A -Status of the labor market and Group B - Impact of factors on the labor market. The former group is related to aspects that reflect the status of labor supply and demand. Whereas the latter group concerns the factors that impact the labor market. Then, each main group is further divided into the subgroups with three levels based on different criteria. A detailed table of this analytical framework can be found in the appendix.

In this study, the aim is to answer two questions: How is labor market information of the supply side represented in Vietnamese media? And what is the difference in the presented information among the online newspapers? Therefore, articles are analyzed based on the criteria of subgroup A3, which relate to employees' characteristics. These characteristics consist of age, gender, quantity, skills and qualifications, and job status. The details are as in Table 1.

Table 1. Applied criteria for analysing

Index	Criteria	Description	Key phrases in Vietnamese	Key phrases in English	
A31	Labor supply status by age	Labor supply categorized by specific age groups	Gen Z; Lao động trẻ	Gen Z; Young workers;	
A32	Labor supply status by gender	Labor supply categorized by gender	Lao động nữ; Lao động nam	Female workers; Male workers	
A33	Labor supply status by quantity	Labor supply in terms of specific numbers	Tỷ lệ thất nghiệp; Tỷ lệ lao động;	Unemployment rate; Labor participation rate;	
A34	Labor supply status by skills and qualifications		Lao động phổ thông; Nhân lực chất lượng cao	Unskilled labor; Highly skilled workers	
A35	Job turnover status on the supply side	Employment trends and job changes among workers	Nghỉ việc; Mất việc;	Quitting; Job loss;	

#### 4. Results

#### 4.1 News about the Labor Supply

Analyzing news data from Group A3, sourced from reputable online newspapers in Vietnam, reveals the diverse dimensions of labor conditions based on worker characteristics, comprising 227 news articles. These news articles focus on factors such as gender, age, education, skills, and employment status. This coverage highlights the diversity of the labor market and the accessibility of job opportunities for various demographic groups. These news articles are divided into five subgroups, as in Table 2.

Table 2. Summary of group A3

Subgroup	A31	A32	A33	A34	A35	Total
vnexpress.net	10	0	19	2	37	68
thanhnien.vn	4	2	2	4	4	16
nld.com.vn	22	30	23	43	51	169
Total	36	32	44	49	92	253

Subgroup	A31	A32	A33	A34	A35	Total
Thematic	29	19	19	39	46	152
Episodic	7	13	25	10	46	130
Total	36	32	44	49	92	253

4.1.1 News about the Labor Supply by Age

Subgroup A31, focusing on labor supply by age, includes 36 news articles. Analysis of the A31 dataset shows that Vietnamese news coverage of labor supply tends to emphasize age segmentation and generational characteristics within the workforce. Among the 36 coded articles, those referring to "Gen Z", "young workers", "youth", "students", and "workers over 40" appeared with the highest frequency, reflecting the press's focus on younger cohorts entering the labor market and older groups facing vulnerability to job loss.

The analyzed articles highlight issues faced by workers across different age groups, including attitudes toward employment, skills, and adaptability to changing labor demands. Age differences are closely linked to generational values and work perceptions. A substantial proportion of the articles in sungroup A31 focus on young workers, an essential segment of Vietnam's labor force. However, the media portrayal of this group is often associated with low motivation, unstable income, and frequent job changes. Such narratives suggest a shift in work values among younger generations, from traditional notions of job stability to preferences for flexibility, autonomy, and work—life balance. For middle-aged and older workers, the articles often describe economic pressures, family burdens, and job insecurity. Headlines such as "Nearly 30% of workers over 40 in Ho Chi Minh City lost their jobs" or "Many factories are willing to hire older workers" reflect the media's concern for a vulnerable workers. This group is directly affected by economic fluctuations, post-pandemic downsizing, and limited access to reskilling opportunities. As firms tend to favor younger workers, older workers often face heightened risks of job loss and reduced economic stability.

Regarding media framing, 80% of the A31 articles employ a thematic frame, discussing long-term labor productivity, structural unemployment, and generational transitions. The remaining 20% adopt an episodic frame, focusing on concrete events such as job loss, layoffs, or short-term labor market fluctuations. This pattern reflects a dual media approach, combining reactive reporting on labor market disruptions with broader reflections on workforce transformation.

From a policy perspective, these findings suggest the need for age-responsive labor policies. For young workers, the state should incentivize flexible work arrangements, digital skill development, and innovation-oriented training programs to enhance job retention and productivity. For middle-aged and older workers, reskilling initiatives and job-matching mechanisms are essential to reduce structural unemployment and extend working lives. Enterprises, in turn, must adapt internal labor practices to multigenerational dynamics by providing hybrid work models and age-inclusive employment strategies.

## 4.1.2 News about the Labor Supply by Gender

Subgroup A32, comprising 32 news articles, examines labor supply by gender. Analysis of the A32 dataset highlights an intense media focus on gender issues within Vietnam's labor market. Frequent keywords such as "female workers", "women", "female laborers", and "male workers" indicate that press coverage predominantly centers on the role, conditions, and welfare of women in the workforce.

The content analysis reveals that news articles belonging to subgroup A32 consistently address gender inequality in employment access, income distribution, and social protection. Female workers, especially those in industrial zones, are portrayed as facing a double burden of work and family responsibilities, coupled with limited career advancement and

weaker social security compared to men. Headlines such as "Raising pensions for early-retired female workers", "Free medical checkups for female workers", and "Tet of Solidarity' for female employees" exemplify the press's attention to vulnerable female groups, including migrant women, factory workers, and mothers returning to work after childbirth.

In terms of framing, both episodic and thematic perspectives are employed in A32 coverage. Approximately 40% of the articles are episodic, reporting specific events such as health campaigns, labor union welfare programs, or festive aid initiatives targeting women workers. These stories emphasize the importance of immediate social support and state responsiveness. Meanwhile, around 60% adopt a thematic frame, addressing structural issues such as the gender wage gap, the shortage of quality employment opportunities for women, and the long-term implications of welfare policies for women of reproductive age.

It can be seen that ariticles in subgroup A32 not only reflects existing disparities but also shapes public discourse toward promoting gender equality in the labor market. This focus is particularly relevant as Vietnam experiences a declining birth rate and increasing reliance on women as a stabilizing force in household and national economies. The findings suggest that state policies should enhance female labor participation by expanding maternity and childcare benefits, ensuring safe and equitable working conditions in industrial zones, and enabling flexible work arrangements to support work-family balance. Moreover, enterprise-level interventions, such as vocational retraining, reintegration programs for women after maternity leave, and gender-sensitive human resource practices can further strengthen both the quality and sustainability of Vietnam's gendered labor supply. Through these measures, media narratives on gendered labor not only document inequality but also contribute to the policy agenda of inclusive and resilient labor development.

# 4.1.3 News about Quantitative Data on Labor Supply

Subgroup A33 comprises 45 news articles that provide quantitative data on labor supply, such as unemployment rates and the number of workers in specific sectors. These articles offer insights into labor scale and unemployment trends, helping both workers and employers evaluate short-term and long-term labor market trends. Prominent keywords such as "labor shortage", "labor surplus", "recruitment", "layoffs", "declining orders", "labor demand", and "supply-demand imbalance" reflect a growing attention to labor market mismatches in the post COVID 19. Headlines like "Factories face a Gen Z labor crisis", "Apple's manufacturing partners desperate for assembly workers", and "Many factories now open to hiring older workers" illustrate how journalism has captured the contradictory dynamics of a labor market that is simultaneously short of low-skilled workers in production and oversupplied with university graduates whose skills do not meet enterprise demand.

It can be seen that articles in A33 coverage center on the quantitative and qualitative imbalance of Vietnam's labor supply. The underlying discourse portrays a dual characteristic of the Vietnamese labor market abundant in quantity yet unevenly distributed and poorly aligned with industrial needs. Journalists often describe a persistent paradox of being "both surplus and shortage" underscoring the disconnect between education and training systems and labor market demand, particularly in the industrial, high-tech, and service sectors. In addition, several reports highlight the vulnerability of labor supply to global economic fluctuations, such as reduced export orders leading to job insecurity among industrial workers, further exposing the fragility of Vietnam's manufacturing-dependent workforce.

In terms of framing, most A33 articles employ an episodic approach, focusing on specific events such as company layoffs, mass recruitment drives, or production cuts. However, a smaller portion employs thematic framing, examining broader trends such as shifts in labor structure, the impact of automation, and the role of vocational education in rebalancing labor supply and demand. This mix of frames allows the press to simultaneously capture immediate employment shocks and systemic labor market challenges.

The findings suggest that the press serves as an important intermediary channel of labor market signaling, not only diagnosing imbalances but also outlining policy implications for both enterprises and the state. First, enterprises are encouraged to strengthen partnerships with vocational and technical institutions to ensure that workforce training aligns with production needs. Second, the government should promote entrepreneurship and job creation among young workers, especially in emerging sectors such as services and technology. Third, in response to global supply chain disruptions and mass layoffs, labor protection mechanisms, including unemployment insurance, severance support, and reskilling programs, should be expanded to enhance workers' adaptability and resilience.

Through this lens, Group A33 demonstrates that Vietnamese journalism does more than report labor market fluctuations; it actively contributes to the policy discourse on sustainable labor supply management, linking short-term employment crises with long-term structural reform in human capital development.

#### 4.1.4 News about Labor Supply Status by Skills and Qualifications

Based on data collected from 49 articles categorized under Group A34, predominantly sourced from nld.com.vn (43 articles), the analysis indicates that Vietnamese media primarily focus on highlighting the urgent need to enhance worker

skills and capabilities. This coverage simultaneously highlights significant challenges and opportunities within the context of a rapidly evolving economy. Prevalent keywords such as "unskilled labor" and "high-quality human resources", alongside specialized terminology including "teacher", "digital transformation human resources", "semiconductor industry personnel", and "IT human resources" were frequently observed. This analysis primarily employed a thematic framework.

The prominent issues reflected in the press include the following: First, a severe deficit of high-quality personnel: Enterprises are facing the challenge of a scarcity of high-level personnel and specialized human resources in key sectors, such as the semiconductor and information technology industries (e.g., "scarcity of semiconductor industry personnel," "lack of high-quality human resources for key sectors"). Second, a paradox exists wherein the proportion of formally trained labor is remarkably high; however, the quality of these human resources still fails to meet the demands of practical development and international integration. Third, inter-regional linkage mechanisms for human resource development remain inadequate. Coordination mechanisms between regions for labor market development, education, and training remain fragmented, exacerbated by the absence of a standard, unified national employment exchange platform, resulting in a significant supply-demand imbalance. Fourth, the media also emphasizes the importance of autonomy and flexibility. Workers are encouraged to enhance their knowledge and skills, proactively adapt, and exhibit a willingness to work cross-sectorally (outside their specialized fields) to seize opportunities in high-value occupations (e.g., "Supporting workers: Enhancing knowledge, skills," "proactive adaptation").

These realities stem from macroeconomic and microeconomic drivers: The impact of the Industrial Revolution 4.0 and Digital Transformation is the core cause, creating an explosive demand for digital skills and green skills. The process of international economic integration also exerts pressure to enhance competitiveness and labor productivity, thereby avoiding falling behind globally and regionally. Furthermore, the economic structural shift and the development of industrial and service zones necessitate labor reallocation, posing challenges for vocational training. The phenomenon of "workers remaining determined to cling to large cities" illustrates the appeal of economic centers, despite often being accompanied by high living costs. Moreover, the education and training system still exhibits a significant gap compared to the practical requirements of enterprises, as demonstrated by the finding that "trained labor accounts for a high proportion, but does not meet practical demands."

To address the bottlenecks and capitalize on opportunities during this transitional phase, synchronized and decisive coordination among the three primary stakeholders is imperative. For the Government, there is an urgent need to revise training curricula to closely align with market demands, particularly within high-technology sectors (Semiconductors, AI, IT). It must establish and refine inter-regional linkage mechanisms for human resource development, while concurrently developing a unified, national employment information system and exchange platform to optimize labor allocation. Policies concerning minimum wages, housing, and healthcare support must be formulated to address the "insufficient living wage" problem, and the comprehensive social safety net must be expanded to cover all forms of labor. Furthermore, regular assessments of supply-demand dynamics and forecasting of labor market trends are required to provide timely orientation for learners and training institutions. For enterprises, close coordination with training institutions is necessary to ensure that training quality and content precisely meet the practical demands of production and business. They must adopt technology and improve processes to optimize efficiency, thereby creating a solid foundation for enhancing productivity and improving worker incomes. For workers, a lifelong learning mindset must be adopted, involving the proactive enhancement of "digital skills," "green skills," and other professional competencies to build a competitive advantage in the market. They must be prepared to adapt and remain flexible in response to workplace changes, demonstrating a willingness to work cross-sectorally (outside their specialized fields) if opportunities for self-development arise and to capitalize on trends in high-value occupations (e.g., IT, semiconductors, digital transformation).

In general, the articles within group A34 illustrate a labor market undergoing a period of profound transformation, characterized by numerous opportunities yet significant challenges. This context demands synchronized coordination among workers, enterprises, and the government to achieve sustainable development.

# 4.1.5 News about Job Turnover Status on the Supply Side

Group A35 comprises 92 articles about the status of job mobility from the labor supply side. This news category received the most significant attention from two newspapers: vnexpress.net (37 articles) and nld.com.vn (51 articles). This group employed both thematic and episodic frames in its analysis. The thematic frame was applied to analyses of employment trends and social welfare policies, whereas the episodic frame appeared in articles focusing on specific labor demographics. Recent articles, characterized by the high frequency of keywords such as "labor", "worker", "unemployment", "job loss", and "HCMC" (Ho Chi Minh city), along with issues related to "income", "wages", "insurance", and "unemployment benefits", have delineated a comprehensive overview of Vietnam's labor market,

particularly within major economic hubs like Ho Chi Minh City, during a period marked by significant hardship and volatility. The main content revolves around:

- The exacerbation of unemployment and job losses emerged as a salient issue. This loss affected not only unskilled labor but also extended to older workers (those over 40) and educated labor (those possessing tertiary degrees or higher). The primary causes are attributed to the global economic recession and a decline in export orders; furthermore, the protracted consequences of the COVID-19 pandemic have precipitated economic repercussions, supply chain disruptions, and persistent negative impacts on consumer sentiment. To address this, the Government must implement domestic and international demand stimulus policies (seeking new markets), alongside capital support and tax reduction measures, to assist enterprises in maintaining production and retaining their workforce. Enterprises must proactively diversify markets and enhance competitiveness (via technological innovation and quality improvement) to reduce dependency on specific export markets, thereby stabilizing orders and employment.
- Increased social pressure and financial risk: Economic hardship has exacerbated the social and financial challenges facing workers. Negative phenomena, such as workers making lump-sum social insurance withdrawals, rising indebtedness, and resorting to "black credit" (illicit credit markets), are escalating, alongside the emergence of complex issues like drug addiction among the workforce. This represents a labor response to the crisis, as individuals seek any means to cope financially amidst employment scarcity. The root cause is the confluence of insufficient living incomes and the absence of accessible, formal alternative financial solutions, which propels workers into a cycle of illicit credit. The lump-sum withdrawal of social insurance reflects acute anxiety over immediate welfare and a decline in confidence in the ability to secure sustainable employment. The Government must strengthen the social insurance fund and streamline unemployment benefit procedures to improve accessibility, providing a financial anchor during this challenging period. More critically, alternative financial solutions for workers (e.g., low-interest, simplified-procedure consumer loan packages) are necessary, complemented by strengthened controls and strict enforcement against "black credit" activities. Concurrently, relevant agencies and units must provide support programs, including health and psychological counseling, to address issues such as drug addiction and to ensure safety and social order within industrial zones.
- The need for retraining and adaptability: The difficulty that older workers and even educated laborers face in securing employment during a market contraction underscores the pressures of competition and skill obsolescence. The primary cause is that as employment becomes scarce, labor competition intensifies, disproportionately affecting vulnerable labor groups (older, low-skilled) or those whose skills are misaligned with new requirements. Corporate adjustment policies (e.g., personnel reductions to cut costs) also tend to prioritize the retention of a younger, more flexible workforce. This media content highlights the urgent imperative for retraining and reskilling to enable labor to reintegrate into the market as occupational demands evolve. To facilitate this, the Government must invest significantly in programs that support skills upgrading or career transitions for displaced workers, particularly older ones, helping them adapt to new trends. For the workforce, proactively enhancing skills and updating knowledge must be regarded as an essential requirement for adapting to change. Simultaneously, workers must improve their personal financial management skills to mitigate indebtedness and learn to seek financial support from formal channels when encountering hardship.

In summary, the news coverage of group A35 reflects that the labor market is experiencing a distinct downturn, while concurrently facing escalating social pressures and a heightened demand for social welfare. Effective resolution necessitates synchronized policy interventions, ranging from macroeconomic demand stimulation to the consolidation of the micro-level social welfare system, and the facilitation of conditions for workers to enhance their own adaptive capacities.

## 4.2 Newspapers' Perspectives

Table 4. Newspapers' perspectives

Frame	vnexpress.com	thanhnien.vn	nld.com.vn	Total
Thematic	37	11	92	140
Episodic	18	5	64	87

The analysis reveals that the three major Vietnamese newspapers (vnexpress.net, thanhnien.vn, and nld.com.vn) display distinct patterns in how they frame and report on issues related to labor supply. These differences are evident not only in the target groups of workers they focus on, but also in their news framing, narrative style, and communicative objectives.

Vnexpress.net tends to approach labor supply issues primarily through a thematic frame (37 out of 55 articles), emphasizing long-term labor market trends and macro-level policy perspectives. Frequent keywords include "Gen Z", "labor market", "average income", "one-time social insurance withdrawal", and "high-quality labor". The articles are typically analytical, supported by data, or incorporate expert commentary. This indicates that vnexpress.net positions itself as a platform offering a comprehensive socio-economic perspective, situating labor supply issues within broader economic development discourses.

In contrast, thanhnien.vn combines both episodic and thematic frames, with a stronger focus on the social dimensions of labor, particularly concerning female and young workers. Articles such as "Reducing pressure on female workers", "Workers leaving cities to return home", and "Teachers quitting their jobs" illustrate its interest in humanistic, psychological, and gender-related inequalities in employment. By reflecting individual experiences and social contexts, thanhnien.vn contributes to public and policy discussions promoting gender equity, welfare improvement, and fair working conditions for vulnerable labor groups. Notably, while the total number of articles in this category is smaller than that of vnexpress.net, thanhnien.vn's approach adds depth to the social narrative of labor supply.

Meanwhile, nld.com.vn primarily employs an episodic framing, focusing on specific labor events and real-life situations, particularly among industrial and factory workers. Headlines such as "Tet reunion for workers", "Workers in hardship," "Hundreds of workers appeal for help," and "Unemployed workers access low-interest loans" demonstrate the newspaper's function as a voice for laborers and trade unions. Its communication objectives emphasize advocacy for workers' rights, the documentation of labor hardship, and the promotion of concrete social welfare policies.

In summary, vnexpress.net represents a policy-oriented and macroeconomic perspective; thanhnien.vn reflects a social and human-centered lens emphasizing gender equality; and nld.com.vn reflects the reality of workers'lives and rights. These distinctions collectively form a multi-dimensional media landscape of Vietnam's labor supply discourse in the post-pandemic context, illustrating how journalism contributes to both economic policy dialogue and social inclusion narratives in the labor domain.

#### 5. Discussion and Conclusion

The study examined how major online newspapers in Vietnam frame issues related to the labor market, with a focus on labor supply. The results show that online newspapers not only play an important role in supplementing traditional information sources on the labor market situation but also highlight the multidimensional and practical problems of the labor market. Although the distribution of content remains uneven among news groups, the implications of this may be helpful not only for policymakers, the people using labor but also labors.

Regarding the analytical framework: For the news that presents information about the labor market situation, the group of news about job turnover status on the supply side (A35) has the highest rate, with 92 articles. This suggests that strong media attention is being given to the temporal aspects of the labor supply, including short-term fluctuations and long-term trends in workforce availability. The group of news about labor supply status by skills and qualifications (A34) has the highest rate of news articles, standing in second position. This indicates a significant interest in certain careers, particularly in the shifting economic structure and fluctuations in labor demand across fields such as manufacturing, technology, and services. The group of news about quantitative data on labor supply (A33) accounts for 44 articles. This shows that there is a limited level of interest in evaluating quantitative data on labor supply. Similarly, the group of news about the labor supply by gender (A32) and news about the labor supply by age (A31) have a limited number of. This imbalance shows that the media focus mainly on short-term problems rather than on discussions about long-term problems such as labor structures (age, gender). It also reflects the on-time characteristic of journalism. The results highlight the need for more articles which reflect issues of skills and worker characteristics.

Regardingthe thematic and episodic frames: Thematic framing accounted for 62% of all articles, while episodic framing represented 38% of the articles in group A3. The application of thematic frames in this news group indicates that online newspapers tend to provide generalized information to support policymakers and businesses in understanding the broader labor market context. The thematic frame is particularly effective in highlighting systemic issues, such as labor shortages in key economic regions or the impact of technology. In contrast, episodic frames provide spotlight on specific issues such as stories of laid-off workers. The episodic frame is especially effective in evoking reader empathy and raising awareness of urgent labor concerns. The integration of both thematic and episodic frames across these news groups reflects a multidimensional approach by Vietnamese media in reporting on labor market issues on the supply side. In terms of journalism, in addition to maintaining thematic frameworks along with episodic frameworks, to fully reflect all aspects of the labor market, news needs to be reviewed and organized according to time frames (in both the short and long term). Furthermore, with the rapid changes in science and technology as well as shifts in industry structures and trends, news needs to reflect this information more promptly and comprehensivelyy to support relevant parties, especially workers, so that they can respond appropriately to market fluctuations.

This study proposed an analytical framework for labor market news and applied for three online newspapers in Vietnam. The results revealed information about the different aspects of the labor market situation in Vietnam. It can lead to interesting and meaningful implications for different objects. For the government: Based on the findings, the government can propose policies that supporting and promoting labors to find suitable jobs, thereby to reduce the rate of unemployment. Additionally, the government should encourage entrepreneurship and job creation among young workers, especially in emerging sectors such as services and technology. For the business: According to the characteristics and

trend of labor supply, employers can cooperate with vocational and technical institutions to train a workforce that aligns with production needs. Besides that, enterprises should develop recruitment plans accompanied by suiable job requirements. For the employees: From the situation of labor market, they should proactively enhance skills and updating knowledge to meet requirements and adapt to the changes in labor market.

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#### **Authors contributions**

Ms. Ha was responsible for data collection. Dr. Nhung and Dr. Tuan were responsible for data analysis. All authors were responsible for study design, writing the manuscript, revising, and approving the final manuscript.

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#### Data availability statement

The data that support the findings of this study are available on request from the corresponding author. The data are not publicly available due to privacy or ethical restrictions.

# **Data sharing statement**

No additional data are available.

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