

CHANGING ROLES OF TRADE UNIONS: A STUDY IN MANUFACTURING SECTOR

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Examination*

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DECLARATION

I, NOEL BOSCO A, do hereby declare that the Dissertation titled “CHANGING ROLES OF TRADE UNIONS: A STUDY IN MANUFACTURING SECTOR” is based on the original work carried out by me and submitted to the University of Kerala during the year 2021-2023 towards partial fulfillment of the requirements for the Master of Human Resource Management Degree Examination. It has not been submitted for the award of any degree, diploma, fellowship, or other similar title of recognition before.

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CERTIFICATION OF APPROVAL

This is to certify that this dissertation entitled “CHANGING ROLES OF TRADE UNIONS: A STUDY IN MANUFACTURING SECTOR” is a record of genuine work done by Mr. NOEL BOSCO A, a fourth semester, Master of Human Resource Management student of this college under my supervision and guidance and that it is hereby approved for submission.

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ABSTRACT

Trade unions have played a pivotal role in India's industrial relations landscape since the country's independence. As collective associations representing employee interests, trade unions have advocated for fair wages, reasonable working hours, improved workplace safety, and overall labour rights. However, India's trade unions face evolving challenges today due to technological advancements and changes in labour regulations. This dissertation examines the changing roles of trade unions within the manufacturing sector in India. Through surveys of trade union members and analysis of collective agreements, the study aims to assess the current influence of trade unions and examine member perceptions regarding the impact of the New Labour Code 2020 and technological advancements. The findings reveal that trade unions are positively perceived for addressing employee concerns, negotiating benefits, resolving disputes and promoting safety. However, their influence on company policies appears limited. The introduction of the New Labour Code has raised concerns among unions about potential threats to collective bargaining. While trade unions are striving to educate members, there is scope for improvement in developing protective strategies. Technological advancements are seen as beneficial for productivity but trade union participation in implementation decisions is moderate. The study suggests enhanced communication, constructive collaboration with employers and member-centric leadership as ways for trade unions to adapt and sustain their significance amidst India's transforming industrial landscape.

CHAPTER-1
INTRODUCTION

1.1 Introduction

The modern industrial landscape is marked by dynamic changes and evolving dynamics within the labour market. Among the key stakeholders in this realm, trade unions have traditionally played a crucial role in safeguarding the rights and interests of employees. However, with the advent of globalization, shifts in labour regulations, and the rapid progress of technology, the roles and functions of trade unions have undergone significant transformations. This dissertation aims to explore and analyze the changing roles of trade unions within the manufacturing sector, focusing on three specific objectives. In order to evaluate the current influence of trade unions, the study will employ various research methods. Surveys, and interviews, will be conducted to gather data on employee perceptions of trade unions and their impact on their working conditions and overall well-being. The study will also analyze collective bargaining agreements and examine the outcomes achieved by trade unions in negotiations with employers. By examining membership trends and analyzing the level of engagement and participation of employees in trade union activities, the research aims to provide a comprehensive assessment of the current influence of trade unions within the manufacturing sector.

The introduction of the New Labour Code in 2020 marked a significant milestone in the legal framework governing labor relations. This revised code introduced a range of changes to labor laws and regulations, which have the potential to impact the roles and responsibilities of trade union members within the manufacturing sector. Understanding how trade union members perceive and adapt to these role changes is of paramount importance in assessing the effectiveness and relevance of trade unions in the modern industrial landscape. To gain insights into the perception of trade union members about their role changes, the research will employ a comprehensive approach that includes surveys, interviews, and focus groups. Surveys will be distributed to trade union members within the manufacturing sector, capturing their views on various aspects related to their roles and responsibilities.

Technological advancements, such as automation and digitization, have significantly transformed the manufacturing sector. This objective seeks to evaluate the impact of these advancements on the role and effectiveness of trade union members. The study will examine changes in job profiles and skill requirements brought about by technology, as well as the implications for trade union membership and representation. Additionally, the research will explore how technology influences the bargaining power of trade unions in negotiations with

employers. By assessing the challenges and opportunities arising from technological advancements, the study aims to provide insights into how trade unions can effectively navigate the changing nature of work and leverage technology for the benefit of their members.

Trade unions in the manufacturing sector have a rich history and continue to play a significant role in safeguarding the interests of workers. Manufacturing, characterized by its labour-intensive nature and often demanding working conditions, has been a focal point for unionization efforts. By organizing and representing workers collectively, trade unions aim to address workplace issues, negotiate fair wages and benefits, and advocate for improved safety standards and job security.

Historical Context

The historical context of trade unions can be traced back to the Industrial Revolution, which began in the late 18th century and continued into the 19th century. This period witnessed significant changes in manufacturing and labor practices as societies transitioned from agrarian economies to industrialized ones. As industrialization progressed, workers faced new challenges and hardships, leading to the emergence of trade unions as a response to these conditions.

During the early stages of the Industrial Revolution, factory owners held significant power and control over the workforce. Workers, including men, women, and children, endured long working hours, low wages, dangerous working conditions, and little to no job security. They had limited legal rights, and their ability to negotiate with employers was virtually nonexistent. In response to these unfavorable conditions, workers began to organize themselves into trade unions. These unions aimed to protect and promote the interests of workers by advocating for improved working conditions, higher wages, reduced working hours, and other labor-related reforms. The formation of trade unions allowed workers to collectively bargain with employers, negotiate better terms of employment, and engage in collective action, such as strikes and protests, to assert their demands. Jones, A. (2018). *The rise of organized labour in the Industrial Revolution. Journal of Labor History, 54(2), 89-105.*

The early trade union movement faced significant challenges and resistance from employers and governments. In many countries, collective bargaining and union activities were considered illegal or highly restricted. Employers often resorted to tactics such as blacklisting union members, firing activists, and hiring strikebreakers to undermine the strength of the unions. Governments, too, frequently intervened to suppress union activities in order to

maintain social order and protect the interests of the industrial elites. Nevertheless, trade unions persisted and grew in influence throughout the 19th and early 20th centuries. They played a pivotal role in shaping labor legislation and establishing workers' rights. Important milestones in the history of trade unions include the formation of the Grand National Consolidated Trades Union in Britain in 1834, the emergence of the American Federation of Labor (AFL) in the United States in 1886, and the foundation of the International Workers' Association (IWA) in 1922. Thompson, W. (2016). *The long struggle: The suppressed history of early trade unions and workers' rights. Labor History Review, 89(3), 223-245.*

Trade unions became increasingly powerful and influential as they gained larger memberships and engaged in collective bargaining with employers on a broader scale. The demands put forth by trade unions not only focused on immediate improvements in working conditions but also encompassed broader socio-economic and political reforms. The movement fought for the establishment of minimum wages, better safety regulations, the right to strike, social security measures, and political representation for workers. Over time, trade unions diversified their activities and agendas to address the changing needs and aspirations of their members. They expanded their roles beyond traditional collective bargaining and began engaging in political activism, lobbying for legislative reforms, and participating in broader social and economic movements. Andrews, D. (2017). *From the factory to the legislature: How trade unions shaped labor laws and workers' rights. International Labor Review, 155(3), 413-437.*

In recent decades, the global economy has undergone significant transformations, including the rise of multinational corporations, globalization, and technological advancements. These developments have presented new challenges for trade unions, such as the decline of traditional manufacturing sectors, the growth of the service industry, and the increasing casualization of labor. Trade unions have adapted their strategies to these changing circumstances, seeking to protect the rights and interests of workers in the evolving economic landscape.

The historical context of trade unions in India can be traced back to the colonial period and the subsequent struggle for independence. The emergence and growth of trade unions in India were influenced by both domestic and global factors, as well as the socio-economic conditions prevailing in the country. During the British colonial rule, India experienced significant changes in its economy due to the establishment of modern industries, railways, and plantations. The labor force, comprising both skilled and unskilled workers, faced exploitative working conditions, low wages, long hours, and lack of basic rights. This led to the formation

of trade unions as a means for workers to collectively address their grievances and fight for their rights. Chatterji, J. (2007). *Trade unions in colonial India: From discipline to rebellion*. In R. Price (Ed.), *The birth of modern trade unionism in Britain and India* (pp. 67-92). London, UK: Routledge.

The early trade unions in India emerged in the late 19th century and were influenced by socialist and nationalist ideologies. Many of these unions were led by political activists who were also involved in the struggle for independence from British rule. The trade union movement played a crucial role in the broader freedom struggle, as workers recognized the connection between their socio-economic struggles and the need for political autonomy. One of the earliest trade unions in India was the Bombay Mill Hands Association, founded in 1890 by textile workers in Bombay (now Mumbai). This association focused on demanding better working conditions and higher wages for factory workers. The establishment of the All India Trade Union Congress (AITUC) in 1920 marked a significant milestone in the trade union movement in India. The AITUC became the largest and most influential trade union organization in the country, advocating for workers' rights and playing a key role in the political and labor movements of the time.

In the post-independence era, trade unions continued to grow in strength and influence. The Indian government, under the leadership of Jawaharlal Nehru and the Indian National Congress, adopted a mixed economy model with an emphasis on state-led industrialization and planned development. Trade unions became an important component of this model, as they were seen as partners in the nation-building process and were given legal recognition and rights. The Trade Union Act of 1926, which was amended and strengthened over time, provided a legal framework for the formation and functioning of trade unions in India. The Act recognized the right of workers to form unions, engage in collective bargaining, and take industrial action, subject to certain conditions and regulations. Bureau, L. (2012). *Trade unions in India*. Chandigarh, Ministry of Labour and Employment.

The trade union movement in India has been marked by a diverse range of ideologies, affiliations, and approaches. Different trade unions representing various sectors and interest groups have emerged, each with its own agenda and priorities. Some trade unions align themselves with political parties, while others maintain an independent stance. Trade unions in India have played a vital role in fighting for workers' rights, improving working conditions, and advocating for social justice. They have been involved in negotiating and securing wage

agreements, ensuring workplace safety, addressing discrimination, and demanding social security measures. Trade unions have also been instrumental in shaping labour legislation, influencing industrial policies, and voicing the concerns of workers at various levels of governance.

However, the trade union movement in India has faced challenges as well. There have been instances of fragmentation, inter-union rivalries, and political interference that have weakened the unity and effectiveness of the movement. Additionally, the changing dynamics of the Indian economy, such as the growth of the informal sector and the increasing use of contract labor, have posed new challenges for trade unions in organizing and representing workers. In recent years, trade unions in India have been actively engaged in various social and economic issues, including the rights of women workers, minimum wage campaigns, land and environmental rights, and the protection of labor rights in the face of globalization. They continue to play a significant role in advocating for workers' rights, social justice, and equitable development in the country. Sharma, A.N. (2006). *Flexibility, employment and labour market reforms in India. Economic and Political Weekly, 41(21), 2078-2085.*

Purpose and Objectives

The primary purpose of trade unions in the manufacturing sector is to protect and advance the rights and well-being of workers. They serve as the voice of employees, advocating for fair wages, reasonable working hours, safe working conditions, and access to essential benefits such as healthcare and retirement plans. Unions also play a critical role in addressing grievances, mediating disputes between workers and management, and ensuring that employment practices align with labour laws and regulations.

Structure

Trade unions in the manufacturing sector typically follow a hierarchical structure. At the grassroots level, shop stewards or workplace representatives act as the direct link between union members and the union leadership. They handle day-to-day issues, address individual grievances, and provide information and support to workers. These stewards report to union officials who oversee specific industries or regions. The highest level of leadership often includes elected officials, such as union presidents or general secretaries, who formulate policies, negotiate collective bargaining agreements, and represent the interests of the entire membership.

Key Functions:

1. Collective Bargaining: One of the essential functions of trade unions in manufacturing is engaging in collective bargaining with employers. Through negotiations, unions strive to secure fair wages, benefits, working hours, and employment conditions for their members. Collective bargaining agreements, once reached, establish the terms of employment and provide a framework for resolving disputes.

2. Advocacy and Representation: Unions act as advocates for workers, representing their interests in dealings with employers, government bodies, and regulatory agencies. They lobby for legislative reforms to strengthen labor protections and campaign for improved occupational health and safety standards.

3. Grievance Handling: Trade unions in manufacturing handle individual and collective grievances raised by their members. They provide guidance and support to workers who face issues such as unfair treatment, harassment, discrimination, or violation of labor rights. Unions work to ensure that grievances are addressed promptly and that workers receive proper recourse.

4. Skill Development and Training: Many trade unions in the manufacturing sector offer training programs to enhance the skills and knowledge of workers. By investing in their members' professional development, unions contribute to the overall growth and competitiveness of the manufacturing industry while empowering workers to progress in their careers.

Challenges and Future Outlook

Trade unions in the manufacturing sector face numerous challenges in the contemporary business landscape. Globalization, technological advancements, and shifts in labor markets have led to the outsourcing of manufacturing jobs and increased competition. Union membership has declined in some regions, posing difficulties in maintaining collective bargaining power. Furthermore, automation and the rise of non-traditional employment models, such as contract work, create additional complexities for unions seeking to represent and protect workers' rights. However, trade unions continue to adapt and evolve. They recognize the importance of collaboration and solidarity among workers on a global scale. Cross-border alliances and cooperation with international labour organizations have become vital in addressing issues faced by manufacturing workers.

Trade unions in India have a long and vibrant history, playing a crucial role in advocating for the rights and welfare of workers across various sectors, including manufacturing. With a diverse and vast workforce, trade unions in the Indian scenario have been instrumental in addressing labor issues, negotiating better working conditions, and promoting social justice. In India, trade unions operate within the framework of the Trade Unions Act, of 1926. This legislation provides guidelines for the formation, registration, and functioning of trade unions. It recognizes the right of workers to form unions and grants them certain privileges and protections. The act also outlines the process for collective bargaining and dispute resolution between unions and employers. Trade unions in India follow a hierarchical structure. At the base level, there are workplace-level unions or shop floor unions that represent the interests of workers within a specific establishment or factory. These unions elect representatives who interact directly with management and address the day-to-day concerns of workers.

At the industry or trade level, there are federations or associations of trade unions. These umbrella organizations bring together unions from the same sector and work towards common objectives such as wage negotiations, policy advocacy, and worker solidarity. National-level trade union federations, such as the Indian National Trade Union Congress (INTUC), All India Trade Union Congress (AITUC), and Bharatiya Mazdoor Sangh (BMS), represent the interests of workers across multiple industries. Shyam Sundar, K.R. (2011). *Non-regular workers in India: Social dialogue and organizational and bargaining strategies and practices*. Industrial and Employment Relations Department, International Labour Office.

New Labour Codes, 2020

On the recommendations of the Second National Commission on Labour (2002), the Central Government proposed to replace Labour Laws. 29 labour laws were replaced with four Codes to simplify and modernize labour regulation.

The four labour codes are:

- a) Code on wages, 2019
- b) The Occupational Safety, Health, And Working Conditions Code, 2020
- c) The Industrial Relations Code, 2020
- d) The Code on Social Security, 2020

The Code on Wages Bill was introduced in the Lok Sabha on 10th August 2017 by the Minister of State for Labour and Employment, Shri. Santosh Gangwar. The bill was referred to a

Parliamentary Standing Committee on 21st August 2017. The Committee submitted its report on 18th December 2018. The Committee made 24 recommendations, of which 17 were incorporated into the Bill. The Bill lapsed following the dissolution of the 16th Lok Sabha ahead of the 2019 general elections. The Code on Wages Bill, 2019 was re-introduced in the House on 23rd July 2019. The bill was passed by the Lok Sabha on 30th July 2019. The bill was passed by the Rajya Sabha on 2nd August 2019. The bill received assent from President Shri. Ram Nath Kovind on 8th August 2019 and was notified in The Gazette of India. The other three codes bill was passed by the Lok Sabha on 22 September 2020, and the Rajya Sabha on 23 September 2020. It has received presidents' assent on September 25, 2020 and have been published in the official gazette on September 29, 2020

Code on wages

The code on wages aims to regulate wage and bonus payment primarily. It applies to all the employees in organized as well as unorganized sector. This code also aims at providing equal remuneration to employees who perform work of similar nature. This code is the amalgamation of 4 laws, which include:

- a) The Payment of Wages Act, 1936
- b) The Minimum Wages Act, 1948
- c) The Payment of Bonus Act, 1965
- d) The Equal Remuneration Act, 1976

The code has decided to make some changes in it while taking other laws which were amalgamated into it. The Code provides for separate definitions of 'worker' and 'employee'. The code separates this by saying that employee can be doing managerial and administrative work. So, it is seen as a broader term when compared to worker. This code also includes the provisions of equal remuneration act by prohibiting discrimination on the grounds of gender or any other such factors. It emphasises the importance of giving equal wages to everyone doing similar work. 4 The code introduces the concept of floor wage. It is determined by central government while looking into the minimum standard of living. It will be fixed according to that. It will depend upon the geographical area the worker is living in.

The payment of bonus will be computed as per the payment of bonus act but list disqualifications for receiving bonus. One among the list is that of sexual harassment. It is also considered as a disqualification. When it comes to filing the claims, the limitation period has been increased to three years. The code now gives permission to trade unions in which the

employee is part of to file claims. The employer must provide a proof that the claim has been paid to the employee.

The code has allowed inspectors to be facilitators. It will be inspectors cum facilitators. They will be giving advice to employers and workers as well as does the duties of an inspector. They will be doing inspections in the workplace, and this will give pressure to the employers as well as workers as they must meet the standards. The code allows a registered trade union to make complaints for the offences mentioned under the code. The inspector cum facilitator is required to afford an opportunity to the employer as per the code before initiating prosecution proceedings.

Industrial Relations Code 2020

The next code is the industrial relations code. This is the code that abides in the industries and most of the industries need to follow these codes. This code aims to improve the business environment of the country and tries to make the industries benefit the country as well. This code has amalgamated three existing acts and it includes:

- a) The Trade Unions Act, 1926
- b) The Industrial Employment (Standing orders) Act, 1946
- c) The Industrial Disputes Act, 1947

These are the three acts amalgamated into the new code. As per the new code the definition of worker will be based on the wages or salary drawn by him or her. Employee or worker earning up to Rs 18000 will come under this definition. Fixed term employment has been taken by this code and has given many changes to this. The code agrees that fixed term employee will get all statutory benefits like ESI, EPF, bonus, wages, etc at par with regular employees who are doing work of same or similar nature. When the termination of 5 worker happens because of his or her completion of the fixed term employment it would not be a retrenchment.

The employee would be eligible for gratuity if he or she renders service under the contract for a period of one year. The time limit of raising an industrial dispute with employer has changed to 2 years instead of 3 years. Trade unions need to give a notice 14 days prior to the strike. If an establishment has less than 300 workmen it can lay-off, retrench, or close without the permission of government. It doesn't need any approval from the government.

Thus, the threshold has been increased to 300 which earlier was 100. Negotiating union or negotiating council has been included in the definition. Recognition of negotiating union has

been introduced in this code. If there is only one trade union in an industrial establishment, the employer is required to recognise such trade union as the sole negotiating union of the workers. In case of multiple trade unions, the trade union with support of at least 51% of workers on the muster roll of that establishment will be recognised as the sole negotiating union by the employer.

The Social Security Code 2020

The Code on Social Security 2020 is a code to extend social security to all employees and workers either in the organized or unorganized or any other sectors. It has amalgamated 9 acts into this, and it includes:

- a) The Employees' Compensation Act, 1923
- b) The Employees' State Insurance Act, 1948
- c) The Employees Provident Fund and Miscellaneous Provisions Act, 1952
- d) The Employment Exchanges (Compulsory Notification of Vacancies) Act, 1959
- e) The Maternity Benefit Act, 1961
- f) The Payment of Gratuity Act, 1972
- g) The Cine Workers Welfare Fund Act, 1981
- h) The Building and Other Construction Workers Welfare Cess Act, 1996
- i) The Unorganised Workers' Social Security Act, 2008

A new category of worker has been incorporated in this code, that is the gig worker. Gig workers are in independent arrangement, freelancers, workers who are employed on project based work and short-term work. They work out of the traditional employee-employer relationship. Another category included is the platform worker which means a person providing specific services using an online platform. There is no major difference in gig workers and platform workers. 6 Major reforms in the Employees Provident Fund Scheme are incorporation of limitation period of five years for initiation and two years for concluding enquiries.

Aadhaar based registration is mandated. All establishments having 20 or more workers come under the purview of EPF, earlier it was applicable only on those establishments included in the schedule. Increase penalty amount from 10,000 to 1,00,000 and imprisonment of one to three years on deduction of employee contribution from salary and non-depositing. Subsequent failure to pay contributions attracts imprisonment of two to five years and fine of three lakh rupees.

Employees State Insurance Scheme includes certain changes such as, if the employer and majority of employees agree then voluntary registration has been allowed under the code and ESI scheme will be applicable. Further, the government can extend ESI scheme to any hazardous occupation also even if a single employee is employed. Gig workers and unorganized sectors will also be able to link with ESIC. Plantation workers will also fall under the purview of ESI.

The Occupational Safety, Health, and Working conditions code, 2020

This code aims to regulate the health and safety conditions of workers in establishments. It has incorporated 13 acts into this code. It includes:

- a) The Factories Act, 1948
- b) The Plantations Labour Act, 1951
- c) The Mines Act, 1952
- d) The Working Journalists and other Newspaper Employees (Conditions of Service) and Miscellaneous Provisions Act, 1955
- e) The Working Journalists (Fixation of Rates of Wages) Act, 1958 f) The Motor Transport Workers Act, 1961
- f) The Beedi and Cigar Workers (Conditions of Employment) Act, 1966 h) The Contract Labour (Regulation and Abolition) Act, 1970
- g) The Sales Promotion Employees (Conditions of Service) Act, 1976
- h) The Inter-State Migrant Workmen (Regulation of Employment and Conditions of Service) Act, 1979
- i) The Cine-Workers and Cinema Theatre Workers (Regulation of Employment) Act, 1981
- j) The Dock Workers (Safety, Health and Welfare) Act, 1986
- k) The Building and Other Construction Workers (Regulation of Employment and Conditions of Service) Act, 1996

For the design of centralized database and for developing the ease of doing business this code provides single registration for an establishment instead of multiple registrations. Appointment letter made Statutory by this code. When it comes to working hours of women, this code has made some major changes to it. As per this new provision, female workers can work during night shifts with their consent. Also, the time slot for such night shift shall be from 7 p.m. and before 6 a.m., which shall also be approved by the central or state govt. Rights and duties are

also laid down for employees in this code. Employees shall take care of their own health, shall comply with specified safety and health measures, shall report unsafe situations to the inspector.

Offences and Penalties under this Code is that it is an offence which leads to the death of an employee. It will be punishable with imprisonment of up to two years, or a fine up to five lakh rupee or, both. The definition of Contract Labour has been modified and includes inter-State migrant worker but excludes part time employee, regularly employed and mutually accepted standards of the conditions of employment and entitled to social security benefits.

The new definition of core activity provides that, activity for which establishment is set-up and other activity like housekeeping, Security, canteen etc not to be treated as core activity. Principal employer should provide welfare facilities, where the contract labour is deployed. Principal employer shall be liable to make payment of wages to the contract labour deployed by him. A new definition is that industrial premises provide a premise in which any industry, trade, business etc is being carried on with or without the aid of power including a godown. Definition of interstate migrant worker has been modified and ceiling limit of Rs 18000/- has been introduced. Definition of machinery has been inserted which includes any article or combination of articles assembled, used, or intended to be used for converting any form of energy to perform work. Definition of the occupier has been amended and instead of clause a, b and c in second provision, a consolidated definition has been given by this new code. Definition of the principal employer has been modified to the extent that the manager has been excluded from the definition of the principal employer. Shyam Sundar, K.R. (2020). *Labour code reforms: Be careful what you wish for. The Indian Journal of Labour Economics, 63(4), 1029–1044.*

1.2 Statement of the problem

The modern industrial landscape is undergoing rapid transformations driven by technological advancements, evolving labour regulations, and changing employer-employee dynamics. In this context, trade unions face significant challenges in safeguarding labour rights and representing worker interests effectively. If the declining influence and changing roles of trade unions remain unattended, it can have detrimental consequences for employees in the manufacturing sector. Workers may be left vulnerable to unfair labour practices, lack of social security, inadequate wages and benefits, and poor working conditions without the protective

oversight of trade unions. The diminishing collective bargaining power of trade unions can tilt the balance of industrial relations in favour of employers. Without united worker representation, employees may have limited legal and social recourse for grievances. The manufacturing sector's progress and competitiveness could also suffer from discordant industrial relations. Therefore, it is imperative to examine the factors influencing the transformation of trade unions and develop interventions to enhance their capabilities and effectiveness in India's evolving industrial climate. This will require devising new models of worker participation, constructive social dialogue, proportional representation, and member-centric policies that allow trade unions to continue fulfilling their vital roles.

1.3 Significance of the study

The study on the changing roles of trade unions in the manufacturing sector holds significant importance as it aims to understand the current influence of trade unions among employees, examine the perception of trade union members regarding their role changes due to the introduction of the New Labour Code in 2020, and evaluate the impact of technological advancements on trade union effectiveness. This study is crucial for ensuring the continued effectiveness of trade unions in safeguarding workers' rights, identifying areas for improvement, and adapting strategies to support members within the changing legal framework. The findings will contribute to the knowledge on trade unions, inform policymakers and trade union leaders, and guide necessary adaptations and reforms to protect worker interests amidst evolving labour laws and technological advancements.

1.4 Objectives

General Objectives

- To study the changing Roles of Trade Unions in the Manufacturing Sector.

Specific Objectives

- To assess the current roles of trade unions among employees within the manufacturing sector.
- To study the perception of the trade union members about their role changes due to the introduction of the New Labour Code, 2020.
- To evaluate the impact of technological advancements on the role and effectiveness of trade union members in the manufacturing sector.

1.5 Definition of Concepts

Trade Union

Theoretical definition

A trade union is any combination, whether temporary or permanent, formed primarily for the purpose of regulating the relations between workmen and employers, or between workmen or workwomen, between employers or for imposing restrictive conditions on the conduct of any trade or business, and includes any federation of two or more trade union., *Indian Trade Union Act, 1926*.

Operational definition

A trade union in the manufacturing sector is an organized group of workers employed in manufacturing industries, such as factories, production facilities, or assembly plants. It operates as a collective entity, representing the interests and rights of its members, who are primarily engaged in manufacturing-related occupations, including machine operators, assemblers, technicians, and other relevant positions.

Manufacturing

Theoretical Definition

Manufacturing can be defined as the systematic process of transforming raw materials or components into finished products through various physical, chemical, and mechanical operations. It involves a combination of machines, tools, human labour, and technological processes to convert inputs into a desired output. Paul W. Marshall., *Principles of Manufacturing: Material & Process Selection for Engineering Design.*, 1999.

Operational Definition

Manufacturing is the systematic process of converting raw materials or components into finished products through a series of physical, chemical, or mechanical operations. It involves the use of specialized machinery, tools, and labor to transform inputs into desired output.

1.6 Chapterization

This dissertation is presented in five chapters as below

- Chapter 1- Introduction, describes, Statement of the problem, Significance of the study, Objectives, and Chapterization.

- Chapter 2 –Review of literature, Theoretical framework of the study will be detailed in this chapter to find out the research gap identified as the conclusion.
- Chapter 3- Methodology includes the Title of the study, Research problem, Universe & Sampling, unit, Sources of data, Tools for data collection, Data collection, Plan of Data Analysis, and Limitations of the study.
- Chapter 4- Data Analysis, discussion, and interpretations will be summarized
- Chapter 5- will enlist findings, present suggestions and summarise the conclusion of the study

CHAPTER-2
REVIEW OF LITERATURE

2.1 INTRODUCTION

Trade unions have long played a crucial role in representing workers' interests across various sectors, but the emergence of technology and the introduction of new labor codes have presented both challenges and opportunities for these organizations. As industries increasingly incorporate advanced technologies and governments enact new labor regulations, trade unions must adapt their strategies to address the evolving needs of workers in the digital age. In this context, let us explore how trade unions in different sectors navigate the intersection of technology and new labor codes to protect and advocate for the rights of workers.

In the manufacturing sector, technological advancements have revolutionized production processes, leading to the automation of many tasks. While this has increased efficiency and productivity, it has also raised concerns about job security and the quality of employment. Trade unions in this sector have recognized the need to engage with technology and have started collaborating with employers to ensure that workers are reskilled or upskilled to adapt to changing job requirements. They also negotiate for policies that safeguard workers' rights in the face of automation, such as provisions for retraining, redeployment, and income support during transitions. Tapia, M., Ibsen, C. L., & Kochan, T. A. (2015). *Mapping the frontier of theory in industrial relations: The contested role of worker representation*. *Socio-Economic Review*, 13(1), 157-184.

The new labor codes introduced in 2020 aim to bring about significant changes to labor laws and regulations in various countries. These codes seek to modernize outdated labor legislation, address emerging labor market challenges, and promote greater flexibility. However, these changes have had specific effects on trade unions, influencing their operations and ability to represent workers effectively. One of the primary goals of the new labor codes is the modernization of labor laws. Outdated and fragmented labor laws are often consolidated into a single comprehensive code, simplifying compliance procedures and promoting consistency. These changes can have both positive and negative implications for trade unions. While streamlined administrative processes may enhance efficiency, trade unions may need to invest time and resources to familiarize themselves with the new legal frameworks and understand the revised rights and obligations of workers.

The new labor codes may also impact union formation and recognition. Stricter regulations are often introduced, making it more challenging for trade unions to form and achieve official recognition. The procedures for forming unions may become more complex, requiring a higher

number of members or specific documentation. Recognition thresholds may be increased, making it harder for trade unions to negotiate collective agreements on behalf of workers. These changes can hinder the ability of trade unions to organize effectively, reducing their influence and bargaining power. Baccaro, L. & Howell, C. (2011). *A common neoliberal trajectory: The transformation of industrial relations in advanced capitalism. Politics & Society, 39(4), 521-563*

The changes in collective bargaining processes can also affect trade unions. The new labor codes may impose stricter requirements for the validity of collective agreements, limiting the subjects that can be negotiated, or introducing mandatory arbitration or mediation procedures. These changes can reduce the bargaining power of trade unions and restrict their ability to negotiate favorable terms and conditions of employment for their members. Trade unions may face challenges in securing fair wages, working hours, and other employment benefits through collective bargaining.

Worker protections are another area where the new labor codes may have significant effects. While some changes aim to enhance flexibility in the labor market, trade unions often raise concerns about the potential erosion of worker rights and diminished job security. Modifications to minimum wage laws, working hour regulations, and employment contracts may weaken worker protections. Trade unions may find it challenging to ensure fair and just working conditions for their members, potentially leading to a decline in overall employee well-being. Hammer, N. (2005). *International framework agreements: Global industrial relations between rights and bargaining. Transfer: European Review of Labour and Research, 11(4), 511-530.*

The new labour codes may also signal a shift towards individual-centric employment relationships. Direct contracts between employers and workers, without the involvement of trade unions, may be promoted. This individual-centric approach can weaken the collective bargaining power of trade unions, as workers negotiate individually for their terms and conditions of employment. It may result in reduced union membership and hinder trade unions' ability to effectively represent workers' interests and advocate for their rights. Changes in dispute resolution mechanisms are another significant aspect of the new labor codes. They may introduce alterations such as mandatory arbitration or mediation procedures or establish specialized labor courts. While these changes aim to expedite dispute resolution and reduce the burden on traditional legal systems, they can limit the opportunities for trade unions to seek

legal remedies and protect workers' rights through conventional avenues. Trade unions may need to adapt their strategies and explore alternative methods for resolving labor disputes, potentially reducing their influence and efficacy. The new labor codes often emphasize labor market flexibility to meet evolving business needs. Provisions for fixed-term contracts, part-time work, and outsourcing may be introduced. While labor market flexibility can benefit employers by allowing them to adapt to changing demands, it may increase job insecurity and reduce unionization rates. Trade unions may face challenges in organizing and representing workers employed in non-standard employment arrangements. This can limit their ability to collectively advocate for fair wages, improved working conditions, and overall worker rights. It is important to consider that the effects of the new labor codes on trade unions vary depending on the specific provisions of each country's labor legislation. The precise impact on trade unions can vary greatly between different jurisdictions. Therefore, it is crucial for trade unions to thoroughly examine the labor codes of their respective countries to understand the specific challenges and opportunities they present. Doellgast, V., & Marsden, D. (2019). *Institutions as constraints and resources: Explaining cross-national divergence in performance management. Human Relations, 72(4), 698-727.*

Technology advancements in the manufacturing sector have had a profound impact on trade unions, influencing their dynamics, strategies, and the overall relationship between workers and employers. Here are some key effects of technology advancement on trade unions in the manufacturing sector:

Automation and Job Losses: The introduction of automation technologies, such as robotics and advanced machinery, has led to job displacements and reduced the demand for certain types of manual labor. Trade unions in the manufacturing sector have been faced with the challenge of protecting their members' jobs and negotiating fair severance packages or retraining opportunities for workers who are displaced due to automation.

Reskilling and Retraining Initiatives: Technology advancements have necessitated a shift in the skills required by workers in the manufacturing sector. Trade unions have recognized the need to provide reskilling and retraining programs to ensure that their members can adapt to changing technologies and remain employable. These initiatives aim to equip workers with the skills needed to operate and maintain new automated systems or transition into other emerging job roles within the manufacturing industry.

Collective Bargaining on Technological Implementations: Trade unions play a crucial role in negotiating with employers on the introduction and implementation of new technologies in the manufacturing sector. Unions advocate for worker-friendly automation practices that prioritize job retention, worker safety, and the mitigation of negative effects on working conditions. They seek to ensure that technological advancements are accompanied by fair transition plans and the protection of workers' rights.

Health and Safety Considerations: Technology advancements in manufacturing often involve the use of complex machinery and potentially hazardous equipment. Trade unions have been actively engaged in advocating for worker safety in the context of technological advancements. They negotiate for robust health and safety protocols, training programs, and risk assessments to protect workers from accidents and occupational hazards associated with the use of advanced technologies.

Data Analytics and Workplace Surveillance: Manufacturing companies increasingly use data analytics and workplace surveillance technologies to monitor worker performance, productivity, and efficiency. This has raised concerns about worker privacy and the potential misuse of data. Trade unions in the manufacturing sector address these issues by advocating for transparent policies on data collection, access, and usage, as well as negotiating for worker consent and safeguards against excessive surveillance.

Collaboration on Industry 4.0 Initiatives: The concept of Industry 4.0, characterized by the integration of automation, IoT, data analytics, and artificial intelligence in manufacturing processes, has gained prominence. Trade unions recognize the potential benefits and challenges of Industry 4.0 and engage in collaborative discussions with employers, policymakers, and industry associations to ensure that workers' interests are taken into account. This includes negotiating for fair implementation plans, worker representation in decision-making processes, and the mitigation of negative social and employment impacts.

Technology advancements have brought both opportunities and challenges for trade unions in the manufacturing sector. Unions have adapted their strategies to address job displacement, advocate for worker safety, negotiate for training programs, and safeguard workers' rights in the context of automation and other technological changes. By actively engaging with employers and leveraging digital tools, trade unions aim to protect the interests of manufacturing workers and ensure their continued relevance and representation in the evolving

technological landscape. Spencer, D.A. (2018). *Fear and hope in an age of mass automation: debating the future of work*. *New Technology, Work and Employment*, 33(1), 1-12.

2.2 REVIEWS

International Studies

Charles Brown and James Medoff (1978) The authors have conducted the study titled *To assess the impact of unions on worker productivity*, a modified version of the Cobb-Douglas production function is employed, incorporating unionization as an additional variable. This modified functional form resembles those used in previous studies to isolate the effect of worker quality. Analyzing U.S. manufacturing data at the state and two-digit SIC level, the study reveals a significant positive relationship between unionization and output per worker. However, the validity of this result hinges on two crucial assumptions that cannot be directly verified. Efforts to relax these assumptions have been inconclusive, leaving the matter unresolved.

Peter Fairbrother (1996) The author has conducted a study titled *Trade unions and human resource management in Britain: case study evidence from the public sector, utilities and Manufacturing*. In this study, there has been extensive discourse regarding the impact of human resource management (HRM) policies and practices on trade unionism. This study conducts a detailed three-year case study analysis of the manufacturing, utilities, and civil service sectors to examine the influence of HRM on trade unionism. It argues that the local approaches of unions towards HRM vary and are contingent upon the traditions, organizational structures, and practices within different sectors. However, these HRM policies commonly aim to individualize employment relationships and weaken collective worker power. In the manufacturing sector, which has experienced significant restructuring and job insecurity, union responses have predominantly been reactive and restrained. In some instances, this has led to the emergence of ineffective forms of "social partnership" within unions. Conversely, the public sector and utilities have undergone comprehensive restructuring, including the implementation of HRM policies. Unions in these sectors have been confronted with the challenge of developing or revitalizing workplace forms of organization.

Sarosh Kuruvilla, Subesh Das, et al. (2002). The authors have conducted the study titled *Trade Union Growth and Decline in Asia*. The Study analyze the patterns of union density and union influence in multiple Asian countries. While there is diversity in union density among these countries, they all witnessed a decline in union membership during the 1990s.

Furthermore, there are variations in our newly developed measure of union influence across Asian countries. To understand the factors influencing union growth, decline, and influence in each country, we employ a logics of action framework that considers the institutional context. By examining the changes occurring in these institutional contexts and drawing upon our knowledge of union strategies, we hold a pessimistic view regarding the likelihood of reversing the decline of unions in the near future.

Ebbinghaus B. (2002) The author has conducted the study titled *Trade Unions' changing role: membership erosion, organizational reform, and social partnership in Europe*. Trade union movements in Europe are currently facing a range of challenges. Union leaders must address pressing organizational issues, such as membership decline caused by economic and societal structural changes. Moreover, unfavorable political and institutional conditions make organizing even more challenging, and there is a need to attract and represent new social groups, which has not been adequately achieved thus far. The phenomenon of "de-unionization" and its consequences for collective bargaining and the political influence of union movements is a recognized problem both within academic circles and among union leaders. However, these discussions often overlook the intricate relationship between union movements and the welfare states they operate within, as well as the potential implications of ongoing welfare state recalibration efforts that unions have played a role in expanding. In the face of declining membership, representativeness, and income from dues, it is expected that unions would become more reliant on the welfare state. In cases where unions have established involvement in statutory workplace representation or participate in the co-management of social and employment policies, they may gain additional legitimacy and resources. Even in situations where unions have weaker membership and bargaining power, they can still benefit from bargaining coverage through well-organized employer organizations or state support, such as the legal extension of collective agreements to non-unionized workers and firms. Additionally, the welfare state can provide certain forms of "union securities," including labor relations that are favorable to unions in the public sector or subsidies for collective insurance schemes operated by unions. Furthermore, as social movements, organized labor may have a role to play in the politics of welfare state reform, advocating for the interests of current and former wage earners against government and employer policies. In recent years, some union movements have successfully obstructed reform efforts, while in other cases, union leaders have been willing to negotiate the adaptation of labor market and social policies to address current domestic and international challenges.

Ewing K.D. (2005) The author has conducted the study titled *The function of trade union*. The study explains that Trade unions possess various functions, with their prominence shifting throughout different historical periods. However, over time, five primary functions have emerged. These include the service function, representation function, regulatory function, government function, and public administration function. This paper critically examines these distinct functions and argues that the balance is undergoing a transformation, with increasing emphasis being placed on the service, governmental, and public administration functions. A new form of trade unionism, referred to as "supply-side trade unionism," is emerging, leading to a diminishing focus on their representative and regulatory functions. These developments, influenced by governments of various political affiliations in recent years, are evaluated within the context of the Warwick agreement in 2004. This agreement involved a deal between trade unions and the Labour Party regarding the potential direction of a third-term Labour government.

Meyer B. (2019) The author has conducted the study titled *Financialization, Technological Change, and Trade Union Decline*. The study says that recent research has highlighted the detrimental impacts of financialization and technological advancements on labor, including the decline in wages for low-skill workers and the widening income inequality. This article focuses on examining the effects of one aspect of financialization, namely equity market development, and one type of technological change known as routine-biased technological change, on trade unions. The author argues that trade union strength should be understood in two dimensions: (a) the strength of their institutional structures, which encompasses factors such as the level of coordination in wage bargaining and the extent to which firms can deviate from collective agreements, and (b) the strength of their membership base. To investigate these dimensions, data from 21 OECD countries spanning the period from 1970 to 2010 is analyzed. The findings reveal that equity market development has a negative impact on unions' institutional structures, suggesting that the increasing influence of financial markets weakens the bargaining power and coordination abilities of trade unions. However, this development does not significantly affect union membership levels. On the other hand, routine-biased technological change is found to have a negative effect on union density, indicating a decline in the proportion of workers who are unionized. However, the relationship between routine-biased technological change and the strength of unions' institutional structures shows inconsistency. Overall, this study sheds light on the specific effects of equity market development and routine-biased technological change on trade unions, highlighting the varying impacts on institutional structures and membership

levels. It provides valuable insights into the challenges faced by trade unions in the face of financialization and technological advancements.

Indian Studies

Sengupta A.K. (1990) The author has conducted study titled *New Generation of Organised Workforce in India: Implications for Managements and Trade Unions*. The study cites that in recent decades, the labor relations landscape in India has experienced significant changes, characterized by two noteworthy developments. Firstly, there has been a decline in managerial authority, indicating a shift in power dynamics within the workplace. Secondly, there has been an increasing transfer of power within trade unions, with more influence shifting from leaders to rank-and-file workers. These developments can be attributed to the changing social composition of the workforce. The current workforce in India is characterized by its youthfulness, higher levels of education, increased skill levels, and predominantly urban origins. Additionally, workers today place significant importance on intrinsic factors such as recognition for their achievements, access to promotional opportunities, and avenues for training and personal development. As a result, managers need to be responsive not only to the basic needs of workers, such as financial security but also to their higher-level socio-psychological needs. Similarly, trade union leaders must derive their strength from the support and backing of the rank-and-file workers. The changing dynamics of the workforce demand that union leaders connect with and represent the aspirations and concerns of the workers they represent. This shift emphasizes the importance of a strong and mutually supportive relationship between union leaders and workers in order to effectively address the evolving needs and challenges of the labour force.

Sodhi J.S. (2013) The author has conducted the study titled *Trade Unions in India: changing role & perspective*. This paper examines the economic contribution of trade unions within the context of their strong historical legacy. Traditionally, trade unions have primarily focused on welfare and economic betterment for workers, rather than actively engaging in efforts to enhance productivity and overall economic performance. During the first three decades after independence, trade unions collaborated with the government to ensure comprehensive protection and benefits for workers. However, in response to the challenges posed by globalization, there has been a gradual shift in the approach of both management and trade unions. Collective bargaining agreements now often include provisions aimed at improving the productivity of enterprises. This indicates a changing trend where management and unions are

working together to achieve both economic improvements and productivity enhancements, recognizing the need to adapt to the demands of globalization.

Koodamara N.K. (2016) The author has conducted the study titled *The Changing Role and Perspective of Trade Union in India*. This study aims to examine the factors that hinder the growth of trade unions and the evolving role of trade unions in India. Trade unions play a crucial role in the country's industrial relations system as they represent employees and safeguard their interests and rights. In developing nations, unionization is often driven by the need to protect basic human rights and improve the quality of life for the working class (Ghosh & Geetika, 2007). Without unions, employers may become overly paternalistic and authoritative in their approach (Thomas, 2005). However, responsible unions also contribute to maintaining a harmonious relationship with management. The advent of rapid technological changes and salary revisions has undoubtedly altered working conditions, but it has also led to a loss of control over employment for trade unions (Ratnam, 2006). The structural changes within the working class and the increasing intensity of competition have further transformed the role of trade unions. Simultaneously, employers have become more skilled and sensitive in managing their workforce. Overall, this paper delves into the various dynamics that have influenced the growth and changing role of trade unions in India, taking into account factors such as employee protection, employer attitudes, technological advancements, and evolving working conditions.

Dr. Mahto Nagendra Nath (2019) The author has conducted the study titled *Changing roles of trade unions in India: A case study of Bokaro Steel Plant (bsp) Bokaro, Jharkhand (India)*. This study aims to analyze the factors that impede the growth of trade unions and examine the evolving role of trade unions in India, with a specific focus on the Bokaro Steel Plant. Trade unions are crucial components of the country's industrial relations system as they serve as employee associations dedicated to safeguarding their interests and rights. Within a steel plant organization, trade unions play a vital role in establishing a conducive working environment and fostering harmonious industrial relations. The need for unionization in developing nations like India arises from the necessity to protect basic human rights and enhance the quality of life for the working class. In the absence of trade unions, employers may become excessively paternalistic and dictatorial. However, responsible unions play a significant role in maintaining cordial relationships with management. The rapid pace of technological advancements and changes in pay structures inevitably alter working conditions, leading to a transformation in the role of trade unions. Additionally, globalization has introduced pro-employer industrial

policies through the entry of foreign players, which have further influenced the trade and industrial system in India. Apart from their primary focus on advocating for improved pay and working conditions, trade unions now also play a key role in promoting productivity and act as agents of social welfare. This shift reflects the changing dynamics of trade unions in response to evolving industrial landscapes and the need for a comprehensive approach encompassing productivity enhancement and social welfare initiatives.

K R Shyam Sundar (2020) In the article titled *What is Wrong with the Centre's new labour codes*, the author highlights that the newly introduced labor codes are not favorable to workers. The primary objective of these codes appears to be enhancing labor law flexibility without adequately considering the consequences faced by workers. The author expresses concerns about the impact on trade unions, particularly due to the introduction of the term "sole negotiating agent" in the codes. This provision restricts the number of unions that can be part of a negotiating council to a maximum of five, creating challenges for trade unions. Furthermore, the author argues that as companies grow in size, the presence of trade unions also increases. However, with the threshold for the applicability of standing orders being raised from 100 to 300 workers, many employees will not be covered by these provisions. This situation leaves workers in smaller establishments without adequate protection from either the government or trade unions. The author emphasizes that in establishments employing fewer than 300 workers, union presence is significantly low, leaving workers vulnerable. Overall, the article points out that the new labor codes prioritize labor law flexibility at the expense of worker welfare. It raises concerns about the limitations imposed on trade unions and the reduced protection for workers in smaller firms.

Rajalakshmi T.K. (2020) The article, titled *The new labour codes: labours Loss* the author asserts that these codes prioritize ease of doing business over labor welfare. Despite strong opposition from various groups, the codes were passed without considering the concerns raised by central trade unions. Trade unions such as INTUC, CITU, AITUC, HMS, AICCTU, and UTUC consistently opposed the new codes, but their objections were not taken into account. The industrial sector welcomed the codes, anticipating positive changes for the future of India. Industries believe that the codes will facilitate the expansion of establishments and create more employment opportunities. The provisions for easier hiring and firing are seen as beneficial for employers, leading to ease of compliance and increased employment. However, the views of trade unions opposing the codes were not given proper consideration. While the new codes claim to be beneficial for unorganized workers, certain categories such as migrant workers,

home-based workers, and self-employed workers are either partially covered or completely left out. The codes make it more difficult for workers to unionize while providing employers with greater flexibility in hiring and firing practices. In terms of women's employment, the codes do not provide adequate safeguards or penalties for employers. The writer argues that consent-based working conditions cannot be considered a genuine choice for women due to various external pressures. The IR code restricts union formation and imposes limitations on workers' right to strike. The definition of a strike as a concerted casual leave with a notice requirement of 50% or more workers makes it challenging for unions to organize strikes. The codes also create hardships for workers in terms of their choices. Laid-off workers will not receive compensation if they decline alternative employment offered by the employer, even within an 8 km radius. The closure notice period is 60 days, but exceptions can be made in unusual circumstances without any notice. The IR code is not binding on establishments, both old and new, as the government can exempt them from specific provisions based on satisfaction or public interest. The article criticizes the rushed passage of the codes without proper debate, ignoring opposition and prioritizing industry interests. The codes infringe upon workers' rights and limit their ability to question or initiate action against employers. The required notice period for strikes adds further hardship for workers. Overall, the author argues that the new labor codes impose hardships on workers, diminish their rights, and prioritize industry growth over labor welfare.

Srivatsa, Sharath S. (2020) the article *Changes to labour laws will put most workers out of legal protection: unions*, it is mentioned that the State government has introduced a New Industrial Policy to attract investors. However, trade unions are protesting against the amendments made to several key labor laws, which they believe tilt the balance in favor of industries. These amendments particularly impact the Factories Act, Industrial Disputes Act, and Contract Labour (Regulation and Abolition) Act. Trade unions are concerned that the changes to these labor laws will result in more than 70% of the factories in the state operating outside the purview of labor laws. This situation leaves workers vulnerable to exploitation and lacking legal safeguards. For example, the amendments to the Factories Act mean that important provisions related to overtime wages, hours of work, shift timings, safety and health issues, and industry designs for worker safety will no longer apply to most factories. The article further states that factories were already finding ways to evade labor laws by reducing permanent staff and increasing the use of contract labor. With the changes to the Industrial Disputes Act, workers' ability to address grievances and disputes will be further limited,

potentially pushing them into poverty. Overall, the article highlights the concerns raised by trade unions regarding the amendments to labor laws in the state. The unions argue that these changes undermine the rights and protections of workers, leaving them susceptible to exploitation and without adequate legal recourse.

Sonal, Khetarpal (2020) In the article titled According to the author, the labor reforms aimed at making it easier to do business but failed to protect workers' rights. The collective impact of the labor codes shows a lack of balance between facilitating business operations and safeguarding labor welfare and rights. Specifically, the liberalization of regulations related to standing orders and prior permission for lay-off, retrenchment, and closure, with the threshold increased from 100 to 300 employees, means that a significant portion of factories and workers will no longer be covered by these provisions. Approximately 90% of working factories and slightly over 40% of the workers employed in those factories will fall outside the purview of these regulations. Additionally, unlike the Industrial Disputes Act of 1947, the Industrial Relations Code grants state governments the power to exempt establishments or specific classes of establishments from any or all provisions of the code. This provision gives employers excessive flexibility while offering inadequate protection for employees. Furthermore, the absence of provisions regarding unemployment allowance or insurance in the Social Security Code leaves workers without adequate support in times of unemployment. Overall, the author criticizes the labor codes for providing employers with too much flexibility and workers with insufficient protection. The lack of comprehensive measures for unemployment support further exacerbates the concerns regarding workers' welfare and rights.

Sthanu R, Nair (2020) According to the study titled *Can the new IR code be a game changer*, trade unions have criticized the Industrial Relations (IR) Code, labeling it as anti-worker due to specific provisions that are considered detrimental to workers' interests. One such provision is the requirement of prior government approval for layoffs, retrenchments, and closures, but only in industries employing 300 or more workers, compared to the current threshold of 100 or more workers. The IR Code also allows the government to notify the public when the threshold for government approval has been raised above 300. However, the requirements for providing notice and compensating laid-off and retrenched employees have been maintained at the current level for firms employing 100 or more employees. This means that industrial establishments employing fewer than 300 people are not obligated to seek prior government approval for layoffs, retrenchments, and closures. As a result, more businesses are expected to have the freedom to hire and fire employees as well as exit the business without the need for

government approval. This provision has raised concerns among trade unions, who argue that it may lead to increased job insecurity and a lack of protection for workers in smaller establishments.

Shreeja Singh (2021) article *Explained: the four labour codes and what they mean for India's Workforce* highlights the concerns raised by experts and labor unions regarding the labor codes in India. According to the article, these codes are perceived as being biased towards employers and detrimental to the interests of workers. One aspect of the labor codes mentioned is the size-based applicability, where smaller industrial units employing fewer workers are exempt from certain provisions of the codes. While the government argues that this will promote job creation, labor unions argue that it gives employers the freedom to hire and fire workers without adequate protection. The article also mentions that the extension of the strike notice period to 60 days reduces the bargaining power of unions. This makes it challenging for workers to collectively organize against unfair practices by employers, thus granting more power to industrial establishments. The claim is made that the government implemented the codes to undermine the strike system. Overall, the article presents the viewpoint that the labor codes favor employers over workers and limit the ability of labor unions to protect workers' rights and interests.

Yogima Seth Sharma (2021) the article *AITUC rejects proposed draft rules pertaining to negotiating union under Industrial Relations Code, 2020*, in it is mentioned that the All-India Trade Union Congress (AITUC) has rejected the proposed draft rules for negotiating unions under the Industrial Relations Code, 2020. The AITUC argues that these rules allow employers to interfere with trade union operations, and they demand that the central government hold the Indian Labour Conference to discuss the proposed labor law changes with trade unions and employers. The article states that the Ministry of Labour and Employment notified the draft rules of the Industrial Relations Code on May 4, 2021, and requested feedback from those affected within 30 days. However, the AITUC's response has been to dismiss these draft rules, as they believe the entire process of converting 29 central labor laws into four Codes has been mishandled by the central government. The article also mentions that on April 1, 2021, all four labor codes were rejected by the central trade unions (CTUs), who demanded their repeal. Therefore, according to the AITUC, circulating draft rules at this point is considered futile. Overall, the article highlights the AITUC's rejection of the proposed draft rules and their call for a proper discussion and evaluation of the labor law changes with trade unions and employers.

2.3 CONCLUSION

In conclusion, the studies and articles reviewed in the given text provide insights into various aspects of trade unions and their role in different contexts. The studies highlight the impact of unions on worker productivity, the influence of human resource management on trade unionism, the decline of unions in Asia and Europe, and the challenges faced by unions in the face of financialization and technological advancements. Additionally, the studies focus on the changing role of trade unions in India and the evolving dynamics of labor relations in the country. Overall, the findings suggest that the relationship between unions and worker productivity is complex and dependent on various factors. While some studies indicate a positive relationship between unionization and output per worker, the validity of these results is subject to certain assumptions that cannot be directly verified. The impact of human resource management on trade unionism varies across sectors and is influenced by organizational structures and practices. Unions in manufacturing sectors have responded reactively, while the public sector and utilities have undergone restructuring and implemented HRM policies. The studies on union growth and decline in Asia and Europe reveal a decline in union membership, with variations in union density and influence across countries. The challenges faced by unions include membership erosion, organizational reform, and unfavourable political and institutional conditions. In the context of India, the studies emphasize the changing dynamics of the workforce, with a shift in power dynamics and the transfer of influence within trade unions from leaders to rank and file workers. The studies also highlight the need for unions to adapt to the demands of globalization and focus on productivity enhancements alongside workers' welfare. However, concerns are raised about the new labor codes in India, which prioritize ease of doing business over labor welfare. The codes restrict the role of trade unions, limit workers' rights, and create challenges for unionization, particularly in smaller establishments. In summary, the studies and articles reviewed highlight the complex and evolving nature of trade unions, their influence on worker productivity, and the challenges they face in various contexts. They underscore the importance of understanding the institutional, organizational, and socio-economic factors that shape the role and effectiveness of trade unions.

CHAPTER 3
METHODOLOGY

3.1 INTRODUCTION

A robust research methodology is crucial for any scientific study as it lays the foundation for collecting precise and valid data that can effectively address research questions and achieve research objectives. It involves a systematic approach and the careful selection of methods and resources to guide researchers through data collection, analysis, and interpretation processes. A well-designed research process is essential to ensure the credibility and rigor of the study and to advance knowledge in a particular field. The choice of research questions, data requirements, and study size all influence the approach used. The results and conclusions of the study are drawn from a variety of research methodologies, data collection strategies, sampling methods, and data analysis techniques, all tailored to suit the specific goals of the investigation. The research methodology section aims to provide transparency and clarity to the research process, allowing readers to assess the accuracy and reliability of the findings and draw meaningful inferences from the study's results.

3.2 TITLE OF THE STUDY

Changing Roles of Trade Unions: A Study in Manufacturing Sector.

3.3 RESEARCH DESIGN

The research design encompasses the structure within which the researcher conducts the study. In this specific case, the study follows a quantitative research approach, involving the collection and analysis of numerical data from a specific population. The research design serves as the foundation for data processing, calculation, and investigation, ensuring that the research questions are adequately addressed. The research design represents the overall framework that ties together the various components of the analysis logically and coherently. It outlines the researcher's chosen testing procedures and methodologies for the study. For this particular research, a cross-sectional design was employed, which is a widely used strategy. In a cross-sectional study, either the entire population or a selected subset of it is chosen, and data is gathered from these individuals to address research questions at a specific point in time.

3.4 UNIVERSE AND UNIT

Universe of the study

Trade union members in the manufacturing sector.

Unit of the study

A Trade union member from the manufacturing sector in Kerala

3.5 SAMPLING DESIGN

Sampling design is an established strategy for drawing a sample from a certain population is known as a sample design. It refers to the method or process the researcher would use while choosing the data for the sample. The process for determining the sample's size, or the number of objects to include in the sample, is likewise a result of the sample design Here the researcher uses Simple random sampling. Simple random sampling is a fundamental method used in statistics and research to gather data from a population. It involves selecting a subset of individuals or items from the larger population in such a way that each member of the population has an equal probability of being included in the sample. This process ensures that the sample is representative and unbiased, making it easier to draw accurate conclusions about the entire population based on the sample data.

Sample Size

Sample size refers to the size of data collected i.e.; the number of data collected through the researcher's data collection tool for the study. For this study, the researcher was able to collect data from 60 Trade union members in the Manufacturing sector.

3.6 RESEARCH DATA

Primary Data

Primary data refers to the first-hand data collected by the researcher themselves. The researcher collected the data using a self-administered questionnaire designed by the researcher himself or herself.

3.7 TOOLS FOR DATA COLLECTION

Tool refers to the instruments or tools in which the researcher chose to collect data from respondents. For this study, the researcher chose to make use of a questionnaire to collect the data from the respondents. A questionnaire is a type of research tool used to gather data from respondents and consists of a series of questions or other prompts. For this study, the researchers designed a questionnaire themselves, which contained a total number of 27 questions, where the questionnaire was categorized into five parts based on the data needed.

- The first category, which consists of 8 questions discusses the demographic details of the respondent.
- The second category, which consists of 6 questions discusses about current roles of Trade Unions in the manufacturing sector.
- The third category, which consists of 7 questions discusses the perception of Trade union members on the New Labour Code, 2020.
- The fourth category, which consists of 6 questions, discusses the impact of technological advancements on Trade union members in the manufacturing sector.
- The fifth category, which consists of an interview guide consisting of 7 questions.

3.8 SOURCES OF DATA

Primary Data

Primary data was collected using a self-administered questionnaire designed by the researcher.

Secondary Data

The researcher has collected secondary data from journal articles, internet sources, and newspapers and magazines.

3.9 DATA COLLECTION

The researcher used the questionnaire and administered it in the form of Google Forms and hard copy of the questionnaire to collect the primary data from the respondents.

3.10 TOOL FOR DATA COLLECTION

The researcher used the Statistical Package for Social Sciences (SPSS), a software package for statistical analysis doing the data analysis. The Statistical Package for Social Sciences (SPSS), a statistical analysis software program, was utilised by the researcher to analyse the data. The analysis made use of both descriptive and inferential statistics. Descriptive statistics were used for the analysis.

3.11 PILOT-STUDY

A pilot study was carried out for assessing the feasibility of the study among the respondents. 10 respondents were selected randomly, and data was collected. After analysis of the data, necessary corrections and modifications were made to the questionnaire.

3.12 LIMITATIONS OF THE STUDY

The study is subjected to the following limitations

1. The study is confined to the manufacturing sector.
2. The study has a limited sample size, which would impact the generalizability of the findings. The smaller sample may not adequately represent the perceptions and the influence on trade unions due to the New Labour Code, 2020, and technological advancements.

CHAPTER 4
DATA ANALYSIS
AND
INTERPRETATION

4.1 Introduction

This chapter discusses data analysis using Statistical Package for Social Sciences (SPSS). The data used for analysis were collected from the employees working in the manufacturing sector of Kerala. The data were collected using a questionnaire through Google Forms. The questionnaire was designed in a way to assess the roles of trade unions in the manufacturing sector, to measure the perception of the trade union members about the New Labour Code, 2020 & to measure the impact of technology in the manufacturing sector among the trade union members.

4.2 Analysis of Demographic Variables

Demographic data represents the information of a specified group based on particular identified factors. For this research, the demographic factors considered are age, gender, Marital status, Experience, Designation & Name of the Trade Union to which the participant belongs to the company designation of the participant.

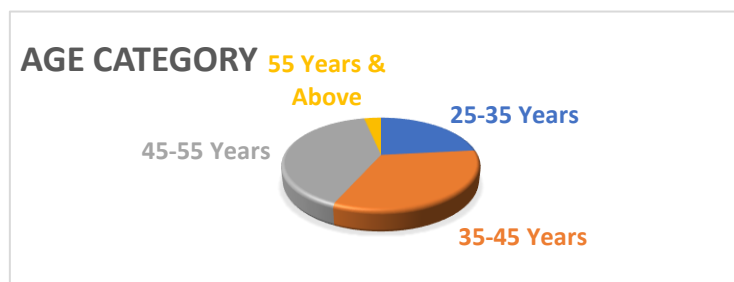
4.2.1 Age-wise participation of Respondents

Table No. 4.1

| Age Category | Frequency | Percent |
|------------------|-----------|---------|
| 25-35 Years | 14 | 23.3 |
| 35-45 Years | 20 | 33.3 |
| 45-55 Years | 24 | 40 |
| 55 Years & Above | 2 | 3.3 |
| Total | 60 | 100 |

Source: Primary Data

Fig No. 4.1



The data provided represent the age-wise participation of respondents. A total of 60 respondents were included in the survey. Among them, the largest age category was individuals aged 45-55 years, accounting for 40% of the respondents. The second-largest age group was 35-45 years, comprising 33.3% of the participants. The age category with the smallest representation was individuals aged 55 years and above, making up only 3.3% of the respondents. The age group of 25-35 years accounted for 23.3% of the total participants. These findings suggest that the survey attracted a diverse range of respondents, with the majority falling within the middle-aged range of 35-55 years.

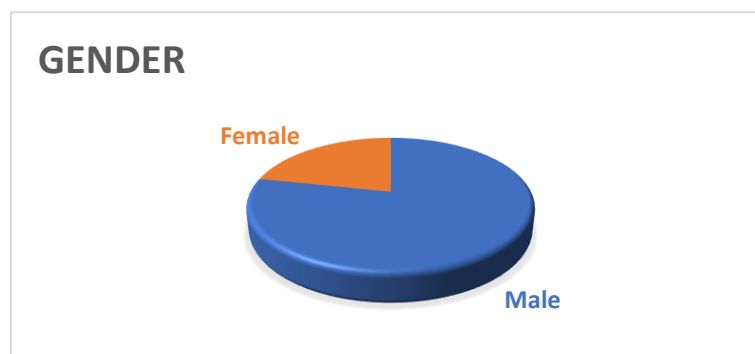
4.2.2 Gender-wise Participation of Respondents

Table No. 4.2

| Gender | Frequency | Percent |
|--------|-----------|---------|
| Male | 47 | 78.3 |
| Female | 13 | 21.7 |
| Total | 60 | 100.0 |

Source: Primary Data

Fig No. 4.2



The data provided represent the gender-wise participation of respondents. A total of 60 respondents were included in the survey. Among them, the majority of participants were male, comprising 78.3% of the total respondents. The remaining 21.7% were female respondents.

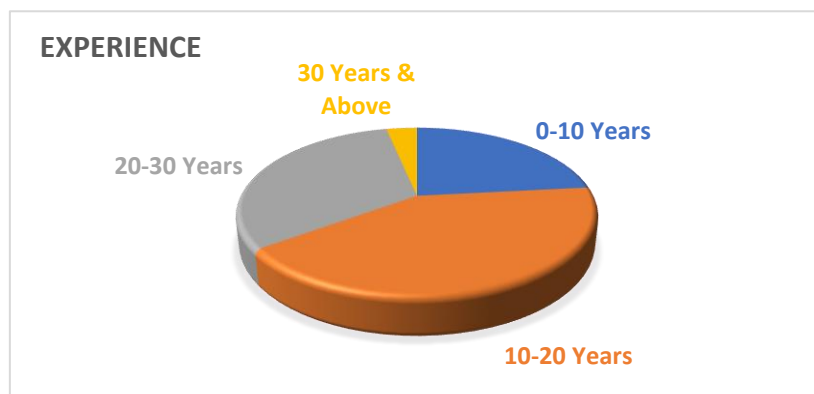
4.2.3 Experience-wise participation of Respondents

Table No. 4.3

| Experience | Frequency | Percent |
|------------------|-----------|--------------|
| 0-10 Years | 14 | 23.3 |
| 10-20 Years | 25 | 41.7 |
| 20-30 Years | 19 | 31.7 |
| 30 Years & Above | 2 | 3.3 |
| Total | 60 | 100.0 |

Source: Primary data

Fig No. 4.3



The data provided represents the experience-wise participation of respondents. A total of 60 respondents were included in the survey. Among them, the largest group consisted of individuals with 10-20 years of experience, accounting for 41.7% of the participants. The second-largest group was respondents with 20-30 years of experience, making up 31.7% of the total. Participants with 0-10 years of experience constituted 23.3% of the respondents. The smallest group was individuals with 30 years and above of experience, representing only 3.3% of the participants. These findings suggest that the survey attracted a diverse range of respondents in terms of their experience.

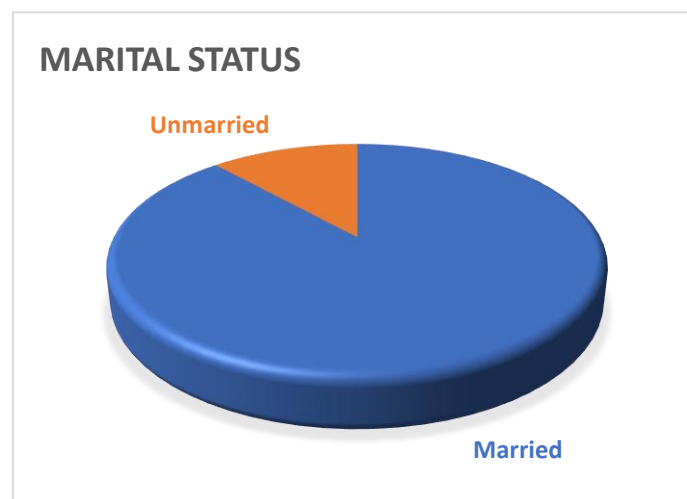
4.2.4 Marital Status of Respondents

Table No. 4.4

| Marital Status | Frequency | Percent |
|----------------|-----------|---------|
| Married | 53 | 88.3 |
| Unmarried | 7 | 11.7 |
| Total | 60 | 100 |

Source: Primary data

Fig No. 4.4



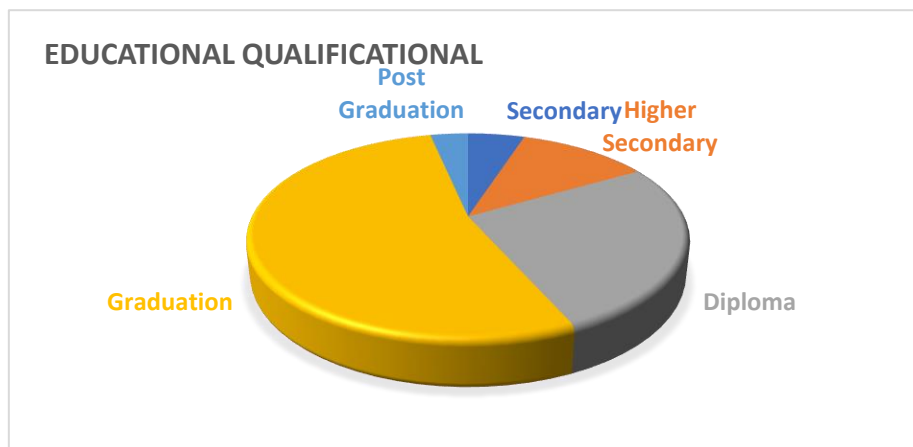
4.2.5 Educational Qualification of Respondents

Table No. 4.5

| Educational Qualification | Frequency | Percent |
|---------------------------|-----------|---------|
| Secondary | 3 | 5.0 |
| Higher Secondary | 7 | 11.7 |
| Diploma | 16 | 26.7 |
| Graduation | 32 | 53.3 |
| Post Graduation | 2 | 3.3 |
| Total | 60 | 100.0 |

Source: Primary data

Fig No. 4.5



The data provided represents the educational qualification of respondents. A total of 60 respondents were included in the survey. Among them, the largest group had a graduation degree, comprising 53.3% of the participants. The second-largest group was individuals with a diploma, accounting for 26.7% of the respondents. Higher secondary education was reported by 11.7% of the participants, while secondary education was reported by 5% of the respondents. A small percentage of respondents, 3.3%, had post-graduation qualifications.

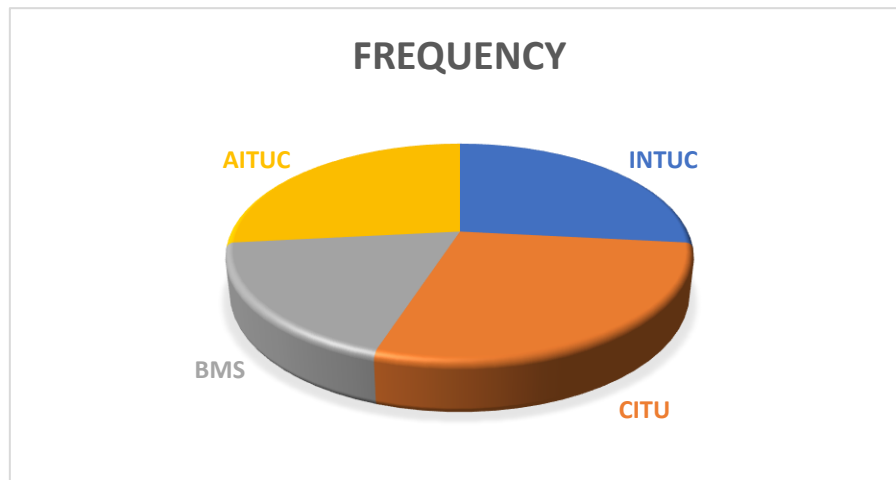
4.2.6 Trade Union-wise Participation of Respondents

Table No. 4.6

| Name of Trade union | | |
|---------------------|-----------|---------|
| | Frequency | Percent |
| INTUC | 16 | 26.7 |
| CITU | 17 | 28.3 |
| BMS | 11 | 18.3 |
| AITUC | 16 | 26.7 |
| Total | 60 | 100.0 |

Source: Primary data

Fig No. 4.6



The table represents the trade union-wise participation of respondents in a survey. A total of 60 respondents were included in the survey, and they were affiliated with different trade unions. Among them, the trade union with the highest participation was CITU, with 28.3% of the respondents being affiliated with it. The second-largest trade union in terms of participation was INTUC, with 26.7% of the respondents. AITUC also had 26.7% of the participants affiliated with it. The trade union with the lowest participation was BMS, with 18.3% of the respondents being associated with it.

4.3 Descriptive Statistics

Descriptive statistics is a set of tools used to summarize and understand key characteristics of a dataset. It provides insights into distribution, central tendency, and variability. It examines how data is spread out, identifies typical values, and measures the variability around the center. Summary statistics such as range, standard deviation, and quartiles offer a snapshot of the data. Descriptive statistics also explores relationships between variables using techniques like cross-tabulations and correlation coefficients. By summarizing data and uncovering patterns, it enables informed decision-making. Descriptive statistics serve as a foundation for further analysis and hypothesis testing, aiding researchers and analysts in understanding datasets.

4.3.1 Descriptive Statistics of the roles of trade unions in manufacturing sector

Table 4.7

| Descriptive Statistics | | | | | |
|--|----|---------|---------|-------|----------------|
| | N | Minimum | Maximum | Mean | Std. Deviation |
| The trade union(s) in my manufacturing organization are actively involved in addressing employees' concerns. | 60 | 1.0 | 4.0 | 3.283 | .7612 |
| Trade union representation has been effective in negotiating for better wages and benefits. | 60 | 1.0 | 4.0 | 3.050 | .7231 |
| The trade union has played a significant role in advocating for workplace safety measures. | 60 | 1.0 | 4.0 | 3.100 | .6023 |
| The trade union has effectively resolved conflicts or disputes between employees and management. | 60 | 1.0 | 4.0 | 3.150 | .7552 |
| The trade union facilitates providing satisfactory benefits in terms of wages, working hours, job security, and social protection. | 60 | 1.0 | 4.0 | 3.167 | .7170 |
| The trade union has a substantial influence on shaping company policies and decision-making processes. | 60 | 1.0 | 4.0 | 2.767 | .9088 |
| Valid N (listwise) | 60 | | | | |

Source: Primary data

The table provides descriptive statistics for respondents' perceptions of their trade union's involvement and effectiveness in a manufacturing organization. The responses range from 1.0 (minimum) to 4.0 (maximum). Overall, the mean ratings indicate moderately positive perceptions for addressing concerns, negotiating for better wages and benefits, advocating for safety measures, resolving conflicts, and providing satisfactory benefits. However, there is a relatively lower perception of the trade union's influence on shaping company policies, with greater variability in responses.

4.3.2 Descriptive Statistics of the perception on New Labour, 2020

Table 4.8

| Descriptive Statistics | | | | | |
|---|----|---------|---------|-------|----------------|
| | N | Minimum | Maximum | Mean | Std. Deviation |
| The trade union has initiated discussions with its members to educate them about the provisions and impact of the new Labour Code 2020. | 60 | 1.0 | 4.0 | 2.650 | .7773 |
| The trade union is actively communicating with its members about the potential impact of the new Labour Code 2020 on their rights and interests. | 60 | 1.0 | 4.0 | 2.500 | .7011 |
| The trade union is developing strategies to ensure effective representation and protection of its members' rights under the new Labour Code 2020. | 60 | 1.0 | 4.0 | 2.333 | .8165 |
| Trade unions' ability to maintain their current level of power will be sustained once the new codes are implemented. | 60 | 1.0 | 4.0 | 2.783 | .8847 |
| The recognition of any union as a negotiating union in an establishment is acceptable if it receives approval from 51% or more of the workers. | 60 | 1.0 | 4.0 | 2.900 | .7295 |
| The new labour codes are primarily designed to enhance the ease of doing business and facilitate employers in hiring and firing workers. | 60 | 1.0 | 4.0 | 2.733 | .7099 |
| The new labour codes significantly weaken collective bargaining. | 60 | 1.0 | 4.0 | 3.250 | .7730 |
| Valid N (listwise) | 60 | | | | |

Source: Primary data

The table provides descriptive statistics for respondents' perceptions regarding the new Labour Code 2020 and the trade union's activities. Overall, there are moderate perceptions of the trade union's efforts in educating members and communicating about the code's impact. However, there is a relatively lower perception of developing strategies for member representation and protection. The perception of maintaining union power is moderately positive, while the acceptability of recognition criteria and the purpose of the new labour codes receive moderate ratings. There is a relatively higher perception of weakening collective bargaining.

4.3.3 Descriptive Statistics of the impact of technological advancements on trade unions

Table 4.9

| Descriptive Statistics | | | | | |
|---|----|---------|---------|-------|----------------|
| | N | Minimum | Maximum | Mean | Std. Deviation |
| The trade union has initiated discussions with its members to educate them about the provisions and impact of the new Labour Code 2020. | 60 | 1.0 | 4.0 | 2.650 | .7773 |
| The trade union is actively communicating with its members about the potential impact of the new Labour Code 2020 on their rights and interests. | 60 | 1.0 | 4.0 | 2.500 | .7011 |
| The trade union is developing strategies to ensure effective representation and protection of its members' rights under the new Labour Code 2020. | 60 | 1.0 | 4.0 | 2.333 | .8165 |
| Trade unions' ability to maintain their current level of power will be sustained once the new codes are implemented. | 60 | 1.0 | 4.0 | 2.783 | .8847 |
| The recognition of any union as a negotiating union in an establishment is acceptable if it receives approval from 51% or more of the workers. | 60 | 1.0 | 4.0 | 2.900 | .7295 |
| The new labour codes are primarily designed to enhance the ease of doing business and facilitate employers in hiring and firing workers. | 60 | 1.0 | 4.0 | 2.733 | .7099 |
| The new labour codes significantly weaken collective bargaining. | 60 | 1.0 | 4.0 | 3.250 | .7730 |
| Valid N (listwise) | 60 | | | | |

Source: Primary data

The table provides descriptive statistics for respondent's perception on impact of technological advancements and their impact on the trade union and working conditions in a manufacturing organization. Overall, there are positive impact of increased productivity, adequate training, and meeting skill demands. However, there is a moderate view of trade union members' participation in decision-making processes while implementing new technologies in the company, and mixed perceptions regarding improved working conditions and reduced membership.

4.4 ONE-WAY ANOVA between variables

One-way ANOVA is a statistical analysis technique used to examine whether there are significant differences between the means of three or more groups. It is called "one-way" because it involves a single factor or independent variable. This factor typically represents different groups or levels that participants are assigned to or naturally fall into. The purpose of conducting a one-way ANOVA is to determine if the observed differences in means across the groups are statistically significant or simply due to chance. By comparing the variability between the groups to the variability within the groups, one-way ANOVA provides insights into whether there are meaningful differences in the variable of interest among the groups being studied. This analysis is widely employed in various fields, including psychology, social sciences, medicine, and business, to explore group differences and make informed interpretations based on statistical evidence.

4.4.1 ONE-WAY ANOVA based on Trade Unions the participants belong and the roles of Trade Unions in the Manufacturing sector

Table No. 4.10

| Descriptives | | | | | | | | | |
|---|-------|----|-------|----------------|------------|----------------------------------|-------------|---------|---------|
| | | N | Mean | Std. Deviation | Std. Error | 95% Confidence Interval for Mean | | Minimum | Maximum |
| | | | | | | Lower Bound | Upper Bound | | |
| The trade union(s) in my manufacturing organization are actively involved in addressing employees' concerns. | INTUC | 16 | 3.125 | .8062 | .2016 | 2.695 | 3.555 | | 4.0 |
| | CITU | 17 | 3.471 | .5145 | .1248 | 3.206 | 3.735 | | 4.0 |
| | BMS | 11 | 3.364 | .9244 | .2787 | 2.743 | 3.985 | | 4.0 |
| | AITUC | 16 | 3.188 | .8342 | .2085 | 2.743 | 3.632 | | 4.0 |
| | Total | 60 | 3.283 | .7612 | .0983 | 3.087 | 3.480 | | 4.0 |
| Trade union representation has been effective in negotiating better wages and benefits. | INTUC | 16 | 2.688 | .7932 | .1983 | 2.265 | 3.110 | | 4.0 |
| | CITU | 17 | 3.235 | .4372 | .1060 | 3.010 | 3.460 | | 4.0 |
| | BMS | 11 | 3.364 | .5045 | .1521 | 3.025 | 3.703 | | 4.0 |
| | AITUC | 16 | 3.000 | .8944 | .2236 | 2.523 | 3.477 | | 4.0 |
| | Total | 60 | 3.050 | .7231 | .0934 | 2.863 | 3.237 | | 4.0 |
| The trade union has played a significant role in advocating for workplace safety measures. | INTUC | 16 | 3.125 | .7188 | .1797 | 2.742 | 3.508 | | 4.0 |
| | CITU | 17 | 3.176 | .5286 | .1282 | 2.905 | 3.448 | | 4.0 |
| | BMS | 11 | 3.364 | .5045 | .1521 | 3.025 | 3.703 | | 4.0 |
| | AITUC | 16 | 2.813 | .5439 | .1360 | 2.523 | 3.102 | | 3.0 |
| | Total | 60 | 3.100 | .6023 | .0778 | 2.944 | 3.256 | | 4.0 |
| The trade union has effectively resolved conflicts or disputes between employees and management. | INTUC | 16 | 3.000 | .8165 | .2041 | 2.565 | 3.435 | | 4.0 |
| | CITU | 17 | 3.353 | .6063 | .1471 | 3.041 | 3.665 | | 4.0 |
| | BMS | 11 | 3.273 | .4671 | .1408 | 2.959 | 3.587 | | 4.0 |
| | AITUC | 16 | 3.000 | .9661 | .2415 | 2.485 | 3.515 | | 4.0 |
| | Total | 60 | 3.150 | .7552 | .0975 | 2.955 | 3.345 | | 4.0 |
| The trade union facilitates providing satisfactory benefits in terms of wages, working hours, job security, and social protection. | INTUC | 16 | 3.125 | .7188 | .1797 | 2.742 | 3.508 | | 4.0 |
| | CITU | 17 | 3.353 | .6063 | .1471 | 3.041 | 3.665 | | 4.0 |
| | BMS | 11 | 3.364 | .5045 | .1521 | 3.025 | 3.703 | | 4.0 |
| | AITUC | 16 | 2.875 | .8851 | .2213 | 2.403 | 3.347 | | 4.0 |
| | Total | 60 | 3.167 | .7170 | .0926 | 2.981 | 3.352 | | 4.0 |
| The trade union has a substantial influence on shaping company policies and decision-making processes. | INTUC | 16 | 2.563 | .8921 | .2230 | 2.087 | 3.038 | | 4.0 |
| | CITU | 17 | 2.941 | .8269 | .2006 | 2.516 | 3.366 | | 4.0 |
| | BMS | 11 | 3.091 | .8312 | .2506 | 2.532 | 3.649 | | 4.0 |
| | AITUC | 16 | 2.563 | 1.0308 | .2577 | 2.013 | 3.112 | | 4.0 |
| | Total | 60 | 2.767 | .9088 | .1173 | 2.532 | 3.001 | | 4.0 |

Source: Primary data

The table provides descriptive statistics for various statements related to the roles of trade unions in addressing employees' concerns, negotiating wages and benefits, advocating for workplace safety, resolving conflicts, providing satisfactory benefits, and influencing company

policies. The statistics are analysed based on different trade unions that participants belong to: INTUC, CITU, BMS, and AITUC.

- For the statement "The trade union(s) in my manufacturing organization are actively involved in addressing employees' concerns," the mean ratings range from 3.125 (INTUC) to 3.471 (CITU). The overall mean rating is 3.283, indicating a moderately positive perception.
- Regarding the statement "Trade union representation has been effective in negotiating better wages and benefits," the mean ratings range from 2.688 (INTUC) to 3.364 (BMS). The overall mean rating is 3.050, indicating a moderately positive perception.
- For the statement "The trade union has played a significant role in advocating for workplace safety measures," the mean ratings range from 2.813 (AITUC) to 3.364 (BMS). The overall mean rating is 3.100, indicating a moderately positive perception.
- Regarding the statement "The trade union has effectively resolved conflicts or disputes between employees and management," the mean ratings range from 3.000 (INTUC and AITUC) to 3.353 (CITU). The overall mean rating is 3.150, indicating a moderately positive perception.
- For the statement "The trade union provides satisfactory benefits in terms of wages, working hours, job security, and social protection," the mean ratings range from 2.875 (AITUC) to 3.364 (BMS). The overall mean rating is 3.167, indicating a moderately positive perception.
- Regarding the statement "The trade union has a substantial influence on shaping company policies and decision-making processes," the mean ratings range from 2.563 (INTUC and AITUC) to 2.941 (CITU). The overall mean rating is 2.767, indicating a moderate perception of influence.

Table No.4.11

| ANOVA | | | | | | |
|---|----------------|----------------|----|-------------|------|------|
| | | Sum of Squares | df | Mean Square | F | Sig. |
| The trade union(s) in my manufacturing organization are actively involved in addressing employees' concerns. | Between Groups | 1.215 | 3 | .405 | .688 | .563 |
| | Within Groups | 32.968 | 56 | .589 | | |
| | Total | 34.183 | 59 | | | |

| | | | | | | |
|---|----------------|--------|----|-------|-------|------|
| Trade union representation has been effective in negotiating for better wages and benefits. | Between Groups | 3.808 | 3 | 1.269 | 2.629 | .059 |
| | Within Groups | 27.042 | 56 | .483 | | |
| | Total | 30.850 | 59 | | | |
| The trade union has played a significant role in advocating for workplace safety measures. | Between Groups | 2.196 | 3 | .732 | 2.135 | .106 |
| | Within Groups | 19.204 | 56 | .343 | | |
| | Total | 21.400 | 59 | | | |
| The trade union has effectively resolved conflicts or disputes between employees and management. | Between Groups | 1.586 | 3 | .529 | .923 | .436 |
| | Within Groups | 32.064 | 56 | .573 | | |
| | Total | 33.650 | 59 | | | |
| The trade union facilitates providing satisfactory benefits in terms of wages, working hours, job security, and social protection. | Between Groups | 2.406 | 3 | .802 | 1.608 | .198 |
| | Within Groups | 27.928 | 56 | .499 | | |
| | Total | 30.333 | 59 | | | |
| The trade union has a substantial influence on shaping company policies and decision-making processes. | Between Groups | 3.008 | 3 | 1.003 | 1.228 | .308 |
| | Within Groups | 45.725 | 56 | .817 | | |
| | Total | 48.733 | 59 | | | |

Source: Primary data

The table provides the results of the one-way ANOVA conducted for different statements related to the roles of trade unions in the manufacturing sector. The analysis examines the variation between groups (trade unions) and within groups (participants' responses).

- For the statement "The trade union(s) in my manufacturing organization are actively involved in addressing employees' concerns," the ANOVA results show a non-significant effect, with $F(3, 56) = 0.688$ and $p = 0.563$.
- Regarding the statement "Trade union representation has been effective in negotiating for better wages and benefits," the ANOVA results indicate a non-significant effect, with $F(3, 56) = 2.629$ and $p = 0.059$, approaching significance.
- For the statement "The trade union has played a significant role in advocating for workplace safety measures," the ANOVA results reveal a non-significant effect, with $F(3, 56) = 2.135$ and $p = 0.106$.
- Regarding the statement "The trade union has effectively resolved conflicts or disputes between employees and management," the ANOVA results demonstrate a non-significant effect, with $F(3, 56) = 0.923$ and $p = 0.436$.

- For the statement "The trade union provides satisfactory benefits in terms of wages, working hours, job security, and social protections," the ANOVA results show a non-significant effect, with $F(3, 56) = 1.608$ and $p = 0.198$.
- Regarding the statement "The trade union has a substantial influence on shaping company policies and decision-making processes," the ANOVA results indicate a non-significant effect, with $F(3, 56) = 1.228$ and $p = 0.308$. The ANOVA results reach statistical significance ($p < 0.05$), suggesting that there is no significant variation between the trade unions in terms of their roles as perceived by the respondents.

4.4.2 ONE-WAY ANOVA based on the Experience of the participants and the roles of Trade Unions in the Manufacturing sector.

Table No. 4.12

| Descriptives | | | | | | | | | |
|---|------------------|----|-------|----------------|------------|----------------------------------|-------------|---------|---------|
| | | N | Mean | Std. Deviation | Std. Error | 95% Confidence Interval for Mean | | Minimum | Maximum |
| | | | | | | Lower Bound | Upper Bound | | |
| The trade union(s) in my manufacturing organization are actively involved in addressing employees' concerns. | 0-10 Years | 14 | 3.071 | .8287 | .2215 | 2.593 | 3.550 | | 4.0 |
| | 10-20 Years | 25 | 3.360 | .4899 | .0980 | 3.158 | 3.562 | | 4.0 |
| | 20-30 Years | 19 | 3.316 | 1.0029 | .2301 | 2.832 | 3.799 | | 4.0 |
| | 30 Years & Above | 2 | 3.500 | .7071 | .5000 | -2.853 | 9.853 | | 4.0 |
| | Total | 60 | 3.283 | .7612 | .0983 | 3.087 | 3.480 | | 4.0 |
| Trade union representation has been effective in negotiating for better wages and benefits. | 0-10 Years | 14 | 2.786 | .6993 | .1869 | 2.382 | 3.189 | | 4.0 |
| | 10-20 Years | 25 | 3.200 | .5774 | .1155 | 2.962 | 3.438 | | 4.0 |
| | 20-30 Years | 19 | 3.105 | .7375 | .1692 | 2.750 | 3.461 | | 4.0 |
| | 30 Years & Above | 2 | 2.500 | 2.1213 | 1.5000 | -16.559 | 21.559 | | 4.0 |
| | Total | 60 | 3.050 | .7231 | .0934 | 2.863 | 3.237 | | 4.0 |
| The trade union has played a significant role in advocating for workplace safety measures. | 0-10 Years | 14 | 2.929 | .7300 | .1951 | 2.507 | 3.350 | | 4.0 |
| | 10-20 Years | 25 | 3.120 | .4397 | .0879 | 2.939 | 3.301 | | 4.0 |
| | 20-30 Years | 19 | 3.211 | .7133 | .1636 | 2.867 | 3.554 | | 4.0 |
| | 30 Years & Above | 2 | 3.000 | 0.0000 | 0.0000 | 3.000 | 3.000 | | 3.0 |
| | Total | 60 | 3.100 | .6023 | .0778 | 2.944 | 3.256 | | 4.0 |
| The trade union has effectively resolved conflicts or disputes between employees and management. | 0-10 Years | 14 | 2.714 | .8254 | .2206 | 2.238 | 3.191 | | 4.0 |
| | 10-20 Years | 25 | 3.240 | .5228 | .1046 | 3.024 | 3.456 | | 4.0 |
| | 20-30 Years | 19 | 3.368 | .8307 | .1906 | 2.968 | 3.769 | | 4.0 |
| | 30 Years & Above | 2 | 3.000 | 1.4142 | 1.0000 | -9.706 | 15.706 | | 4.0 |
| | Total | 60 | 3.150 | .7552 | .0975 | 2.955 | 3.345 | | 4.0 |
| The trade union facilitates providing satisfactory benefits in terms of wages, working hours, job security, and social protection. | 0-10 Years | 14 | 2.786 | .8018 | .2143 | 2.323 | 3.249 | | 4.0 |
| | 10-20 Years | 25 | 3.280 | .5416 | .1083 | 3.056 | 3.504 | | 4.0 |
| | 20-30 Years | 19 | 3.316 | .8201 | .1881 | 2.921 | 3.711 | | 4.0 |
| | 30 Years & Above | 2 | 3.000 | 0.0000 | 0.0000 | 3.000 | 3.000 | | 3.0 |
| | Total | 60 | 3.167 | .7170 | .0926 | 2.981 | 3.352 | | 4.0 |
| The trade union has a substantial influence on shaping company | 0-10 Years | 14 | 2.500 | .9405 | .2514 | 1.957 | 3.043 | | 4.0 |
| | 10-20 Years | 25 | 3.080 | .7594 | .1519 | 2.767 | 3.393 | | 4.0 |

| | | | | | | | | | |
|--|------------------|----|-------|--------|--------|---------|--------|--|-----|
| policies and decision-making processes. | 20-30 Years | 19 | 2.632 | .9551 | .2191 | 2.171 | 3.092 | | 4.0 |
| | 30 Years & Above | 2 | 2.000 | 1.4142 | 1.0000 | -10.706 | 14.706 | | 3.0 |
| | Total | 60 | 2.767 | .9088 | .1173 | 2.532 | 3.001 | | 4.0 |
| | | | | | | | | | |

Source: Primary data

The table provides descriptive statistics for different statements related to the roles of trade unions in the manufacturing sector, segmented by different experience categories: 0-10 years, 10-20 years, 20-30 years, and 30 years & above. The statistics include mean, standard deviation, standard error, and confidence intervals.

- For the statement "The trade union(s) in my manufacturing organization are actively involved in addressing employees' concerns," the mean ratings vary across experience categories, with the highest mean observed in the 10-20 years category (3.360) and the lowest mean in the 0-10 years category (3.071).
- Regarding the statement "Trade union representation has been effective in negotiating for better wages and benefits," the mean ratings also differ across experience categories, with the highest mean observed in the 10-20 years category (3.200) and the lowest mean in the 30 years & above category (2.500).
- For the statement "The trade union has played a significant role in advocating for workplace safety measures," the mean ratings vary across experience categories, with the highest mean observed in the 20-30 years category (3.211) and the lowest mean in the 30 years & above category (3.000).
- Regarding the statement "The trade union has effectively resolved conflicts or disputes between employees and management," the mean ratings vary across experience categories, with the highest mean observed in the 20-30 years category (3.368) and the lowest mean in the 0-10 years category (2.714).
- For the statement "The trade union provides satisfactory benefits in terms of wages, working hours, job security, and social protections," the mean ratings also differ across experience categories, with the highest mean observed in the 20-30 years category (3.316) and the lowest mean in the 30 years & above category (3.000).
- Regarding the statement "The trade union has a substantial influence on shaping company policies and decision-making processes," the mean ratings vary across experience categories, with the highest mean observed in the 10-20 years category (3.080) and the lowest mean in the 30 years & above category (2.000).

Table No. 4.13

| ANOVA | | | | | | |
|---|----------------|----------------|----|-------------|-------|------|
| | | Sum of Squares | df | Mean Square | F | Sig. |
| The trade union(s) in my manufacturing organization are actively involved in addressing employees' concerns. | Between Groups | .889 | 3 | .296 | .499 | .685 |
| | Within Groups | 33.294 | 56 | .595 | | |
| | Total | 34.183 | 59 | | | |
| Trade union representation has been effective in negotiating for better wages and benefits. | Between Groups | 2.203 | 3 | .734 | 1.436 | .242 |
| | Within Groups | 28.647 | 56 | .512 | | |
| | Total | 30.850 | 59 | | | |
| The trade union has played a significant role in advocating for workplace safety measures. | Between Groups | .674 | 3 | .225 | .607 | .613 |
| | Within Groups | 20.726 | 56 | .370 | | |
| | Total | 21.400 | 59 | | | |
| The trade union has effectively resolved conflicts or disputes between employees and management. | Between Groups | 3.812 | 3 | 1.271 | 2.385 | .079 |
| | Within Groups | 29.838 | 56 | .533 | | |
| | Total | 33.650 | 59 | | | |
| The trade union facilitates providing satisfactory benefits in terms of wages, working hours, job security, and social protection. | Between Groups | 2.831 | 3 | .944 | 1.921 | .137 |
| | Within Groups | 27.502 | 56 | .491 | | |
| | Total | 30.333 | 59 | | | |
| The trade union has a substantial influence on shaping company policies and decision-making processes. | Between Groups | 4.972 | 3 | 1.657 | 2.121 | .108 |
| | Within Groups | 43.761 | 56 | .781 | | |
| | Total | 48.733 | 59 | | | |

Source: Primary data

- For the statement "The trade union(s) in my manufacturing organization are actively involved in addressing employees' concerns," the ANOVA results show no significant difference between the groups, with $F(3, 56) = 0.499$ and $p = 0.685$.
- Regarding the statement "Trade union representation has been effective in negotiating for better wages and benefits," the ANOVA results also indicate no significant difference between the groups, with $F(3, 56) = 1.436$ and $p = 0.242$.

- For the statement "The trade union has played a significant role in advocating for workplace safety measures," the ANOVA results reveal no significant difference between the groups, with $F(3, 56) = 0.607$ and $p = 0.613$.
- Regarding the statement "The trade union has effectively resolved conflicts or disputes between employees and management," the ANOVA results show no significant difference between the groups, with $F(3, 56) = 2.385$ and $p = 0.079$, approaching significance.
- For the statement "The trade union provides satisfactory benefits in terms of wages, working hours, job security, and social protections," the ANOVA results indicate no significant difference between the groups, with $F(3, 56) = 1.921$ and $p = 0.137$.
- Regarding the statement "The trade union has a substantial influence on shaping company policies and decision-making processes," the ANOVA results reveal no significant difference between the groups, with $F(3, 56) = 2.121$ and $p = 0.108$.

4.4.3 ONE-WAY ANOVA based on Trade Unions the participants belong and their perception of role change Trade Unions due to the New Labour Code, 2020

Table No. 4.14

| Descriptives | | | | | | | | | |
|--|-------|----|-------|----------------|------------|----------------------------------|-------------|---------|---------|
| | | N | Mean | Std. Deviation | Std. Error | 95% Confidence Interval for Mean | | Minimum | Maximum |
| | | | | | | Lower Bound | Upper Bound | | |
| The trade union has initiated discussions with its members to educate them about the provisions and impact of the new Labour Code 2020. | INTUC | 16 | 2.375 | .8851 | .2213 | 1.903 | 2.847 | | 4.0 |
| | CITU | 17 | 2.941 | .5557 | .1348 | 2.655 | 3.227 | | 4.0 |
| | BMS | 11 | 2.727 | .6467 | .1950 | 2.293 | 3.162 | | 4.0 |
| | AITUC | 16 | 2.563 | .8921 | .2230 | 2.087 | 3.038 | | 4.0 |
| | Total | 60 | 2.650 | .7773 | .1004 | 2.449 | 2.851 | | 4.0 |
| The trade union is actively communicating with its members about the potential impact of the new Labour Code 2020 on their rights and interests. | INTUC | 16 | 2.313 | .7932 | .1983 | 1.890 | 2.735 | | 4.0 |
| | CITU | 17 | 2.765 | .5623 | .1364 | 2.476 | 3.054 | | 4.0 |
| | BMS | 11 | 2.455 | .6876 | .2073 | 1.993 | 2.916 | | 4.0 |
| | AITUC | 16 | 2.438 | .7274 | .1819 | 2.050 | 2.825 | | 3.0 |
| | Total | 60 | 2.500 | .7011 | .0905 | 2.319 | 2.681 | | 4.0 |
| The trade union is developing strategies to ensure effective representation and protection of its members' rights under the new Labour Code 2020. | INTUC | 16 | 2.375 | 1.0247 | .2562 | 1.829 | 2.921 | | 4.0 |
| | CITU | 17 | 2.412 | .7123 | .1728 | 2.046 | 2.778 | | 4.0 |
| | BMS | 11 | 2.273 | .7862 | .2371 | 1.745 | 2.801 | | 4.0 |
| | AITUC | 16 | 2.250 | .7746 | .1936 | 1.837 | 2.663 | | 3.0 |
| | Total | 60 | 2.333 | .8165 | .1054 | 2.122 | 2.544 | | 4.0 |
| Trade unions' ability to maintain their current level of power will be sustained once the new codes are implemented. | INTUC | 16 | 2.938 | .9287 | .2322 | 2.443 | 3.432 | | 4.0 |
| | CITU | 17 | 2.588 | .7952 | .1929 | 2.179 | 2.997 | | 4.0 |
| | BMS | 11 | 3.273 | .7862 | .2371 | 2.745 | 3.801 | | 4.0 |
| | AITUC | 16 | 2.500 | .8944 | .2236 | 2.023 | 2.977 | | 4.0 |
| | Total | 60 | 2.783 | .8847 | .1142 | 2.555 | 3.012 | | 4.0 |
| The recognition of any union as a negotiating union in an establishment is acceptable if it receives approval from 51% or more of the workers. | INTUC | 16 | 2.813 | .9106 | .2276 | 2.327 | 3.298 | | 4.0 |
| | CITU | 17 | 2.882 | .7812 | .1895 | 2.481 | 3.284 | | 4.0 |
| | BMS | 11 | 2.909 | .3015 | .0909 | 2.707 | 3.112 | | 3.0 |
| | AITUC | 16 | 3.000 | .7303 | .1826 | 2.611 | 3.389 | | 4.0 |
| | Total | 60 | 2.900 | .7295 | .0942 | 2.712 | 3.088 | | 4.0 |
| The new labour codes are primarily designed to enhance the ease of doing business and facilitate employers in hiring and firing workers. | INTUC | 16 | 2.563 | .8139 | .2035 | 2.129 | 2.996 | | 4.0 |
| | CITU | 17 | 2.706 | .5879 | .1426 | 2.404 | 3.008 | | 4.0 |
| | BMS | 11 | 2.909 | .5394 | .1626 | 2.547 | 3.271 | | 4.0 |
| | AITUC | 16 | 2.813 | .8342 | .2085 | 2.368 | 3.257 | | 4.0 |
| | Total | 60 | 2.733 | .7099 | .0916 | 2.550 | 2.917 | | 4.0 |
| The new labour codes significantly weaken collective bargaining. | INTUC | 16 | 3.313 | .8732 | .2183 | 2.847 | 3.778 | | 4.0 |
| | CITU | 17 | 3.059 | .9663 | .2344 | 2.562 | 3.556 | | 4.0 |
| | BMS | 11 | 3.182 | .6030 | .1818 | 2.777 | 3.587 | | 4.0 |
| | AITUC | 16 | 3.438 | .5123 | .1281 | 3.164 | 3.711 | | 4.0 |
| | Total | 60 | 3.250 | .7730 | .0998 | 3.050 | 3.450 | | 4.0 |

The table provides descriptive statistics for different statements related to the perceptions of trade unions and the new Labour Code 2020 in the manufacturing sector. The statistics include mean, standard deviation, standard error, and confidence intervals.

- For the statement "The trade union has initiated discussions with its members to educate them about the provisions and impact of the new Labour Code 2020," the mean ratings vary across trade unions, with the highest mean observed in CITU (2.941) and the lowest mean in AITUC (2.563).
- Regarding the statement "The trade union is actively communicating with its members about the potential impact of the new Labour Code 2020 on their rights and interests," the mean ratings also differ across trade unions, with the highest mean observed in CITU (2.765) and the lowest mean in AITUC (2.438).
- For the statement "The trade union is developing strategies to ensure effective representation and protection of its members' rights under the new Labour Code 2020," the mean ratings vary across trade unions, with the highest mean observed in CITU (2.412) and the lowest mean in BMS (2.273).
- Regarding the statement "Trade unions' ability to maintain their current level of power will be sustained once the new codes are implemented," the mean ratings vary across trade unions, with the highest mean observed in BMS (3.273) and the lowest mean in AITUC (2.500).
- For the statement "The recognition of any union as a negotiating union in an establishment is acceptable if it receives approval from 51% or more of the workers," the mean ratings also differ across trade unions, with the highest mean observed in AITUC (3.000) and the lowest mean in CITU (2.882).
- Regarding the statement "The new labour codes are primarily designed to enhance the ease of doing business and facilitate employers in hiring and firing workers," the mean ratings vary across trade unions, with the highest mean observed in BMS (2.909) and the lowest mean in INTUC (2.563).
- For the statement "The new labour codes significantly weaken collective bargaining," the mean ratings vary across trade unions, with the highest mean observed in AITUC (3.438) and the lowest mean in CITU (3.059).

Table 4.15

| ANOVA | | | | | | |
|--|----------------|----------------|----|-------------|-------|------|
| | | Sum of Squares | df | Mean Square | F | Sig. |
| The trade union has initiated discussions with its members to educate them about the provisions and impact of the new Labour Code 2020. | Between Groups | 2.840 | 3 | .947 | 1.615 | .196 |
| | Within Groups | 32.810 | 56 | .586 | | |
| | Total | 35.650 | 59 | | | |
| The trade union is actively communicating with its members about the potential impact of the new Labour Code 2020 on their rights and interests. | Between Groups | 1.839 | 3 | .613 | 1.264 | .296 |
| | Within Groups | 27.161 | 56 | .485 | | |
| | Total | 29.000 | 59 | | | |
| The trade union is developing strategies to ensure effective representation and protection of its members' rights under the new Labour Code 2020. | Between Groups | .284 | 3 | .095 | .136 | .938 |
| | Within Groups | 39.049 | 56 | .697 | | |
| | Total | 39.333 | 59 | | | |
| Trade unions' ability to maintain their current level of power will be sustained once the new codes are implemented. | Between Groups | 4.946 | 3 | 1.649 | 2.239 | .094 |
| | Within Groups | 41.237 | 56 | .736 | | |
| | Total | 46.183 | 59 | | | |
| The recognition of any union as a negotiating union in an establishment is acceptable if it receives approval from 51% or more of the workers. | Within Groups | 31.111 | 56 | .556 | | |
| | Total | 31.400 | 59 | | | |
| The new labour codes are primarily designed to enhance the ease of doing business and facilitate employers in hiring and firing workers. | Between Groups | .920 | 3 | .307 | .596 | .620 |
| | Within Groups | 28.814 | 56 | .515 | | |
| | Total | 29.733 | 59 | | | |
| The new labour codes significantly weaken collective bargaining. | Between Groups | 1.297 | 3 | .432 | .713 | .548 |
| | Within Groups | 33.953 | 56 | .606 | | |
| | Total | 35.250 | 59 | | | |

Source: Primary data

- For the statement "The trade union has initiated discussions with its members to educate them about the provisions and impact of the new Labour Code 2020," the ANOVA

results show no significant difference between the groups, with $F(3, 56) = 1.615$ and $p = 0.196$.

- Regarding the statement "The trade union is actively communicating with its members about the potential impact of the new Labour Code 2020 on their rights and interests," the ANOVA results also indicate no significant difference between the groups, with $F(3, 56) = 1.264$ and $p = 0.296$.
- For the statement "The trade union is developing strategies to ensure effective representation and protection of its members' rights under the new Labour Code 2020," the ANOVA results reveal no significant difference between the groups, with $F(3, 56) = 0.136$ and $p = 0.938$.
- Regarding the statement "Trade unions' ability to maintain their current level of power will be sustained once the new codes are implemented," the ANOVA results show no significant difference between the groups, with $F(3, 56) = 2.239$ and $p = 0.094$, approaching significance.
- For the statement "The recognition of any union as a negotiating union in an establishment is acceptable if it receives approval from 51% or more of the workers," the ANOVA results could not be computed as there is only one group (Within Groups).
- Regarding the statement "The new labour codes are primarily designed to enhance the ease of doing business and facilitate employers in hiring and firing workers," the ANOVA results indicate no significant difference between the groups, with $F(3, 56) = 0.596$ and $p = 0.620$.
- For the statement "The new labour codes significantly weaken collective bargaining," the ANOVA results also show no significant difference between the groups, with $F(3, 56) = 0.713$ and $p = 0.548$. Overall, the ANOVA results suggest no significant differences between the groups in terms of their perceptions of the trade unions and the new Labour Code 2020.

4.4.4 ONE-WAY ANOVA based on the Experience of the participants and their perception to role change Trade Unions due to the New Labour Code, 2020

Table 4.16

| Descriptives | | | | | | | | | |
|--|------------------|----|-------|----------------|------------|----------------------------------|-------------|---------|---------|
| | | N | Mean | Std. Deviation | Std. Error | 95% Confidence Interval for Mean | | Minimum | Maximum |
| | | | | | | Lower Bound | Upper Bound | | |
| The trade union has initiated discussions with its members to educate them about the provisions and impact of the new Labour Code 2020. | 0-10 Years | 14 | 2.429 | .8516 | .2276 | 1.937 | 2.920 | | 4.0 |
| | 10-20 Years | 25 | 2.840 | .7461 | .1492 | 2.532 | 3.148 | | 4.0 |
| | 20-30 Years | 19 | 2.632 | .6840 | .1569 | 2.302 | 2.961 | | 4.0 |
| | 30 Years & Above | 2 | 2.000 | 1.4142 | 1.0000 | -10.706 | 14.706 | | 3.0 |
| | Total | 60 | 2.650 | .7773 | .1004 | 2.449 | 2.851 | | 4.0 |
| The trade union is actively communicating with its members about the potential impact of the new Labour Code 2020 on their rights and interests. | 0-10 Years | 14 | 2.429 | .8516 | .2276 | 1.937 | 2.920 | | 4.0 |
| | 10-20 Years | 25 | 2.560 | .6506 | .1301 | 2.291 | 2.829 | | 4.0 |
| | 20-30 Years | 19 | 2.526 | .6118 | .1404 | 2.231 | 2.821 | | 4.0 |
| | 30 Years & Above | 2 | 2.000 | 1.4142 | 1.0000 | -10.706 | 14.706 | | 3.0 |
| | Total | 60 | 2.500 | .7011 | .0905 | 2.319 | 2.681 | | 4.0 |
| The trade union is developing strategies to ensure effective representation and protection of its members' rights under the new Labour Code 2020. | 0-10 Years | 14 | 2.357 | .8419 | .2250 | 1.871 | 2.843 | | 4.0 |
| | 10-20 Years | 25 | 2.320 | .8021 | .1604 | 1.989 | 2.651 | | 4.0 |
| | 20-30 Years | 19 | 2.421 | .8377 | .1922 | 2.017 | 2.825 | | 4.0 |
| | 30 Years & Above | 2 | 1.500 | .7071 | .5000 | -4.853 | 7.853 | | 2.0 |
| | Total | 60 | 2.333 | .8165 | .1054 | 2.122 | 2.544 | | 4.0 |
| Trade unions' ability to maintain their current level of power will be sustained once the new codes are implemented. | 0-10 Years | 14 | 2.643 | .9288 | .2482 | 2.107 | 3.179 | | 4.0 |
| | 10-20 Years | 25 | 2.960 | .7895 | .1579 | 2.634 | 3.286 | | 4.0 |
| | 20-30 Years | 19 | 2.789 | .9177 | .2105 | 2.347 | 3.232 | | 4.0 |
| | 30 Years & Above | 2 | 1.500 | .7071 | .5000 | -4.853 | 7.853 | | 2.0 |
| | Total | 60 | 2.783 | .8847 | .1142 | 2.555 | 3.012 | | 4.0 |
| The recognition of any union as a negotiating union in an establishment is acceptable if it receives approval from 51% or more of the workers. | 0-10 Years | 14 | 3.214 | .6993 | .1869 | 2.811 | 3.618 | | 4.0 |
| | 10-20 Years | 25 | 2.760 | .5228 | .1046 | 2.544 | 2.976 | | 4.0 |
| | 20-30 Years | 19 | 2.895 | .9366 | .2149 | 2.443 | 3.346 | | 4.0 |
| | 30 Years & Above | 2 | 2.500 | .7071 | .5000 | -3.853 | 8.853 | | 3.0 |
| | Total | 60 | 2.900 | .7295 | .0942 | 2.712 | 3.088 | | 4.0 |

| | | | | | | | | | |
|---|------------------|----|-------|--------|--------|---------|--------|--|-----|
| The new labour codes are primarily designed to enhance the ease of doing business and facilitate employers in hiring and firing workers. | 0-10 Years | 14 | 2.786 | .8926 | .2386 | 2.270 | 3.301 | | 4.0 |
| | 10-20 Years | 25 | 2.760 | .5228 | .1046 | 2.544 | 2.976 | | 4.0 |
| | 20-30 Years | 19 | 2.789 | .7133 | .1636 | 2.446 | 3.133 | | 4.0 |
| | 30 Years & Above | 2 | 1.500 | .7071 | .5000 | -4.853 | 7.853 | | 2.0 |
| | Total | 60 | 2.733 | .7099 | .0916 | 2.550 | 2.917 | | 4.0 |
| The new labour codes significantly weaken collective bargaining. | 0-10 Years | 14 | 3.214 | .8018 | .2143 | 2.751 | 3.677 | | 4.0 |
| | 10-20 Years | 25 | 3.160 | .6880 | .1376 | 2.876 | 3.444 | | 4.0 |
| | 20-30 Years | 19 | 3.474 | .6967 | .1598 | 3.138 | 3.809 | | 4.0 |
| | 30 Years & Above | 2 | 2.500 | 2.1213 | 1.5000 | -16.559 | 21.559 | | 4.0 |
| | Total | 60 | 3.250 | .7730 | .0998 | 3.050 | 3.450 | | 4.0 |

Source: Primary data

- For the statement, The trade union has initiated discussions with its members to educate them about the provisions and impact of the new Labour Code 2020: Participants with 0-10 years of experience have a mean score of 2.429, indicating a moderate level of initiation of discussions. Participants with 10-20 years of experience have a higher mean score of 2.840, suggesting a relatively higher level of initiation of discussions. Participants with 20-30 years of experience have a mean score of 2.632, indicating a moderate level of initiation of discussions. Participants with 30 years and above of experience have a lower mean score of 2.000, suggesting a relatively lower level of initiation of discussions. The overall mean score for all participants is 2.650, indicating a moderate level of initiation of discussions.
- Regarding the statement The trade union is actively communicating with its members about the potential impact of the new Labour Code 2020 on their rights and interests: Participants with different years of experience show similar mean scores, ranging from 2.429 to 2.526, indicating a moderate level of active communication. The overall mean score for all participants is 2.500, suggesting a moderate level of active communication.
- For the statement. The trade union is developing strategies to ensure effective representation and protection of its members' rights under the new Labour Code 2020: Participants with different years of experience show similar mean scores, ranging from 2.357 to 2.421, indicating a moderate level of strategy development. The participants

with 30 years and above of experience have a lower mean score of 1.500, suggesting a relatively lower level of strategy development. The overall mean score for all participants is 2.333, indicating a moderate level of strategy development.

- Regarding the statement. Trade unions' ability to maintain their current level of power will be sustained once the new codes are implemented: Participants with different years of experience show similar mean scores, ranging from 2.643 to 2.960, indicating a moderate level of confidence in power sustainability. The participants with 30 years and above of experience have a lower mean score of 1.500, suggesting a relatively lower level of confidence in power sustainability. The overall mean score for all participants is 2.783, indicating a moderate level of confidence in power sustainability.
- For the statement. The recognition of any union as a negotiating union in an establishment is acceptable if it receives approval from 51% or more of the workers. Participants with different years of experience show similar mean scores, ranging from 2.760 to 2.895, indicating a moderate level of acceptance. The participants with 30 years and above of experience have a lower mean score of 2.500, suggesting a relatively lower level of acceptance. The overall mean score for all participants is 2.900, indicating a moderate level of acceptance.
- Regarding the statement. The new labour codes are primarily designed to enhance the ease of doing business and facilitate employers in hiring and firing workers: Participants with different years of experience show similar mean scores, ranging from 2.760 to 2.789, indicating a moderate level of agreement with the statement. The participants with 30 years and above of experience have a lower mean score of 1.500, suggesting a relatively lower level of agreement. The overall mean score for all participants is 2.733, indicating a moderate level of agreement.
- For the statement. The new labour codes significantly weaken collective bargaining: Participants with different years of experience show similar mean scores, ranging from 3.160 to 3.474, indicating a moderate level of agreement with the statement. The participants with 30 years and above of experience have a higher mean score of 2.500, suggesting a relatively higher level of agreement. The overall mean score for all participants is 3.250, indicating a moderate level of agreement.

Table 4.17

| ANOVA | | | | | | |
|--|----------------|----------------|----|-------------|-------|------|
| | | Sum of Squares | df | Mean Square | F | Sig. |
| The trade union has initiated discussions with its members to educate them about the provisions and impact of the new Labour Code 2020. | Between Groups | 2.440 | 3 | .813 | 1.372 | .261 |
| | Within Groups | 33.210 | 56 | .593 | | |
| | Total | 35.650 | 59 | | | |
| The trade union is actively communicating with its members about the potential impact of the new Labour Code 2020 on their rights and interests. | Between Groups | .675 | 3 | .225 | .445 | .722 |
| | Within Groups | 28.325 | 56 | .506 | | |
| | Total | 29.000 | 59 | | | |
| The trade union is developing strategies to ensure effective representation and protection of its members' rights under the new Labour Code 2020. | Between Groups | 1.547 | 3 | .516 | .764 | .519 |
| | Within Groups | 37.786 | 56 | .675 | | |
| | Total | 39.333 | 59 | | | |
| Trade unions' ability to maintain their current level of power will be sustained once the new codes are implemented. | Between Groups | 4.351 | 3 | 1.450 | 1.942 | .133 |
| | Within Groups | 41.832 | 56 | .747 | | |
| | Total | 46.183 | 59 | | | |
| The recognition of any union as a negotiating union in an establishment is acceptable if it receives approval from 51% or more of the workers. | Between Groups | 2.193 | 3 | .731 | 1.402 | .252 |
| | Within Groups | 29.207 | 56 | .522 | | |
| | Total | 31.400 | 59 | | | |
| The new labour codes are primarily designed to enhance the ease of doing business and facilitate employers in hiring and firing workers. | Between Groups | 3.158 | 3 | 1.053 | 2.218 | .096 |
| | Within Groups | 26.575 | 56 | .475 | | |
| | Total | 29.733 | 59 | | | |
| The new labour codes significantly weaken collective bargaining. | Between Groups | 2.296 | 3 | .765 | 1.301 | .283 |
| | Within Groups | 32.954 | 56 | .588 | | |
| | Total | 35.250 | 59 | | | |

Source: Primary data

- For the statement, The trade union's initiation of discussions with its members to educate them about the provisions and impact of the new Labour Code 2020: There is no significant difference between the groups ($p = .261$). Therefore, the trade union's initiative does not show a significant variation across the group
- Regarding the statement, The trade union's active communication with its members about the potential impact of the new Labour Code 2020 on their rights and interests:

There is no significant difference between the groups ($p = .722$). Hence, the trade union's active communication does not vary significantly across the groups.

- For the statement The trade union's development of strategies to ensure effective representation and protection of its members' rights under the new Labour Code 2020: There is no significant difference between the groups ($p = .519$). Consequently, the strategies developed by the trade union do not exhibit significant variation across the groups.
- Regarding the statement Trade unions' ability to maintain their current level of power once the new codes are implemented: There is no significant difference between the groups ($p = .133$). This implies that the ability to sustain power does not significantly vary across the groups
- For the statement, The recognition of any union as a negotiating union in an establishment: There is no significant difference between the groups ($p = .252$). Hence, the acceptance of union recognition does not show significant variation across the groups.
- Regarding the statement, The new labour codes' primary purpose of enhancing the ease of doing business and facilitating employers in hiring and firing workers: There is a significant difference between the groups ($p = .096$). This indicates that the perception of the new labour codes' impact on ease of doing business and employer facilitation varies significantly across the groups.
- For the statement, The new labour codes' significant weakening of collective bargaining: There is no significant difference between the groups ($p = .283$). Consequently, the perception of the new labour codes' impact on collective bargaining does not vary significantly across the groups.

4.4.5 ONE-WAY ANOVA based on Trade Unions the participants belong to and the impact of technological advancements on the role and effectiveness of Trade union members.

Table No.4.18

| Descriptives | | | | | | | | | |
|---|-------|----|-------|----------------|------------|----------------------------------|-------------|---------|---------|
| | | N | Mean | Std. Deviation | Std. Error | 95% Confidence Interval for Mean | | Minimum | Maximum |
| | | | | | | Lower Bound | Upper Bound | | |
| Technological advancements have increased the productivity and efficiency of manufacturing processes in our organization. | INTUC | 16 | 3.313 | .4787 | .1197 | 3.057 | 3.568 | | 4.0 |
| | CITU | 17 | 3.118 | .6002 | .1456 | 2.809 | 3.426 | | 4.0 |
| | BMS | 11 | 3.636 | .5045 | .1521 | 3.297 | 3.975 | | 4.0 |
| | AITUC | 16 | 3.313 | .8732 | .2183 | 2.847 | 3.778 | | 4.0 |
| | Total | 60 | 3.317 | .6507 | .0840 | 3.149 | 3.485 | | 4.0 |
| The trade union members in our organization have received adequate training and support to adapt to technological changes. | INTUC | 16 | 3.063 | .9287 | .2322 | 2.568 | 3.557 | | 4.0 |
| | CITU | 17 | 3.235 | .8314 | .2016 | 2.808 | 3.663 | | 4.0 |
| | BMS | 11 | 3.273 | .6467 | .1950 | 2.838 | 3.707 | | 4.0 |
| | AITUC | 16 | 2.688 | 1.0145 | .2536 | 2.147 | 3.228 | | 4.0 |
| | Total | 60 | 3.050 | .8911 | .1150 | 2.820 | 3.280 | | 4.0 |
| The trade union members have actively participated in discussions and decision-making processes related to the implementation of new technologies in our organization. | INTUC | 16 | 2.688 | .8732 | .2183 | 2.222 | 3.153 | | 4.0 |
| | CITU | 17 | 2.765 | .6642 | .1611 | 2.423 | 3.106 | | 4.0 |
| | BMS | 11 | 2.818 | .7508 | .2264 | 2.314 | 3.323 | | 4.0 |
| | AITUC | 16 | 2.750 | .9309 | .2327 | 2.254 | 3.246 | | 4.0 |
| | Total | 60 | 2.750 | .7946 | .1026 | 2.545 | 2.955 | | 4.0 |
| Technological advancements have improved the overall working conditions and safety measures for trade union members in the manufacturing sector. | INTUC | 16 | 3.188 | .6551 | .1638 | 2.838 | 3.537 | | 4.0 |
| | CITU | 17 | 2.882 | .6002 | .1456 | 2.574 | 3.191 | | 4.0 |
| | BMS | 11 | 3.000 | .4472 | .1348 | 2.700 | 3.300 | | 4.0 |
| | AITUC | 16 | 2.875 | .6191 | .1548 | 2.545 | 3.205 | | 4.0 |
| | Total | 60 | 2.983 | .5964 | .0770 | 2.829 | 3.137 | | 4.0 |
| Technological advancements have resulted in a reduction in the number of trade union members employed in our organization. | INTUC | 16 | 3.000 | .7303 | .1826 | 2.611 | 3.389 | | 4.0 |
| | CITU | 17 | 3.235 | .8314 | .2016 | 2.808 | 3.663 | | 4.0 |
| | BMS | 11 | 2.818 | 1.0787 | .3252 | 2.093 | 3.543 | | 4.0 |
| | AITUC | 16 | 2.750 | .7746 | .1936 | 2.337 | 3.163 | | 4.0 |
| | Total | 60 | 2.967 | .8431 | .1088 | 2.749 | 3.184 | | 4.0 |
| Technological advancements have | INTUC | 16 | 3.188 | .5439 | .1360 | 2.898 | 3.477 | | 4.0 |
| | CITU | 17 | 3.294 | .5879 | .1426 | 2.992 | 3.596 | | 4.0 |

| | | | | | | | | | |
|--|-------|----|-------|-------|-------|-------|-------|--|-----|
| increased the demand for new skill sets among trade union members in the manufacturing sector | BMS | 11 | 3.182 | .4045 | .1220 | 2.910 | 3.454 | | 4.0 |
| | AITUC | 16 | 3.188 | .7500 | .1875 | 2.788 | 3.587 | | 4.0 |
| | Total | 60 | 3.217 | .5849 | .0755 | 3.066 | 3.368 | | 4.0 |

Source: Primary data

- **Training and Adaptation to Technological Changes:** Trade union groups differ in their perception of training adequacy for technology adaptation. CITU members have the highest average rating (3.235), while AITUC members rate lowest (2.688). The overall average is 3.050, reflecting varied views on training's effectiveness.
- **Participation in Decision-Making:** Trade union members' active participation in tech implementation discussions varies. BMS members show higher engagement (2.818), while INTUC members rate lower (2.688). The overall average is 2.750, indicating differing levels of involvement.
- **Improvement in Working Conditions and Safety:** Tech advancements' impact on working conditions varies among trade unions. INTUC members perceive greater improvement (3.188), while CITU members have a lower view (2.882). The overall average is 2.983, revealing varied perceptions of these improvements.
- **Reduction in Trade Union Members:** Views on whether tech advancements reduce member numbers differ. CITU members see more reduction (3.235), while AITUC members perceive less (2.750). The overall average is 2.967, reflecting varying beliefs about member reduction.
- **Demand for New Skill Sets:** Trade union perspectives on the demand for new skills vary. CITU members see a higher demand (3.294), while INTUC and AITUC members rate it similarly (3.188). The overall average is 3.217, indicating differing opinions on skill demands.

Table No. 4.19

| ANOVA | | | | | | |
|--|----------------|----------------|----|-------------|-------|------|
| | | Sum of Squares | df | Mean Square | F | Sig. |
| Technological advancements have increased the productivity and efficiency of manufacturing processes in our organization. | Between Groups | 1.798 | 3 | .599 | 1.448 | .239 |
| | Within Groups | 23.185 | 56 | .414 | | |

| | | | | | | |
|---|----------------|--------|----|-------|-------|------|
| | Total | 24.983 | 59 | | | |
| The trade union members in our organization have received adequate training and support to adapt to technological changes. | Between Groups | 3.234 | 3 | 1.078 | 1.384 | .257 |
| | Within Groups | 43.616 | 56 | .779 | | |
| | Total | 46.850 | 59 | | | |
| The trade union members have actively participated in discussions and decision-making processes related to the implementation of new technologies in our organization. | Between Groups | .117 | 3 | .039 | .059 | .981 |
| | Within Groups | 37.133 | 56 | .663 | | |
| | Total | 37.250 | 59 | | | |
| Technological advancements have improved the overall working conditions and safety measures for trade union members in the manufacturing sector. | Between Groups | 1.031 | 3 | .344 | .965 | .416 |
| | Within Groups | 19.952 | 56 | .356 | | |
| | Total | 20.983 | 59 | | | |
| Technological advancements have resulted in a reduction in the number of trade union members employed in our organization. | Between Groups | 2.238 | 3 | .746 | 1.052 | .377 |
| | Within Groups | 39.695 | 56 | .709 | | |
| | Total | 41.933 | 59 | | | |
| Technological advancements have increased the demand for new skill sets among trade union members in the manufacturing sector | Between Groups | .143 | 3 | .048 | .133 | .940 |
| | Within Groups | 20.041 | 56 | .358 | | |
| | Total | 20.183 | 59 | | | |

Source: Primary data

- For the statement Technological advancements have increased the productivity and efficiency of manufacturing processes in our organization: The between-groups sum of squares is 1.798, indicating some variability between different groups. The within-groups sum of squares is 23.185, representing the variability within each group. The calculated F-value is 1.448, which is not statistically significant ($p > .05$). Therefore, there is no significant difference in the impact of technological advancements on productivity and efficiency among the groups.
- Regarding the statement The trade union members in our organization have received adequate training and support to adapt to technological changes: The between-groups sum of squares is 3.234, suggesting some variability between different groups. The within-groups sum of squares is 43.616, representing the variability within each group. The calculated F-value is 1.384, which is not statistically significant ($p > .05$).

Therefore, there is no significant difference in the level of training and support received by trade union members among the groups.

- For the statement The trade union members have actively participated in discussions and decision-making processes related to the implementation of new technologies in our organization: The between-groups sum of squares is 0.117, indicating minimal variability between different groups. The within-groups sum of squares is 37.133, representing the variability within each group. The calculated F-value is 0.059, which is not statistically significant ($p > .05$). Therefore, there is no significant difference in the level of participation in discussions and decision-making processes among the groups.
- Regarding the statement Technological advancements have improved the overall working conditions and safety measures for trade union members in the manufacturing sector: The between-groups sum of squares is 1.031, suggesting some variability between different groups. The within-groups sum of squares is 19.952, representing the variability within each group. The calculated F-value is 0.965, which is not statistically significant ($p > .05$). Therefore, there is no significant difference in the impact of technological advancements on working conditions and safety measures among the groups.
- For the statement Technological advancements have resulted in a reduction in the number of trade union members employed in our organization: The between-groups sum of squares is 2.238, indicating some variability between different groups. The within-groups sum of squares is 39.695, representing the variability within each group. The calculated F-value is 1.052, which is not statistically significant ($p > .05$). Therefore, there is no significant difference in the reduction of trade union members among the groups.
- Regarding the statement Technological advancements have increased the demand for new skill sets among trade union members in the manufacturing sector: The between-groups sum of squares is 0.143, indicating minimal variability between different groups. The within-groups sum of squares is 20.041, representing the variability within each group. The calculated F-value is 0.133, which is not statistically significant ($p > .05$). Therefore, there is no significant difference in the demand for new skill sets among the groups.

4.4.6 ONE-WAY ANOVA based on the Experience and the impact of technological advancements on the role and effectiveness of Trade union members.

Table No. 4.20

| | | Descriptives | | | | | | | |
|---|------------------|--------------|-------|----------------|------------|----------------------------------|-------------|---------|---------|
| | | N | Mean | Std. Deviation | Std. Error | 95% Confidence Interval for Mean | | Minimum | Maximum |
| | | | | | | Lower Bound | Upper Bound | | |
| Technological advancements have increased the productivity and efficiency of manufacturing processes in our organization. | 0-10 Years | 14 | 3.214 | .8926 | .2386 | 2.699 | 3.730 | 1.0 | 4.0 |
| | 10-20 Years | 25 | 3.320 | .6272 | .1254 | 3.061 | 3.579 | 2.0 | 4.0 |
| | 20-30 Years | 19 | 3.368 | .4956 | .1137 | 3.130 | 3.607 | 3.0 | 4.0 |
| | 30 Years & Above | 2 | 3.500 | .7071 | .5000 | -2.853 | 9.853 | 3.0 | 4.0 |
| | Total | 60 | 3.317 | .6507 | .0840 | 3.149 | 3.485 | 1.0 | 4.0 |
| The trade union members in our organization have received adequate training and support to adapt to technological changes. | 0-10 Years | 14 | 2.571 | 1.0163 | .2716 | 1.985 | 3.158 | 1.0 | 4.0 |
| | 10-20 Years | 25 | 3.160 | .6880 | .1376 | 2.876 | 3.444 | 2.0 | 4.0 |
| | 20-30 Years | 19 | 3.316 | .8201 | .1881 | 2.921 | 3.711 | 2.0 | 4.0 |
| | 30 Years & Above | 2 | 2.500 | 2.1213 | 1.5000 | -16.559 | 21.559 | 1.0 | 4.0 |
| | Total | 60 | 3.050 | .8911 | .1150 | 2.820 | 3.280 | 1.0 | 4.0 |
| The trade union members have actively participated in discussions and decision-making processes related to the implementation of new technologies in our organization. | 0-10 Years | 14 | 2.429 | .8516 | .2276 | 1.937 | 2.920 | 1.0 | 4.0 |
| | 10-20 Years | 25 | 2.840 | .7461 | .1492 | 2.532 | 3.148 | 1.0 | 4.0 |
| | 20-30 Years | 19 | 2.895 | .6578 | .1509 | 2.578 | 3.212 | 2.0 | 4.0 |
| | 30 Years & Above | 2 | 2.500 | 2.1213 | 1.5000 | -16.559 | 21.559 | 1.0 | 4.0 |
| | Total | 60 | 2.750 | .7946 | .1026 | 2.545 | 2.955 | 1.0 | 4.0 |
| Technological advancements have improved the overall working conditions and safety measures for trade union members in the manufacturing sector. | 0-10 Years | 14 | 2.857 | .7703 | .2059 | 2.412 | 3.302 | 2.0 | 4.0 |
| | 10-20 Years | 25 | 2.960 | .5385 | .1077 | 2.738 | 3.182 | 2.0 | 4.0 |
| | 20-30 Years | 19 | 3.053 | .5243 | .1203 | 2.800 | 3.305 | 2.0 | 4.0 |
| | 30 Years & Above | 2 | 3.500 | .7071 | .5000 | -2.853 | 9.853 | 3.0 | 4.0 |
| | Total | 60 | 2.983 | .5964 | .0770 | 2.829 | 3.137 | 2.0 | 4.0 |
| Technological advancements have resulted in a reduction in the | 0-10 Years | 14 | 3.143 | .8644 | .2310 | 2.644 | 3.642 | 2.0 | 4.0 |
| | 10-20 Years | 25 | 2.840 | .7461 | .1492 | 2.532 | 3.148 | 2.0 | 4.0 |

| | | | | | | | | | |
|--|------------------|----|-------|--------|--------|-------|-------|-----|-----|
| number of trade union members employed in our organization. | 20-30 Years | 19 | 3.000 | 1.0000 | .2294 | 2.518 | 3.482 | 1.0 | 4.0 |
| | 30 Years & Above | 2 | 3.000 | 0.0000 | 0.0000 | 3.000 | 3.000 | 3.0 | 3.0 |
| | Total | 60 | 2.967 | .8431 | .1088 | 2.749 | 3.184 | 1.0 | 4.0 |
| Technological advancements have increased the demand for new skill sets among trade union members in the manufacturing sector | 0-10 Years | 14 | 3.143 | .8644 | .2310 | 2.644 | 3.642 | 1.0 | 4.0 |
| | 10-20 Years | 25 | 3.360 | .4899 | .0980 | 3.158 | 3.562 | 3.0 | 4.0 |
| | 20-30 Years | 19 | 3.105 | .4588 | .1053 | 2.884 | 3.326 | 2.0 | 4.0 |
| | 30 Years & Above | 2 | 3.000 | 0.0000 | 0.0000 | 3.000 | 3.000 | 3.0 | 3.0 |
| | Total | 60 | 3.217 | .5849 | .0755 | 3.066 | 3.368 | 1.0 | 4.0 |

Source: Primary data

- For the statement Technological advancements have increased the productivity and efficiency of manufacturing processes in our organization: Participants with 0-10 years of experience rated the impact of technological advancements as 3.214 on average. Participants with 10-20 years of experience rated the impact as 3.320 on average. Participants with 20-30 years of experience rated the impact as 3.368 on average. Participants with 30 years & above of experience rated the impact as 3.500 on average. The overall average rating for the impact of technological advancements was 3.317. The ratings were generally high across all experience groups, with the highest rating observed for participants with 30 years & above of experience.
- Regarding the statement The trade union members in our organization have received adequate training and support to adapt to technological changes: Participants with 0-10 years of experience rated the adequacy of training and support as 2.571 on average. Participants with 10-20 years of experience rated it as 3.160 on average. Participants with 20-30 years of experience rated it as 3.316 on average. Participants with 30 years & above of experience rated it as 2.500 on average. The overall average rating for the adequacy of training and support was 3.050. Participants with 20-30 years of experience had the highest average rating.
- For the statement The trade union members have actively participated in discussions and decision-making processes related to the implementation of new technologies in our organization: Participants with 0-10 years of experience rated their participation as 2.429 on average. Participants with 10-20 years of experience rated it as 2.840 on

average. Participants with 20-30 years of experience rated it as 2.895 on average. Participants with 30 years & above of experience rated it as 2.500 on average. The overall average rating for participation was 2.750. Participants with 20-30 years of experience had the highest average rating.

- Regarding the statement Technological advancements have improved the overall working conditions and safety measures for trade union members in the manufacturing sector: Participants with 0-10 years of experience rated the improvement as 2.857 on average. Participants with 10-20 years of experience rated it as 2.960 on average. Participants with 20-30 years of experience rated it as 3.053 on average. Participants with 30 years & above of experience rated it as 3.500 on average. The overall average rating for improvement was 2.983. Participants with 30 years & above of experience had the highest average rating.
- For the statement Technological advancements have resulted in a reduction in the number of trade union members employed in our organization: Participants with 0-10 years of experience rated the reduction as 3.143 on average. Participants with 10-20 years of experience rated it as 2.840 on average. Participants with 20-30 years of experience rated it as 3.000 on average. Participants with 30 years & above of experience rated it as 3.000 on average. The overall average rating for reduction was 2.967. Participants with 0-10 years of experience had the highest average rating.
- Regarding the statement Technological advancements have increased the demand for new skill sets among trade union members in the manufacturing sector: Participants with 0-10 years of experience rated the demand as 3.143 on average. Participants with 10-20 years of experience rated it as 3.360 on average. Participants with 20-30 years of experience rated it as 3.105 on average. Participants with 30 years & above of experience rated it as 3.000 on average. The overall average rating for demand was 3.217. Participants with 10-20 years of experience had the highest average rating.

Table No. 4.21

| ANOVA | | | | | | |
|--|----------------|----------------|----|-------------|------|------|
| | | Sum of Squares | df | Mean Square | F | Sig. |
| Technological advancements have increased the productivity and efficiency of manufacturing processes in our organization. | Between Groups | .265 | 3 | .088 | .200 | .896 |
| | Within Groups | 24.718 | 56 | .441 | | |

| | | | | | | |
|---|----------------|--------|----|-------|-------|------|
| | Total | 24.983 | 59 | | | |
| The trade union members in our organization have received adequate training and support to adapt to technological changes. | Between Groups | 5.456 | 3 | 1.819 | 2.460 | .072 |
| | Within Groups | 41.394 | 56 | .739 | | |
| | Total | 46.850 | 59 | | | |
| The trade union members have actively participated in discussions and decision-making processes related to the implementation of new technologies in our organization. | Between Groups | 2.172 | 3 | .724 | 1.156 | .335 |
| | Within Groups | 35.078 | 56 | .626 | | |
| | Total | 37.250 | 59 | | | |
| Technological advancements have improved the overall working conditions and safety measures for trade union members in the manufacturing sector. | Between Groups | .862 | 3 | .287 | .799 | .499 |
| | Within Groups | 20.122 | 56 | .359 | | |
| | Total | 20.983 | 59 | | | |
| Technological advancements have resulted in a reduction in the number of trade union members employed in our organization. | Between Groups | .859 | 3 | .286 | .390 | .760 |
| | Within Groups | 41.074 | 56 | .733 | | |
| | Total | 41.933 | 59 | | | |
| Technological advancements have increased the demand for new skill sets among trade union members in the manufacturing sector | Between Groups | .920 | 3 | .307 | .891 | .451 |
| | Within Groups | 19.264 | 56 | .344 | | |
| | Total | 20.183 | 59 | | | |

Source: Primary data

- For the statement Technological advancements have increased the productivity and efficiency of manufacturing processes in our organization: The between-groups sum of squares is 0.265, indicating the variability in ratings among different groups. The

within-groups sum of squares is 24.718, representing the variability within each group. The F-statistic is 0.200 with a corresponding p-value of 0.896, suggesting that there is no significant difference in ratings between the groups. Therefore, there is no strong evidence to conclude that the impact of technological advancements on productivity and efficiency differs significantly among the groups.

- Regarding the statement The trade union members in our organization have received adequate training and support to adapt to technological changes: The between-groups sum of squares is 5.456, indicating the variability in ratings among different groups. The within-groups sum of squares is 41.394, representing the variability within each group. The F-statistic is 2.460 with a corresponding p-value of 0.072, suggesting a marginally significant difference in ratings between the groups. This implies that there may be some variation in the perception of training and support among different groups of trade union members, but further investigation is needed to draw a conclusive inference.
- For the statement The trade union members have actively participated in discussions and decision-making processes related to the implementation of new technologies in our organization: The between-groups sum of squares is 2.172, indicating the variability in ratings among different groups. The within-groups sum of squares is 35.078, representing the variability within each group. The F-statistic is 1.156 with a corresponding p-value of 0.335, suggesting that there is no significant difference in ratings between the groups. Therefore, there is no strong evidence to conclude that the level of participation in discussions and decision-making processes differs significantly among the groups.
- Regarding the statement Technological advancements have improved the overall working conditions and safety measures for trade union members in the manufacturing sector: The between-groups sum of squares is 0.862, indicating the variability in ratings among different groups. The within-groups sum of squares is 20.122, representing the variability within each group. The F-statistic is 0.799 with a corresponding p-value of 0.499, suggesting that there is no significant difference in ratings between the groups. Therefore, there is no strong evidence to conclude that the improvement in working conditions and safety measures differs significantly among the groups.
- For the statement Technological advancements have resulted in a reduction in the number of trade union members employed in our organization: The between-groups

sum of squares is 0.859, indicating the variability in ratings among different groups. The within-groups sum of squares is 41.074, representing the variability within each group. The F-statistic is 0.390 with a corresponding p-value of 0.760, suggesting that there is no significant difference in ratings between the groups. Therefore, there is no strong evidence to conclude that the impact on the reduction of trade union members differs significantly among the groups.

- Regarding the statement Technological advancements have increased the demand for new skill sets among trade union members in the manufacturing sector: The between-groups sum of squares is 0.920, indicating the variability in ratings among different groups. The within-groups sum of squares is 19.264, representing the variability within each group. The F-statistic is 0.891 with a corresponding p-value of 0.451, suggesting that there is no significant difference in ratings between the groups. Therefore, there is no strong evidence to conclude that the impact on the demand for new skill sets differs significantly among the groups.

4.5 LEVINE'S T-TEST with gender and variables

The Levine's t-test is a statistical test used to assess the equality of variances between two or more groups. It is a modification of the traditional t-test that takes into account the assumption of equal variances across groups. This test is particularly useful when working with datasets that violate the assumption of equal variances, allowing researchers to make more accurate inferences and comparisons between groups. In this short introduction, we will explore the concept of Levine's t-test, its application in statistical analysis, and its significance in ensuring robust and reliable research findings.

4.5.1 Gender wise analysis of the roles of Trade Unions in the Manufacturing sector

Table No. 4.22

| Group Statistics | | | | | |
|--|--------|----|-------|----------------|-----------------|
| | Gender | N | Mean | Std. Deviation | Std. Error Mean |
| The trade union(s) in my manufacturing organization are actively involved in addressing employees' concerns. | Male | 47 | 3.277 | .7431 | .1084 |
| | Female | 13 | 3.308 | .8549 | .2371 |
| Trade union representation has been effective in negotiating for better wages and benefits. | Male | 47 | 3.021 | .7937 | .1158 |
| | Female | 13 | 3.154 | .3755 | .1042 |
| The trade union has played a significant role in advocating for workplace safety measures. | Male | 47 | 3.064 | .6394 | .0933 |
| | Female | 13 | 3.231 | .4385 | .1216 |
| The trade union has effectively resolved conflicts or disputes between employees and management. | Male | 47 | 3.064 | .7914 | .1154 |
| | Female | 13 | 3.462 | .5189 | .1439 |
| The trade union provides to facilitate for satisfactory benefits in terms of wages, working hours, job security, and social protection. | Male | 47 | 3.085 | .7469 | .1089 |
| | Female | 13 | 3.462 | .5189 | .1439 |
| The trade union has a substantial influence on shaping company policies and decision-making processes. | Male | 47 | 2.660 | .9155 | .1335 |
| | Female | 13 | 3.154 | .8006 | .2221 |

Source: Primary data

- For the statement The trade union(s) in the manufacturing organization being actively involved in addressing employees' concerns: On average, male employees reported a mean score of 3.277, with a standard deviation of 0.7431. Female employees reported a slightly higher mean score of 3.308, with a slightly higher standard deviation of 0.8549. The standard error of the mean for male employees is 0.1084, and for female employees is 0.2371.
- Regarding the statement, Trade union representation being effective in negotiating for better wages and benefits: Male employees reported a mean score of 3.021, with a

standard deviation of 0.7937. Female employees reported a higher mean score of 3.154, with a lower standard deviation of 0.3755. The standard error of the mean for male employees is 0.1158, and for female employees is 0.1042.

- For the statement The trade union playing a significant role in advocating for workplace safety measures: Male employees reported a mean score of 3.064, with a standard deviation of 0.6394. Female employees reported a slightly higher mean score of 3.231, with a slightly higher standard deviation of 0.4385
- Regarding the statement The trade union effectively resolving conflicts or disputes between employees and management: Male employees reported a mean score of 3.064, with a standard deviation of 0.7914. Female employees reported a higher mean score of 3.462, with a higher standard deviation of 0.5189. The standard error of the mean for male employees is 0.1154, and for female employees is 0.1439.
- For the statement The trade union providing facilitation for satisfactory benefits in terms of wages, working hours, job security, and social protection: Male employees reported a mean score of 3.085, with a standard deviation of 0.7469. Female employees reported a higher mean score of 3.462, with the same standard deviation of 0.5189 as in the previous category. The standard error of the mean for male employees is 0.1089, and for female employees is 0.1439.
- Regarding the statement The trade union having a substantial influence on shaping company policies and decision-making processes: Male employees reported a lower mean score of 2.660, with a higher standard deviation of 0.9155. Female employees reported a higher mean score of 3.154, with a lower standard deviation of 0.8006. The standard error of the mean for male employees is 0.1335, and for female employees is 0.2221.

| Independent Samples Test | | | | | | | | | | |
|---|-----------------------------|---|------|------------------------------|--------|-----------------|-----------------|-----------------------|---|--------|
| | | Levene's Test for Equality of Variances | | t-test for Equality of Means | | | | | | |
| | | F | Sig. | t | df | Sig. (2-tailed) | Mean Difference | Std. Error Difference | 95% Confidence Interval of the Difference | |
| | | | | | | | | | Lower | Upper |
| The trade union(s) in my manufacturing organization are actively involved in addressing employees' concerns. | Equal variances assumed | .136 | .714 | -.129 | 58 | .898 | -.0311 | | -.5126 | .4504 |
| | Equal variances not assumed | | | -.119 | 17.343 | .906 | -.0311 | | -.5803 | .5181 |
| Trade union representation has been effective in negotiating for better wages and benefits. | Equal variances assumed | 1.876 | .176 | -.582 | 58 | .563 | -.1326 | | -.5887 | .3236 |
| | Equal variances not assumed | | | -.851 | 42.892 | .399 | -.1326 | | -.4467 | .1815 |
| The trade union has played a significant role in advocating for workplace safety measures. | Equal variances assumed | .001 | .982 | -.883 | 58 | .381 | -.1669 | | -.5454 | .2115 |
| | Equal variances not assumed | | | -1.089 | 27.760 | .285 | -.1669 | | -.4810 | .1471 |
| The trade union has effectively resolved conflicts or disputes between employees and management. | Equal variances assumed | .016 | .900 | -1.708 | 58 | .093 | -.3977 | | -.8639 | .0685 |
| | Equal variances not assumed | | | -2.156 | 29.251 | .039 | -.3977 | | -.7749 | -.0205 |
| The trade union provides satisfactory benefits in | Equal variances assumed | .034 | .854 | -1.702 | 58 | .094 | -.3764 | | -.8191 | .0663 |

| | | | | | | | | | | |
|---|-----------------------------|------|------|--------|--------|------|--------|--|---------|--------|
| terms of wages, working hours, job security, and social protection. | Equal variances not assumed | | | -2.086 | 27.352 | .046 | -.3764 | | -.7466 | -.0063 |
| The trade union has a substantial influence on shaping company policies and decision-making processes. | Equal variances assumed | .955 | .333 | -1.766 | 58 | .083 | -.4943 | | -1.0544 | .0658 |
| | Equal variances not assumed | | | -1.908 | 21.515 | .070 | -.4943 | | -1.0324 | .0438 |

Source: Primary data

- For the statement The trade union(s) in the manufacturing organization being actively involved in addressing employees' concerns: The test assumes equal variances, and the Levene's test for equality of variances is not significant ($p = .714$), indicating equal variances. The t-test for equality of means is not significant ($p = .898$), suggesting that there is no significant difference in the mean ratings between male and female employees in terms of the trade union's involvement in addressing employee concerns.
- Regarding the statement Trade union representation being effective in negotiating for better wages and benefits: The test assumes equal variances, and the Levene's test for equality of variances is not significant ($p = .176$), indicating equal variances. The t-test for equality of means is not significant ($p = .563$), indicating that there is no significant difference in the mean ratings between male and female employees regarding the trade union's effectiveness in negotiating for better wages and benefits.
- For the statement The trade union playing a significant role in advocating for workplace safety measures: The test assumes equal variances, and the Levene's test for equality of variances is not significant ($p = .982$), indicating equal variances. The t-test for equality of means is not significant ($p = .381$), suggesting that there is no significant difference in the mean ratings between male and female employees concerning the trade union's role in advocating for workplace safety measures.
- For the Statement The trade union effectively resolving conflicts or disputes between employees and management: The test assumes equal variances, and the Levene's test for equality of variances is not significant ($p = .900$), indicating equal variances. The t-test for equality of means is not significant ($p = .093$), indicating that there is no

significant difference in the mean ratings between male and female employees regarding the trade union's effectiveness in resolving conflicts or disputes between employees and management.

- Regarding the statement The trade union providing satisfactory benefits in terms of wages, working hours, job security, and social protection: The test assumes equal variances, and the Levene's test for equality of variances is not significant ($p = .854$), indicating equal variances. The t-test for equality of means is not significant ($p = .094$), suggesting that there is no significant difference in the mean ratings between male and female employees in terms of the trade union's provision of satisfactory benefits.
- For the statement The trade union having a substantial influence on shaping company policies and decision-making processes: The test assumes equal variances, and the Levene's test for equality of variances is not significant ($p = .333$), indicating equal variances. The t-test for equality of means is not significant ($p = .083$), indicating that there is no significant difference in the mean ratings between male and female employees regarding the trade union's influence on shaping company policies and decision-making processes.

4.5.2 Gender wise analysis of Perception to role change Trade Unions Due to the New Labour Code, 2020

Table No. 4.24

| Group Statistics | | | | | |
|--|--------|----|-------|----------------|-----------------|
| | Gender | N | Mean | Std. Deviation | Std. Error Mean |
| The trade union has initiated discussions with its members to educate them about the provisions and impact of the new Labour Code 2020. | Male | 47 | 2.574 | .8007 | .1168 |
| | Female | 13 | 2.923 | .6405 | .1776 |
| The trade union is actively communicating with its members about the potential impact of the new Labour Code 2020 on their rights and interests. | Male | 47 | 2.489 | .7481 | .1091 |
| | Female | 13 | 2.538 | .5189 | .1439 |
| The trade union is developing strategies to ensure effective representation and protection of its members' rights under the new Labour Code 2020. | Male | 47 | 2.426 | .8532 | .1245 |
| | Female | 13 | 2.000 | .5774 | .1601 |
| Trade unions' ability to maintain their current level of power will be sustained once the new codes are implemented. | Male | 47 | 2.745 | .8961 | .1307 |
| | Female | 13 | 2.923 | .8623 | .2392 |
| | Male | 47 | 2.894 | .7293 | .1064 |

| | | | | | |
|---|--------|----|-------|-------|-------|
| The recognition of any union as a negotiating union in an establishment is acceptable if it receives approval from 51% or more of the workers. | Female | 13 | 2.923 | .7596 | .2107 |
| The new labour codes are primarily designed to enhance the ease of doing business and facilitate employers in hiring and firing workers. | Male | 47 | 2.681 | .7549 | .1101 |
| | Female | 13 | 2.923 | .4935 | .1369 |
| The new labour codes significantly weaken collective bargaining. | Male | 47 | 3.170 | .8161 | .1190 |
| | Female | 13 | 3.538 | .5189 | .1439 |

Source: Primary data

- For the statement The trade union has initiated discussions with its members to educate them about the provisions and impact of the new Labour Code 2020: Male employees (N = 47) have a mean rating of 2.574 with a standard deviation of 0.8007. Female employees (N = 13) have a mean rating of 2.923 with a standard deviation of 0.6405. The standard error of the mean for male employees is 0.1168, and for female employees is 0.1776.
- Regarding the statement The trade union is actively communicating with its members about the potential impact of the new Labour Code 2020 on their rights and interests: Male employees (N = 47) have a mean rating of 2.489 with a standard deviation of 0.7481. Female employees (N = 13) have a mean rating of 2.538 with a standard deviation of 0.5189. The standard error of the mean for male employees is 0.1091, and for female employees is 0.1439.
- For the statement The trade union is developing strategies to ensure effective representation and protection of its members' rights under the new Labour Code 2020: Male employees (N = 47) have a mean rating of 2.426 with a standard deviation of 0.8532. Female employees (N = 13) have a mean rating of 2.000 with a standard deviation of 0.5774. The standard error of the mean for male employees is 0.1245, and for female employees is 0.1601.
- Regarding the statement Trade unions' ability to maintain their current level of power will be sustained once the new codes are implemented: Male employees (N = 47) have a mean rating of 2.745 with a standard deviation of 0.8961. Female employees (N = 13) have a mean rating of 2.923 with a standard deviation of 0.8623. The standard error of the mean for male employees is 0.1307, and for female employees is 0.2392.
- For the statement The recognition of any union as a negotiating union in an establishment is acceptable if it receives approval from 51% or more of the workers: Male employees (N = 47) have a mean rating of 2.894 with a standard deviation of

0.7293. Female employees (N = 13) have a mean rating of 2.923 with a standard deviation of 0.7596. The standard error of the mean for male employees is 0.1064, and for female employees is 0.2107.

- Regarding the statement The new labour codes are primarily designed to enhance the ease of doing business and facilitate employers in hiring and firing workers: Male employees (N = 47) have a mean rating of 2.681 with a standard deviation of 0.7549. Female employees (N = 13) have a mean rating of 2.923 with a standard deviation of 0.4935. The standard error of the mean for male employees is 0.1101, and for female employees is 0.1369.
- For the statement The new labour codes significantly weaken collective bargaining: Male employees (N = 47) have a mean rating of 3.170 with a standard deviation of 0.8161. Female employees (N = 13) have a mean rating of 3.538 with a standard deviation of 0.5189. The standard error of the mean for male employees is 0.1190, and for female employees is 0.1439.

Table No. 4.25

| Independent Samples Test | | | | | | | | | | |
|--|-----------------------------|---|------|------------------------------|--------|-----------------|-----------------|-----------------------|---|-------|
| | | Levene's Test for Equality of Variances | | t-test for Equality of Means | | | | | | |
| | | F | Sig. | t | df | Sig. (2-tailed) | Mean Difference | Std. Error Difference | 95% Confidence Interval of the Difference | |
| | | | | | | | | | Lower | Upper |
| The trade union has initiated discussions with its members to educate them about the provisions and impact of the new Labour Code 2020. | Equal variances assumed | 3.550 | .065 | -1.444 | 58 | .154 | -.3486 | | -.8318 | .1346 |
| | Equal variances not assumed | | | -1.640 | 23.471 | .114 | -.3486 | | -.7879 | .0907 |
| The trade union is actively communicating with its members about the potential impact of the new Labour Code 2020 on | Equal variances assumed | 2.294 | .135 | -.222 | 58 | .825 | -.0491 | | -.4925 | .3943 |
| | Equal variances not assumed | | | -.272 | 27.403 | .788 | -.0491 | | -.4194 | .3212 |

| | | | | | | | | | | |
|--|-----------------------------|-------|------|---------|--------|------|--------|--|---------|-------|
| their rights and interests. | | | | | | | | | | |
| The trade union is developing strategies to ensure effective representation and protection of its members' rights under the new Labour Code 2020. | Equal variances assumed | 8.423 | .005 | 1.689 | 58 | .097 | .4255 | | - .0788 | .9298 |
| | Equal variances not assumed | | | 2.098 | 28.194 | .045 | .4255 | | .0102 | .8408 |
| Trade unions' ability to maintain their current level of power will be sustained once the new codes are implemented. | Equal variances assumed | .129 | .720 | -.640 | 58 | .525 | -.1784 | | - .7362 | .3794 |
| | Equal variances not assumed | | | -.655 | 19.779 | .520 | -.1784 | | - .7473 | .3905 |
| The recognition of any union as a negotiating union in an establishment is acceptable if it receives approval from 51% or more of the workers. | Equal variances assumed | .162 | .689 | -.128 | 58 | .899 | -.0295 | | - .4909 | .4320 |
| | Equal variances not assumed | | | -.125 | 18.586 | .902 | -.0295 | | - .5242 | .4652 |
| The new labour codes are primarily designed to enhance the ease of doing business and facilitate employers in hiring and firing workers. | Equal variances assumed | 6.668 | .012 | - 1.091 | 58 | .280 | -.2422 | | - .6868 | .2024 |
| | Equal variances not assumed | | | - 1.379 | 29.348 | .178 | -.2422 | | - .6013 | .1169 |
| The new labour codes significantly weaken collective bargaining. | Equal variances assumed | .459 | .501 | - 1.538 | 58 | .130 | -.3682 | | - .8476 | .1111 |
| | Equal variances not assumed | | | - 1.972 | 30.336 | .058 | -.3682 | | - .7495 | .0130 |

Source: Primary data

- For the statement The trade union has initiated discussions with its members to educate them about the provisions and impact of the new Labour Code 2020: Assuming equal variances, there is no significant difference in means between male and female employees ($t = -1.444$, $df = 58$, $p = .154$). Not assuming equal variances, there is no significant difference in means between male and female employees ($t = -1.640$, $df = 23.471$, $p = .114$).
- Regarding the statement The trade union is actively communicating with its members about the potential impact of the new Labour Code 2020 on their rights and interests: Assuming equal variances, there is no significant difference in means between male and female employees ($t = -0.222$, $df = 58$, $p = .825$). Not assuming equal variances, there is no significant difference in means between male and female employees ($t = -0.272$, $df = 27.403$, $p = .788$).
- For the statement The trade union is developing strategies to ensure effective representation and protection of its members' rights under the new Labour Code 2020: Assuming equal variances, there is no significant difference in means between male and female employees ($t = 1.689$, $df = 58$, $p = .097$). Not assuming equal variances, there is a significant difference in means between male and female employees ($t = 2.098$, $df = 28.194$, $p = .045$). The mean difference is positive, indicating that female employees rate the effectiveness of strategies higher than male employees.
- Regarding the statement Trade unions' ability to maintain their current level of power will be sustained once the new codes are implemented: Assuming equal variances, there is no significant difference in means between male and female employees ($t = -0.640$, $df = 58$, $p = .525$). Not assuming equal variances, there is no significant difference in means between male and female employees ($t = -0.655$, $df = 19.779$, $p = .520$).
- For the statement The recognition of any union as a negotiating union in an establishment is acceptable if it receives approval from 51% or more of the workers: Assuming equal variances, there is no significant difference in means between male and female employees ($t = -0.128$, $df = 58$, $p = .899$). Not assuming equal variances, there is no significant difference in means between male and female employees ($t = -0.125$, $df = 18.586$, $p = .902$).
- Regarding the statement The new labour codes are primarily designed to enhance the ease of doing business and facilitate employers in hiring and firing workers: Assuming equal variances, there is no significant difference in means between male and female

employees ($t = -1.091$, $df = 58$, $p = .280$). Not assuming equal variances, there is no significant difference in means between male and female employees ($t = -1.379$, $df = 29.348$, $p = .178$).

- For the statement The new labour codes significantly weaken collective bargaining: Assuming equal variances, there is no significant difference in means between male and female employees ($t = -1.538$, $df = 58$, $p = .130$). Not assuming equal variances, there is no significant difference in means between male and female employees ($t = -1.972$, $df = 30.336$, $p = .058$).

4.5.3 Gender-wise analysis of the impact of technological advancements on the role and effectiveness of Trade union members

Table No. 4.26

| Group Statistics | | | | | |
|---|--------|----|-------|----------------|-----------------|
| | Gender | N | Mean | Std. Deviation | Std. Error Mean |
| Technological advancements have increased the productivity and efficiency of manufacturing processes in our organization. | Male | 47 | 3.277 | .6821 | .0995 |
| | Female | 13 | 3.462 | .5189 | .1439 |
| The trade union members in our organization have received adequate training and support to adapt to technological changes. | Male | 47 | 2.915 | .9285 | .1354 |
| | Female | 13 | 3.538 | .5189 | .1439 |
| The trade union members have actively participated in discussions and decision-making processes related to the implementation of new technologies in our organization. | Male | 47 | 2.723 | .8522 | .1243 |
| | Female | 13 | 2.846 | .5547 | .1538 |
| Technological advancements have improved the overall working conditions and safety measures for trade union members in the manufacturing sector. | Male | 47 | 2.979 | .6423 | .0937 |
| | Female | 13 | 3.000 | .4082 | .1132 |
| Technological advancements have resulted in a reduction in the number of trade union members employed in our organization. | Male | 47 | 2.915 | .8030 | .1171 |
| | Female | 13 | 3.154 | .9871 | .2738 |
| Technological advancements have increased the demand for new skill sets among trade union members in the manufacturing sector | Male | 47 | 3.213 | .6233 | .0909 |
| | Female | 13 | 3.231 | .4385 | .1216 |

Source: Primary data

- For the statement Technological advancements have increased the productivity and efficiency of manufacturing processes in our organization: Male employees (N=47) have a mean score of 3.277, with a standard deviation of 0.6821. Female employees (N=13) have a mean score of 3.462, with a standard deviation of 0.5189.
- Regarding the statement The trade union members in our organization have received adequate training and support to adapt to technological changes: Male employees (N=47) have a mean score of 2.915, with a standard deviation of 0.9285. Female employees (N=13) have a mean score of 3.538, with a standard deviation of 0.5189.
- For the statement The trade union members have actively participated in discussions and decision-making processes related to the implementation of new technologies in our organization: Male employees (N=47) have a mean score of 2.723, with a standard deviation of 0.8522. Female employees (N=13) have a mean score of 2.846, with a standard deviation of 0.5547.
- Regarding the statement Technological advancements have improved the overall working conditions and safety measures for trade union members in the manufacturing sector: Male employees (N=47) have a mean score of 2.979, with a standard deviation of 0.6423. Female employees (N=13) have a mean score of 3.000, with a standard deviation of 0.4082.
- For the statement Technological advancements have resulted in a reduction in the number of trade union members employed in our organization Male employees (N=47) have a mean score of 2.915, with a standard deviation of 0.8030. Female employees (N=13) have a mean score of 3.154, with a standard deviation of 0.9871.
- Regarding the statement Technological advancements have increased the demand for new skill sets among trade union members in the manufacturing sector: Male employees (N=47) have a mean score of 3.213, with a standard deviation of 0.6233. Female employees (N=13) have a mean score of 3.231, with a standard deviation of 0.4385.

Table 4.27

| Independent Samples Test | | | | | | | | | | |
|---|-----------------------------|---|------|------------------------------|--------|-----------------|-----------------|-----------------------|---|--------|
| | | Levene's Test for Equality of Variances | | t-test for Equality of Means | | | | | | |
| | | F | Sig. | t | df | Sig. (2-tailed) | Mean Difference | Std. Error Difference | 95% Confidence Interval of the Difference | |
| | | | | | | | | | Lower | Upper |
| Technological advancements have increased the productivity and efficiency of manufacturing processes in our organization. | Equal variances assumed | .275 | .602 | -.906 | 58 | .369 | -.1849 | .2042 | -.5938 | .2239 |
| | Equal variances not assumed | | | -1.057 | 24.740 | .301 | -.1849 | .1750 | -.5455 | .1756 |
| The trade union members in our organization have received adequate training and support to adapt to technological changes. | Equal variances assumed | 2.876 | .095 | -2.314 | 58 | .024 | -.6236 | .2695 | 1.1630 | -.0842 |
| | Equal variances not assumed | | | -3.155 | 35.423 | .003 | -.6236 | .1976 | 1.0246 | -.2225 |
| The trade union members have actively participated in discussions and decision-making processes related to the implementation of new technologies in our organization. | Equal variances assumed | 4.335 | .042 | -.490 | 58 | .626 | -.1227 | .2506 | -.6244 | .3789 |
| | Equal variances not assumed | | | -.621 | 29.501 | .540 | -.1227 | .1978 | -.5270 | .2815 |
| Technological advancements have improved the overall working conditions and safety measures for trade union members in the manufacturing sector. | Equal variances assumed | 3.254 | .076 | -.113 | 58 | .911 | -.0213 | .1885 | -.3985 | .3560 |
| | Equal variances not assumed | | | -.145 | 30.347 | .886 | -.0213 | .1470 | -.3213 | .2787 |

| | | | | | | | | | | |
|--|-----------------------------|------|------|-------|--------|------|--------|-------|--------|-------|
| Technological advancements have resulted in a reduction in the number of trade union members employed in our organization. | Equal variances assumed | .654 | .422 | -.903 | 58 | .370 | -.2390 | .2646 | -.7686 | .2907 |
| | Equal variances not assumed | | | -.802 | 16.649 | .434 | -.2390 | .2978 | -.8682 | .3903 |
| Technological advancements have increased the demand for new skill sets among trade union members in the manufacturing sector | Equal variances assumed | .935 | .338 | -.097 | 58 | .923 | -.0180 | .1848 | -.3880 | .3520 |
| | Equal variances not assumed | | | -.119 | 26.963 | .907 | -.0180 | .1519 | -.3296 | .2936 |

Source: Primary data

- For the statement Technological advancements have increased the productivity and efficiency of manufacturing processes in our organization: The Levene's test did not indicate a significant difference in variances ($p = .602$). The t-test results showed that there was no significant difference in means between male and female employees ($p = .369$).
- Regarding the statement The trade union members in our organization have received adequate training and support to adapt to technological changes: The Levene's test suggested no significant difference in variances ($p = .095$). The t-test results indicated a significant difference in means between male and female employees ($p = .024$). Female employees (mean = 3.538) reported higher scores than male employees (mean = 2.915).
- For the statement The trade union members have actively participated in discussions and decision-making processes related to the implementation of new technologies in our organization: The Levene's test did not find a significant difference in variances ($p = .042$). The t-test results revealed no significant difference in means between male and female employees ($p = .626$).
- Regarding the statement Technological advancements have improved the overall working conditions and safety measures for trade union members in the manufacturing sector: The Levene's test showed no significant difference in variances ($p = .076$). The

t-test results indicated no significant difference in means between male and female employees ($p = .911$).

- For the statement Technological advancements have resulted in a reduction in the number of trade union members employed in our organization: The Levene's test did not suggest a significant difference in variances ($p = .422$). The t-test results showed no significant difference in means between male and female employees ($p = .370$).
- Regarding the statement Technological advancements have increased the demand for new skill sets among trade union members in the manufacturing sector: The Levene's test indicated no significant difference in variances ($p = .338$). The t-test results revealed no significant difference in means between male and female employees ($p = .923$).

CASE STUDY

Case studies serve as valuable resources for analyzing real-world situations and delving into the strategies and outcomes of organizations. This particular case study aims to provide a comprehensive analysis of the current roles, effectiveness and growth aspects of trade union in the manufacturing sector with respect to the technological advancements and the New Labour Code, 2020.

CASE 1

Mr. X, Trade Union Y, Company Z

This case study delves into the Roles, effectiveness and growth aspects of the Trade Union Y, at the Z company. The study is based on an interview conducted with Mr. X, a seasoned trade union leader representing Trade union Y. The focus of the interview was on the crucial role of trade unions in addressing trade union member issues, handling technological advancements, the impact of New Labour Codes 2020, and the growth prospects of trade unions in the current landscape.

Leadership Quality and Trade Union Effectiveness

According to Mr. X, the effectiveness of a trade union hinges on the quality of its leadership. A strong and dynamic leader is essential to advocate for the rights and interests of trade union members. These leaders must be able to effectively communicate with the workforce, inspire trust, and make well-informed decisions on their behalf. Additionally, a proactive leader actively engages with members, conducts regular meetings, and ensures that their concerns are

addressed promptly. This fosters a healthy and participative relationship between the members and the trade union, leading to a more effective collective voice.

Addressing Trade Union Member Issues

The trade union leader highlighted the significance of a responsive approach in addressing the issues faced by trade union members. Regular interactions with members, surveys, and open forums enable leaders to gauge the pulse of the workforce and identify the most pressing concerns. Once these issues are identified, the trade union engages in negotiations with the management to find suitable solutions. Collective bargaining is employed to advocate for better wages, improved working conditions, and benefits. This proactive approach not only strengthens the bond between the union and its members but also creates a sense of solidarity among the workforce.

Solutions for Trade Union Members' Problems

Mr. X emphasized that trade union leaders must actively seek and provide solutions to the problems faced by their members. Apart from collective bargaining, they engage in meaningful dialogue with the management to reach amicable resolutions. An effective leader acts as a bridge between the workforce and the management, striving for compromises that meet both parties' interests. Regular feedback and communication channels are established to ensure that member issues are consistently addressed, fostering a sense of trust and support within the union.

Adaptation to Technological Advancements

The trade union leader shared insights into how trade unions have been proactively adapting to technological advancements in the manufacturing sector at HLL. With the advent of automation and advanced machinery, trade unions have recognized the need to embrace change to sustain business operations. They advocate for training programs that help workers upskill and adapt to new technologies. By promoting continuous learning and development, the trade union ensures that its members remain relevant in the ever-changing industrial landscape.

New Labour Codes, 2020

Mr. X expressed the trade union's strong opposition to the New Labour Codes introduced in 2020. According to him, these codes predominantly favor employers and neglect the welfare and rights of workers. The trade union believes that such legislation undermines the hard-won

rights and protections of workers, making it imperative for them to resist and raise awareness among members and the broader workforce. By organizing workshops, seminars, and outreach programs, Trade union Y aims to mobilize its members and unite with other trade unions to voice their dissent.

Impact of Technological Advancements on Workers

Mr. X illustrated how technological advancements have positively impacted workers at HLL. With the integration of automated processes and machinery, the workload of the labour force has significantly reduced. Monotonous and physically taxing tasks have been automated, leading to a more efficient and productive work environment. The elimination of night shifts through automation has also improved the work-life balance of employees, enhancing their overall well-being and job satisfaction.

Importance of Training for Trade Union Members

The trade union leader underscored the importance of training and upskilling programs provided by the management. Such training equips workers with the necessary knowledge and skills to adapt to technological advancements and operate sophisticated machinery safely and efficiently. By supporting the workers' development, trade unions foster a harmonious relationship with the management, leading to increased productivity and quality in the manufacturing sector.

Growth of Trade Unions

Despite the challenges they face, trade unions, including Y, are experiencing growth. The unwavering commitment of trade union members and the ever-present need to safeguard workers' rights contribute to their continued existence. However, Mr. X identified two significant factors that impact trade union growth: ineffective leadership and reluctance to adapt to changing demands. He emphasized the importance of embracing innovative practices and staying attuned to the evolving needs of the workforce.

Trade Union and Management Collaboration

Collaboration between trade unions and management is crucial for fostering a harmonious work environment and achieving mutual benefits. Mr. X pointed out that trade unions and management should work hand in hand to sustain and grow the business while ensuring fair wages, decent working conditions, and employee welfare. Engaging in open and constructive

dialogue helps in identifying common ground and establishing shared objectives that benefit both parties.

Qualifications and Innovation in Trade Union Leadership

According to Mr. X, trade union leaders should possess better educational qualifications to effectively address the complexities of the modern industrial landscape. These leaders must also be proactive in promoting innovative and futuristic practices to safeguard workers' interests and adapt to changing times. By nurturing visionary leaders, trade unions can enhance their capacity to navigate challenges and secure better outcomes for their members and the workforce at large.

This comprehensive case study sheds light on the essential role of effective leadership in trade unions, particularly in addressing member issues, embracing technological advancements, advocating for workers' rights in labour codes, and fostering growth in the ever-changing industrial scenario. The positive attitude towards technology and collaboration with management emerges as key factors for successful trade unions. By investing in proactive and qualified leadership, trade unions can pave the way for improved working conditions, enhanced productivity, and sustainable growth in the manufacturing sector.

CASE 2

Mr. P, Trade union Q, Company R

In this case study, we delve into the pivotal role of Trade Union Q at Company R, as shared by Mr. P, a committed trade union member. Our focus is on understanding how the trade union effectively addresses member concerns, embraces technological advancements, responds to labor codes, and continues to grow in the ever-changing industrial landscape.

The Importance of Trade Union Y and Member Involvement

Mr. P emphasizes the crucial position occupied by Trade Union Q in advocating for its members' rights and interests at Company R. The trade union values active member involvement, allowing workers to play a significant role in decision-making processes. Regular meetings, surveys, and open forums are conducted to ensure that every member, including Mr. P, has a say in the union's actions. This participative approach nurtures a strong bond between the trade union and its members, fostering a sense of trust and loyalty.

Addressing Member Issues

A key strength of Trade Union Q is its swift response in addressing member issues. Mr. P shares how the trade union takes the concerns and grievances of workers seriously, acting promptly to resolve them. When challenges arise, the union engages in meaningful negotiations with the management, striving to find viable solutions that benefit the workforce. The trade union understands the importance of actively involving its members in such processes, as it ensures that their needs are genuinely represented and addressed.

Finding Solutions for Member Problems

Mr. P praises the proactive nature of trade union leaders who actively seek solutions to member problems. They create an environment of open communication and encourage members to provide feedback regularly. This transparent and collaborative approach between the trade union and the management builds mutual trust. As a result, they can reach agreements that not only benefit the workers but also ensure the company's success.

Adapting to Technological Advancements

Trade Union Q stands out in embracing technological advancements at Company R. Mr. P explains how the trade union actively supports training programs that equip workers with the necessary skills to adapt to these changes effectively. By investing in their members' development, Trade Union Q ensures that the workforce remains competitive and well-prepared to tackle the challenges posed by evolving technologies.

Concerns about New Labour Codes 2020

Mr. P expresses his genuine concerns about the potential impact of the New Labour Codes introduced in 2020. He fears that these codes might tilt the balance in favour of employers, potentially compromising workers' rights. In response, Trade Union Q takes proactive measures by organizing workshops, seminars, and outreach programs to raise awareness among its members and the wider workforce. Mr. P actively participates in these initiatives to voice his dissent and protect workers' interests.

Positive Impact of Technology on Workers

According to Mr. P, the implementation of technology at Company R has had a positive impact on the workforce. Automation and advanced machinery have streamlined tedious tasks, leading to reduced physical strain and monotony for workers. As a result, employees experience a

better work-life balance and increased job satisfaction, ultimately benefiting their overall well-being.

Importance of Training for Members

As a dedicated trade union member, Mr. P acknowledges the importance of training programs provided by Company R. These initiatives play a vital role in empowering workers with the necessary skills to adapt to the fast-paced technological changes in the industry. The trade union firmly believes that supporting its members' development not only strengthens the workforce but also fosters a harmonious relationship with the management, contributing to increased productivity and improved quality in the manufacturing sector.

Trade Union Growth

Despite the challenges they face, trade unions like Q continue to grow steadily. Mr. P attributes this growth to the unwavering commitment of trade union members. Through collective advocacy for better working conditions and fair treatment, trade unions remain valuable players in the industrial landscape.

Collaborating with Management

Mr. P firmly believes that collaboration between trade unions and management is essential for creating a positive and productive work environment. Open communication channels allow both sides to understand each other's perspectives, leading to collaborative problem-solving and mutually beneficial outcomes. This fosters a harmonious relationship between the trade union and the management, ultimately benefiting the entire workforce.

Qualifications and Innovation in Trade Union Leadership

Mr. P values leaders with appropriate qualifications who understand the complexities of labor regulations and workers' rights. He supports leaders who promote innovative practices to safeguard workers' interests effectively. By nurturing visionary leaders, trade unions can navigate challenges more effectively, ultimately securing better outcomes for their members and driving positive change.

Trade Union Q's impactful role at Company Z, as shared by Mr. P, showcases the significance of member involvement, responsiveness to concerns, adaptability, and collaboration. By prioritizing their members and advocating for workers' rights, Trade Union Q continues to make a positive impact on the workforce. With devoted members like Mr. P actively supporting

the trade union's initiatives, Trade Union Q plays a vital role in creating a harmonious and successful work environment at Company R.

CHAPTER 5
FINDINGS, SUGGESTIONS, AND CONCLUSION

5.1 INTRODUCTION

This chapter serves as the culmination of the research process, presenting the collected data and analysis to address the research objectives and gain insights into the research topic. The chapter begins by providing a concise overview of the main findings of the study, highlighting key patterns, trends, and relationships derived from the data analysis. It offers a comprehensive understanding of the research findings and their relevance to the research questions. Following the presentation of the findings, the chapter proceeds to offer suggestions or recommendations based on the research findings. These recommendations aim to address the research problem, improve understanding of the topic, or provide practical guidance for stakeholders or decision-makers. It is essential that these suggestions are logical, well-supported by the research findings, and aligned with the research objectives. The chapter concludes by summarizing the main findings, underscoring their significance, and discussing the implications of the study. It may also address any limitations or challenges faced during the research process and propose potential areas for future research.

5.2. FINDINGS

5.2.1 Findings of Demographic Variables

Age

- The 45-55 age group was the largest, comprising 40% of respondents.
- The second largest was the 35-45 age group, comprising 33.3% of respondents.
- The smallest group was the 55+ age group, comprising just 3.3% of respondents. The remaining 23.3% of respondents were aged 25-35 years.

Gender

- The majority, 78.3%, of respondents were male.
- Female respondents accounted for 21.7% of participants.

Experience

- The largest group (41.7%) had 10-20 years of experience.
- The second largest group (31.7%) had 20-30 years of experience.
- The remaining respondents were fairly evenly split between 0-10 years (23.3%) and 30+ years (3.3%) of experience.

Educational Qualification

- The majority (53.3%) had a graduation degree.
- The second largest group (26.7%) had a diploma.
- The remaining respondents were split between higher secondary (11.7%), secondary (5%), and post-graduation (3.3%) education levels

Trade Union of respondents

- The trade union with the highest participation was CITU at 28.3%.
- INTUC and AITUC had equal participation at 26.7% each.
- BMS had the lowest participation rate at 18.3% of respondents.

5.2.2 Findings on the influence of trade unions among employees within the manufacturing sector.

- Respondents hold moderately positive perceptions across various aspects, such as addressing concerns, negotiating for improved wages and benefits, advocating for safety measures, and effectively resolving conflicts.
- While the trade union performs well in addressing immediate concerns and ensuring worker benefits, there could be room for improvement in terms of its impact on overarching company policies
- Trade union representation's effectiveness in negotiating wages and benefits has a notable range of perceptions across unions, with BMS showing the highest mean rating and INTUC the lowest.
- Participants generally perceive trade unions positively in terms of resolving conflicts and advocating for workplace safety, with CITU having the highest mean rating for both.
- The trade unions are perceived similarly across groups in terms of their roles in addressing concerns, advocating for safety, resolving conflicts, providing benefits, and influencing policies.
- Employees with 10-20 years of experience tend to have the most positive perception of trade unions' involvement in addressing employee concerns, while those with 0-10 years have the least positive view.

- The effectiveness of trade unions in negotiating wages and benefits is seen most favorably by those with 10-20 years of experience, compared to those with 30+ years who have the least positive perspective.
- Advocacy for workplace safety by trade unions is viewed very positively by employees with 20-30 years of experience, while those with 30+ years have a relatively less enthusiastic perspective.
- There is a fair degree of consistency across experience levels in how employees perceive the various roles of trade unions, as shown by the lack of statistically significant differences for most statements. This suggests some uniformity in how trade unions are viewed across career stages, rather than sharply divided perspectives between less and more experienced employees.
- Both genders rate the union positively for addressing employee concerns, advocating for safety, and providing benefits. The mean scores are close between males and females.
- Female employees tend to rate the union's effectiveness slightly higher than males across different aspects, as seen in their marginally higher mean scores. However, these differences are statistically insignificant per the t-tests.
- The one area where there is a noticeable gender difference is regarding the union's influence on company policies and decision-making. Females perceive a higher influence than males. But again, this difference is not statistically significant.

5.2.3 Findings on the Perception of role change Trade Unions Due to the New Labour Code, 2020.

- The trade union is moderately successful in educating members and communicating about the new Labour Code 2020, but there's an opportunity for improvement in terms of member representation strategies and addressing concerns related to weakening collective bargaining.
- CITU is perceived as most active in educating members about the new Labour Code. CITU is also seen as communicating most actively about the code's impact.
- BMS is perceived as best able to maintain its power under the new codes, while AITUC is seen as least able.
- AITUC members believe most strongly that the codes weaken collective bargaining, versus other unions.

- BMS uniquely sees the codes as designed to ease business, while INTUC differs in its perception of intent.
- Employees with 10-20 years of experience perceive trade unions as most active in educating about the new code, while those with 30+ years see them as least active.
- The one exception is the perception that the codes ease business and help employers - this specific view shows some significant variation based on experience.
- Mid-career employees see unions as most proactive around the new code, while veterans are least convinced. But generally, perceptions are consistent across experience levels, with a notable variance only on the business impact aspect.
- Female employees have significantly more confidence in the trade union's strategies to protect member rights under the new Labor Code.
- Both genders express concern about the potential weakening of collective bargaining under the new codes, but this concern is moderately higher among female employees
- The major gender difference is in the effectiveness of the union's strategic response to the new Code, where females rate it significantly higher. For other aspects like concern over bargaining and the union's communication efforts, the perceptions of males and females are largely similar.
- The female employees seem more confident in the union's strategies, while both genders share concerns over the potential weakening of collective bargaining power.

5.2.4 Findings on the impact of technological advancements on the role and effectiveness of trade union members in the manufacturing sector.

- Technological advancements are generally seen as having a positive impact on productivity, training, and skill development, there are areas where trade unions could potentially play a more active role, such as in decision-making processes related to technology adoption.
- Perceptions of training adequacy for technological changes vary, with CITU most positive and AITUC the least positive.
- The engagement of members in tech implementation decisions also varies, with BMS more engaged and INTUC less engaged.
- Views on the potential reduction in union members due to technology differ, with CITU seeing more reduction and AITUC less.
- Anticipated demand for new skill sets varies as well, with CITU expecting more demand and INTUC & AITUC less.

- Members with more experience perceive greater productivity/efficiency impact from technology, while less experienced see less impact.
- Participation in tech implementation decisions is consistently moderate across experience groups.
- Perceptions of tech improving working conditions are also consistent across groups
- Experienced trade union members have the most positive view of tech's impact on safety.
- On the various impacts of technology like increased productivity, improved conditions, reduced membership, and new skills demand - male and female views are aligned.
- Both genders have similar views on trade union participation in discussions and decisions regarding new technology implementation.
- The major gender difference is in the perceived adequacy of union training and support for technological adaptation, where women rate this higher. For other aspects like the impact of technology and involvement in tech decisions, male and female perceptions are largely consistent.
- Women seem more satisfied with union efforts to equip members for technological changes. But both genders share common views on other technology-related impacts and union participation.

5.3. SUGGESTIONS

- Trade unions need to enhance their communication effectiveness to help members adapt to evolving business landscapes.
- Actively encourage two-way communication by providing means for members to provide input, feedback and suggestions. This helps align communication to their needs.
- More frequent communication should be initiated rather than just during negotiations or issues, which helps build better connections with members. Regular updates on industry trends, training programs, policies etc. keeps members engaged.
- Positive reforms within trade unions can foster a harmonious coexistence between employers and employees, yielding mutual benefits.
- Unions can partner with employers on training programs and innovative compensation models. This gives workers a stake in the company's success.
- Unions should encourage open communication and joint problem-solving with employers to build trust. Addressing issues cooperatively prevents conflict.

- Recognize most representative unions based on membership size and accord them priority access to management negotiations.
- Allow proportional representation of unions based on membership strength in negotiation forums and works councils. This ensures minority unions have a voice.
- Given the favorable reception among trade union members, employers should blend workforce and technological advancements to boost productivity without workforce reduction.
- The adoption of the New Labour Code, 2020 requires comprehensive dialogues with trade unions, considering their concerns about diminished influence.
- Shifting trade union focus towards comprehensive member development and nurturing strong employee-employer relationships could enhance overall business prospects.
- Trade union leadership must engage in member consultations, solicit suggestions, and enhance operational efficiency.

5.4 CONCLUSION

The study aimed to explore the changing roles of trade unions within the manufacturing sector in India. The study highlights that trade unions continue to play an important role in advocating for workers' rights and interests. However, they face evolving challenges due to technological advancements and the introduction of new labour codes. The research found that trade unions are perceived positively by employees for addressing concerns, negotiating better wages and benefits, resolving disputes, and advocating for workplace safety. However, their influence on broader company policies appears more limited. There is a need for trade unions to enhance communication and engagement with members to adapt to changing business landscapes.

Regarding the new Labour Code 2020, trade unions express concerns about potential negative impacts on workers' collective bargaining power. They are making efforts to educate members but could be more proactive in developing protective strategies. The perception that the codes weaken collective bargaining is moderately high. Technological advancements are seen as having a positive influence on productivity and skill development. But trade union participation in technology implementation decisions appears moderate. There is room for more collaboration with employers on training programs to support members in adapting to new technologies. Overall, the changing industrial relations environment calls for trade unions to focus on member development, nurture strong employee-employer relationships, and adopt innovative practices. Enhanced communication, constructive partnership with employers,

proportional representation, and member-centric leadership could strengthen the role of trade unions. The study provides valuable insights into how trade unions can evolve and sustain their significance in a transforming manufacturing sector.

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APPENDIX

Research Questionnaire

1. Name
 2. Age
 3. Marital Status
 4. Gender
 5. Educational qualification
 6. Designation
 7. Experience
 8. Name of Trade union
 - *To assess the current roles of trade unions among employees within the manufacturing sector.*
 9. The trade union(s) in my manufacturing organization are actively involved in addressing employees' concerns.
 - a) Strongly Disagree
 - b) Disagree
 - c) Agree
 - d) Strongly Agree
 10. Trade union representation has been effective in negotiating for better wages and benefits.
 - a) Strongly Disagree
 - b) Disagree
 - c) Agree
 - d) Strongly Agree
 11. The trade union has played a significant role in advocating for workplace safety measures.
 - a) Strongly Disagree
 - b) Disagree
 - c) Agree
 - d) Strongly Agree
 12. The trade union has effectively resolved conflicts or disputes between employees and management.
 - a) Strongly Disagree
 - b) Disagree
 - c) Agree
 - d) Strongly Agree
 13. The trade union facilitates providing satisfactory benefits in terms of wages, working hours, job security, and social protection.
 - a) Strongly Disagree
 - b) Disagree
 - c) Agree
 - d) Strongly Agree
 14. The trade union has a substantial influence on shaping company policies and decision-making processes
 - a) Strongly Disagree
 - b) Disagree
 - c) Agree
 - d) Strongly Agree
- *To study the perception of the trade union members about their role changes due to the introduction of the New Labour Code, 2020.*

15. The trade union has initiated discussions with its members to educate them about the provisions and impact of the new Labour Code 2020.
- a) Strongly Disagree b) Disagree c) Agree d) Strongly Agree
16. The trade union is actively communicating with its members about the potential impact of the new Labour Code 2020 on their rights and interests.
- a) Strongly Disagree b) Disagree c) Agree d) Strongly Agree
17. The trade union is developing strategies to ensure effective representation and protection of its members' rights under the new Labour Code 2020.
- a) Strongly Disagree b) Disagree c) Agree d) Strongly Agree
18. Trade unions' ability to maintain their current level of power will be sustained once the new codes are implemented.
- a) Strongly Disagree b) Disagree c) Agree d) Strongly Agree
19. The recognition of any union as a negotiating union in an establishment is acceptable if it receives approval from 51% or more of the workers.
- a) Strongly Disagree b) Disagree c) Agree d) Strongly Agree
20. The new labour codes are primarily designed to enhance the ease of doing business and facilitate employers in hiring and firing workers.
- a) Strongly Disagree b) Disagree c) Agree d) Strongly Agree
21. The new labour codes significantly weaken collective bargaining.
- a) Strongly Disagree b) Disagree c) Agree d) Strongly Agree
- ***To evaluate the impact of technological advancements on the role and effectiveness of trade union members in the manufacturing sector***
22. Technological advancements have increased the productivity and efficiency of manufacturing processes in our organization.
- a) Strongly Disagree b) Disagree c) Agree d) Strongly Agree
23. The trade union members in our organization have received adequate training and support to adapt to technological changes.
- a) Strongly Disagree b) Disagree c) Agree d) Strongly Agree
24. The trade union members have actively participated in discussions and decision-making processes related to the implementation of new technologies in our organization.
- a) Strongly Disagree b) Disagree c) Agree d) Strongly Agree

25. Technological advancements have improved the overall working conditions and safety measures for trade union members in the manufacturing sector.

- a) Strongly Disagree b) Disagree c) Agree d) Strongly Agree

26. Technological advancements have resulted in a reduction in the number of trade union members employed in our organization.

- a) Strongly Disagree b) Disagree c) Agree d) Strongly Agree

27. Technological advancements have increased the demand for new skill sets among trade union members in the manufacturing sector.

- a) Strongly Disagree b) Disagree c) Agree d) Strongly Agree

Interview Questionnaire

1. How effective do you think the trade union is in representing the interests of employees in the manufacturing sector? Why?
2. How do you anticipate these changes will impact the role and functioning of the trade union in the manufacturing sector?
3. What measures do you think the trade union should take to adapt to the new provisions of the New Labour Code, 2020?
4. How has technology influenced the role and effectiveness of trade union members in the manufacturing sector? Please provide examples.
5. Are trade union members adequately trained to cope with technological advancements? If not, what measures do you suggest to enhance their skills?
6. In your opinion, what is the current state of trade unions in the manufacturing sector? Are they growing stronger or facing challenges? Why?
7. What recommendations would you make to improve the influence and effectiveness of trade unions in the manufacturing sector?