

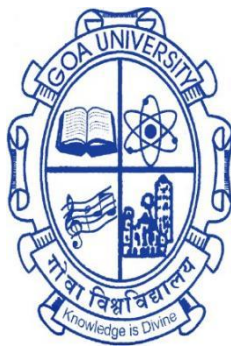
**A STUDY ON CONTRACT
LABOURERS IN THE REGISTERED
MANUFACTURING UNITS IN GOA**

A THESIS SUBMITTED IN PARTIAL
FULFILLMENT FOR THE DEGREE OF

DOCTOR OF PHILOSOPHY

IN

GOA BUSINESS SCHOOL



BY

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**GOA BUSINESS SCHOOL
GOA UNIVERSITY - TALEIGAO PLATEAU, GOA, INDIA
MAY 2023**

DECLARATION

I, K. Sangeeta hereby declare that this thesis represents work which has been carried out by me and that it has not been submitted, either in part or full, to any other University or Institution for the award of any research degree.

Place: Taleigao Plateau

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CERTIFICATE

We hereby certify that the work was carried out under our supervision and may be placed for evaluation.

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ACKNOWLEDGEMENT

The journey of conducting research and composing the thesis involves not only the scholar but also many other individuals, without whose support, assistance and guidance it would not be possible to complete the study. In this voyage, I must express gratitude to my research guide, co-guide, other professors from Goa University and other colleges in Goa, government officials, colleagues, acquaintances, and the respondents.

Prof. Silvia M. De Mendonça e Noronha, my research guide, was instrumental in inspiring me to initiate research on this topic. Her insightful contributions and direction at every stage of the research project were incredibly helpful. The extensive discussions on the research work were always an inspiration to continue with vigour and complete the research.

I express my profound gratitude to my Co- guide Prof. B. P. Sarath Chandran, Goa Business School, Goa University, for providing valuable suggestions and deliberations at different stages of my research work.

In addition to my advisors, I would like to acknowledge the members of my D.R.C. committee for their insightful criticism and support, as well as their contributions that helped me broaden the scope of my research. I especially thank Prof. Purva G. Hegde-Desai, Goa Business School, Goa University, for all the valuable discussion, perspective and deliberations on the research subject. All the comments and suggestions and critical evaluations made by her encouraged me to improvise my work. I am indebted to Prof. Pranab Mukhopadhyay, Goa Business School, for all the encouragement and drive. It is also my bounden duty to express my gratitude to Prof. (Retd.) P.K. Sudarsan, who has supported and assisted me ardently throughout my research.

I also thank all the teaching and non-teaching staff of the Department of Economics under Goa Business School for their support.

The librarian of Goa University- Dr. Sandesh Dessai , Assistant librarian -Shri Nandkishore Bandekar, Teacher in Charge at the Department of Library and Information

Science -Dr. Carlos M. Fernandes and the entire library staff of Goa University need a special mention for all their assistance.

I would like to place on record my profound gratitude to the former Director of Higher Education-Shri Prasad V. Lolayekar (I.A.S) for all his support and guidance. I appreciate the motivation and encouragement given by Assistant Directors of Higher Education -Shri. Vipul Ghare and Shri. Siddhesh Kesarkar .

I am extremely grateful to Prof. Joydeep Bhattacharjee, the Officiating Principal of Government College of Arts, Science and Commerce, Quepem, for his constant encouragement and support throughout my research It is with a profound sense of gratitude that I thank the H.O.D. of the Department of Economics -Dr. Renji George Amballoor for all his cooperation. I am also very grateful to all my colleagues from Government College of Arts, Science and Commerce, Quepem, for their sincere support and motivation.

My fellow researchers at Goa Business School Vishranti Salgaonkar, Husaindad Hassani, Oscar Athaide, Rivya ,Krishankumar Bandolkar , Rupali Tamuly and Sulochana Pednekar inspired me to keep going ahead ,despite all the hurdles.

I also want to thank Shri R. K. Bawalkar , Dr. Deepa Prajith, Dr. Vidhya Dalvi ,Dr. P.S. Devi, Shri. Kavir Shirodkar, Prof. Susheel Mendes, Dr. Kiran Popkar, Ms. Brenda Coutinho, Dr. P.V. Unnikrishnan, Dr. Semel Sardesai, Heramb Aiya, Leeladhar Khumbharjuvekar, Yogesh Shet, Santosh Chari and Ameer Tanavade for unconditionally sharing their knowledge, time and resources. Their insightful suggestions and guidance helped me in taking crucial decisions.

In every aspect of my existence, my family has always been a pillar of support. I sincerely thank my late parents-Mr.K. Kannan and Mrs. K. Saroja. My siblings gave me immeasurable affection and continued support in all situations. I would also like to acknowledge all my other friends and acquaintances for their support during my time of need. My dearest sister Mrs.Kavita V. Borkar and my best friend Ms.Kavita Davre and her late mother Smt. Jayanti Davre stood as pillars of support during crisis.

I also express my appreciation to all the contract workers working at various manufacturing firms in the industrial estates in Goa for giving me their valuable time for an interview. I am also obliged to the contractors and the entrepreneurs from the industrial estates for their assistance.

I am grateful to the authorities at the office of the Commissioner of Labour and Employment -Panjim, Goa Industrial Development Corporation -Panjim and all the other government offices in various industrial estates in Goa for providing valuable information. I appreciate all those who have directly or indirectly contributed to the successful completion of the research project.

- K. Sangeeta

DEDICATED TO

My Mummy

Late Mrs. K. Saroja

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LIST OF ABBREVIATIONS

AGFI	Adjusted Goodness of Fit Index
CFA	Confirmatory Factor Analysis
CFI	Confirmatory Factor Index
CMIN/DF	Chi-Square/Degree of Freedom
C R	Critical Rotation
EE	Employee Engagement
EFA	Exploratory Factor Analysis
EV/V	Employment Vulnerability
GFI	Goodness of Fit Index
IFI	Incremental Fit Index
ILO	International Labour Organisation
JS	Job Satisfaction
KMO	Kaiser-Meyer-Olkin
NFI	Normed Fit Index
RFI	Relative Fit Index
RMR	Root Mean Square Residual
RMSEA	Root Mean Square of Approximation
SE	Standard Error
SEM	Structural Equation Modeling
TLI	Tucker Lewis Index
VIF	Variance Inflation Factor

CHAPTER I

INTRODUCTION

1.1 BACKGROUND OF THE STUDY

When the labourer co-operates systematically with others, he strips off the fetters of his individuality and develops the capabilities of his species.

-Karl Marx

A well-motivated employee who is psychologically content with his work and is well engaged in his work is a valuable asset to the enterprise, as his work potential is at its maximum. Organisations willingly upgrade their human resource management strategies to retain well-engaged workers. All these seem true in the case of permanent workers; however, in the case of a contractual setting, the situation may differ, as the absence of job security and the risks associated with the work environment make the contract workers highly vulnerable. Needless to say, this would also change the dynamics of job satisfaction levels. Issues related to labour can be better understood through an interdisciplinary approach.

It may seem that having a workforce that is both devoted and driven by the enterprise is a desired and ideal condition for the organisation. Accordingly, in today's global business climate, job happiness and dedication to the company are insufficient to ensure that workers perform at their best and relate their efforts to the organisation's objectives. After focusing on creating an environment and incentive programmes for workers to ensure that they are happy with their pay, benefits, and work environment, employers have begun focusing on initiatives to maintain employee loyalty to the company and prevent them from considering quitting. But the situation cannot be generalised to a workforce for whom the principal employer is not directly accountable (Horvathova et al., 2019).

The National Sample Survey Organisation (NSSO) conducts the Annual Survey of Industries (ASI) annually. It is the primary source of industrial statistics in India. The 2017-18 ASI report is the most recent report published by the NSSO. The number of factories increased by 85 % from 128,549 in 2001-02 to 237,688 in 2017-18, according to

data from the ASI between 2001-02 and 2017-18. Simultaneously, the workforce increased by 105 percent, with contract workers experiencing the greatest growth at 243 percent.

As per the Economic Survey 2021-2022 of India, the industrial sector's proportion of total Gross Fixed Capital Formation (GFCF) in the economy (at current prices) was 30.1 percent in 2019-20. From 2011-2012 to 2019-2020, the manufacturing GFCF increased by 10.2 percent. Manufacturing accounted for 51% of GFCF in the industrial sector between 2019 – 2020. Contract labour is a sizable and rising segment of the labour force employed in manufacturing. Large Indian manufacturing enterprises have depended on contract workers who are not subject to the Industrial Dispute Act more and more since the early 2000s. According to Marianne, Chang-Tai and Nick (2021) around 38% of all employees at companies with 100 or more employees were contract workers by 2015 in comparison to 20 percent in the year 2000.

According to Singh et al. (2019), a significant proportion of employees in the formal manufacturing industry in India are classified as "contract" workers. These individuals are recruited via labor contractors and often experience lower earnings and a lack of job security compared to regular workers. Outsourcing of work and contractualising have become a rapidly rising trend, not just in the industrial sector but as a global trend in all sectors of the economy (Basu, Chau & Soundararajan, 2021). The contract labour system is a broad term for employees hired through an employment agency. It is built on a triangle of interaction between businesses, contractors (including subcontractors) and employees. These employee number in the millions and are mostly ununionised. They have little negotiating power, little or no financial resources and minimum social security coverage. They are often involved in dangerous activities that risk their health and well-being. They often do not get minimum pay and suffer from a sense of insecurity. However, the sporadic nature of the task and the employer's difficulties in ensuring tighter oversight, cost-effectiveness, and personnel deployment flexibility justify the contract labour system. Recognising the importance of contract labour protection, the Contract Labour (Regulation and Abolition) Act of 1970 was enacted to regulate and abolish contract labour statutes governing the use of contract labour in particular industries to regulate institutions and to allow for their elimination in certain situations due to concerns pertaining to it. The Central Rules on Contract Labour (Regulation and Abolition), 1970, came into effect on 10.02.71 and were practically enforced from 1974.

An employee might be content at the job without feeling engaged since engagement involves more than being well compensated. These elements contribute to work satisfaction, which is usually sufficient to keep most employees. However, work happiness alone is insufficient to guarantee productivity. In contrast, concentrating on employee engagement will boost productivity. If workers are engaged, they will be fully immersed in and committed to their tasks. Nonetheless, establishing engagement requires more than what is required to provide contentment. Despite this, employee happiness provides a solid basis for expanding employee engagement, one on which it may flourish (Khan, 1990).

Suppose a company is able to really engage its workers; in that case, one may anticipate increased employee retention, customer happiness, productivity, quality, and creativity. Moreover, engaged personnel spend less time on training and have fewer mishaps. The crucial issue is whether this rationale also applies to 'contract' based employment. Goñi & Ollo (2017) have concluded that the job satisfaction level among workers is low. If better engagement is expected, then the focus must be on the different dimensions that ensure the same.

Employee engagement refers to a sense of belonging with the organisation that influences a worker's loyalty and sense of belonging (Saks,2006). The more a person's engagement, the more likely they are to demonstrate greater loyalty. In contrast, job satisfaction occurs when an employee likes their employment. Therefore, a person's prestige does not influence work satisfaction. Instead, it is fueled by the satisfaction of performing what they love. There is no need for a pleased employee to also be a committed employee. But for involvement to occur, a worker must at least enjoy, if not love, their task. Nevertheless, the reality remains. Both work satisfaction and staff engagement must be maintained to improve organisational results. Neglecting one to enhance the other or mistaking them for identical will be costly. Turnover will increase, but loyalty will decline.

Industrial labour significantly contributes to the country's economic growth. To successfully compete in the global market, the industrial sector needs the flexibility to bypass labour rigidities. A worker must possess productive efficiency, skill and adaptability to have the potential to be a growth agent. But then, the crucial point that must be investigated is whether the contract labour flourishing in the industry offers the circumstances for such expansion. When a business uses contract employees supplied through a mediator, the phrase -contract labour or worker- is typically employed. The

employment of contract workers differs significantly from the conventional employment of permanent employees inside an organisation. In India, contractual hiring is accomplished via "job contracting", in which the business engages in a contract arrangement. In order to fulfill his duties as an employer, the contractor manages and supervises the employees mentioned above and is obligated to pay their salary. In accordance with the terms of the contract, the user company compensates the contractor for work completed and services rendered. Typically, the user company is only interested in the finished service or product and is not concerned with the quantity of contract employees employed by the contractor. The contingent employees in the contract labour system are economically vulnerable. This group continues to supply unskilled to skilled labour in industries but lacks access to the wage/pay structure, benefits and social security offered to normal industry employees. The majority of this group is deployed seasonally or periodically based on industry needs. Even though they may have worked in comparable positions or industries/organisations for numerous years, perhaps with breaks, there seems to be no substantial rise in benefits relative to normal workers. Their seasonal employment and poor salaries have continued to exacerbate social tension.

1.2 CONTRACT LABOUR SYSTEM IN INDUSTRIAL ESTATES

As per the International Labour Organisation & ACTRAV (2012), when employees are not hired directly by the business to which they provide services, their hiring falls under contractual agreements involving numerous parties. However, the job is executed for the user firm. In most nations, an employment contract or connection exists between the agent and the employee. In contrast, a commercial contract links the agent and the user company. In general, there is no employment connection between the temporary contract worker and the user business; nevertheless, several countries put the onus of legal duties on the user firm concerning the temporary employee worker, particularly in terms of health and safety. The user company pays expenses to the agent, while the agent pays the worker's salaries and social benefits. Although temporary agency employees are generally considered to be in a legal employment agreement, the worker's rights may be limited or unclear due to the various parties involved. The contract labour system is also called agency work, fixed-term contract work in labour-related literature.

The robust industrialisation, after the launch of the New Economic Policy in Indian 1991, paved the way for informalisation of the workforce in the economy. The empirical situation is appropriate for studying the incidence of temporary contract employees in the organised (formal) Indian labour market as the share of temporary contract workers in the total organised employment has increased dramatically. For the period 1995-2010, the proportion of temporary contract employees climbed from ten percent to twenty-seven percent, while the share of regular workers decreased from 68 percent to 54 percent.

The Contractors can hire the appropriate labour force and retain a surplus pool of workers, hopefully allowing employees to find employment based on industry demand. Some labourers like to work for two years at a time, then return to their farm in their hometown for a change of pace before returning to contract labour. Although the employees entered the manufacturing business, they did not fully commit to it. They devised a rational plan to ensure the continuation of their income. The farm and the community are their pillars of support and eternal security.

Robinson et al. (2022) state that subcontractors in Japan seek to maintain full employment at big assemblers during economic downturns. The subcontractors reveal that the contract employees are the first to be badly affected when budgets drop to maintain full employment for permanent workers. Despite legislative requirements demanding parity, contract employees in Japan have never received the same pay and benefits as regular workers for comparable labour. The imbalance has been compounded by the unforeseen implications of the 2012 revision to the Labour Contracts Act 2007. Since their first employment, contract employees have lagged behind their permanent employees, and the gap widens with age. They investigated the inability of contract and part-time workers in Japan to stand up for themselves and improve their situation. They notice that the challenge of speaking openly when one's employment is at risk contributes to contract workers' lack of voice.

Temporary contract employees fall under the non-regular worker group. They are hired by a third party (a contractor) and not represented by a trade union and hence have no negotiating power (Shyam Sunder,2011). With such deviations from the norm, firms are encouraged to engage a growing number of contract employees. Of the various forms of employment that emerged in countries to dodge the stringent labour laws, the most preferred one is Contract labour (Rajeev,2009).

Undoubtedly, the system employs job seekers, but the vital question remains whether they are connected with their work and gain contentment. The contract workers are subjected to hazardous or shoddy work and face problems like lower salaries, irregular or unpredictable income, insufficient occupational safety and health protection, changes in work hours or volume, and access to "normal" non-wage welfare benefits is limited or non-existent. Social security coverage is insufficient and there is limited mobility towards higher-quality occupations (e.g., permanent/regular work). Promotional opportunities are few, even lesser are the opportunities for training. Trade union representation or collective bargaining coverage is limited or non-existent. Negotiating authority is limited. There is also a reluctance to do non-standard tasks on the part of the workers. There are no viable labour market options. There is low coverage of labour legislation, particularly for workers with commercial contracts, which affects their loyalty.

Castellani et al. (2020), using the data from the Colombian Annual Manufacturing Survey (AMS) between 2000 and 2014, ran a structural model to examine the effect of labour contract modalities on firm productivity in the industrial sector. The results indicate that the elasticity of income concerning temporary workers is frequently lower than that with permanent workers, except in small firms, where some forms of flexibility may lead to productivity gains.

In India, no explicit legislation dealt in depth with contract labour, before enacting the Contract Labour Regulation and Abolition Act 1970. However, legislation such as the Industrial Disputes Act of 1947 and the Payment of Wages Act of 1936 did not completely protect the workers' interests. In the past, these enactments were not created with a specific purpose to address the issue of contract labour. As a result, there was a requirement for specific legislation to prevent contractors and establishments from exploiting contract labourers. The primary goal of the Act is to regulate contract labour employment and, in certain situations, its abolition. Sapkal (2015) concludes that the discrepancy between labour legislation and its practical enforcement in developing countries have not provided sufficient incentives for compliance. Businesses seek to employ more contract workers, lower labour expenses, and enable them to adjust to swings in product market competitiveness. Parry (2013) describes how contract workers at an Indian steel factory vary from regular employees. The two types of employees consider themselves as separate social classes. However, the distinction between *Naukri* (stable work) and *Kam* (non-secure wage labour) – is broadly consistent between formal and informal sector

employment. Differences in lifestyle and attitudes — a divide that has increased with India's economic liberalisation — separate the two types of employees at work. Gender, regional ethnicity, and urban/rural domicile—all have a role in the creation of the two job groups. Even inside the workgroup, the relationships between permanent and contract employees are significantly different. Less is seen outside of it, reflecting the general idea that the two types of workers are socially distinct. Hence, any attempt to study the difference between them may not be practically useful, as the difference is well established in the literature.

In most nations, an employment contract or connection exists between the agent and the employee. In general, there is no employment connection between the temporary contract worker and the user business. They are hired via a mediator not represented by a trade union and hence have no negotiating power. Their plight is such that, despite legislation to bring them on par with regular employees, has in no way ameliorated their shaky employment status. Since their first employment, contract employees have lagged behind their permanent colleagues. The elasticity of income for temporary workers is frequently lower than that for permanent workers. The contract workers are the first to be negatively affected when budgets drop. Legislation has been passed to regulate contract labour employment and, in certain situations, its abolition. However, these enactments were not created with a specific purpose to address the issue of contract labour. The discrepancy between labour legislation and its practical enforcement in developing countries has not provided sufficient incentives for compliance.

The Contract Labour (Regulation and Abolition) Act, 1970, has been complimented by the Occupational Safety and Health Act (OSH) Code, 2020, which was announced on 29.09.2020 (Section 45 to Section 58). It will take effect when the Central Government notifies it. The OSH Code now extends to contract labour with 20 to 50 workers. The OSH Code specifies an institution's core function as its founding purpose and any related activity. It stipulates the standard safety precautions that must be observed in connection with the task, which is essential for all employees. This Act may enhance the sense of security among the contract labour, if implemented stringently. On June 26, 2020, the Government of Goa enacted the Contract Labour (Regulation and Abolition) (Goa Amendment) Act, 2020.

1.3 A BRIEF INTRODUCTION TO EMPLOYEE ENGAGEMENT, JOB SATISFACTION AND EMPLOYMENT VULNERABILITY

An employee is an organisation's most valuable asset. Without committed personnel, no company can function. Employee engagement enables workers to participate in management decision-making and organisational development activities commensurate with their organisational levels. Since McGregor's Theory Y, proposed in the 1950s, first introduced the concept of a participatory management style to managers, employee engagement has taken various forms, including job design techniques and specific activities such as quality of work life (QWL) initiatives. It signifies that each employee is treated as an individual rather than a gear in a machine and that each employee contributes to the achievement of the organisation's objectives. Employees and management acknowledge that each employee contributes to the firm's operation. As employees are the primary assets of a business organisation, no organisation can ever reach its objectives without them. Employee engagement was shown to have a substantial relationship with employee empowerment, and labour empowerment was discovered to have an important relationship with employee satisfaction. The participation of employees is one of the options for managing the employer-employee relationship.

Nimon et al. (2016) opine that evaluating the manifest validity of employee engagement and job satisfaction may give more insight into the employee engagement construct's core layer. This information may give more evidence to researchers and practitioners on the practical value and conceptual clarity of the still-emerging employee engagement construct compared to a more established, extensively employed, and developed construct such as job satisfaction.

1.3.a Employee Engagement

Disengaged employees may display detrimental job behaviours. They disengage from the company, exhibit more absenteeism, and express a greater desire to quit the organisation than their more involved counterparts. Employees who are disengaged at work are, in fact, typically engaged in harmful actions. Thus, low levels of work engagement indirectly harm critical organisational outcomes. Employee engagement has been conceptualised as an active, positive psychological state associated with work (Parker & Griffin, 2011), (Shuck et al., 2013). Christian et al. (2011) defined engagement as the energetic, vibrant pull of

involvement that pulls an individual to their work (Kahn,1990). Employee Engagement is 'psychological presence' or 'to be fully present'; it is a concept that emerged from role theory and is coined as a state that encompasses 'personally engaging behaviors' that involve channeling one's physical, cognitive, and emotional energies. Although Kahn (1992) provides an exhaustive theoretical conceptual framework, he does not give an integrative conceptual framework.

As of 2000, employee involvement was a relatively new notion. This notion has several different meanings. A strong working connection with your coworkers, for example, implies that your employees are enthusiastic about their work and eager to put up their best effort. Furthermore, those who like what they do are more likely to donate "something extra" to the organisation, and they have their own intent and satisfaction while doing it. Engaging employees means they feel a strong sense of loyalty or affiliation to the company.

In other words, engagement is a mechanism that makes it possible for employees and the company to perform better. In the end, it's all about workers and their jobs. An engaged workforce is interested in and enthusiastic about the tasks at hand. It is willing to put in extra effort to get the job done on time and within budget. Employee and company involvement is a win-win situation. Employees who are dedicated to their companies will go above and beyond for one another because they believe that investing in their connection is advantageous to both parties. Employees working in social exchange see their job as a way to give back to their company. Engaged individuals feel an energising and effective connection to their work activities and see themselves as fully capable of meeting the job expectations. This assertion has been validated by several research publications, i.e., it establishes the influence of employee engagement on the organisation's performance.

1.3.b Job Satisfaction

Among the aspects of workers' attitudes regarding their professions, such as job participation and organisational dedication, job satisfaction has attracted the most attention from studies. Employee satisfaction has been widely explored in the literature on human resource management. The discrepancy between employee expectations and reality is shown by work satisfaction. For example, an irritated and dissatisfied employee is prone to poor work satisfaction. Consequently, work satisfaction may be a highly subjective, rather than objective indication of attitude and the degree of job satisfaction is partly a result of

the difference between aspirations and the actuality of the present employment. Wright and Kim (2004) tries to outline job satisfaction as a representation of an interaction between employees and their work environment. They study the congruence between what employees want from their jobs and what employees feel they receive.

1.3.c Employment Vulnerability

Progressively uncommon is lifelong, full-time, and permanent work. Employment arrangements have grown far more diverse and might now encompass contracts, part-time labour, temporary employment, or a mix of basically two jobs. Employment vulnerability adds to the predicament of the labourers. Burgess &Connell (2015) have opined that there is little unanimity in the literature about what defines vulnerable labour. Typically, written conditions include the employment contract, the terms of work situations, the placement of work in the workforce regulatory system, and the contract of service, including wage and non-wage conditions. They further clarify that vulnerability is no longer restricted to specific job arrangements, such as dependent employment, or certain groups of workers, such as the young, disabled, aged, or migrant workers. They maintain that it now encompasses all working arrangements and groups within the workforce. According to his study in Canada, Saunders (2006) sees vulnerability as a process of risk transfer from businesses and governments to people, households, and society. Social vulnerability includes employment vulnerability. Thus, it establishes a relationship with the informal economy (Garzón-Duque et al., 2017).

According to Sparreboom and de Gier (2008), employment vulnerability may be defined as the threat of performing under substandard circumstances or "the danger of missing suitable employment." Bazillier, Boboc and Calavrezo (2016) have listed three primary techniques for defining job vulnerability. The first, created by the International Labour Organisation in 2010, defines employees in vulnerable jobs as the aggregate of self-employed and family workers without monetary reward. The second method focuses on poor income, whereas the third approach covers the multiple characteristics of occupational vulnerability. Payment does not compensate for the contractual uncertainty that these labourers face. Numerous employment vulnerability indicators have been listed in the literature: lack of job protection and welfare benefits, site of employment and kind of employment contract, pay, and unionisation (Ferus- Comelo ,2014).

The vulnerability-at-work approach has been considered in the present study. The Factories Act of 1948 specifies that every manufacturing company must ensure safety, health, and welfare requirements at all work locations. Any company that fails to do so is subject to fines, penalties and possible criminal prosecution. There is a strong correlation between the health and safety of contract workers and their working conditions in industries. Respondents have shared their thoughts on various topics relevant to their jobs.

1.4 FOCUS OF THE RESEARCH

This research is mainly interdisciplinary, covering Industrial Economics, Behavioural Economics, and Economic Psychology. The nature of contract labour is such that many factors come into play, from recruitment to pay, from safety to security. It must be noted that they are recruited differently from other labourers, such as permanent, temporary, and casual. They are recruited and supplied to work establishments through intermediaries or agencies. This practice has exacerbated discrimination in pay, working conditions, and job security for permanent and contract workers working in the same location. The contract labourers who provide value to the production get low compensation and a subordinate position to a significant degree. Finally, the combined impact has resulted in societal inequality, and the bulk of the workforce has little bargaining power. As the behaviour of employees is a critical component in determining an organisation's performance, how to increase employee engagement in their job and involvement in the innovation process is critical for businesses.

The purpose of this study is to ascertain the link between contract employee engagement and job satisfaction, as well as to examine the effect of the insecure nature of their employment on this relationship. It explores if the rising marketisation of labour and the associated contract labour would lead to a decline in the quality of work involved and pose a danger to the level of satisfaction. At the same time, the impact of gender, job type, and educational levels of the workers as mediating factors is also explored.

1.5 STATEMENT OF THE RESEARCH PROBLEM

The state of Goa, commonly known as Konkan, is located on India's west coast. In 1961, it was freed from Portuguese domination and became India's 25th state in 1987. The

government designed to facilitate the rapid growth of enterprises by setting up new industrial estates under the supervision of the Goa Daman and Diu Industrial Development Corporation, now known as the Goa Industrial Development Corporation, which was established in 1966.

Owing to its cost-effectiveness, the contract labour system is the most preferred employment in the industrial sector in the state. An engaged employee understands the business environment and collaborates with coworkers to enhance job performance for the company's benefit. Engagement involves a two-way interaction between employer and employee, which must be developed and fostered by the business. Thus, employee engagement measures an individual's affiliation with the firm. The research examines contract employee engagement and work satisfaction levels with their positions and responsibilities. Permanent employees who are familiar with each other and accustomed to collaborating are more likely to feel responsible towards one another and the task they produce. However, it may not happen with contract employees. Significant support is needed as contract labourers' vulnerability is higher. This support will increase their level of skill and efficiency, and overall contentment. Hence, factories relying more on contract employment must seriously gauge the workers' engagement level. When these different aspects are examined comprehensively and integrated, it will provide a clear overview of the situation of contract labourers in Goa. This study looks at the engagement level of the contract workers in their work despite the vulnerabilities associated with it and the job satisfaction derived from work. Disengaged employees are neither economically profitable for the enterprise nor for themselves. Therefore, the focus here is on analysing the impact of employee engagement among contract workers on their job satisfaction. The purpose is to contribute to a thorough knowledge of the factors that influence contract employees' sense of attachment to their work and how it affects their job satisfaction. Further, a conceptual approach that sees employment vulnerability as a mediating factor that affects the position of contract workers in the job market is also undertaken. The employment type, education, gender, and income of the contract employees are the other factors studied as influencing agents.

1.6 RESEARCH QUESTIONS

The research supports a systematic, scientific, relevant, and trustworthy topic investigation. The study is divided into four primary areas of work: scale creation for the measurement of the constructs, data collection and analysis, examination of the connection between the structures and their dimensions, and examination of the influence of mediating and moderating variables, as well as their interaction with one another. The research questions are:

1. What is the relationship between employee engagement, job satisfaction, and employment vulnerability among contract workers?
2. Does employment vulnerability mediate the relationship between employee engagement and job satisfaction among contract workers?
3. Do gender, job type, and educational level moderate the mediating role of employment vulnerability on the relationship between employee engagement and job satisfaction among contract workers?
4. What is the influence of demographic and occupational variables on employment vulnerability, job satisfaction, and employee engagement?
5. What is the association between demographic and occupational variables and the expenditure patterns among contract workers in the manufacturing units?

1.7 OBJECTIVES OF THE STUDY

The primary purpose of this study is to examine the association between contract labourers' degree of engagement with work and job satisfaction in manufacturing firms located in industrial estates in Goa. The intent is to thoroughly investigate the relationship between the precarious state of labourers and their degree of contentment. The study's aims are as follows:

- I To study the relationship between employee engagement, job satisfaction and employment vulnerability of the contract workers.
 - a. To understand if employment vulnerability explains the relationship between employee engagement and job satisfaction of contract workers.
 - b. To examine whether the influence of employment vulnerability on the relationship between employee engagement and job satisfaction differs as per

the difference in gender, job type, and educational level of the contract workers.

II To study the influence of demographic and occupational variables on employment vulnerability, job satisfaction, and employee engagement of contract workers.

III To study the association between demographic and occupational variables and expenditure pattern of contract workers in the manufacturing units.

1.8 RESEARCH HYPOTHESES

The main hypotheses developed and put to the test using relevant techniques to understand better the study's research objectives are:

H₀1(i) There is no significant relationship between employee engagement, job satisfaction, and employment vulnerability of contract workers in the manufacturing units.

H_a1(i) There is a significant relationship between employee engagement, job satisfaction and employment vulnerability of contract workers in the manufacturing units.

H₀1(ii) Employment vulnerability does not significantly mediate the relationship between employee engagement and job satisfaction in the manufacturing units.

H_a1(ii) Employment vulnerability significantly mediates the relationship between employee engagement and job satisfaction in the manufacturing units.

H₀1(iii) Gender, job type, and educational level do not significantly moderate the mediating role of employment vulnerability on the relationship between employee engagement and job satisfaction of contract workers in manufacturing units.

H_a1(iii) Gender, job type, and educational level significantly moderate the mediating role of employment vulnerability on the relationship between employee engagement and job satisfaction of contract workers in manufacturing units.

H₀2(i) There is no significant difference in job satisfaction, employment vulnerability and employee engagement across the genders of contract workers in the manufacturing units.

H_a2(i) There is a significant difference in job satisfaction, employment vulnerability and employee engagement across the genders of contract workers in the manufacturing units.

H₀2(ii) There is no significant difference in job satisfaction, employment vulnerability and employee engagement across the job type of contract workers in the manufacturing units.

H_a2(ii) There is a significant difference in job satisfaction, employment vulnerability and employee engagement across the job type of contract workers in the manufacturing units.

H₀2(iii) There is no significant difference in job satisfaction, employment vulnerability and employee engagement across the educational level of contract workers in the manufacturing units.

H_a2(iii) There is a significant difference in job satisfaction, employment vulnerability and employee engagement across the educational level of contract workers in the manufacturing units.

H₀3(i) There is no significant association between gender and household consumption expenditure pattern on food and non-food items of contract workers in the manufacturing units.

H_a3(i) There is a significant association between gender and household consumption expenditure pattern on food and non-food items of contract workers in the manufacturing units.

H₀3(ii) There is no significant association between job type and household consumption expenditure pattern on food and non-food items of contract workers in the manufacturing units.

H_a3(ii) There is a significant association between job type and household consumption expenditure pattern on food and non-food items of contract workers in the manufacturing units.

H₀3(iii) There is no significant association between educational level and household consumption expenditure pattern on food and non-food items of contract workers in the manufacturing units.

H_a3(iii) There is a significant association between educational level and household consumption expenditure pattern on food and non-food items of contract workers in the manufacturing units.

1.9 RESEARCH METHODOLOGY

This study employs micro- approaches to examine the relationship between employee engagement and job satisfaction among contract workers in industrial estates in Goa, with employment vulnerability as a mediator. A quantitative methodology is employed to achieve the research objectives and address its queries. Specifically, descriptive research methodology is utilised in this study to provide a complete and trustworthy examination of the relationships between and among the variables. This study's population consists of the labourers hired by contractors for further employment in the manufacturing enterprises in the industrial estates. The chosen firms had been in operation for at least five years, and the contract labourers interviewed had a minimum of three years of experience. The major source of data was collected through structured interviews with respondents, who were unskilled and semiskilled contract workers. In addition to the in-person interviews, respondents were also contacted by phone for prompt feedback. The chosen sample is a representative cross-section of contract workers, from which in-depth insights are drawn. The population of the study is unknown since no regular record is maintained by government agencies about the number of contract workers employed in the manufacturing units. Owing to the absence of cooperation from the principal employers and the contractors, the population of the study could not be verified and hence, it was presumed that the universe of the research is unknown. The 580 respondents who participated in the survey were all employed in manufacturing units at the time of the study. The respondents, principal employers, and contract employees only consented to participate under the condition of anonymity; therefore, the identities of the companies, contracting agencies, and contract labourers are withheld. Despite the use of convenience sampling for the selection of respondents, the interviews were done in a random way, ensuring an equitable chance for participation in the research. The absence of a sample frame is evident. The concept of randomness has been assigned significant importance. During interactions, both the local language and a language understood by the labourers were employed.

Descriptive analysis using numbers, percentages, and graphs is among the statistical methods used for data analysis. The model is evaluated using Structural Equation Modeling (SEM). Path analysis assesses the model's assumptions about the relationships between the various components. There is an examination of the indirect effect between the predictor and outcome variables. An inquiry is made into the mediating and moderating

influence of chosen factors. Undoubtedly, Structural Equation Modeling is one of the most prominent methods in the analytical social sciences. The depth of the basic statistical theory, the possibility to address major substantive concerns, and the availability and ease of software devoted to structural equation modeling, all contribute to its appeal. Hence, for the first objective, SEM is used to examine the substantive theory using empirical data. For the second objective, the statistical significance of the impact of one or more independent factors on a collection of two or more dependent variables is examined using multivariate analysis of variance (MANOVA). Using the Kruskal-Wallis Test, Mann-Whitney U Test, the association between the relevant variables selected is analysed in the third objective.

1.10 SIGNIFICANCE OF THE RESEARCH

Over the last ten years, a large number of India's big industrial industries have seen extensive contract labour discontent. Widespread unhappiness among contract employees has been attributed to a variety of factors, including income inequality, a lack of social mobility, unjust treatment by the establishment, and unethical and predatory contractors. The enterprises using contract labour exist in continual terror of regulatory obligations and even impracticable compliance requirements. The dishonest contractors and the possibility of contract labour unrest adds to their fear. This unhappiness is not limited to employees alone. Numerous issues affecting contract employees and the business are signs of underlying regulatory deficiencies. A disengaged employee is a huge burden for any enterprise. In contrast, an employee who is entirely engaged in his work is self-contented and works towards better productivity. This study is based on the contract labour system, which is now becoming a major form of employment in the industrial sector. An assessment of the engagement level of the contract labourers in their work and the corresponding satisfaction derived from it will provide an insight into the condition of the workers under the contract system in Goa. Since under the contract labour system there is no direct association between the workers and the principal employer, and there is no permanency of employment, the level of job satisfaction and the factors influencing them become vital segments of study. Due to the fact that this research collected substantial data on individual workers and did not depend on secondary data, it was feasible to conduct an in-depth analysis and correctly depict the actual scenario faced by contract labourers in the manufacturing sector. A detailed investigation is made of the satisfaction of contract labourers with their jobs and associated factors like vulnerability and level of employee

engagement. The approach to contract labour studies has evolved significantly over time. Studies may vary depending on the level they examine: micro, middle, or macro, focusing on individual preferences, domestic and community factors, and aggregate characteristics. Analyses may attempt to identify the factors contributing to contract labour employment and the characteristics that allow it to persist over time. Compared to the initial studies that examined contract labour employment as an issue or phenomenon in the industries, the current scope of research is much broader. It employs a multifaceted approach to make sense of this complex phenomenon, with an emphasis on the individual aspects related to the workers.

1.11 SCOPE OF THE STUDY

This study is carried out in the state of Goa. The scope of the research covers all workers who work via a contractor for various manufacturing enterprises in industrial estates registered in Goa. It is restricted to the contract workers engaged in production directly in the private manufacturing industrial units only. Workers directly appointed by the principal employer on contract have not been included in the study. Unskilled and semi-skilled labourers are the focus of the study. The housekeeping staff, office staff, security, the highly skilled, and the employees at the managerial level are not part of the study. The respondents included in the study are from firms with more than 300 employees. The sample covered 580 respondents in order to allow the results to become generalisable. It does not study the contract workers in the primary and tertiary sectors.

1.12 STRUCTURE OF THE THESIS

The study is mainly presented in eight main chapters, which are as follows:

Chapter 1: Introduction: This chapter gives an insight into the background of the study, units, constructs under study, and focus of the study. It has a statement of the research problem, objectives of the study, hypotheses framed, scope, and significance of the study.

Chapter 2: Review of Literature: A review of the related literature has been done under the following areas: the job satisfaction level of the contract workers, the level of employee engagement, and the work-related vulnerabilities experienced by contract workers. A summary is given of how the research differs from the previous studies. It examines whether the correlations between employee engagement and work satisfaction, as well as

employment vulnerability as the moderating variable, is absent from the literature. The study evaluated journal articles, textbooks, and other materials relevant to employee engagement that has been peer-reviewed. Articles were located using the search function of online journal database websites.

Chapter 3: Theoretical and Conceptual Framework: This presents a review of the research on the topic, including the theoretical framework related to the constructs. It provides a conglomeration of motivation, employee engagement, and employment vulnerability theories. A model is proposed based on the conceptual framework.

Chapter 4: Research Methodology: This chapter describes the technique used for the analysis of data. A concise description of the research strategy has been provided. There is elaboration about the sampling, the tools used for primary data collection, and the narrative description for data collection. The methodology chapter discusses the research design and the techniques used to acquire the study's pertinent data; this covers the sample size, sampling process, instruments, as well as the instrument's reliability and validity, and ultimately, data collection procedures.

Chapter 5: Employee Engagement, Job Satisfaction and Employment Vulnerability of contract workers-Scale Development and Factor Analysis: This chapter provides information on the scale's development and validation of the measurement models established. Hypotheses testing is done with Structural Equation Modeling, which identifies the relationship between the constructs and describes the mediation and moderation effects of variables.

Chapter 6: Impact of job type, educational level, and gender on employment vulnerability, job satisfaction and employee engagement: In this chapter, Multivariate Analysis of Variance is used to compare the effects of demographic and occupational variables such as gender, job type, and educational level on employment vulnerability, job satisfaction, and employee engagement among the contract workers.

Chapter 7: Association between gender, job type, educational level, income and household consumption expenditure patterns of contract workers: A comparative analysis of the demographic and occupational variables and household consumption expenditure pattern of the contract workers is made in this chapter. It comprises of statistical analysis, addressing of the pertinent research questions, discussion of the results and presentation of

the findings. Kruskal Wallis Test and Mann-Whitney U Test have been run to study the significance of the constructs in relation to various dimensions, and the results are discussed.

Chapter 8: Summary of Findings and Conclusions: A summary of all chapters is presented, followed by the major findings of the study and the conclusions drawn. The recommendations are offered based on a thorough examination of the primary data and a generalisation of the results. The main implications of the research and directions for future research are explained. Furthermore, the study's limitations have been acknowledged.

1.13 SUMMARY

Due to the need and inevitability of the contract labour system in an ever-changing corporate context, it is allowed to continue and flourish. As a result, actions targeted at enhancing the quality of job engagement are required. Combined with initiatives to address employment insecurity, they may be useful in minimising contract-related attitude disparities. Measures are urgently needed to be implemented to enhance the level of workplace engagement and job satisfaction. It is hoped that this study will provide a comprehensive understanding of the implications so that the policy decisions in the industrial sector can be modified to benefit the organised and unorganised labourers supplied to companies in industrial sector. The concern that a disengaged employee will have low job satisfaction and that vulnerability will exacerbate the situation is not unfounded. It is essential to comprehend the effects of the constructs mentioned above, particularly on unskilled and semi-skilled contract labourers, as they significantly contribute to the industrial sector and indirectly to the state's economic development. The study is micro in nature and tries to capture the influence of employee engagement of the contract workers on their job satisfaction level. It also delves into the mediating impact of employment vulnerability. Micro perspectives are employed to examine the contract labour issue in Goa. This, it is anticipated, would result in a more comprehensive understanding of the link between worker involvement and job satisfaction. Contract labour has been observed to be a disadvantaged segment of the working class, owing mostly to a lack of organisation and illiteracy.

CHAPTER II

REVIEW OF LITERATURE

2.1 INTRODUCTION

The traditional economic theory regards labour input as flexible. The adjustment of supply of labour at the company level, particularly in response to deleterious disruptions, was legally constrained and, as a result, expensive to implement in industrialised nations. During the latter half of the 20th century, the majority of European nations adopted a variety of labour contract regulations. Concurrently, in Western Europe, indefinite-term employment contracts became the norm (Countouris et al.,2016). Those very contracts were not just prompted by employee risk aversion but also as a means to safeguard the firms' investments in human capital against undesirable or massive labour turnover during low unemployment rates. Nonetheless, over the past twenty years, employment protection regulation has been relaxed in the majority of European nations, which has initiated and facilitated the use of fixed-term contracts or temporary agency workers to boost the extent of labour flexibility at the company level. This shift towards more flexible contractualisation was also influenced by industrial organisation concerns. The story of this system is not so different on the Indian continent. The contract workers are considered to be among the economically disadvantaged (Das and Pandey,2004). Despite not having access to the same wage/pay structure, benefits, and social security as normal workers, this group is nevertheless doing unskilled to skilled employment in industries. The historical context of contract labour in India would certainly shed light on the origins of the system of hiring contract labour. Contract labour dates back to the dawn of time. During the early stages of industrialisation, industrial establishments were perpetually confronted with labour recruitment issues. Employers or their representatives in the United Kingdom were unfamiliar with fundamental employee issues such as the low ranking of factory workers, lack of worker mobility, caste and religious taboos, language, etc. They were incapable of solving these issues. Consequently, they had to rely on a middleman for assistance with labour recruitment and management. Contract workers were viewed as an exploited segment of the labour class due to their lack of organisation. In light of all this, the Whitely Commission in the nineteenth century implicitly recommended the abolition of contract

labour. In addition to the numerous disadvantages suffered by contract labour prior to 1860, the Workmen's Breach of Contract Act of 1959 held contract workers criminally liable in the event of a breach of contract service. The government has established a number of committees to investigate the socioeconomic circumstances of contract labour, including the Bombay Textile Labour Enquiry Committee, the Bihar Labour Enquiry Committee, and the Rega Committee, among others. The definition of "worker" in the Factories Act of 1948, the Mines Act of 1952, and the Plantations Labour Act of 1951 were expanded to include contract labour. Like the rest of the world, the contract labour system thrives in the Indian labour market. However, the Contract Labour (Regulation & Abolition) Act of 1970 gave this deprived section of the workforce a legal platform to put up their case.

Similar to the national revolution in the labour market, the state government of Goa had already endeavoured to liberalise the different labour supply structures and modify the labour laws to increase investment and employment. This has led to the emergence of various non-permanent employment structures, such as casual labour, consultants, subcontractors, contract labour, and others, with contract labour being one of the most prominent categories in the Goan industrial sector. There may be various types of contractual employment prevalent in a company. However, the one addressed here is governed by the Contract Employment Regulation and Abolition Act of 1970. In accordance with the contractor's terms, a contract employee frequently changes primary employers. It is difficult for workers to substantiate their identity as labourers and establish an employer-employee relationship under this form of employment.

Numerous difficulties relating to contract workers are covered in the literature, including their poor socioeconomic standing, lack of job stability, lack of social security coverage, and improper application of labour laws. The position of labourers working under the contract labour system has been an area of key research in the field of academics. There is a big divide between the scholars on the contract labour system, where one section favours this network as cost effective. On the contrary, there is a section that opines that it is one of the worst forms of exploitation of workers, as the principal employer is exempted from his accountability towards the workers.

Several studies have been conducted on contract labour in general. However, there is little research available exclusively about the manufacturing industry employees who are engaged on contract.

Firms may impose regular worker regulation at strictly reduced cost with fixed-term contracting, as shown by Basu, Chau, and Soundararajan (2021), which allows for the coexistence of open-ended efficiency wage agreements with fixed-term contracting within establishments. The use of contract labour also reduces the wages of permanent workers in the businesses that employ them, according to Marianne, Chang-Tai and Nick (2021). Sapkal (2016) found that, in response to varying enforcement intensities, typical Indian enterprises situated under tight Employment Protection Legislation (EPL) states recruit more temporary contract workers than regular workers. The empirical study indicates, among other things, that companies choose to use an enormous number of contract employees to avoid the firing and total compliance expenses of permanent employees as mandated by Indian labour legislation. In order to conduct a quantitative study, this research utilises the Annual Survey of Industries dataset to figure out the percentage of temporary contract employees. The study then exploits differences in Employment Protection Legislation (EPL) and enforcement strength measures throughout thirty-one Indian states from 2000 to 2007. The results indicate that the median impact of stringent EPL and high implementation intensity on the growth of transient contract employees across Indian states is favourable and statistically significant. The average effect of enforcement intensity is greater than that of EPL. It suggests that stringent enforcement of legal privileges for regular employees raises the need for casual contract workers compared to the EPL. In response to varying enforcement intensities, firms in increasingly restrictive labour regimes employ a greater proportion of temporary contract workers than firms in more flexible labour regimes. The study reveals that the requirement for temporary contract employees is increasing in nearly all labour-intensive industries. However, the rate of growth is slightly greater in states with less flexibility than in states with greater flexibility. The investigation does not assert that the strict EPL and implementation intensities have led to the increasing number of contract workers in India's economy. It highlights that there is a lack of attention to other crucial factors, such as state-specific business environments, the character of the capital market, and investments from abroad, which could be accountable for forming the industrial environment in India. Due to a paucity of state-level data, these variables are not included. Thus, the analysis provides only a partial image.

Current research aims to evaluate the available literature and add to the existing body of knowledge concerning contract labourers. The literature in the fields of employee

engagement, job satisfaction, and employment vulnerability and the issues concerned with the contract labour system is reviewed in this study. In this chapter, a review of the literature concerning contract labour is presented as follows:

- Previous research on a contract labour system
- Empirical studies on employee engagement
- Empirical studies on job satisfaction
- Empirical studies on employment vulnerability.
- Studies on gender, job type and educational level of workers.
- Studies on consumption expenditure patterns, job type, educational level, gender, and income of workers

2.2 PREVIOUS RESEARCH ON CONTRACT LABOUR SYSTEM

The well-being of workers concerning their work and related aspects has been a popular area of study inclusive of various dimensions. The numerous studies are classified into two categories: International studies; Indian studies. The following literature review is appended to echo the constructs that reveal diverse approaches to the topic under study.

Research on the contract labour system encompasses a wide range of topics, including the many forms it takes, the specifics of the laws that regulate it, and the extent to which employees are unaware of their rights under the law. In general, the studies have compared permanent employees with those on contract. Singh et al. (2019) discovered that organisations with more turnover, indicating bigger enterprises, are more inclined to use contract labour. Firms that create goods for export markets are likely to use contract labour. Union involvement significantly increases the likelihood of a company utilising contract labour. When the salary gap between regular and contract workers is considerable, companies could be using contract workers to negotiate lower wages for regular workers, especially when trade unions are involved. They further opine that contract labour is not related to peripheral operations of the company, and there is no significant correlation between the number of unskilled workers and the likelihood of companies engaging contract labour. They suggest that more study is required to examine the specific interchangeability between contract and permanent employees. Their findings suggest that the cost benefits of employing contract labour may be less significant when the labour

plays a crucial role in production and there is a substantial long-term investment in human capital by permanent workers.

Although contract employment may reduce the cost of worker discipline and lead to efficiency gains compared to a regime that bans it, the overall balanced result of contract employment indicates stark distributional choices that separate employer and worker interests (Basu, Chau & Soundararajan, 2021). They discover data that shows increasing demand for labour might have negative effects on wage polarisation. The variety of labour is characterized by Seweryski (2003), who also defines labour as an asset. According to Sasi and Stephen (2019), the regulations governing contract workers are inadequate to address the needs of modern businesses. Instead of trying to outlaw contract labour, they think the legislation should make it easier for businesses to use it. Genda et al. (2019) investigate the link between employers' practices and employees' lack of knowledge about the length of their employment contract. The growing number of unofficial jobs in industrialized nations has exacerbated worker and labour market issues, as companies avoid investing in employee training and new technologies (Bergen et al., 2017). Collective contracts, which are a component of collective labour relations, are introduced by Tianyu (2016) as a novel kind of employment contract in China. By analysing the social and economic challenges encountered by contract employees in India, Das & Panday (2004) provide a compelling argument for the plight of these individuals. The salary disparity among contract and direct employees in the organized manufacturing sector has been highlighted by Panigrah (2016), and the share of contract workers employed have increased significantly. The social security programs and legal safeguards that contract workers now enjoy are also examined by Upadhyaya (2013). Employers tend to favour regular workers, as Singh et al. (2019) indicates. According to Srivastava (2016), the situation is dire for contract workers due to the easing of rules. The major observation of most of the research is on the dire need for social security and job security for the workers employed through the contactors. Shyam Sunder (2005), Rajeev (2006) and Ferus-Comelo (2014) opine that social security for contract workers is an important part of a just and inclusive labour market because it helps workers who are in temporary or short-term jobs deal with the specific difficulties they encounter. A more just and resilient workforce can only be built by identifying and resolving this discrepancy.

For many employees, the collapse of the conventional employment relationship—permanent, full-time wage labour for a single employer, has raised risk and made them

more vulnerable. The contract workers are the most vulnerable in this category. The labour market is highly segmented. Workers with temporary job status are treated as outsiders in the labour market, according to the dual labour market concept. In the ILO publication - ACTRAV (Bureau for Workers Activities) Symposium (2012), an effort has been made to describe a few subcategories that comprise the majority of employees negatively impacted by precarious employment arrangements. Categories of contractual terms characterised by vulnerable working conditions shed light on the prevalence of contingent labour globally. Contractual arrangements include fixed-term, short-term, temporary, seasonal, day labour, casual labour, subcontracting, and agency agreements. They face precarious circumstances such as low wages, poor protection against termination of a job, a lack of access to social protection and benefits typically associated with full-time standard employment, and a lack of or restricted access for employees to exercise their rights at work. The aim is to provide a forum in which trade unions on the front lines of struggles can discuss their struggles and victories with precarious work and debate how to achieve respectable employment and an equitable environment for all. It offers guidance in the areas of standard-setting, policy expertise, research, and social dialogue in support of the struggle from insecure to dignified employment. This compilation of discourse aims to develop a comprehensive set of instruments to combat precarious employment, including fundamental labour standards. It is believed that in order for their voices to resonate over the long term, it will be necessary to combine spontaneous dissent with strong representation and institutional authority. This publication outlines the future of labour welfare. Seweryski (2003) examines the diversity of labour as per Polish Labour Code and the manner in which it was updated to conform to contemporary European standards. The study states that the Polish Labour Code doctrine supports the multiplicity of work contracts, as specified by the Labour Code and corresponding to the diverse requirements and objectives of both the employer and the worker. It describes in detail the major conclusions that address labour relations contracts and how they are viewed to affect employees and employers. The research has characterised the sale of labour as an asset among two large entities, with little regard for the worker as a person with intrinsic value. Such a vision of inhumane labour relations appears extremely limited. It cannot be entirely attributed to the increased liberalisation of labour law.

Sasi and Stephen (2019) have opined that the contract labour regulation is not properly meeting the demands of current industrial requirements. They have voiced their opinion

that the law should facilitate the contract labour system rather than work towards the prohibition of the system. The concept of equal treatment of contract labour and payroll employees should be replaced with a more practical approach to designing a compensation package and decent income security for the contract labourer. This study analyses the regulatory systems of other jurisdictions and international organisations, such as the International Labour Organisation (ILO) and the European Union, in an attempt to provide solutions for the deficiencies identified in the Contract Labour Regulation and Abolition Act of 1970 and other laws governing contract labour. A practical diagnostic study is conducted to identify issues related to contract labour legislation in the manufacturing sector, examine alternatives based on comparative analysis with other jurisdictions whenever possible, and propose innovative solutions to India's unique problems. The conclusion reached is that the Indian contract labour regulation system fails to regulate the modern manufacturing sector adequately. Numerous flaws are the primary reason the sector is plagued by constant labour unrest. It is proposed that contractors' actions should be regulated more effectively. They should be solely responsible for wages, all contributions to social security, and the provision of facilities for their employees. Aggregating contractors is a prominent suggestion for preventing worker exploitation and enhancing the flexibility and security that come with the contract labour system. However, the suggestion that a system be devised that gives the establishment the flexibility to design a compensation plan and assures the workers' reasonable income security is contrary to the labour law, which describes the workers as the contractor's sole responsibility.

The association between working conditions and workers who are unaware of the duration of their employment contract is examined by Genda et al. (2019) in their study of multiple countries. It has been discovered using data from Spain and Japan that the degree of human capital affects how often employees are unaware of the terms of their contracts. Women, younger and older employees, as well as workers with a lower educational level, are more likely not to be aware of the length of their employment contract. These workers are less likely to ask for extra work in their present employment. They are more likely to be unhappy with their positions than other workers. They are also more likely to hunt for alternative occupations. In general, employment is linked to bad working circumstances, which emphasises the need for teaching employees about labour rules to protect the well-being of disadvantaged workers. They suffer from a pay penalty for their non-standard position and have less access to job training. The relationship between employees who are

unaware of the duration of their employment contract and their employment conditions has been analysed. The Employment Status Survey in Japan, with a sample size of over 450,000 randomly chosen families and the Economically Active Population Survey in Spain, with a sample size of approximately 65,000 randomly selected households, provide data on workers who do not know the duration of their contracts. The empirical analysis led to the construction of a linear probability model and an empirical model of the welfare of workers who do not know the duration of their contracts. As is the case in Japan, they infer that employees incur salary penalties for non-standard positions and have fewer opportunities for job training. Their status as immigrants hinders their development. Women, singles, younger and elderly employees, and those with lower educational levels are more likely to be unaware of the duration of their employment contract. Compared to other employees, those unaware of their contracts are more unsatisfied with their current position, more likely to pursue employment elsewhere, and less inclined to seek additional responsibilities in their current positions. Employment is associated with deplorable working conditions, highlighting the need to educate workers on labour laws to protect the well-being of the less fortunate. The primary finding of the research is that a lack of awareness of work contracts is associated with low levels of human capital and unfavourable working conditions. Although Japan and Spain have very different institutions for the labour market, there are many similarities between their employees (who are unaware of the duration of their employment contract) and their conditions. They do not demonstrate a causal connection between inadequate contract knowledge and working conditions. A closer examination of these two variables would have shed greater clarity on the necessary labour welfare measures that could alleviate the situation. Berg et al. (2017) highlight the fact that the rise in informal employment in developed countries has multiplied the problem of workers and the labour market in general as firms shy away from investing in the training the workers and technological advancement. The investigation utilises matched data from the German Institute for Employment Research's Linked Employer-Employee Data (LIAB). The analysis of the data pool includes 759,931 person-year measurements for 50-65-year-olds over the three-year study, which includes data of 522,939 for males and 236,992 for females. Independent linear probability models have been estimated for men and women to investigate differences in retirement risk rates associated with an organisation's standard and specific training provision. This study investigates the relationships between senior men's and women's participation in training programmes, wages, and retirement. Using specific establishment-employee information

collected in Germany, the researcher discovers that when the firm offers special training programmes for their senior employees, the result is that women are less likely to retire, particularly women employed at a low wage. Results suggest that this correlation may be attributable to wage growth. Findings indicate that for men, an establishment's offer of participation in standard training programmes may increase low-wage men's retention, but analysis of prior discrepancies in retirement trends suggests that this connection may not be causal. Research indicates that targeted training programmes play a significant role in sustaining and progressing the careers of older women with low wages. The suggestion is towards better implementation of regulative measures for serious economic development, including for the benefit of the workers and the firm. It shows that the methodology for contract labour research has changed significantly over time. Individual tendencies, household variables, and community factors are all considered in studies, regardless of whether they are conducted at micro, meso, or macro levels. Today, the area of research has been significantly broadened, and an interdisciplinary approach is used to make sense of this complicated phenomenon, including Cognitive Economics, Behavioural Economics and Psychology. For the most part, we discover that workforce vulnerability is related to three factors: the conditions that exist in the workforce; the underpinning structure of laws regulating employment arrangements, which includes the treatment of dependent employment arrangements; and the accessibility of job opportunities, the long-term viability of work, the regulations regulating citizenship, and the availability of money are all important considerations, as well as, the factual and subjective aspects of a work; and social welfare support measures. The data does not reflect the content and the objective of training activities. There may be substantial heterogeneity underlying the estimated relationships, according to the training content. Tianyu (2016) presents collective contracts as a new labour contract in China. The scope of individual labour relations includes labour contracts, which are simply agreements between individual employees and the employing entities to establish labour relations. Collective contracts are part of collective labour relations, which reflect an agreement through collective discussions on pay, working hours, and other work environments between the union of workers and the principal employer. Here, the union itself is performing the role of the Contractor. This theoretical paper examines Chinese labour law. Collective contracts are classified as special labour contracts by the Labour Contract Law, which disregards the fundamental distinctions between collective contracts as well as labour contracts. This has placed it in a position of legal and institutional difficulty. Collective contracts have distinct institutional characteristics

regarding the primary parties, efficacy, and dispute resolution mechanisms. The conclusion drawn is that future legislation should incorporate them into the legal structure for collective labour relations and integrate them with trade unions, collective consultation, and collective dispute resolution to establish a comprehensive system of collective labour law. Durán-Palma and López (2009) highlight the insufficiency of Chile's employment relations institutions to safeguard vulnerable employees and the potential of contract workers to overcome such constraints by resorting to mobilisation. They suggest that contract labour mobilisation, rather than a change to the left in government, is a more credible explanation for Chile's present state of employment relations. It is observed that collective action among contract employees has received little academic attention, especially in developing nations. This work aims to provide a synopsis of recent employment relations developments in Chile, concentrating on the most recent instances of contract labour movements in the logging and copper mining industries. The work relies on a synthesis of evidence from various primary, secondary, and tertiary sources. This study displays the failure of Chile's employment relations organisations to safeguard vulnerable workers. It demonstrates the ability of contract employees to conquer these limitations by mobilising. It is argued that contract labour mobilisation, rather than a turn to the left in government, provides a more plausible explanation for recent employment relations developments in Chile. The study identifies important issues, but additional research is required to comprehend the social mechanisms of community action involved during recent instances of the contract labour movement. Using a panel dataset of Italian manufacturing enterprises, Addessi (2014) investigates the impact of both permanent and temporary labour contracts on labour-enhancing and Total Factor Productivity (TFP). The empirical findings demonstrate that the difference between permanent and temporary contracts in the labour-augmenting productivity factor is insignificant when a labour-contract composition is included in the TFP process and that the prevalence of permanent contracts in total contracts has a favourable impact on TFP dynamics. According to the research, as labour contract choice influences employee productivity and contribution to firm productivity development, the effect on productivity dynamics may remain over time. The empirical analysis employs a structural strategy in which enterprise Total Factor Productivity follows a monitored Markov process influenced by the relative use of labour contracts. Labour services are ideal replacements with distinct labour-amplification factors. Empirical findings suggest that when the labour-contract composition is incorporated into the Total Factor Productivity procedure, the variance between permanent as well as

temporary employment in the labour-augmenting output factor is not statistically significant. The proportion of permanent contracts among all contracts positively impacts TFP dynamics. The study employs the Medio Credito Centrale–Capitalia–Unicredit dataset, which includes quantitative and qualitative information on a sample that is representative of Italian manufacturing firms. It includes information on labour contract varieties in particular. The objective is to investigate the impact of permanent versus impermanent labour contracts on productivity. The conclusion that can be drawn is that temporary contracts decrease Total Factor Productivity within an organisation.

Zheng et al. (2022), using the introduction of China's Labour Contract Law, conclude that labour protection substantially improves analyst projections. This favourable effect is amplified when agency difficulties are less severe, board independence is more, business reputation is enhanced, and industry rivalry is fiercer. Enhanced labour protection lowers businesses' business risk and accrual-based profit management, diminishes stock price synchronisation, and promotes market pricing efficiency. Results on the major effects of China's Labour Contract Law on analysts' forecasting habits provide essential advice for encouraging the growth of the Chinese capital market and labour protection policymaking. Hence, strict efforts towards the betterment of contract labour are beneficial even for the enterprise. The initial sample used to investigate the effect of labour protection on analysts' forecasting behaviours consists of 41,951 firm-year observations from all Chinese A-share companies registered on both the Shanghai and Shenzhen stock exchanges between 2001 and 2019. The study could have also focused on the impact of labour safety on company-level variables such as labour costs, operational flexibility, and innovation capacity, because corporate performance must be evaluated internally and externally, along with long-term and short-term elements, to reach a valid conclusion.

The historical aspect of contract labours in India would give a clear view of how the contract labour system came into being. Contract labour has its roots from time immemorial. During the early period of industrialisation, industrial establishments were always faced with the problem of labour recruitment. British employers or their representatives were not accustomed to some basic problems of the employees, like the low status of factory workers, lack of labour mobility, caste, and religious taboo. They were unable to solve these problems. Therefore, they had to depend on the middlemen who helped them recruit and control labour. These middlemen and contractors were known by different names in various parts of the country. Following the independence of India, the

contractual system kept thriving. A little improvement in the situation of contract labourers was possible thanks to the enactment of the Contract Labour Regulation and Termination Act 1970, which regulated the use of contract labour in certain companies and provided for its abolition in certain situations. Das & Pandey (2004) make an elaborate case for the predicaments faced by contract workers in India by studying their economic and social issues. The contract employees in India's industries manufacturing steel, cement, and white goods are economically disadvantaged. The study is based on information from 600 contract workers in the public sector who work in steel-making companies in Chattisgarh, Orissa, and Salem and the cement business in Jharkhand and Orissa. The information was gathered through organised questionnaires. These sectors continue to induct unskilled as well as skilled labour in industries. However, it lacks access to the wage/pay structure, benefits, and social security offered to normal industry employees. Contract workers are claimed to earn minimal statutory pay, with rare exceptions when they are paid more for expert labour. Cement and white goods businesses reported contractors taking token money from Contract Workers' pay. However, they will get better terms if they have collective negotiating power. They have significant safety problems due to illiteracy, untrustworthy contractors, and dangerous working conditions. In addition to long working hours and employment uncertainty, these employees confront additional obstacles. Employees' State Insurance is the only kind of social security available to them. Most of them dwell in slums or leased huts with inadequate public services. Employers and independent contractors partially satisfy their social and economic requirements. Panigraha (2016) reveals the wage difference between contract and direct workers in the organised manufacturing sector, and the proportion of employment of contract workers has multiplied drastically. He highlights the rapid increase in the participation of contract workers in India's organised manufacturing sector during the last decade. He cites the flexible labour laws as a prominent cause of the shift from the employment of direct workers to contract workers.

Upadhyaya (2013) observes that the phrase "contract labour" refers to various work agreements distinct from regular types of employment based on a direct, definite, and recognisable employer-employee connection. This lack of technological clarity causes different interpretations and hinders the creation of a suitable protective system for the implicated employees. He explains what contract work is and how it fits into the current wage and employment situation. He also looks at the social security measures and legal

protections that contract workers already have. He talks about how the government's policy on contract work has changed over time, what the social partners think about different issues linked to it, and how the law has changed in this area. He says that contract workers are a vulnerable group based on his study of secondary data, big court rulings, and the views and opinions of different social partners. Singh et al. (2019) conducted a study to examine the variables that impact companies' choice to engage contract workers in India. The researchers collected data via a survey that was specifically designed for this purpose and targeted industrial enterprises. Although firms may initially be drawn to hiring contract labour due to its immediate cost advantages, there is a countervailing force that leads employers to prefer regular workers, particularly in firms where a significant portion of the workforce is engaged in production activities. This preference likely arises in situations where long-term investment in human capital by regular workers is crucial for the firm's success.

Although the labour law allows for equivalent remuneration and work environments to contract employees, their application is inadequate. Furthermore, Srivastava (2016), in his study on India's changing employment structure and impact on every day and regular work, has looked at the case of contract workers in the corporate sector in detail. He says that the situation for contract workers is bad on every level because laws are being loosened and are not being carried out well. Also, the law fails to give contract workers the same pay and working conditions as other workers. More importantly, these workers lack access to comfortable industrial relations. This isolation has led to intense industrial conflicts in the past few years. Studies have also shown that hiring some flexible contract workers affect permanent workers, making it harder for them to gather and negotiate. This gap between permanent and contract workers discourages them from working as a group. It has also led to ongoing discrimination at work for contract workers. He puts forth that these employees have no official channels to employers, and the industrial relations apparatus works together to prevent workers from forming unions or striking. Industrial unrest threatening public safety results from workers feeling they have nowhere to turn to redress concerns. There must be a safeguard to avoid substituting regular employees with contract workers. The firm must get government approval before using contract labourers to perform the core function in production (Shyam Sunder, 2005). He thoroughly analyses the work freedom argument in his study on closure and severance policies in emerging and developed countries worldwide. He concludes that freedom and job security should be balanced in

contractual work. He says that a social agreement is one way to solve the problem of trade unions and contract workers' different goals.

A substantial number of researchers believe that the wage levels of contract labour must be tied to the wage paid to the direct worker. This would not only minimise the income gap between permanent and contract employees but also diminish the prejudice experienced by contract workers. Moreover, given the existing state of provident fund benefits, it is vital to construct an effective social security net that may increase the negotiating power of contract labour. It has been noted that in the case of contract labour, an agreement between the contractor and the principal employer or the labour department officials develops numerous corrupt behaviours. It is essential to adopt steps to combat corruption. Educating the workforce about their duties and privileges is essential to guaranteeing that contract workers receive their dues. Contract workers should be allowed to express their concerns to an impartial body. Unless such precautions are enacted, only a subset of society will reap the advantages of liberalisation. Rajeev (2006) examines the situation of contract work in the Indian state of Karnataka based on a field study. The study reveals that while some large companies pay more than the state-set minimum wage but many small firms do not pay even the minimum wage. The study shows that there is a pressing need to improve the system of social security and the way that contract workers are watched.

In the Indian economy, contract workers are apprehensive towards collective action, despite the legislative support to form unions and resort to functioning individually. In the highly competitive and client-driven security industry, employees endure the weight of the contract labour system. Principal employers still have considerable leeway to negotiate appropriate terms and conditions in their favour. The influence of contract agency on workers and the terms of their employment prevails, but the employer has higher bargaining power. Unstable work conditions leave employees open to unfair treatment because they are vulnerable. Ferus-Comelo (2014), in their study done in 2009 and 2010 in the private security business in Goa, aims to learn more about precarious work and show how it is linked to migration. It shows how workers can be exploited by the common practice of subcontracting and the loose rules accompanying it. It concludes that governmental action is needed to protect workers' job security. Contract workers in Goa have not been the subject of many academic investigations. The conditions of contract employees are illuminated through a study of security service personnel.

The previous studies highlight significant concerns, specifically the importance of the contract labour system and the shortcomings of the legislation pertaining to the payment and job-related benefits of contract labourers. However, limited attention has been given to exploring their work satisfaction and emotional attachment to their work. Consequently, further research is necessary to gain a comprehensive understanding of the social dynamics and individual behaviours associated with recent instances of the contract labour movement, as well as the levels of job satisfaction and engagement.

From the above, Rajeev (2009) has used survey data from secondary sources to investigate the status of contract workers in the contemporary, globalised era in the Indian state of Karnataka. She has used a panel data model to study contract workers, regular workers, shop floor-level employees, supervisors, managers, and other officials across 60 industrial groupings categorised by goods. She has compared the contributions to production of blue-collar workers, contract labourers, and regular labourers. The other studies like that of Addressi (2014), Singh et al. (2019) and Castellani, Lotti, and Obando (2020) have also compared the various worker categories; however, they vary in approach. Addressi (2014) has analysed the effects of permanent and temporary employment contracts on labour-augmenting and Total Factor Productivity boosting technical factors using a panel dataset of Italian manufacturing enterprises from 2001 to 2003. The dataset comprises information from a sample of 149 employees selected among 1866 companies. The empirical research employs a structural method to estimate a firm's total factor productivity (TFP), that is affected by the proportion of labour contracts used. Labour services are seen as direct substitutes for labour, but with additional features that improve it. Singh et al. (2019) uses information from a specially commissioned survey of manufacturing firms to construct a series of explanatory variables that may be influencing the choice of employers undertaken by the Indian Council for Research on International Economic Relations (ICRIER) from 2014 to 2016 and find that larger organisations are more likely to use contract workers due to their high employee turnover rate, suggesting that company size is a decisive factor in the employment of contract labour in comparison to permanent labour. Businesses aiming for export also are likely use more of contract labour, Castellani, Lotti, and Obando (2020) have conducted a study using 37,222 observations taken from the Colombian Annual Manufacturing Survey within 2000 and 2014. They utilised ordinary least square regression to examine the impact of different labour contract types on firm productivity in the industrial sector using a structural model. They have mostly used regression methods

and secondary data sources to assess similarity and differences among the different segments of workforce. The studies can be segregated based on the difference in the methodology in data collection, which either has been conducted throughout time on numerous entities or from the same individuals at multiple times. Least square regression or structural equation modeling has been applied to the variables as per the levels of complexities.

2.3 EMPIRICAL STUDIES ON EMPLOYEE ENGAGEMENT

Recent years have witnessed the emergence of employee engagement within human resource management. Engagement stems from commitment and organisational citizenship behaviour, each of which has earned scholarly acknowledgment and been the focus of observational research. Similarities and overlaps exist between employee engagement and the concepts mentioned above. Neither accountability nor the employee's behaviour adequately capture the degree to which engaged employees are supposed to have an element of corporate consciousness. Engagement demonstrates that it is a two-way process between the representative and the organisation. Engaged workers are more inclined to go above and beyond to work well with others, and advance the company's objectives. The purpose of this section is to summarise prior research findings on employee engagement

Definition and conceptualisation, factors influencing employee engagement, measuring employee engagement, and other important topics and results are highlighted in the review, namely, organisational performance, employee engagement, technology's role, physical well-being, and work-life balance on an international level. There is a lot of research linking job engagement to both intrinsic motivation and behavioural incentives, making it a well-studied subject. Most of the researchers observe that since employee engagement has a direct effect on productivity and the working culture in the firm, it is an essential component of organisational success. According to the literature engaged employees are more valuable than satisfied ones. It is often defined by researchers as the degree to which workers have an emotional investment in their jobs, their coworkers, and the company as a whole. Involvement is complex, including not just behavioral but also emotional and cognitive aspects. More attention is towards the link between engaged employees and their health. Researchers have shown that maintaining a good work-life balance may reduce the risk of burnout and keep workers interested in their profession over the long haul.

Employees are more invested and fulfilled when their company cares about their health and happiness.

Employee engagement refers to an employee's emotional and cognitive commitment to the organisation (Baumruk, 2004; Richman, 2006). Although employee engagement and work engagement are often used interchangeably, this study concentrates on employee engagement because it incorporates the employee's relationship with the organisation. Work engagement refers to an employee's connection to their employment. In contrast, employee engagement incorporates how the worker interacts with the organisation. Employee engagement is related to an employee's satisfaction and commitment to their employment and the factors influencing their propensity to work. In the research conducted by Bates (2004) on employee engagement, the term is defined as the human desire to contribute something of value in the workplace. This feeling is intensified by an emotional connection with one's job, organisation, supervisors, or coworkers. Employee engagement is central to management theory and practice. Nonetheless, there are still substantial differences in employee engagement concepts, theories, affecting variables, and outcomes, and no official standard exists. Bedarkar & Pandita (2014) outline three aspects of worker engagement: emotional engagement – being emotionally invested in one's work; cognitive engagement – working diligently; and physical engagement – being motivated to "go the extra mile" for your employer. This work is based on an in-depth examination of the literature on employee engagement, which tries to define employee engagement and bring together existing ideas and proof. The focus is on three things: conversation, work-life balance, and leadership, all of which affect how well a person does their job. Based on these results, a model has been designed. Companies need to give their workers the freedom that will make their work fun and interesting, and they need to create a place where workers want to be at work. Employees are the most important part of any business, and if they are not given the right room and time to balance work and fun at the office, they will not feel like they are part of the team. The organisation and its workers need each other to reach their goals and aims. So, getting employees involved should not be a one-time thing. Instead, it should be part of the company's culture. Employee involvement should always be about learning, improving, and taking action. So, organisations should work hard to meet employees' standards and, in turn, improve their performance, which directly affects the organisation's performance.

A comprehensive study by Truss et al. (2006) demonstrates that Kahn's employee engagement perspective was operationalised in a large survey of 2,000 employees. This report relies on the results of a nationwide poll of employee views and involvement online in July 2006 with a group of 2,000 workers from all over the United Kingdom who were randomly chosen. The study shows that working life and views in modern Britain are complicated, interesting, and sometimes shocking. They discover that the main things that make employees feel engaged are sharing their thoughts with higher-ups and feeling like they know what's happening in the company. They find that high levels of interest and success can come from good management practices and a good workplace for all groups of workers. They opine that employee engagement is a passion for work. 'Employee engagement' refers to both organisational commitment and organisational citizenship behaviour. The supporters of the Social Exchange theory examine it as a two-way relationship. Levinson (1965), in his interpretative study, investigates methods for bridging intrapersonal variables and traditional industrial psychology concerns. His study attempts to realise some of the potential of this to bridge interpersonal variables and conventional industrial psychology. He proposes that what a work organisation means to an individual significantly impacts the variables that have been of significant interest to industrial psychologists. He concludes that if reciprocation helps the functioning of psychological defenses, growth, and proficiency in the person in question, and if it contributes to similar processes in the organisation, then it should have a significant relationship with the employee's psychological well-being and the efficient operation of the organisation. When the process operates effectively, the organisation provides psychological support and stimulation for the employee's psychological development. The worker contributes to the company responsibly and has ongoing opportunities for personal growth. Due to his unified support and innovative contribution to the organisation's assignments, the company obtained growth and survival potential. When there is insufficient reciprocity between man and organisation, both suffer. Masterson et al. (2000) observe that the degree of engagement happens when one party anticipates future compensation for contributions or services rendered to the other. This aims to determine if procedural and interactional justice influence work-related outcomes via various social exchange relationships. The findings extend previous research by illustrating that interactional justice perceptions influence supervisor-related outcomes via the intermediary factor of interaction between leaders and employees. Procedural justice perceptions influence organisation-related outcomes via perceived organisational support. The data analysed in this research were

acquired through 651 completed surveys before implementing an innovative performance management system at a large public university in the northeastern United States. An analysis of the structural model employs 38 variables and 11 factors that are observed. The conclusion is that interactional and procedural justice have different connections with the variables of social exchange relationships. The worker's perceptions of the impartiality of a single event, such as a performance evaluation procedure or a conversation with a supervisor, are incorporated into their past series of interactions with the person who is responsible. Saks (2006) finds that employees would pick their level of engagement based on the resources made available to them by their firm. The study aimed to investigate a social exchange theory-based model of the causes and effects of employment and organisation engagements. The primary data source was a survey completed by 102 employees from various occupations and organisations at a large Canadian university in Toronto. The results indicate a significant distinction between job and organisation engagements and that perceived organisational support forecasts both job and organisation engagement. In contrast, job characteristics predict job engagement, and procedural justice predicts organisation engagement. Moreover, job and organisation engagement mediated the associations among the antecedents and job satisfaction, organisational commitment, resignation intentions, and organisational citizenship behaviour. This study distinguished between job and organisation engagement and measured a variety of job and organisation engagement antecedents and outcomes. As a result, this research discusses concerns regarding the dearth of academic research on employee engagement and the possibility that it is merely the newest management novelty. However, the study disregards the possibility that engaged staff possess more favourable views of their work experience. Harter et al. (2002) employ meta-analysis to examine the relationship between staff contentment–engagement and the company-unit outcomes in customer satisfaction, output, profit, employee attrition, and accidents. They use data from 7939 business units in 36 companies. Between unit-level employee satisfaction–engagement and these business-unit outcomes, universal relationships that are large enough to have considerable practical value are found. Changes in management practices that improve employee satisfaction could boost business unit outcomes, such as profit. This study employs the Gallup Workplace Audit (GWA), a tool derived from research on job satisfaction, motivation, supervisory practices, and work-group effectiveness. This study concludes that employee satisfaction and engagement are associated with meaningful business outcomes to a significant degree for many organisations and that these correlations are consistent across businesses. An efficient

composite of items assessing issues at the core of the workplace that are essential for workers and that the supervisors can influence, has significant implications for understanding the true character of business-unit-level overall satisfaction. Richman (2006) has built a commitment pyramid to investigate the impact of employee dedication on business performance. This decade-long, cross-industry study reveals that dedication is not motivated by compensation and benefits but rather by the exclusive rewards of a helpful and flexible workplace. Employers concerned with maximising staff dedication will not only provide competitive benefits and compensation, but also develop a comprehensive engagement strategy that includes chances to advance, job challenge diversity, flexibility, and work-life support. Macey and Schneider (2008) use a variety of ideas to describe what engagement is and how it relates to and differs from closely interrelated behaviour concepts in the literature concerned with industrial relations. Engagement with work is a concept with limited, versatile, theoretical and proven examples. According to them, the relationships between potential antecedents and outcomes of involvement and its parts have not been rigorously theorised, much less studied. The concept of employee engagement is relatively new, and human resource consulting businesses that guide how it might be established and exploited have actively advertised it. They demonstrate that the term can refer to mental states, characteristics, behaviors, and their predecessors and consequences. They present a series of propositions regarding psychological state engagement, behavioural engagement, and trait engagement, drawing on varied and relevant literature. In addition, they present hypotheses regarding the influence of job characteristics and leadership as moderators of the associations between the three dimensions of engagement. They conclude that engaged employees could be a source of competitive advantage. This will be particularly true if it can be demonstrated how the commitment construct produces effects at management-relevant levels of analysis.

Kahn (1990) defines work engagement in terms of personnel involvement. It is harnessing organisational members' identities to their work responsibilities. Kahn's concept will serve as the foundation for future studies that explore the various facets of involvement. He demonstrates that workers' presenting and absenting processes during task performances are shaped by their mental processing of jobs and job environments. Work engagement refers to how a person demonstrates self-preference in work duties to foster links between self and job. This may boost role performance through cognitive, emotional, and physical self-investment. He has established the notion of psychological presence to refer to the

subjective state that enables members of an organisation to draw profoundly on themselves when performing roles. He has investigated the complexities of one's psychological presence at the job and outlined the boundaries of what it entails for individuals who are psychologically engaged during work role performance. Employees utilise and express themselves physically, intellectually, and emotionally while performing their duties. He states that individuals utilise and exhibit themselves physically, intellectually, and emotionally during role performance.

Numerous research on engagement have been conducted in various areas to distinguish it from ideas like workaholism and organisational commitment that are closely similar. The academic engagement has been the subject of substantial research since 2006 (Welch, 2011). The conceptual research aims to contribute to the theory of corporate communication by examining the growth of employee engagement and the significance of interaction in improving employee engagement. The objective is to provide some clarity on the idea of employee engagement by identifying its developmental phases and debating its definition. The primary finding is that the corporate communication literature has not adequately addressed the concept. This negligence could be due to misunderstandings of the concept and worries about overlaps with other concepts, such as commitment. The importance of company communication for improving staff engagement is modelled. An in-depth discussion of the connections between engagement and communication suggests research opportunities for communication disciplines. The proposed conceptual model illuminates the function of management in employee engagement. However, because the model employs an organisational approach, it is limited to one essential aspect of internal communication: internal corporate communication. Research on other internal communication dimensions, such as line management, team peer, and project peer communication, is required to acknowledge the complexity of internal dialogue.

Studies later expanded the idea of employee engagement to include job engagement and work engagement. Schaufeli et al. (2002) define it as a positive work attitude that results in a higher level of stimulation and recognition of the organisation's goals. It is regarded as one of the most important issues regarding the functioning of all organisations. Based on a sample of 314 college students and 619 employees, this study investigates the structure of an innovative tool to measure engagement. Employee engagement is hypothesised as the 'opposite' of exhaustion. Furthermore, the relationship between engagement and burnout is studied. Concurrent confirmatory factor analyses of both samples validate the original

three-factor structure of burnout and the hypothesised three-factor structure of engagement. Opposite to standards, a framework with two higher-level factors – 'burnout' and 'engagement' – did not suit the data better. The analyses disclose a different approach with two latent factors, fatigue and pessimism (the "core of burnout"), as well as all three involvement scales and efficacy. This research investigates the relationship between engagement and fatigue for the first time, thus contributing to a better understanding of employee engagement and burnout with the related dimensions. The study solely evaluates the internal psychometric characteristics of two instruments, ignoring their content validity. Consequently, the next logical step would be to look into the relationship between the engagement scales and other employment-related variables in a manner comparable to exhaustion. Bakker et al. (2003) note that a job requires correspondence to the job's physical, mental, social, or organisational elements. It requires continuous physical and mental (emotional and cognitive) effort and is associated with particular physical and psychological costs. Job resources are biological, mental, social, or organisational components of a job that are either useful in attaining work objectives, reducing job demands and the accompanying physical and mental costs, or stimulating individual growth and development. The Work Demands–Resources (JD–R) model is used in this study of 214 nutrition manufacturing workers to forecast future business-documented absenteeism. Under this model, work demands are the main cause of health problems. Job resources are predominantly responsible for increased motivation and loyalty to the workplace and the organisation. Under hypotheses obtained by the JD–R model and the literature on lack of attendance, Structural Equation Modeling analyses, it is revealed that job requirements are specific indications of burnout and informally of leave duration. It has to be noted that job resources are unique predictors of organisational commitment and, indirectly, of absence spells. The implications of these findings for individual and organisational interventions to reduce absenteeism are discussed. Horváthová et al. (2019) assert that the job, the fundamentals, performance parameters, meaningful/stimulating work, stable employment, and performance-related pay are the most influential factors on employee engagement among all workforce generations employed by firms in the Czech Republic. They introduce a new method for assessing the significance of employee engagement factors, including those of Generation Y, and present the results of the real-world application of pilot research. Modification and addition to an already existing engagement approach, which does not reflect the distinctions of young workers in the labour market, and Saaty's method for determining weights were employed to achieve the

goal. To achieve their objectives, the authors surveyed a sample size of 664 respondents using a written questionnaire. The principal outcomes of the research are a proposal for an adjusted engagement model development of a questionnaire to assess the importance of engagement factors. Employee engagement has a significant impact on both staff performance and organisational performance as a whole. According to the age of the employees, factors that influence their level of engagement vary. These distinctions should be acknowledged through the organisation and accounted for when increasing employee engagement. This research aims to lay out a new method for evaluating the significance of employee engagement factors, including those of generation Y, and present the results of a practical experimental study. It is necessary to reflect on the subjectivity of the respondent's views when examining group involvement factors and individual involvement factors, in addition to the sheer number of organisations and respondents and the kind of organisation for which the research was conducted. All respondents were only from the manufacturing sector. Consequently, its generalisability and applicability to other fields remain debatable.

Work engagement is a well-researched concept with strong connections to work motivation and motivating behaviour. It is a critical concept for organisations because of its beneficial effect on performance results (Christian et al., 2011). The objectives of this study were to arrive at a consensus regarding the definition of engagement, to look into its uniqueness, and to elucidate its nomological system of constructs. Using a conceptual framework, it is discovered that engagement demonstrates discriminant validity relative to job attitudes and criterion-related validity over job attitudes. Engagement is also identified as related to several important precursors and outcomes. Meta-analytic path modelling is used to assess the role of involvement as a mediator of the relationship between distal factors and job performance, and the conceptual framework is supported. Bakker et al. (2008) define engagement as a pleasant, fulfilling affective-motivational condition of work-related well-being marked by energy, commitment, and absorption. Initial research indicates that work engagement predicts job performance and customer satisfaction. The research concludes with a discussion of what we are unaware of about work engagement and a concise agenda for future research. The research supports the relationship between job engagement and performance, as stated in the conclusion. Improved overall performance in both roles is exhibited by workers who feel energetic, robust, and passionate about their work. As a result, engaged employees achieve superior financial results and have more pleased clients

and customers. This study demonstrates that research on engagement at work can broaden our understanding of the significance and impact of working. Employees with great vitality and commitment to their work have access to numerous resources and appear to perform better. It is even possible that, over time, engaged employees generate their own job resources. Schaufeli and Bakker (2004) state that work engagement includes energy, commitment, and absorption. This study aims to validate a research model that identifies potential predictors and outcomes of fatigue and engagement based on an actively driven and motivationally driven process. The intention is to contribute to what is presently known as positive psychology. In addition to the commonly studied negative psychological state of exhaustion, the impact of its positive opposite, job engagement, is also investigated. A multi-sample approach involving four samples' of 1698 employees from commercial organisations, including an insurance firm, a retirement fund company, an occupational health and safety service, and a human resources organisation for home care, is utilised for analysis using structural equation modelling. This study examines exhaustion and its opposite, engagement. A model is evaluated in which fatigue and engagement have distinct predictors and potential outcomes. Results confirm the hypothesised model, indicating that burnout and engagement have negative associations and that burnout is primarily predicted through job demands. The conclusion is that exhaustion mediates the connection between work demands and health issues. Likewise, the assumption that engagement mediates the connection between job assets and the intention to leave is supported. Nonetheless, the study relies solely on self-reported measures. In addition, physiological concomitants must be accounted for in the attempt-related energetic process, coupling job demands, fatigue, and health issues. Absorption is described as being completely focused and absorbed in one's job.

Work engagement has been characterised attitudinally and behaviorally (Macey and Schneider, 2008). However, there is still some controversy over whether it is more appropriately understood as an attitude or behaviour. There is no information that a livable wage correlates with employee engagement. Pati (2012) seeks to construct a multidimensional employee engagement instrument. Initial support was evidenced for the construct validity of the seven-item instrument. This study gave an operational definition of employee engagement. He opines that it remains largely undefined despite a greater focus on employee engagement in recent years. It continues to be the greatest obstacle confronting firms as growing disengagement among workers becomes more explicit. These

disengaged personnel have a passionless demeanour and disinterested disposition towards the work, negatively affecting themselves, others, and performance at the working palace. Existing techniques for conceptualising work engagement seem inadequate for the development of a proper representation of such a concept. According to some reviewers, past methods of work engagement lacked a clear explanation, an operational definition, and a persuasive metric. Notably, engagement cannot be voiced in the opposite mode of burnout results but requires a specialised and distinct measuring system since burnout and engagement seem to be two ends of the same spectrum in one dimension , i.e., distrust and commitment, but independent in another dimension, i.e., mental fatigue-robustness. Although sufficient evidence is presented for assessing the reliability of the developed instrument, it is important to note that these credibility evaluations are preliminary because they are based on correlations between the new scale and an established scale. Calculating the same factor or an alternative scale in the same domain is the need of the hour.

Suan et al. (2013) argue that more studies may expand the model to empirically evaluate the outcomes of employee engagement, which would assist in closing the knowledge gap in the context of employee engagement. This study aimed to investigate the extent to which organisational practices can predict employee engagement in one of Malaysia's electronics manufacturing firms and establish a connection between organisational practices and employee engagement. Intriguingly, the findings indicate that 43.2% of worker engagement is influenced by organisational practices. Employee development is the most important factor in enhancing employee engagement. This study of Malaysian-based multinational electronics manufacturing firms provides managers with practical insights into employee motivation and engagement. Multiple regression analysis is carried out to examine the interaction between organisational practice variables. The results reveal that all organisational practice variables are significant, with employee development being the strongest predictor of engagement among staff, followed by communication between employees and reward and recognition. The conclusion is that organisational practices have a significant effect on employee engagement. Communication between employees has an adverse effect on employee engagement. Wefald and Downey (2009) report that few research studies have examined employee engagement's effects. This lacuna is because most prior studies on employee engagement showed little evidence of employee engagement's benefit to businesses. Using a sample of 453 students from Kansas State University, they investigate their level of involvement with educational-level work and

various other measures. The study also measures student satisfaction by summing the value of three scales by using combined scale scores of the 14 pupil involvement items (with suitable modifications for optimistic items) and the three-factor participation sections. This study challenges the prevalent dimensionality of the involvement of the workers. It provides observational and theoretical support for the one-factor structure. In addition, the relationship between engagement and satisfaction reveals a great deal of overlap and questions the applicability of the involvement notion beyond that of happiness. Job fulfillment is a general workplace attitude with a lengthy history of study and application in academia and business. The results failed to verify the 3-factor model. Engagement and happiness have been discovered to be closely related constructs. They analyse students' attitudes, performance, and relationship to engagement. The regression analysis results indicate that the two variables are highly related. Pati & Kumar (2011) analyse the current literature on work engagement. They aim to give the construct its own life via qualitative research based on the study of academicians from a Patna-based business school. Researchers have found that employees who are emotionally invested in their jobs are more likely to go above and beyond in their work and be good corporate citizens. They find that perceived autonomy and trust positively predict job engagement. Employees are generally more interested in and enthusiastic about working on tasks that provide them with more freedom and responsibility. Perceived autonomy also modulates the connection between trust and job satisfaction. The research serves as a validation exercise for the accepted theories of workplace management and concludes that they are sound. The study's conceptual framework may be validated in more industries with larger sample sizes in future studies. Some academics say engagement is the antithesis of job burnout (Bailey et al., 2017; Schaufeli and Bakker, 2004). Employees deeply involved with their jobs are often more committed to their businesses and work harder. Therefore, a study on its outcome is significant. The study aims to unify the scattered literature on involvement by synthesising the narrative evidence from 214 research that examine the concept from several angles (meaning, antecedents, and results). They found six different ways of thinking about employee involvement. Motivating elements may be broken down into five categories: individual characteristics, the workplace setting, managerial style, coworkers' actions, and organisational initiatives. There is strong evidence that engagement boosts task performance, morale, extra-role performance, and organisational performance. Claims of causation are hampered by the field's dependence on quantitative, cross-sectional, and

self-reported research. It is increasingly critical that social views on involvement need to be included in the study alongside psychological viewpoints.

When comparing nations, it's difficult to avoid introducing bias due to differences in key aspects like pay, which cannot be compared in whole terms without accounting for the cost of living and employee expectations. Elimination of this bias will produce a more reliable understanding of job satisfaction. In summary, the findings derived from many research studies suggest that job engagement is a constructive notion that warrants more investigation. Evidence has been identified indicating a relationship between engagement and work performance, with the former seeming to possess more predictive power than workplace attitudes. The present analysis suggests that there is a need for methodological enhancements in the field of Engagement Investigation, specifically in relation to temporal considerations. To get a more comprehensive understanding of state participation, it is recommended to use delayed designs and within-person investigations. Additionally, doing longitudinal research might provide valuable insights into trait engagement. Nevertheless, a significant portion of the research is dependent on self-reporting methodologies, potentially leading to an overestimation of the associations seen among the variables under investigation.

The findings of these exploratory studies suggest that employees tacitly deal with influences on individual and peer levels by analysing them, to varying degrees of consciousness, for what they imply about the significance, safety, and accessibility of role performance situations. It is unclear how all three factors together affect workers' contentment on the job, especially under precarious circumstances that need more investigation. Some researchers have defined employee engagement as the tendency of workers to take the initiative within the company and contribute to its success even when their contract does not require this type of employment. Putting too much weight on social factors like gender and age are problematic because they should not be looked at alone as drivers of success or involvement of the workers. Varied factors should be taken into consideration while studying employee engagement. Inclusion of potential antecedent variables like corporate strategy, organisational ethos, and organisational characteristics to study worker engagement will give more generalisable results for industries and organisations in the private and public sectors. The results from various research indicate that work involvement is a beneficial concept that merits further study. They discovered evidence that involvement is related to work performance, and that seems to be more

predictive than job attitudes. It is concluded that Engagement Investigation could benefit from methodological improvements, particularly with respect to time: delayed designs and within-person investigations are required to better comprehend state involvement, and longitudinal research could cast light on trait engagement. However, much of these prior studies rely on self-reporting methods, which may have exaggerated the correlations between the studied variables.

The aforementioned research have provided insights into the various factors that impact the self-perception of individuals inside an organisation, their perception of their jobs, and the relationship between the two. The conceptualisations are of a broad nature; they are situated at a certain level of abstraction from the dynamics of individuals undergoing and engaging in specific work contexts. The importance of employee engagement to organisational success is increasingly acknowledged in the literature. Research on the topic is rich and continues to influence how organisations approach and improve employee engagement. With the changing workforce landscape, it is crucial to conduct ongoing research to stay updated on trends and best practices in employee engagement. An area that warrants investigation is whether engagement and job fulfilment constitute separate constructs. There exists a potentiality that the participation elements access a facet of job satisfaction or an alternative construct, such as positive affect or work involvement.

A great deal of commonality and divergence is apparent in the literature on employee engagement. The research methods are similar throughout the studies, while the sample sizes differ. To learn more about the interrelated factors that affect employee engagement, researchers have used multivariate statistical analysis. Yalabik (2013) has studied 377 clerical workers in the specialty lending section of a UK bank to explore how workplace engagement mediates the relationship between employee attitudes such as emotional commitment and job satisfaction and employee outcomes. Structural equation modeling with latent variables is used to test the assumptions and recommended framework. A cross-lagged research approach is applied to investigate the sequence of employee attitudes and job engagement across time. Suan Choo, Mat, and Al-Omari (2013) have conducted a study with a sample size of 97 workers to investigate how organisational practices might predict employee engagement in a Malaysian electronics manufacturing business. Researchers have mostly used multiple regression analysis to explore the relationship. nevertheless, deviations in approach have been noted in a few studies, namely, employing Saaty's approach Horváthová, Mikušová & Kashi (2019) have studied 664 respondents

from the Czech Republic and concluded that employee engagement directly influences both staff performance and organizational performance.

2.4 EMPIRICAL STUDIES ON JOB SATISFACTION

Although the notion of work satisfaction was widely accepted in the 1920s, its significance was recognised only in the 1930s and 1940s, when it became a study issue in various fields of the social sciences. Work satisfaction remains critical in contemporary corporate strategy, despite its long history as a study issue. Judge et al. (2010) establish a link between compensation and job satisfaction. They use meta-analysis to calculate the average connection between several measures of salary and job satisfaction in the United States and other countries' samples. Pay seems to have been connected across 115 associations in 92 separate samples—15 on the work satisfaction scale and 23 on the compensation scale. The effects of moderators like salary and relationship happiness are studied. According to the data, there is little correlation between salary and contentment. Job and salary satisfaction are positively related to income level, but only slightly. A sample's median salary has nothing to do with the median degree of work or pay satisfaction. However, expanding on these findings requires testing theoretical processes that may clarify why our strongest motivations are unlikely to be fulfilled.

Researchers have discovered about what makes people satisfied on the job, how to quantify job satisfaction, how it affects organisational results, and what interventions have been effective in the past by reviewing the literature on the topic. Job satisfaction is defined in the literature as the emotional reaction of a person to their job, which includes all aspects of their work experience. Salary, job, coworkers, bosses, and career progression prospects are common factors. Job satisfaction is a multi-faceted concept, according to researchers. Studies on the variables that directly or indirectly affect work happiness are becoming increasingly popular in all academic fields. This is especially true when these professions have specific socioeconomic importance. Maleka et al. (2021) investigate the link between a liveable wage, work contentment, and employee involvement and the moderating role played by unionisation. This investigation uses a quantitative methodology, and Loess curves are used to foretell the connection between research variables visually. Providing a decent wage has been linked to higher work satisfaction and employee engagement. The outcomes point to a cubic, rather than a linear, connection between the variables. Living wages increase employee participation, while union membership moderates this link. A

cubic link exists between liveable wages and employee involvement, but union membership moderates it. Membership in a labour union also moderates the cubic connection between the minimum wage, work happiness, and other factors. Their study in New Zealand and South Africa showed a cubic relationship between a living wage and fairness, dimension of job satisfaction, and employees who earned below a certain threshold were disaffected. Their result contradicts earlier findings that have shown a linear relationship between wages and capabilities and claim that workers with low wages are not satisfied. They advocate for research on the disparities in employees' perceptions of a living wage, job satisfaction, and employee engagement based on demographic factors such as gender, job position, educational level, duration, age, family size, and income (both before and after pay deductions). The impact of monetary incentives, such as overtime compensation, on the connection between employee engagement and work satisfaction should also be measured in future studies. Mohanty (2019) investigates the influence of job happiness in determining a worker's weekly income and weekly hours. The relationship between weekly hours and salary is favourable across all age groups. The correlation between weekly hours and job satisfaction varies significantly among age groups. The relationship between hours and job satisfaction is good for younger and older employees but negative for middle-aged workers. Wage, weekly hours, and job satisfaction –might be connected concurrently and should thus be calculated within a framework of simultaneous equations using an acceptable method. The research employs a two-stage technique to estimate pay, weekly hour, and job satisfaction equations based on the premise that each factor may be interconnected. Three sample sets of 12686 respondents from the United States National Longitudinal Survey of Youth (1990, 2000, and 2010) are analysed. The research shows that higher weekly pay is associated with greater job satisfaction for workers of all ages. However, employees of different ages do not have a universal experience regarding the correlation between regular weekly hours and contentment in the workplace. Younger and older employees positively associate hours worked and job happiness. However, middle-aged workers negatively associate hours worked and job satisfaction. Daz-Carrión et al. (2020), using a representative sample of 1633 employees from throughout Europe, their study examines how nations with comparable institutional features fare in terms of employee working conditions and overall job satisfaction. They take a holistic view by factoring in institutional and organisational contexts when assessing workplace happiness. The findings show that various types of work environments in Europe account for varying degrees of satisfaction with work in the tourist industry. For a

better insight into the elements that impact job satisfaction, they classify European nations into new categories based on the working circumstances in the tourist industry.

Park & Kang (2017) employ longitudinal research to examine the differences in job satisfaction, a metric of occupational health, across different occupations in Korea. Non-typical employees' internal (reason for choosing) and external (kind of employment contracts) diversity is explored in connection to their level of job satisfaction. It looks into the effects of internal and external diversity on the happiness of non-typical employees. Being internally heterogeneous means workers have different reasons for opting for non-traditional careers. Using the South Korean Labour and Income Panel Study, the initial 6th wave (2009-14) of the '09 sample' is utilised. This sample consists of 5103 workers and 24,330 cases. The findings demonstrate that the average job satisfaction among non-standard employees is lower than that of standard workers. They prove that switching from standard to non-standard employment leads to a decline in the job satisfaction of the workers. According to research on the internal diversity of non-standard employees, individuals who pick non-standard contracts willingly do not report worse job satisfaction than those forced into them. The levels of job satisfaction and employee happiness differed among work arrangements according to their choice between standard and nonstandard contracts. Bruno et al. (2013), using a survey of young Italian employees' self-reported levels of job satisfaction, this study aims to understand how they perceive the quality of their jobs. They opine that the Italian process of labour market flexibilisation has produced a dual market inhabited by protected permanent staff and unprotected temporary workers. This inquiry is focused on the quality of these temporary positions, which are especially prevalent among young employees. In addition to traditional temporary employment arrangements, the latter category also includes autonomous partnerships that are exploited by businesses as a de facto casual employment arrangement due to their cheap costs. Lack of job stability is the most significant root of lower satisfaction for both temporary staff and autonomous collaborators. According to the estimated regression model of perceived all-around job satisfaction of young workers, based on the panel data gathered by the Institute for Workers' Professional Development through the Participation, Labour, Unemployment Survey for the years 2006-2008-2010, temporary workers may overcome their apprehension about their employment situation by focusing on other parts of their jobs, making them as content as permanent workers. They conclude that happiness by forging connections with co-workers and superiors is the most influential factor in

determining total job satisfaction, particularly for men. Job stability is the second most significant aspect of employment happiness, particularly for women. They discover that a lack of employment stability is the most significant driver of poorer work satisfaction for temporary and independent contract labourers. Temporary workers compensate for job security worries with additional job responsibilities. Anja et al. (2020) demonstrate that a worker's and a job's personality are largely independently significant for work satisfaction and that the impacts of various personality characteristics vary. Further study is required to determine if voluntary and involuntary occupational changes impact work satisfaction differently. In addition, there are other causes of change in workers' surroundings, such as shifting positions within a profession, job redesigning, and the allocation of new responsibilities, that they did not address. As critical concepts in occupational and organisational studies investigate the long-term effects of a good "Person-environment fit" on work satisfaction. They examine the relationship between a person's level of pleasure with their profession and the degree to which their personality characteristics align with those of others in their field. Researchers have analysed information from 2005, 2009, and 2013 to conclude that personal and professional personality were significant predictors of work satisfaction but were mainly unrelated to congruence. There was no correlation between shifts in person-environment fit and shifts in work satisfaction and shifts in former could not be used to anticipate shifts in job satisfaction. They conclude that happier workers are those who have found a job that matches their personalities well.

According to the available literature, salary, working conditions, and lack of employment stability are the most significant determinants of lower job satisfaction among temporary and independent contractual employees. As an alternative to job security concerns, temporary employees assume greater job responsibilities. Personality attributes within the team can be investigated as a greater predictor of job satisfaction for a better understanding and occupational congruence. Furthermore, work satisfaction appears as an important covariate in both salary and hour equations, but weekly wage and hours are shown to be not significant in most equations. This triangular link suggests that job happiness may affect pay and hours worked per week. Evidence from the literature indicates that temporary work arrangements have a negative correlation with job satisfaction. This observation is supported by the present study. This research deviates as it focuses on characteristics that result in job satisfaction and how these aspects connect to employee engagement. Rather than only concentrating on job discontent, instability, low earnings,

bad working conditions, a lack of training and possibilities, and high levels of stress on the job as a whole, this study focuses on elements that result in job satisfaction. This study differs as primary focus of this investigation is on contract workers; nonetheless, there has been no attempt to make any comparisons between them and regular employees.

The literature on job satisfaction covers all the bases when it comes to measuring employee happiness on the job and the effects that happiness has on businesses and their employees. Positive work environments, supportive leadership, and interventions that cater to employees' varied preferences and needs are all highlighted by the results. Judge et al. (2010) demonstrate a correlation between salary and work satisfaction based on a sample of 92 individuals. Meta-analysis is used to determine the mean link. Mohanty (2019) examines how job satisfaction affects a worker's weekly income and hours worked using a sample of 12686 respondents. Daz-Carrión et al. (2020) conducted research on 1633 workers throughout Europe to analyse how countries with similar institutional characteristics compare in terms of employee working conditions and job satisfaction. Park & Kang (2017) use longitudinal research to analyse job satisfaction among 5103 workers in various professions in Korea, as a measure of occupational health. There is a significant difference in the sample size. Most studies have used experimental methodology as it offers the most compelling evidence to establish causation by manipulating and presenting the causal variable to the participants.

2.5 EMPIRICAL STUDIES ON EMPLOYMENT VULNERABILITY

Industrial growth has brought rapid economic progress and created more jobs. However, these new opportunities have built-in adverse terms such as insecure jobs, tremendous work pressure, and higher work intensity, making the workers vulnerable. There is no unanimity in the literature about the definition of vulnerability at work. Several significant concerns have emerged from the research conducted in this domain. The effect of technology developments on job security, salary inequities, job instability, and the precarious nature of work are all factors to consider. The lack of sufficient social protections for vulnerable workers is a common thread across the research. The difficulties already experienced by employees in insecure employment are made much worse by a lack of opportunities for healthcare, unemployment compensation, and job training programs. Workers' total susceptibility is further investigated in the literature by looking at how these elements interact with one another. Numerous studies have shown that non-traditional

employment arrangements, including temporary labour and part-time positions, are on the increase. Employees' livelihood is jeopardized since these forms often do not provide job security, benefits, or a steady salary. A common theme that arises throughout the literature is job uncertainty. Employees' mental health and contentment with their jobs are affected by the uncertain economic climate, organisational changes, and the rise of technology. Specific governmental initiatives are emphasized in the literature as being crucial. As a way to tackle the complex issues caused by job vulnerability, some suggestions include tightening labour standards, increasing social safety nets, and encouraging inclusive economic policies.

Saunders (2003) explores the various facets of labour market vulnerability in Canada as a basis for future research and devise a plan to improve the incorporation of more workers in jobs with acceptable wages and working conditions. Part of this involves ensuring that individuals receive treatment equitably. The study defines vulnerable workers as individuals whose involvement in the labour market jeopardises their well-being as they have trouble gaining access to work that is adequately compensated and satisfies fundamental social conventions. Vulnerability is frequently related to non-standard labour, although it is not synonymous with it. For many employees, the collapse of the conventional employment relation (regular, full-time wage labour for a single employer) has increased risk and vulnerability. Many workers involved in vulnerable labour cannot be identified or recognised. Since their employment is irregular, informal, or illegal, they are often left out of official labour figures (Theodore et al., 2015). They have compared the conditions of informal day-labour markets in South Africa and the United States in order to better comprehend the type of worker vulnerability in this market and the economic conditions that have facilitated the development of day labour. They investigate the connection between economic change, labour market dynamics, and worker vulnerability. The findings reveal that inadequate wages, dangerous work environments, and substantial income insecurity characterise day labour. The day job markets in South Africa and the United States serve distinct functions within their respective regional economies. Day labour can be viewed as a means of surviving in South Africa. The increase in day labour in South Africa is evidence of a formal labour market that cannot accommodate structurally unemployed workers. Here, day labour is a job of the last resort, enabling employees to subsist on the periphery of the mainstream economy while providing few avenues towards the formal sector. The majority of day labourers in the United States are

undocumented immigrants. Maintaining a tenuous grip on positions in the construction industry, workers pursue employment at informal recruiting locations. There is proof of occupational mobility into more secure and higher-paying positions. They conclude that, due to shifts in labour markets and workplaces, the Employee Status platform does not provide the level of security envisioned by the administrators.

Burgess & Connell (2013) reveal that despite Dubai's authoritarian culture, it is important to highlight the human resources administration's role in improving working conditions for vulnerable workers. It is especially true in workplace safety, minimum wages, leave, and housing. The research aims to describe the human resource management implications of the reforms needed in industrial relations to enhance the lives of vulnerable employees in Dubai. The result indicates that the most vulnerable workers in Dubai are foreign nationals who are concentrated in low-wage service and retail industries. These employees are handled quite differently by the law than their domestic counterparts. It is concluded that to become more strategic in their responsibilities, human resource executives and specialists must take care of things like global talent management and compliance with local labour regulations. However, the study relies only on secondary data and literature. Hence, further empirical work is needed to discover best practices in the area, particularly with human resources managers and communities of vulnerable migrant workers. In their case study, Kirov and Hohnen (2015) investigate how trade unions in the European Union may address the incorporation of vulnerable employees in low-paid pinned sectors. The methodology includes examining stakeholder strategies and initiatives at the national and European levels, as well as desk research, interviews with community partner representatives and other sector experts, and company case studies conducted across the examined nations in three selected sectors: cleaning, waste collection, and catering. The paper's key findings relate to the indirect manner in which the trade unions attempt to encourage the incorporation of vulnerable groups within the sectors under consideration. This paper establishes practical recommendations for European service unions. They infer that locational and organisational restructuring harms employment conditions, including secure employment, stable income, and social integration. Lengfeld & Ohlert (2015) determine whether wage inequality between firms affects various occupational groups differently. The objective is to improve comprehension of firms' role in this development. The authors contend and empirically test whether employees can benefit from firms' internal or external approaches to flexibility, depending on their personal and professional

resources. Employer-employee information gathered from the official German labour market records are used to calculate firm-specific wage elements that are then regressed on structural firm characteristics. The findings indicate that the between-firm pay effects of internal employment markets are greatest for unskilled workers and most pronounced for experienced manual workers. Effects are lesser for qualified and highly qualified non-manual employees but have risen significantly for the latter group between 2005 and 2010. The research integrates sociological and economic perspectives on the labour market in order to formulate and evaluate the new hypothesis that the between-firm wage impact of internal labour markets is greater for unskilled workers than for skilled workers. This study examines the degree to which enterprise internal employment markets have repercussions for the salaries of employees from various occupational classes. According to the findings, individual pay is determined to a larger extent for lower-qualified classes (manual labourers and unskilled non-manual employees) than for middle- and high-qualified classes. The positive wage implications of internal employment markets are most pronounced for menial occupations. However, they are also pronounced for expert manual occupations. In 2005, the wage effects of internal employment markets were lesser for classes of medium- and highly-qualified non-manual employees. In contrast, in 2010, the effect of internal labour markets on the wages of highly-qualified employees was exceptionally large. This influence is likely related to the autumn 2008, the start of the monetary and economic recession. Burgess et al. (2008) describe the conceptual nature of contingent employment in Australia and its measurement and trends. The section then discusses the various forms of employment insecurity associated with temporary work. They consider what regulatory modifications are necessary to improve the security of temporary employment. They trace the Australian notion of a casual or transitory worker as subject to different regulatory arrangements than permanent workers. They conclude that the frequency of temporary employment has increased across most occupations and industries. Compared to employees in standard 'permanent' employment groups, workers in temporary positions have significantly fewer rights and benefits. They emphasise improving the safety net conditions, reforming the labour laws, and enforcing them more strictly. In addition, the disparity across casual and permanent conditions should be narrowed by improving casual employment conditions, and there should no longer be a provision allowing for the indefinite continuation of casual employment. Burges & Connell (2015). Cochrane and McKeown (2015) segregate and analyse the two concepts of vulnerability and non-standard work by examining economic, social, and psychological

viewpoints and the actuality encountered by agency workers. A computer-assisted template analysis was performed on information gathered from 178 Australian administrative workers hired by eight agencies. The sample characteristics disclose a gendered and diverse workforce, according to the main findings. Reports of economic, psychological, and social vulnerabilities and positive characteristics exist. This apparent contradiction suggests that there are connections between the characteristics of nonstandard work, worker preferences, individual characteristics, and worker vulnerability. The concept of varying levels of worker vulnerability provides a new lens through which to examine agency labour. They investigate the connections between vulnerability and precariousness, introduce the concept of varying degrees of worker vulnerability, and recommend strategies to reduce worker vulnerability. Carnes & Mares (2015) document the amazing growth of non-contributory social security programmes across several Latin American nations, emphasising how tax-funded programmes have played a prominent role in various contexts. They analyse preferences at the citizen level that are in favour of this trend and argue that employment insecurity and threats to revenue continuation play an important part in moulding the demand for public rather than private social protection. Survey data from forty thousand individuals support these assertions in twenty-four nations throughout Latin America and the Caribbean regarding labour market hazards and social policy preferences in eighteen countries. The findings suggest that other countries experiencing workforce-market strains might face similar demands for a "return of the state" as a provider of social protection in the years to come. They provide an improved comprehension of the politics of societal protection in low- and middle-income nations and the recent developments within the broader trend of reforming social protection in developing countries, namely the return of the government as a provider of tax-financial social protection. They conclude that the vulnerability of employment is the most important factor in determining the workers' support for social protection. As a result of job instability, workers are rethinking their preferred social policy mix of private and state social safety.

Vives et al. (2013) analyse occupational precariousness using a multi-dimensional concept. The characteristics of workplace power relations include worker vulnerability or defenselessness and inability to exercise legal rights. They have used the Employment Precariousness Scale to evaluate the correlation between job insecurity and emotional distress. Log-binomial regressions are used to determine the mental health of 5679

permanent and temporary workers in this cross-sectional research from the 2004-2005 Spanish Psychosocial Factors Survey. The results demonstrate a correlation between job insecurity and poor mental health, with the effect being larger for women than for men. This indicates that gender-based power imbalances interact with the findings. According to Bocquier et al. (2010), employment vulnerability may be characterised by how difficult it is for workers to manage risks or deal with losses and expenses connected with the incidence of dangerous events or circumstances. They examine the relationship between markers of job vulnerability and income in seven major West African cities. Analyses of distributional, qualitative, and quantitative data point to unequal income distribution and the presence of apparent underemployment as prime examples of vulnerability compensating mechanisms. The lowest-paid employees within the private sector face greater employment risks without receiving any compensation. Negotiating power in the formal sector may have decreased due to long "job queues" and inadequate institutional protection for employees. The vast majority of workers in urban labour markets in sub-Saharan Africa are employed in insecure jobs in the informal sector, as pinpointed in the surveys conducted by the regional statistical assistance programme for multilateral monitoring in 2001-02. Eighty-five percent of private sector employees across all economic capitals are susceptible on the grounds of at least one criterion, as shown by the composite measure of vulnerability in employment. The informal economy, the higher end of the income distribution, and the presence of apparent underemployment are the most common settings in which a compensatory mechanism for vulnerability may be seen. When it comes to safeguarding against the most prevalent aspects of job risk, the formal private sector does not excel. In a nutshell, it is argued that employment vulnerability is fundamentally a multidimensional phenomenon.

Bazilliera and Boboc (2016) examine the potential impact of job vulnerability by contrasting the levels of vulnerability experienced by migrants and local employees in European Union nations. All else being equal, the results reveal that migrant workers are just as vulnerable to losing their jobs as native-born workers, but that the degree of susceptibility varies greatly depending on a worker's level of education and experience. The vulnerability of low-skilled migrants is lower than that of high-skilled migrants. Migrants with higher levels of education and training are focused on long-term job opportunities, whereas those with lower educational levels and training are prone to be affected by the immediate results of their job search. They conclude that employment

vulnerability in source countries may be a determinant of emigration, but just for low-skilled migrants. As job vulnerability is lower in the countries of destination for this group of migrants, migration could be seen as a logical approach for reducing individual risk. It is important to note that the primary influence depends on the employer's features. In contrast, minimising employment vulnerability should not be considered a rationale for migration among highly trained employees. In certain nations, the lack of skilled positions is the greatest challenge for workers with advanced educational levels. High-skilled employees may elect to relocate to find work that matches their qualifications, despite the increased employment insecurity. They are willing to take employment with a more precarious conditions than they would have encountered in their home countries if these occupations were more in line with their actual qualifications. Alternative explanations for this pattern may include relative impoverishment in the source countries.

The literature is divided on what constitutes vulnerable work. The job contract, the working conditions plus surroundings, the location of work within the framework of the labour regulation system, and the specifics of work comprising wage and non-wage conditions are typical components in the literature. The present study also delves into the similar factors. However, the generality of these results from review of literature may be restricted to only liberal market economies. It must be noted that most of these researches have not included the specifications of labourers employed on contract. Since outsourcing, downsizing, and organisational restructuring have grown in popularity, susceptibility has spread across all industries and vocations, these constructs have been studied with reference to labourers supplied on contract to manufacturing. Inadequate salaries, hazardous work settings, and significant income instability are some of the aspects of labour market vulnerability discussed in the literature. Research from the past often links vulnerability to non-standard work. Here, a different approach is taken by incorporating employment vulnerability as a mediating variable impacting the association between employee engagement and job satisfaction in contract forms of employment in industries. Incorporating the employment vulnerability concept from the viewpoint of contract workers in the sectors, this research reexamines the link between the constructs. Despite important advancements, there are still gaps in our understanding. Research on the long-term impacts of contract labour, the interrelated nature of vulnerabilities, and the efficacy of certain policy initiatives to reduce employment vulnerability might be conducted in future research. Workers confront various issues in a setting of job vulnerability, which are

demonstrated by this thorough assessment. It stresses how critical it is to build a more resilient and fair work environment by tackling these issues head-on with a mix of strong legislative measures and further research.

In the light of the above, it can be observed that research on employment vulnerability varies in terms of sample size, data collection period, and methodology. Cochrane and McKeown (2015) examines the concept of worker vulnerability and nonstandard work from various perspectives, including economics, society, and psychology. They also examine the actual experiences of agency workers in this regard, using a purposive sampling method to recruit 178 office workers from eight different agencies in Australia. They have analysed the data using a mix of human and computer-assisted methods, using the NVivo10 software package. Bazillier, Boboc & Calavrezo (2016) have adopted a varied approach to assess employment vulnerability by considering many factors such as the kind of employment contract, employment relationship, type of company, and profession category. Employing the European Social Survey data from 56,752 workers, an employment vulnerability index is created. Multiple correspondence analysis (MCA) is used to reveal the connections between the variables. Greenan and Seghir (2017) have analysed data from the five most recent European Working Condition Polls (1995–2015) to determine the method for assessing workplace vulnerability to cumulatively unfavourable working conditions. Findings from weighted least-squares estimations are applied to pseudo-panel data. It is concluded that employees working for privately held small businesses on short-term contracts are more likely to be at risk. Disparities in risk levels associated to occupational characteristics are shown by the 42781 data collected from 15 European countries. Most of the data sources are secondary in nature.

2.6 STUDIES ON GENDER, JOB TYPE AND EDUCATIONAL LEVEL OF WORKERS AND EXPENDITURE PREFERENCES

This section compiles research that examines how employees' spending preferences vary according to their gender, occupation, degree of education, and other factors. The complex financial actions of contact workers in varied job circumstances may be better understood by examining the interplay between these aspects. Numerous studies have been conducted to examine the interrelationships among key characteristics associated with spending patterns among workers across various categories. The studies delve into the correlation between educational attainment and professional paths, providing insight into how these

elements influence the preferences for long-term spending. Different career trajectories that are shaped by one's level of education, might result in different spending habits. When looking at spending preferences, it's important to consider gender, occupation, and education level into account. A tangled web of financial habits is created by the interplay of various elements. The intricate financial requirements of people should be taken into account by policy initiatives, according to studies, and these demands vary by gender, occupation, and level of education. More equal financial results may be possible with the help of workplace rules and individualized financial education programs. According to Rubin and Nieswiadomy (1994), income emerges as a very significant factor in elucidating spending patterns, particularly in the post-retirement phase, surpassing its significance in the pre-retirement period. Lambert (1991) assesses how expectations and value hypotheses effectively account for variations and similarities between men and women concerning work participation, innate drive, and satisfaction. In order to evaluate how much family life factors contribute to explaining men's and women's work responses, the variables that influence these work reactions are broadened to include family life factors. The study uses multivariate regression techniques to analyse survey data from a nationally representative group of 830 American workers in order to determine whether or not job satisfaction, involvement in the job, and intrinsic motivation can be separated from other variables in terms of their connection to the job and household characteristics looked into. The findings indicate that although job satisfaction is sensitive to changes in home configuration and the employment undertaken by employees' spouses, it is affected by a wide range of intrinsic and extrinsic job factors. The conclusion is that intrinsic motivation is mostly driven by the intrinsic characteristics of the tasks performed by employees. Extrinsic work features are not regarded as directly affecting intrinsic motivation. The collection of variables representing features of spouses' occupations are not of statistical significance because the influence of spouses' job stability on women's work satisfaction is too small. However, research needs to document the intricacies of the relationship that individual employees feel if we are to get a greater understanding of the connection between labour and the human experience. Instead of making assumptions, we need to compare the impacts of employment and family factors across numerous dependent variables, identify the simultaneous contributions of each, and evaluate any disparities in their impact on men and women labourers.

Jung et al. (2007) use age, gender, and the service industry as potential predictors of happiness at work. Using data from the Korean Income and Labour Panel Study, it is observed that there is no significant age difference in the level of job satisfaction in the public sector workers, but a surprising negative connection is identified in a sample of private sector workers. Compared to private sector workers, those in the public and non-profit sectors in Korea report higher levels of job satisfaction. The results of this research provide credence to the expectation theory and imply that there is a difference in job satisfaction based on gender, especially in regard to salary and working conditions. The result reveals an intriguing gender difference in work satisfaction. Female employees appear to have a somewhat greater degree of reported job satisfaction in certain categories (rates of pay and work environment), perhaps because they contrast themselves to jobless or underemployed females as opposed to male co-workers. There is no persistent gender difference in work satisfaction perceptions on job stability, work content, personal growth, and human relations. Ferus (2014) brings to light the unstable working conditions in the private security business. Based on an empirical study conducted in the private security sector in the Indian state of Goa, the study contends that such a largely unregulated industry's contract structure inevitably leads to unfair and criminal practices. When major employers often include third-party agencies in employee interactions, they abdicate their duties and avoid legal liability. It comes to the conclusion that the state plays a double role in ensuring employment norms are followed. It contributes to a better comprehension of precarious work by emphasising its link with migration through the lens of the private security business in Goa. The political-economic conditions that give rise to their precarious employment, focusing on the prevalent practice of subcontracting and the associated lax regulation, which makes workers vulnerable to exploitation, are analysed. The government's dual role as a regulator of labour law and as a principal employer is emphasised and a suggestion is made for better protection of the contract workers employed in vulnerable work.

Kumar and Srivastava (2020) attempt to quantify gender disparities in formal labour markets by analysing vulnerability on multiple dimensions in both formal and informal work settings. They analyse the risks that women in the urban work force confront. The aim is to use a multidimensional vulnerability index to assess employees' exposure to risk in the metropolitan formal labour market and to create a distinct index for formal and informal workers. The vulnerability of women in the formal and informal workforce in

Uttar Pradesh is tested and compared to that of men in terms of the nature and quality of their jobs, their access to benefits, and the stability of their careers. A total of 119 healthcare workers and retail employees are the source of the data. For both the informal and formal sectors and for men and women, they calculate a multidimensional composite index based on the binary vulnerability ratings of individual employees. The comparison between the two types of work, as well as between the genders, shows some interesting parallels and differences. This illustrates the wide variety of the metropolitan Uttar Pradesh work market. The majority of employees in the formal sector are vulnerable at the medium level, according to the report. Vulnerability among informal labourers also differs across genders, with women often being more at risk than men. This research shows that female informal labourers in the economy's private sector are disproportionately impoverished and vulnerable. Policymakers must act quickly to address the rising informalisation of the job market and the resulting susceptibility of women in the formal labour market. They analyse the degree of vulnerability of informal and formal female workers in terms of type and quality of employment, social security, and job protection relative to their male counterparts. Compared to formal employees, informal female workers in the economy's formal sector (private sector) are disproportionately impoverished and vulnerable. Employment vulnerability of female workers in the formal job market is not confined to informal employees. It extends to formal workers as well, and it is crucial for policymakers to combat the expanding informalisation. Garzón-Duque et al. (2017) discuss the genesis, history, and use of the notion of employment vulnerability among workers who survive on street sales, based on a study of the literature in a repository in Spanish, Portuguese, and English, without country-specific restrictions. The authors conclude that the absence of a distinct definition and profile of work vulnerability for this group of employees impedes the development of specified activities to minimise employment vulnerability. They offer a definition of employment vulnerability for informal sector subsistence workers. They have recognised the necessity to create a concept of employment vulnerability that aids the methodological advancement necessary to identify situations and features of employment vulnerability among workers with subsistence occupations, particularly street vendors. They suggest that informal roadside workers are those who, having a subsistence job, work during the day to eat at night and are vulnerable due to their scarce or non-existent assets and the lowest framework of opportunities to avoid, face, and resist the daily critical situations that endanger their survival and that of the people they are responsible for, connecting employment and social vulnerability. Therefore, a higher conceptual clarity that

enables the use of the methodology for the study of workers with subsistence occupations is clearly required. Hakim (1991) assesses the intensity of women's labour dedication in Western industrialised nations. He concludes that it is significantly lower than that of males. The focus is primarily on Britain, but other Western nations' industrial societies across Europe and North America are also addressed. Work commitment is also a strong predictor of women's employment decisions and career decisions. Many women aspire to a domestic vocation in which paid employment is secondary or tertiary, and their spouses strongly support this strategy. A small percentage of women have chosen to work as a primary life objective, attaining higher status and higher-paying employment. These distinct categories inside the female labour force explain the contradiction of women's high satisfaction with low-paying employment and the persistence of occupational segregation. The conclusion drawn is that the contradiction of women's high levels of fulfilment with relatively low-paying occupations can be attributed to the fact that they have distinct life objectives than males. The majority of women have a predilection for the domestic role, with paid work viewed as a secondary activity to be put in when homemaking duties allow. It is discovered that although the job satisfaction of women who work full time is comparable to that of men, women who work part-time are more satisfied with their jobs than men, despite their low work quality and working circumstances. Hakim refers to this conundrum as the "grateful slaves" contradiction.

It can be observed that rather than relying on conventional labour market indicators developed for labour economists, it will be more appropriate to develop quite distinct sociological indicators. Sloane & Williams (2000) examine the gender gap in job satisfaction using information from the United Kingdom Social Economic Life Initiative Household Survey of 1986. The connection between actual and comparative pay and job satisfaction is investigated. The study investigates the relationship between both subjective and objective comparative pay measures and job satisfaction. The concentration is on differences in employee satisfaction between men and women. According to the findings, individual aspects of job satisfaction may explain a considerable portion of the variance in overall job satisfaction. The significance of job security and advancement appears to be greater for male employees.

Based on the literature research, several similarities and differences are identified. Studies typically share a common objective, but they vary in methodology. Regression involves predicting the dependent variable using independent variables, while ANOVA examines

the variation in the dependent variable across different levels or segments of a categorical independent variable. Researchers have determined many motivational elements and personal traits as important factors influencing work satisfaction. Jung, Jae Moon & Sung Deuk Hahm (2007) have analysed work satisfaction in Korea by studying the impact of age and gender of 13,000 respondents using data from the Korean Income and Labour Panel Study gathered between 1998 and 2002. They used ANOVA and T-tests for their analysis. Female workers have a significantly greater reported job satisfaction in certain aspects such as pay and work environment, perhaps due to comparing themselves to jobless or underemployed females as opposed to their male counterparts. Lambert (1991) analysed data from the 1977 Quality of Employment Survey, consisting of 830 individuals using multiple regression techniques based on ordinary least squares. The study concluded that both men and women are similarly affected by intrinsic factors, but female workers exhibit higher levels of job satisfaction. Zou (2015) identified a gender discrepancy in job satisfaction, linking it to varying work attitudes between men and women. Data from the 2006 Skills Survey was collected from 4110 participants by a self-administered questionnaire, comprising 1926 males, 1324 full-time women, and 860 part-time women. A one-way analysis of variance was conducted to compare the mean ratings for work satisfaction across the three groups of employees.

It is clear from the literature that gender, job category and literacy level of the workers are important variables and many studies have been made on these factors. However, a study that measures the relationships between employee engagement and job satisfaction with vulnerability while incorporating the factors of gender, job category and literacy level of the workers as a mediating variable is missing from the literature. This study is an attempt in this direction. The focus is to adequately explain the observed gender gap in job satisfaction. The effect of gender on contract workers' emotional investment in their jobs is also the focus of the current investigation.

2.7 HOW THE PRESENT RESEARCH IS SIMILAR OR DIFFERENT FROM OTHER STUDIES

Over time, contract labour research methodology has evolved substantially. Research endeavours take into account domestic variables, individual tendencies, and community factors, irrespective of the scale. Presently, the field of study has undergone a substantial expansion, and an interdisciplinary approach encompassing- Cognitive Economics, Behavioural Economics, and Psychology is employed to comprehend this intricate phenomenon. Consensus dictates that

workforce susceptibility is typically associated with three elements: workforce conditions; the foundational framework of legislation governing employment arrangements, including the treatment of dependent work arrangements; and the availability of job prospects. Financial resources, long-term employment sustainability, and citizenship regulations are also significant factors to consider. It is evident that instead of depending on standard labour market indicators designed for labour economists, it would be more suitable to construct separate social indicators. Similar to earlier research, this study examines the contract employment system through the lens of multi-dimensional aspects. Instead of attempting to ban contract employment, prior research suggests that the government should make it simpler for companies to utilise it, as the current legal framework is insufficient to meet the demands of contemporary industry. Since firms in countries avoid investing in worker training and technological innovation, the rise of informal employment have exacerbated the worker and labour market concerns overall. Several studies have looked at how short-term contracts affect plant performance, hardly, any have taken into account the significant impact that workers' motivation and emotions play in their level of satisfaction. This gap is to be filled by the present study. The present study attempts to examine the perspective of the contract workers towards employee engagement, employment vulnerability and job satisfaction. Using a cross-lagged research design and the responses of 520 clerical workers in the expert lending division of a United Kingdom bank, Yalabik et al. (2013) evaluate the role of work involvement in the relationships between affective commitment, job satisfaction, and two employee outcomes: Supervisor-rated performance at work and self-reported intention to quit. The proposed framework is evaluated using latent variable-based Structural Equation Modeling. The findings support the discriminant validity of workplace participation, job satisfaction, and affective commitment and investigate the temporal relationships among these constructs. The results indicate that work involvement mediates the connections between affective commitment, job performance, and the intention to resign. Work engagement also influences the relationship between job satisfaction and job efficacy and the relationship between job satisfaction and the intention to leave. established the discriminant validity of workplace engagement, job satisfaction, and affective commitment and provided evidence challenging the current understanding of the temporal relationship between work engagement, affective commitment, and job satisfaction. The consequent support for the mediating function of work engagement has the potential to advance the decades-long debates regarding the connections between affective commitment, job satisfaction, and performance.

This current study revisits the relationship between the constructs by adding the employment vulnerability construct from the perspective of contract workers in the industries. Additional research is required to obtain a more comprehensive understanding of the validity of business-unit outcomes and the repeatability of tests of firm-unit-level measures of employee satisfaction–engagement. A model of causality should be developed that examines the generalised relationship between employee satisfaction–engagement and short-term outcomes, such as staff turnover and client satisfaction, that lead to long-term financial outcomes. Rayton and Yalabik (2014) discuss the Social Exchange Theory and the Job Demands –Resources model by investigating the relationship between breach of psychological contract and work engagement and incorporating satisfaction with work into this exchange relationship. They claim that the psychological contract breach reflects employees' sentiments of resource loss and that these emotions impact work engagement by influencing employment satisfaction. Work participation can therefore be regarded as an instance of employer content exchange. Longitudinal Structural Equation Modeling is constructed based on data from a survey of 191 employees in the specialist lending division of a British bank. The results indicate the negative influence of a breach of a psychological contract on work involvement mediated by job satisfaction. The results confirm a social exchange viewpoint, as workers who experience social exchanges are more satisfied with their jobs. The breach of psychological contracts results in a decrease in employee engagement. Nonetheless, it can be observed that other variables that may play a role in the breach–satisfaction–engagement relationship requires attention. Examination of whether the impacts of other known predictors of job fulfillment and drive to work are similarly moderated and are justifiable. Focusing on additional factors that may influence the breach–satisfaction–engagement link would give a better understanding of the ground reality. It is necessary to investigate if the impacts of other known determinants of job satisfaction and work engagement are also mediated. This study aligns with all the previous research that has observed that engagement and contentment are intimately related, if not identical. This study makes clear the segregation between employee engagement and job satisfaction as a distinct variable.

Harter et al. (2002) expressly identified their scale (Gallup Work Place Audit) as "satisfaction-engagement" and described engagement as "the individual's participation, contentment, and excitement for work." The Gallup poll questions probe evaluative factors generally characterised as satisfaction dimensions, such as resource availability,

development possibilities, and expectation clarity. They demonstrate that employee engagement is indeed a "soft indicator" that influences organisational performance. The current research introduces the satisfaction of contract workers as a key outcome of employee engagement, as individuals are responsible for their degree of participation in the workplace.

Erickson (2005) examines the relative impact of financial resources, time limitations, and gender ideology on the efficacy of household duties, parenting, and affective work using survey data from Ohio on 335 employed married parents. The results suggest that biological gender construction forecasts the performance of emotion at work and that the outcome reflects a significant difference between men's and women's gendered self-conceptions. It has been observed that imparting more feminine expressive characteristics to oneself correlates with women performing more emotional labour. These preliminary findings indicate that emotion at work may provide unique insights into the intricate relationship between gender and family work performance. However, it can be noticed that the investigation requires the inclusion of data from multiple family members and a combination of self-report and observational methodologies.

There has to be a continuous study on the changing situations that agency workers face since job vulnerability has far-reaching consequences for workers, their families, companies, and society as a whole. There have been attempts to investigate the connections between professional precariousness and vulnerability, and a multi-dimensional approach has been suggested for analysing occupational precariousness.

The present research explores the impact of gender construct on the emotional involvement with work of contract labour. The dependability of corporate strategy and the evaluation reliability of corporate research on employee satisfaction–engagement should be the subject of more investigation.

Future research should stress longitudinal designs that examine changes in employee engagement–satisfaction, their causes, and the associated company value. Utilising effective and logically actionable metrics of the structures of interest may provide the greatest possibility for doing such research inside firms (Harter et al;2002). This study used meta-analysis to investigate the relationship at the corporate-unit level between worker contentment–engagement and the business-unit outcomes of consumer happiness, productivity, profit, and accidents using data from 7,939 business units in 36 companies.

Substantial generalisable relationships with substantial practical value are identified between unit-level employee satisfaction–engagement and these business-unit outcomes. This study concludes that satisfaction with work and engagement are linked to significant business outcomes in a manner that is significant to many organisations and that these correlations are consistent across businesses. However, it can be observed that the reliability of business-unit results and the test–retest reliability of firm-unit-level indicators of employee satisfaction–engagement must be better understood. The path of employee satisfaction–engagement to short-term results that lead to long-term financial outcomes is being explored using a contractual form of employment foreground in the present study.

Dash & Panda (2019) find that employees in India's public sector telecommunications sector operate in a traditional manner using outdated knowledge, skills, and abilities. They are not committed to maintaining their abilities. They are accustomed to employing conventional strategies. According to this study, the majority of employees are not lauded and supported for their contributions, as underutilised potential correlates to a decrease in employee engagement. This research demonstrates conclusively that employees are not completely engaged, leading to dissatisfaction. Employees are dissatisfied with leadership because they do not receive adequate guidance for their advancement. They feel honoured to be part of the public sector organisation, but they will quit if an ideal opportunity arises. Employee disengagement results from a lack of guidance, support, and career development. They have shown that the more engaged an employee is, the more they contribute to the job and the more likely they are to be satisfied, whereas the less engaged employees are, the more likely they are to be dissatisfied. Maleka et al. (2021) aimed to examine the relationship between the basic wage, job satisfaction, and employee engagement, along with union membership as a moderator of these relationships, by utilising data collected from 877 respondents from South Africa and running factor analysis and curve estimation models. In this investigation, a quantitative research method is employed. However, economic sectors were not included in the inquiry tool. This would have provided a distinct picture of the origin of the preponderance of respondents. There is a great deal of room for determining how additional remuneration, such as overtime, influences the connection between worker engagement as well as job satisfaction. In their cross-sectional study, they discovered that decent income, work satisfaction, and employee engagement all have significant correlations. The findings suggested that the correlations between the factors were cubical in nature rather than linear. Membership in a union served as a moderator in

the link between liveable wages and employee engagement. The cubic link between fair pay and employee engagement was attenuated by union membership. Additionally, union membership acted as a moderator of the cubic link between the living wage and work happiness. They have advised that research be done to ascertain demographic differences (e.g., gender, job position, educational level attainment, tenure, age, family size, and earnings prior to and later to wage deductions). The present study resembles in its approach as it involves the utilisation of a ready measure to assess job participation from an attitudinal perspective. This scale prompts individuals to indicate the extent to which they interconnect their self-concept with their professional endeavours. The linkages between employee engagement and satisfaction with their job and tangible business results are well-documented and hold true for a wide range of industries. However, this study differs in its approach as it is an additional investigation into the test-retest reliability of indicators of employee satisfaction-engagement at the firm unit level and the dependability of findings at the business unit level . The data for this study, except for the performance data, were collected at a single point in time; therefore, causal inferences cannot be drawn conclusively, nor can we rule out the potential of reverse causality, which influences the employee's final attitudes and behaviours towards that party. It is important to investigate the correlations between worker engagement and job happiness, which will ultimately reflect on the productivity of the workers. No research has been conducted exclusively for vulnerable employees.

Employment vulnerability, according to Bazillier et al. (2016), is basically a multifaceted issue. They employ a representative sample of 27,585 individuals from Europe, Israel, and Russia to create an employment vulnerability index using data from the 2008 European Social Survey. They suggest a new job-related vulnerability index, an employment vulnerability index, and a combined vulnerability index. They estimated employment vulnerability based on a variety of factors, such as the kind of employment contract, the work relationship, the type of business, and the profession category. They found two primary aspects of vulnerability as a result. The job-related vulnerability index focuses on "employer" characteristics. In keeping with the ILO's definition of employment vulnerability, this score indicates that self-employed employees are more likely to be susceptible. The second component, the work-related vulnerability index, is preoccupied with "job" characteristics. Armed forces members or lawmakers, managers, professionals, and technicians hold the positions with the lowest risk on this index; they have secure jobs

with high incomes and adequate worker protection; but the unskilled and semi-skilled worker's position in factories is not identified. Wright and Kim (2004) discover that engagement, work relevance, job distinctiveness, career development assistance, and feedback are major determinants of job satisfaction. The research relies on data collected as part of a strategic planning method in the summer of 2000 from a survey of 477 state workers operating for just one state agency in New York. An employee involvement and job characteristics structural equation model is offered for study. According to the research, participative decision-making has a notable favourable impact on feedback on performance, task relevance, and career development assistance. Job-specific feedback and encouragement of professional growth went hand in hand with employee performance evaluations. Job satisfaction was bolstered when employees felt their work had meaning and when their employers encouraged them to grow in their careers. According to the results, employees' levels of work satisfaction are significantly affected, although indirectly, by the qualities of the jobs in which they participate. Despite the fact that this research uncovered several intriguing elements of employment happiness in various nations, many concerns remain unsolved. There are no evident correlations between the parameters investigated here and work satisfaction were explored in detail. The relationship between work satisfaction and notions like job participation and organisational commitment must also be investigated. The majority of research has focused on the impact of temporary contracts on plant production; although worker motivation and their feelings also play a role, this has not been the major aim of studies.

There is a paucity of studies on the connection between gender and work satisfaction. There are no consistent empirical findings about the gender influence on work satisfaction (Ellickson & Logsdon, 2001; Sloane & Williams, 2000).

The literature review gives a thorough understanding of the clear definition of the constructs chosen for this study and how they are distinct from constructs that appear to be similar. It gives an understanding of the different approaches taken towards understanding the constructs. The current research attempts to combine the three giant constructs of employee engagement, job satisfaction and employment vulnerability of the contract workers under one network to explore their relationship and different dimensions. The influence of various demographic and occupational factors has been taken up in the study.

2.8 SUMMARY AND RESEARCH GAP

The Indian states of Uttar Pradesh, Maharashtra, and Delhi, the nation's capital, are the main subjects of studies on contract labour due to their high industrial concentration. These studies typically concentrate on working conditions or labour laws. Despite the target group i.e. contract labourer,s seems to be homogeneous at first glance, a thorough analysis is necessary due to the difference in job categories, educational attainment, and gender. Previous research has brought attention to notable issues, including the significance of the contract labour system and the limited effectiveness of regulations governing the employment of contract workers with regard to remuneration and job-related benefits. Nevertheless, there exists a dearth of research pertaining to the examination of job satisfaction and feelings of connection among contract workers. Hence, more investigation is required to comprehend the societal causes behind community and individual behaviour that were involved in the current occurrences of the contract labour system. The objective is to investigate strategies that might be used to enhance levels of engagement within the company. Consequently, the primary emphasis is on the correlation between employee engagement and work satisfaction. The present study additionally investigates the relationship between employee engagement and vulnerability, specifically exploring whether engaged workers exhibit superior performance compared to their counterparts. Lastly, the relationship among all three constructs is examined in order to get a comprehensive understanding. The primary emphasis is on the workers' own attitudes rather than the actions of the management alone. Saks (2006) and Macey & Schneider (2008), to name a few, indicate that work engagement is a demonstrably unique construct that warrants additional research. The majority of research excludes conceptual models of the relationship between employee engagement and job satisfaction. No research has experimented with a comprehensive model that specifies the contribution of the engagement level of the labourers working under contract to their job satisfaction level.

This research emphasises the significance of widening the narrow focus on the link between employee engagement and job satisfaction to include the influence of the vulnerability component as well. The majority of research on contract labour has focused on the construction sector, which employs a disproportionately high number of immigrants. More research on contract labourers in industrial companies would be advantageous in every way. The contract employees are engaged in various job categories; thus, their job

satisfaction, degree of involvement, and sense of vulnerability may vary. However, research that accounts for these differences is very sparse and therefore of prime necessity in assisting policy decisions and industrial labour policy. Using a cross-lagged research design, Yalabik et al. (2013) assessed the role of work engagement in the relationships between affective commitment, job satisfaction, and two employee outcomes – Supervisor-rated job performance and self-reported intention to quit – among clerical employees in the specialist lending division of a United Kingdom bank. Work engagement, job satisfaction, and emotional commitment have all been shown to be discriminable, and their temporal correlations have been investigated. They concluded that work engagement mediates the relationships between affective commitment to job performance and the intention to quit. Work engagement also mediates the relationship between job satisfaction and job performance. It partially mediates the relationship between job satisfaction and the intention to quit. It has been suggested that future research could explore the longitudinal dimensions of work engagement in greater depth.

Due to the conceptual uncertainty around the topic of engaged employees, researchers have argued that firms are unable to cultivate an engaged workforce and gain its potential advantages (Macey & Schneider, 2008; Pati & Kumar, 2011). Typically, the concept of involvement has been conflated with related organisational concepts, resulting in inaccurate judgments. Hence, there is a dire need to explore more opportunities to overcome the gap of limited availability of validated measurements of employee engagement and the over-dependence on a measure developed by Schaufeli et al. in the year 2002. So far, no previous literature has reflected on the impact of engagement of the employee on his job satisfaction level. Saks (2006) recommends that future studies might additionally take into account individual differences in characteristics that could influence employee engagement. The results of this study reveal three deficiencies in prior research: a lack of research on demographic characteristics, disparities in job type, and connections with job satisfaction. Although there are a number of studies on factory employees, with a particular emphasis on the after-effects of poor implementation of laws governing the workers, the health risks encountered by factory workers, and gender inequality in the sector, the current research differs in that it treats employee engagement as an independent concept that influences the satisfaction of temporary workers who do not intend to quit. Conversely, they want permanent incorporation within the company.

The identification of macroeconomic variables to analyse the observable characteristics associated with contract employees in businesses will aid in elucidating the overall trend. Such research will provide vital data for specialists to create forecasting models, which will assist planners in conceiving suitable policies to govern the welfare of contract labourers. Concurrently, researchers have looked at how often temporary workers are used as against full-time employees, the characteristics of temporary workers, and the roles that temporary workers play in industries like construction. However, it becomes clear throughout the literature study, that, very few researchers have examined the effects of employee engagement. There has not been any research that looks specifically at the effects of contract labour on employee engagement or job satisfaction. This research aims to bridge the gap between previous and ongoing investigations by identifying these gaps and providing fresh insights for future generalisations. While the literature review serves as a starting point for this investigation, it was designed with contract workers and the problems they face in mind. For example, the study attempts to dissect the effect of health and safety measures on the job, the nature of the work performed, and the quality of relationships between co-workers on the mediating function of work-related vulnerability. The majority of research on employee engagement, employment vulnerability, and job satisfaction focuses on permanent employees in industrialised countries.

With reference to emerging nations such as India, there is a paucity of literature in this field. Therefore, the current research addresses this vacuum in the literature by using contract labour as the unit of analysis to investigate the effect of worker involvement on job satisfaction through the mediation of employment vulnerability. The effect of the linked variables job type, educational level, and gender area are also examined.

A comparative study of the relationship between the key constructs of employee engagement, job satisfaction, and employment vulnerability in the context of contract workers in the manufacturing industries has not been undertaken in India and Goa. A study on contract labourers in the registered manufacturing units in Goa will be an attempt to fill the following gaps in the earlier studies:

- Examine the relationship between employee engagement, workplace satisfaction, and contract employees' employment vulnerability.
- Comprehend the moderating effect of employment vulnerability on the association between employee engagement and job satisfaction among contract workers.

- Investigate whether the impact of employment vulnerability on the connection between worker engagement varies according to the gender, job type, and educational level of contract employees.
- Examine the effect of demographic and work-related variables on employment insecurity, job satisfaction, and employee engagement.

This study is the first of its kind to examine in depth the degree of employee engagement, job satisfaction, and employment vulnerability in the State's manufacturing industries. It thoroughly examines the relationship between socioeconomic and vocational variables and the spending patterns of contract employees in manufacturing units. The study's findings will raise awareness of the current conditions and suggest policy modifications for the benefit of labourers, contractors, principal employers, and the economy as a whole.

CHAPTER III

THEORETICAL AND CONCEPTUAL FRAMEWORK

3.1 INTRODUCTION

Satisfied workers might become complacent and unproductive if they lack interest in their job. Similarly, ordinarily engaged workers who are dissatisfied with their company could become unproductive and disengaged. Employee contentment is not synonymous with employee engagement, yet the firm needs both to obtain the greatest performance from the staff. Accomplishing one of these without completing the other does not provide the desired outcomes. Engaging workers in organisational tasks is one of the primary emerging challenges in the contemporary environment. Employee engagement has been the most scrutinized and examined part of human resource management in recent decades. There seems to be a significant gap in employee engagement ideas, despite the fact that much study has been conducted on its policies, methods, courses, strategies, and development in employee engagement programmes (Saks,2006). Numerous scholars and organisations have provided critical insights that have resulted in the concept of engagement's landmark advancement. However, owing to a variety of factors, including a dynamic business climate and a variety of issues, there is much misunderstanding and ambiguity around the engagement process. Numerous experts have tried to establish employee engagement based on their own perceptions and experiences, but no universally accepted definition has emerged Khan (1990); Saks (2006). The constructs have been obtained from the theories and their relationships have been examined in the light of the studies emerging from the review of literature. Although, William Kahn's theory of Employee Engagement lays the foundation of this research, yet the reliance on other theories has given tremendous cogency to the study. A construct cannot be attributed to a single theory as there is an overlap, namely, Herzberg's two element theory of motivation, which identifies the genuine motivating variables as success, recognition, the job itself, the responsibility of progress and the prospects for development as the true motivators and these go hand in hand as the important components of both -Employee Engagement and Work Satisfaction.

3.2 CONCEPT OF EMPLOYEE ENGAGEMENT

The term "employee engagement" refers to a worker's level of commitment to the company's goals and enthusiasm for their position. Employee engagement measures the extent to which workers care about their jobs and their company (Khan, 1990). Although enjoying one's work is an important facet in employee engagement, this aspect of engagement is only one of many that exist. The idea has only been around for around two decades, but it's making waves in the field of human resource management.

Internal opportunities for advancement, teamwork, employment stability, staffing pickiness, work-life balance, autonomy at work, and financial rewards are all indicators of high-performance work practices. Organisations need to prioritise the concept of employee engagement because of the positive impact it has on performance outcomes, despite the fact that neither accountability nor commitment nor organisational citizen behavior has been the subject of as much research. The two-way nature of engagement and the degree to which linked employees are anticipated to have a sense of corporate consciousness are both appropriately reflected by Organisational Citizen Behavior, despite the notion that engagement covers both ideas.

3.2.1 IMPORTANCE OF EMPLOYEE ENGAGEMENT

According to Harter et al. (2002), considering its influence on business productivity and profitability, employee engagement is often most significant at the corporate level. But it also assists executives in comprehending staff requirements and identifying approaches to boost morale and build superior work conditions. Employees who are vested in their job and their employers always perform in a manner that advances the organisation's interests (Khan,1992). Organisations that excel in employee engagement see growth in profits that is higher than that of their rivals. Compared to business units' with poor level of employee engagement, those with higher engagement level have much more customer experience, increased efficiency, increased retention, fewer injuries, and revenue growth (Macey &Schneider,2008). Additionally, engaged employees report improved health outcomes. Contented workers are dedicated and productive, making them a valuable asset to any company. Expanding upon the aforementioned point, scholarly inquiries that examine, for instance, the dynamics of power within the realm of engagement or that delve into the communal dimensions of engagement through the lens of industrial relations

would contribute to the comprehension of how engagement aligns with established theories pertaining to the employment relationship (Bailey 2015).

3.2.2 METHOD OF MEASUREMENT OF EMPLOYEE ENGAGEMENT

An employee engagement survey is one of the most prevalent tools for determining the level of employee engagement. Using a combination of scale ranging and open-ended questions aimed toward different dimensions of employee engagement, it is possible to gather data in real-time and analyse the situation more accurately. Private talks or group discussion provide workers with the opportunity to discuss their most critical concerns, some of which may not be addressed at all in a formal appraisal. Monthly, quarterly, or annual individual meetings with workers may be conducted by managers and the Human resources department to gauge employee engagement.

3.2.3 FACTORS INFLUENCING EMPLOYEE ENGAGEMENT

Employee engagement refers to a person's participation and contentment with their employment. Employees that are engaged feel emotionally linked to one another and their job. They are better able to connect to the company's direction and believe their responsibilities contribute to the momentum of the business. According to Saks (2006), the concept of employee engagement has significant value and merits more investigation in future research endeavors. Future study should endeavor to further explore the many aspects that have the most significance in fostering engagement within diverse jobs. Several general factors are examined:

Attitude: Productive employees are happier employees. However, Harvard psychology research demonstrates that contentment leads to success. Individuals are responsible for their own happiness. If one is dissatisfied with his job, he might have to examine himself and assume responsibility for his circumstances and attitude.

When the workplace becomes agitated due to concerns and unexpected obstacles, executives are able to handle the situation and prevent potential conflict. In addition to compensation and benefits, the chief reason why employees remain at their current jobs is lack of viable employment alternatives. Good management attitudes affect not only the work engagement but also employee retention.

Health: Illness as well as other health complications are a burden on employee productivity. Injured employees regularly call in ill for fear of contaminating their coworkers or because

they feel more comfortable at home. Remote employees are most likely to be as enthusiastic and dedicated as their in-office coworkers when remote work is executed effectively. Even if the employees are passionate and engaged, they may not be productive if they lack the appropriate technology.

Technology: The appropriate technology enhances the positive qualities of intelligent employees. The productivity of employees and the overall success of organisation will increase.

Work Culture: Collaboration has been associated with efficiency and optimism because connected employees feel more motivated. Cooperating employees are more aware of how their contributions and responsibilities integrate into the organisational structure. Establishing an environment that values everyone's contribution is significant. Without a suitable culture, employee engagement spirals out of control. Together, culture and collaboration create connectivity, and employees who feel disconnected are typically distracted and underperform.

3.2.4 THEORIES ON EMPLOYEE ENGAGEMENT

Numerous theoretical approaches have been developed to explicate employee engagement. Bailey et al. (2015) stress that there has been a proliferation of different conceptualisations of engagement, resulting in a lack of comparison. This lack of comparability extends to the very definition of engagement itself, making it challenging to draw generalisations. In their own empirical research, various scholars interpret employee engagement from various theoretical approaches. As of yet, there is no singular theoretical basis for employee engagement. The varied degrees of employee involvement are explained by the following theoretical frameworks:

3.2.4.a Social Exchange Theory (SET)

Employees may repay their organisation by their degree of participation. In other words, workers will choose to involve themselves to varied degrees based on the resources their firm provides. Individuals may react to an organisation's activities in a significant manner by bringing themselves more completely into their job positions and investing higher quantities of cognitive, emotional, and physical resources. According to Saks (2006), the social exchange hypothesis offers a stronger theoretical foundation for comprehending employee engagement. According to SET, obligations arise from a web of interactions

between persons who are dependent on one another. One of the cornerstones of SET is the idea that, over time and mutual adherence to the deal's stipulations, relationships can evolve into ones characterized by trust, loyalty, and mutual commitment. One of the most significant and influential theories of workplace behavior is social exchange theory. SET provides a theoretical framework for understanding the factors that motivate employees to become actively engaged in their work and their organisation.

This research is mainly in line with the Saks model based on the theory of Social Exchange. Saks (2006) identifies significant distinctions between organisational involvement and job involvement. Job qualities, administrative and supervisor support, incentives and procedural fairness, all have a significant impact on job engagement.

3.2.4.b Self Determination Theory (SDT)

The hypothesis of job engagement under SDT was developed in 1985 by Deci and Ryan as a method for analysing employee motivating variables. Self-determination theory describes the relationship between employee engagement and human behaviour. The degree to which an individual has control over his or her own behaviour and objectives have an effect on employee engagement. It is shown that the degree of involvement has a significant effect on the pace of output. The degree of motivation and emotional state have an influence on engagement. Employees tend to remove their own identities, active involvement, and development of new ideas and sentiments, indicating a gradual and steady decline in engagement.

3.2.4.c Kahn's Theory of Employee Engagement (1990)

Kahn (1990) describes personal engagement as using one's self by organisation members in the performance of their jobs; in this process, workers use their bodies, minds, and emotions. Kahn's approach goes towards a human-centered approach on employee engagement. However, some academics have centered their emphasis significantly more on the function of the organisation in creating such involvement. According to Kahn, the presence or lack of satisfying wants results in engagement or disengagement. The work of William Kahn encouraged a broader knowledge of employee needs and a more proactive understanding to employee engagement. Organisations abandoned short-term motivating approaches in favour of more comprehensive strategies that attempted to help employees in all regions of need. Kahn, coined the term "employee engagement" and defined it as the

harnessing of organisation members' identities to their job role; in engagement, individuals utilise and express oneself physically, intellectually and emotionally throughout role performances. The categories of employee engagement identified are:

1. Cognitive Engagement: It is the ability to focus one's thoughts and pay attention to details. This is a measure of how well workers are able to concentrate on their job. An employee who is actively engaged in his or her task is less likely to be distracted by minor disruptions.

2. Emotional Engagement: It is affective investment. This is the actual, in-the-moment experience that workers have while on the job. How much time and effort they put into their work comes into play.

3. Physical Engagement: It refers to engaging in a physical activity and to what degree an employee accepts responsibility for his own growth. To detect physical involvement, one might nominate themselves for a training programme.

To summarise, he defines it as a case of investment return of self in work roles, a sense of being able to demonstrate and use oneself without being concerned about negative consequences to one's self-image, status, or career and a sense of possessing the physiological, emotional and emotional resources required for investing oneself in role performances.

3.2.4.d Path-Goal Theory of Employee Engagement

In 1996, Robert House proposed this theory which discusses the leadership styles, staff traits, and organisational culture. The leadership effect on the whole organisation is attributable to an enormous quantity of involvement. The efficient work environment enables the achievement of predetermined objectives. This approach is founded on expectancy theory, which asserts that a person will behave in a specific manner if they anticipate a positive consequence. Path-goal theory presupposes that a leader would complement their staff and compensate for their deficiencies.

3.2.4.e The AON-Hewitt model

The AON-Hewitt model of engagement analyses a mix of performance and productivity-enhancing elements. These include logical cognition, feelings, intentions and actions. The concept centres on six determinants of employee engagement and three outcomes—Pay,

Work, Company Practices, Brand, Leadership and Productivity are the factors that influence an employee's choice to remain, work hard and advance which are the outcomes. Engagement, as defined by Aon Hewitt, is the condition of emotional and intellectual participation that inspires individuals to do their best job.

3.2.4.f Job Demands-Resources model(JR-D)

Arnold Bakker and Evangelia Demerouti, researchers, created the JD-R Model in 2006. It was pitched as an alternative to current employee wellness strategies. According to them, they addressed a restricted number of factors and were not applicable to all individuals or industries. To overcome these perceived restrictions, Bakker and Demerouti's model incorporated a broad variety of requirements and resources or job benefits that could be applied to any vocation . The concept classifies working circumstances into two groups: job requirements and job resources.

The physical or mental pressures of the position are the job requirements. These include time constraints, a large workload, a difficult workplace, job uncertainty, emotional labour and bad interpersonal connections. Job resources are the physical, social and organisational variables that assist you in achieving your objectives and reducing stress. There are also prospects for progression, coaching and training and growth and learning. According to the JD-R Model, when work demands are excessive and employment benefits are low, stress and burnout are prevalent. In contrast, pleasant aspects of a work may mitigate the consequences of excessive job demands and boost motivation and engagement.

3.3 CONCEPT OF JOB SATISFACTION

Job satisfaction may be described as the degree to which employees have favourable sentiments or attitudes regarding their employment. When a person claims to have great work satisfaction, it indicates that he enjoys his job tremendously. He feels pleased about his profession and holds it in high regard. How much individuals enjoy (satisfaction) or dislike (dissatisfaction) their employment is a measure of job satisfaction, which is defined as "the positive emotional state arising from the evaluation of one's job as accomplishing or assisting the attainment of one's job values. “Judge et al. (2010) discovered a correlation between salary and employment satisfaction. The link between salary and job satisfaction: Workers who are satisfied with their jobs are typically highly committed to their

organisation. Consequently, employment satisfaction is an appropriate dependent variable for this research.

3.3.1 IMPORTANCE OF JOB SATISFACTION

There is no question that exceptional staff is a company's most valuable asset. Keeping employees satisfied strengthens an organisation in several ways, including:

Turnover – Employee turnover may be one of the most expensive Human Resource department expenses. Retaining employees enhances the work environment, makes it easier to recruit top talent, and reduces costs. In general, satisfied employees are much less likely to leave.

Greater Performance – Regardless of their employment title or wage level, employees who report high levels of job satisfaction have a propensity to achieve higher levels of productivity.

Increased Profits – Maintaining employees safe and satisfied can lead to increased sales, decreased expenditures, and a healthy bottom line.

Dedication — When employees believe that the company has their interests at heart, they are more inclined to back the company's mission and work assiduously to help achieve its objectives. Moreover, they are more likely to inform their peers, thereby assisting to the spread of compassion.

3.3.2 METHOD OF MEASUREMENT OF JOB SATISFACTION

There are different methods for assessing job satisfaction. The solitary question poses just one inquiry to ascertain an employee's employment satisfaction. This occurs frequently in large surveys necessitating respondents to respond on a scale. Research indicates that asking a straight question on overall job satisfaction or on particular elements of job satisfaction might be as effective as asking a series of questions. Proponents of this strategy believe that employees are generally conscious of their level of satisfaction; therefore, multiple interviews with them on the same topic serve little purpose.

The objective of the global assessment framework is to obtain a single score that reflects an employee's overall job satisfaction. Multiple queries or statements regarding various aspects of the job such as compensation, work tasks, working conditions and career opportunities are provided, but they are combined to produce a total score. Facet measures,

on the other hand, include statements for these separate types and allocate a single score to each. The Work Satisfaction Scales and the Total Work Satisfaction Scale are well-known global measures, while the Job Description Index (JDI) is a well-known aspect measure.

Having a range of employee satisfaction assessments enables individuals who desire to quantify this construct to select the assessment that best meets their objectives. However, the numerous options may make comparisons difficult, and a poor choice of measurement could lead to inaccurate or invalid results.

3.3.3 FACTORS INFLUENCING JOB SATISFACTION

i Organisational Elements: Some organisational factors that influence work satisfaction include:

a. **Wages and compensation:** Wages and compensation have a major impact in determining work happiness. This is mostly due to a few fundamental causes. First, money is a crucial tool for meeting one's necessities. Money also serves the first level of Maslow's hierarchy of wants. Second, workers often equate money with management's compassion for them. Thirdly, it is seen as a sign of success since a bigger salary indicates a greater degree of commitment to organisational operations. Non-monetary gains are also significant, although they carry less weight. One explanation for this is because the majority of workers have no idea how much they get in perks. Moreover, some individuals tend to undervalue their advantages because they are unaware of their monetary worth. In general, workers want a compensation structure that is straightforward, equitable, and in accordance with their expectations.

b. **Promotion Opportunities:** Promotional opportunities have a significant impact on work satisfaction for the following reasons: Promotion demonstrates an employee's value to the organisation, which has a positive effect on morale. This is especially true for high-level positions. Employee views promotion as the pinnacle of his professional accomplishments, and when he receives it, he is ecstatic. Promotion implies positive improvements, such as a greater income, less oversight, more independence, more demanding job assignments, more responsibility, enhanced prestige and so on.

c. **Company Procedures:** The organisational structure and rules can have a significant impact on employee work satisfaction. Compared to a structure that is more open and democratic in character, an authoritarian and extremely authoritative structure generates dissatisfaction among workers. In companies, organisational policies also control human

behaviour. These policies may promote favourable or unfavourable attitudes about the company. Generally, liberal and equitable policies result in greater work satisfaction. Employees will be dissatisfied with strict rules because they believe they are not treated properly and may feel confined. Consequently, a democratic management chart with just and liberal policies is related to high work satisfaction.

ii Work Environment Considerations: The significant work environment elements include the following:

a. Supervision: Supervision is a source of relatively significant work satisfaction. The Supervisory style impacts work satisfaction as achieved by the worker.

b. Employee-Centeredness: job satisfaction occurs when the Supervisor is nice and considerate of the employees. The Supervisor takes a personal interest in the well being of the employees.

c. Participation: Superiors that let their employees to participate in choices that influence their own work, contribute to the creation of a highly favourable atmosphere to job satisfaction. Thus, Supervisors that build supportive personal relationships with their subordinates and show a personal interest in them contribute to the contentment of their workers.

d. Work Group: The character of the work team or group will have the following effects on job satisfaction-The members of a pleasant and cooperative group have chances to engage with one another. It flows as a supply of encouragement, consolation, guidance, and aid for the group's members. If, however, the individuals are tough to interact with, the work group may have an adverse impact on job satisfaction. When members share the same attitudes and beliefs, the teamwork will be an even greater source of happiness. In such a team, day-to-day friction will be reduced. Compared to bigger organisations, smaller groups have better opportunities for fostering mutual trust and understanding. Consequently, the size of the group and the quality of interpersonal relationships within the group have a major impact on worker happiness.

e. Workplace conditions: Employees want favourable working circumstances because they lead to greater physical comfort. Employees demand a workplace that is both clean and healthy. Temperature, humidity, ventilation, illumination, noise, work hours, workplace cleanliness, and the availability of suitable tools and equipment are factors that influence

job satisfaction. While good working circumstances are assumed and may not significantly contribute to job happiness. Unsatisfactory working circumstances do contribute to job unhappiness because they result in bodily pain and risk.

iii Work Itself: The nature of the task itself is a significant factor in influencing job satisfaction. Some of the factors that impact job happiness include:

a. Job Scope: It specifies the level of responsibility, the speed of work, and feedback. The greater the degree of these elements, the broader the scope of the work and the greater the level of job satisfaction. A reasonable degree of variation is really beneficial. Excessive variety results in confusion and anxiety, whereas a lack of variety results in monotony and exhaustion, both of which are dissatisfiers.

b. Lack of Independence and Freedom: A lack of freedom and autonomy regarding work techniques and job tempo might result in powerlessness and discontent. Employees dislike having their every move and activity controlled by their boss.

c. Ambiguous Roles and Role Conflict: Role uncertainty and role conflict can result in uncertainty and work unhappiness since employees are unsure of their actual responsibilities and expectations.

d. Fascinating Work: Employees are more satisfied with work that is interesting, demanding, and gives them a sense of status than with work that is dull and routine.

iv Personal Factors: Individuals' personal characteristics also play a significant part in determining whether they are content at work or not. Negative thinkers and pessimists will grumble about everything, even their jobs. They would always find something to complain about in every job.

a. Age and Experience: Employees grow and become more practical and less idealistic as they age, so that they are prepared to accept available facilities and rewards and are content with their circumstances. With the advancement of time, individuals assume positions with more challenges and responsibilities. Unprogressive employees are more inclined to be unhappy with their positions.

b. Tenure: Longer-tenured employees are assumed to be very pleased with their careers. Job stability provided by tenure is very satisfying to workers. They may confidently prepare for the future without worry of job loss.

c. Individuality: Self-assurance, self-esteem, and maturity, as well as decisiveness, a feeling of autonomy, challenge, and responsibility, are personality attributes that are directly associated with work satisfaction. The higher a person is on Maslow's hierarchy of needs, the greater their work happiness. This pleasure originates from inside the individual and is a result of his personality. In addition to creating a healthy work environment, management must guarantee that employees are content with themselves and have a good attitude towards life.

3.3.4 THEORIES ON JOB SATISFACTION

In theory, there are a number of ways to define and understand contentment in one's job. Some definitions treat job satisfaction as a single, overarching feeling, while others consider the many factors that contribute to this subjective experience. The term "job satisfaction" refers to a positive emotional reaction that an employee has toward their job. Workplace motivation is a combination of a person's attitude toward his profession, the rewards he gets, and the social, organisational, and physical aspects of his workplace. Additionally, job satisfaction is an upbeat response to one's job. Employees feel fulfilled in their work when they see a connection between the work they perform and the results they achieve.

Undoubtedly, work happiness is an intriguing issue from the employees' and managers' points of view. The workers share their own views and expectations, and they desire to be treated fairly and with respect; as a consequence, they will be content with their job. On the other side, managers want workers who are content, have a favourable attitude about their jobs, and are emotionally invested in their work. The increased interest in work happiness is unquestionably warranted by the fact that in today's corporate environment, individuals and their expertise is becoming crucial to attaining a competitive advantage. Work satisfaction has ramifications for several facets of organisational behaviour. These implications may induce both good and bad conduct, and each organisation strives to prevent negative behaviour since it has a detrimental influence on the attainment of organisational effectiveness and organisational performance as a whole.

In order to minimise negative effects on organisational performance, it is crucial to pay special attention to work satisfaction, since it is one of the most important elements influencing organisational success. Numerous elements, including the nature of the work, compensation, stress, working environment, coworkers, supervisors, and working hours,

impact job satisfaction. Some of the noted theories of Job Satisfaction are discussed in the following section:

3.3.4.a Traditional Theory

Theories from the past almost always assumed that if the presence of a factor in the employment environment leads to fulfillment, then the absence of it would result in dissatisfaction with work, and reverse when trying to forecast the effects of different factors on job satisfaction. This is the foundation of the conventional view of career fulfillment. It envisioned the worker moving along one path in response to intrinsic and external factors influencing their position.

3.3.4. b Hierarchy of Needs Theory

Maslow gives the need hierarchy theory which is significant in work satisfaction studies. Maslow's hypothesis was founded on the premise that an individual's requirements grow in a sequential fashion, beginning with 'lower order' needs and progressing to 'higher order' demands. His suggested hierarchy comprises five parts, ranging from the most fundamental to the most complex needs: Fundamental physiological requirements are Safety and security requirements, Social—affection requirements, Self – esteem and Self-actualization needs. Only once basic needs are addressed can an individual become concerned with meeting higher order wants, since it is only unmet needs that propel him. Human needs, according to Maslow, may be arranged in a hierarchy. This hierarchy goes from physical demands like water and nourishment to more ethereal ideals like self-actualisation. Only when a basic need is satisfied, our focus shifts to the next requirement in the hierarchy.

3.3.4.c Two factor theory of Herzberg

There is a high correlation between employee motivation and satisfaction, which had an effect on employee engagement. Several motivational theories have a significant impact on employee engagement, but Herzberg's two-factor theory stands out as among the most influential. Herzberg has discovered the elements that contribute to work satisfaction and those that contribute to job discontent. Generally, motivational elements contribute to contentment, whereas hygienic factors contribute to unhappiness. Motivational variables include success, a feeling of accomplishment, the nature of the task, the scope of duties addressed and proportional progress or advancement. The sorts of corporate policies and administration, the form of supervision, the type of interpersonal interaction, the working

conditions, compensation, status, security, and personal life are all significant hygiene variables. While motivation elements contribute to work happiness and engagement, poor hygiene variables contribute to job discontent and low levels of participation. Herzberg argues that happiness and unhappiness do not reflect two ends of a single spectrum but rather two discrete behaviors shaped by different factors. The internal or incentives, which are elements connected to the nature of the work itself, and external factors or hygiene, that are aspects related to the nature of the work itself, are also highlighted.

Rationale for selecting Herzberg's Two-Factor Theory is that it is quite varied, in the sense that it does not concentrate just on one set of workers or one aspect of culture, and its universality permits its use across cultures.

3.3.4.d Stogdill's Theory of Job-Satisfaction

Stogdill defines an organisation's 'output' as the integration of the group, production, and morale. He argues that employee happiness is not a "cause" of good work. In other words, the person should be seen in the perspective of the whole company, not in isolation. Individual satisfaction is not always linked to output. It does not necessarily lead to increased productivity in the workplace. There is also a correlation between group organisation and morale and productivity. High morale and productivity can only be linked to contentment at work if the circumstances that contribute to these outcomes also lead to the reinforcement of employees' expectations, which is what Stogdill calls the output or outcome variable of contentment.

3.3.4.e Existence-Relatedness-Growth (ERG Theory)

Alderfer proposed this hypothesis where safety, meaningfulness, and access were all associated with engagement variables. The frustration-regression concept was added to explain employee behaviour such as reverting to previous job positions and duties when their present employment does not meet their demands. According to ERG theory, workers will advance or regress in order to fulfil their demands, and any failure to do so will result in significant fluctuations in motivation levels.

3.3.4.f Job Characteristics Theory (JCT)

In 1980, Hackman and Oldham established Job Characteristics Theory. This theory models the critical workplace variables that contribute to an increase in employee motivation. The JCT theory's fundamental job aspects include skill diversity, task relevance, task identity, autonomy, and feedback. The JCT emphasises the importance of employee meaningfulness, accountability, and created outcomes. It emphasised the importance of job redesign, resulting in a transformed work environment that has a positive effect on employee motivation, satisfaction, and performance. Hackman and Oldham developed the Job Qualities Model, which is frequently used to examine the effects of certain employment characteristics on job outputs, including job satisfaction. According to the model, there are five main job characteristics that affect three important psychological states. These three states (experienced meaning and purpose, experience responsibility for the outcomes, and knowledge of results) all have an effect on work results that includes job satisfaction.

The five fundamental work qualities may be combined to provide a motivational prospective rating (MPS) for an employment, that can be used to determine the likelihood that a job would influence an employee's attitudes and actions. A meta-analysis of research evaluating the model's framework lends some credence to the JCM's validity.

Job satisfaction refers to an individual's sentiments or state of mind about their employment. Job satisfaction is impacted by a range of elements, including the quality of one's connection with their boss, the physical setting wherein they work, and the degree to which they are fulfilled in their job.

Summary of theories

The Hierarchy of Needs and the Motivator-Hygiene approach have enjoyed less academic backing in recent years. On the other Job Characteristics Model gains support from empirical research. While both personal traits and the Job Content Matrix lead to an employee's sense of contentment on the job, it is not possible to deny the influence that environmental factors have on motivation. There is a close relationship between demographics and personality features in explaining how employees felt about their jobs. Employees are more likely to be content in their jobs when their jobs allow them to pursue their own personal interests.

3.4 CONCEPT OF EMPLOYMENT VULNERABILITY

People are vulnerable if they have a hard time coping with the hazards of everyday life or the losses and costs associated with the appearance of harmful events or conditions (Bocquier, Nordman, & Vescovo, 2010). There is a difference between the "risk" of being exposed to damaging treatment and the individual's "capacity" to resist it. As a result, employment vulnerability may be seen as the possibility of working under subpar conditions or "the likelihood of missing appropriate employment" (Sparreboom & de Gier, 2008).

There are three main approaches to identifying risk in the workplace. First, the International Labour Organisation's definition of "vulnerable employment," which includes both unpaid family work and self-employment, was established. The second strategy focuses on those with low incomes, while the third considers occupational vulnerability in its many forms.

It may be possible to identify jobs that are vulnerable by looking for certain characteristics associated with the risk of insufficient work (Bazillier & Boboc, 2016). The number of workers living in poverty are proportional to the number of workers in unstable jobs. Migrant workers are disproportionately represented in low-wage, insecure jobs because of factors such as their lack of legal status to work in the country permanently, the existence of discriminatory or poorly enforced labour laws, and the obscurity of their employment relationships.

Occupation that pose a threat to workers' essential rights is characterised by poor pay, inadequate productivity, and difficult working conditions. For the purposes of this definition, "contributing family workers" includes "own account employees" as well. Owing to the fact that they are more likely to be employed in precarious situations, they are less probable to have strong representation from unions along with other groups that could provide them with a "platform". The risk of having a poor job or being unemployed altogether is known as employment vulnerability.

3.4.1 METHODS OF MEASUREMENT OF EMPLOYMENT VULNERABILITY

Work vulnerability refers to variables associated with employment status that hinder employment. It is often assessed by job security, employment stability, skill level, career

type, degree of education, and the nature of the work(Burgess &Connell,2015). The idea of employment vulnerability is changing. Employment vulnerability is challenging to quantify using a single approach because of its many characteristics. Researchers have developed a variety of indices for measuring employment vulnerability and the group of employees in the formal and informal sectors that are at risk. A person's susceptibility to unfavourable treatment depends on a number of factors. Others have an indirect impact on the employment relationship, while others are unique to the kind of work that employee may be undertaking. The employment vulnerability measuring index is a valuable instrument for assessing the economic health of employees. It gives an accurate estimate of the susceptibility of employees to employment disruption in terms of both jobs and income. Given the fact that there is absence of a standard tool to measure the vulnerability, a measurement scale is designed in this study to focus on the nature of the worker as the key factor in comprehending the level of employment related vulnerability of the contract workers.

3.4.2 FACTORS INFLUENCING EMPLOYMENT VULNERABILITY

3.4.2.a Characteristics of the job

There are several facets of a job that can provide recruiters a glimpse into the expected relationship of power between a worker and an employer. Many of these characteristics, however, can be expected to alter the power dynamics of the working relationship, thereby altering the likelihood of unfair treatment. The presence or absence of a legally binding contract is anticipated to impact the balance of power in the employment relationship because it is a primary factor when deciding whether the worker is an employee and thus entitled to benefit from mandatory employment rights. It may be more difficult for employees to establish their rights and protections in the absence of a written contract, making them more vulnerable to abuse. Similarly, it may make a difference whether a professional link is intended to be temporary or permanent (i.e., without a definite termination date). Employers may be expected to have more influence over temporary employees than workers with permanent contracts because contract employees rely on their owners to extend their contracts at the end of their tenure. Short-term workers may be at a greater disadvantage since they have less time to file a claim for wrongful dismissal with an Industrial Court.

The degree of exposure also depends significantly on the type of work you do. Acquiring company-specific skills and expertise that boost productivity and increase the cost of replacing a worker. The conditions in which a job is performed could range from pleasant to extremely taxing and perhaps dangerous for workers. The occurrence of challenging working conditions may have both external and worker-related factors. Jobs that are physically or mentally demanding require workers who are at peak physical and mental health and have strong psychophysiological and psychological capabilities. Employees' output and satisfaction both drop when working conditions are poor. The term "fragile labour market" is not commonly used. The vast majority of vulnerability research, recognises the intricacy and multidimensionality of the idea. It is possible for vulnerabilities to exist in multiple areas at once and to be linked together.

3.4.2.b Personal Aspects

The characteristics of individuals have an effect on the ways in which they respond to and perceive professional psychological concerns. There is a connection between personal traits like self-esteem and control locus and neuroticism, on the one hand, and occupational psychological disorders like stress and workaholism, on the other. In addition, workers who had high levels of core self-esteem, positive beliefs, low levels of pessimism, stable emotions, a conviction of one's own worth and control over their lives and circumstances were more unlikely to suffer from occupational psychiatric diseases.

3.5 CONCEPTUAL FRAMEWORK

Individuals are more prone to withdraw and disengage from their duties when the company fails to supply the necessary resources. Therefore, the amount of cognitive, emotional, and physical effort an individual is willing to dedicate to the execution of one's job duties is dependent on the economic and interpersonal resources obtained from the company. In a contract form of employment which provides very restricted resources to the labourers, it becomes vital to study about the dimensions of employee engagement that will create a lasting impact on their satisfaction level. In this research, the existing construct of employee engagement is applied to new unit-contract labourer in the manufacturing industries. The factor of employment vulnerability is an additional feature added to study this relationship. There are several facets of vulnerability. The emphasis of this research is on vulnerability connected to work. Focusing on the work component stems from the fact

that labour standards often address employees' working experience in the job market. This research considers the following factors of vulnerability: workplace temperature, disadvantageous posture, work shift, work temperature, and workplace safety procedures. This research assumes that employee vulnerability consists of work-related uncertainties only. The "vulnerability theory" of Martha Fineman is fast gaining traction as a basis for comprehensive social welfare measures. However, it does not expressly address employment-related vulnerability. It discusses vulnerability generally and that to under a legal angle. Consequently, the idea of job vulnerability cannot be linked to a particular paradigm. The present study provides an integrative design framework based on the review to study the relationship between the constructs for a better human resource management strategy.

Figure 3.1 Proposed Model of the study on Contract Labourers

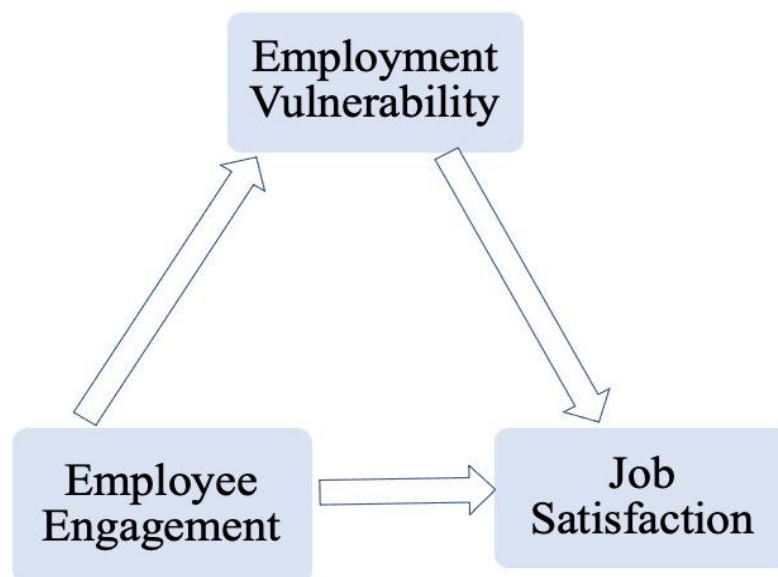


Figure :3.1Hypothesised mediated moderation proposed model

Note: The arrows represent the relations between constructs to be studied

A variety of components, some more well developed than others, make up the conceptual model created by this study. The model includes a broad variety of variables and takes into account the numerous layers of organisational, interpersonal group and individual influences that affect employee's personal involvement and work satisfaction. At various degrees of consciousness, employees choose whether to utilise and express themselves or to retreat and protect themselves while working for a contractor at the confluence of these forces. The employee engagement hypothesis is subdivided into cognitive engagement,

emotional engagement, and physical involvement. For instance, a person who devotes cognitive resources on their occupation (e.g., *My mind is often full of ideas about my work.*) To increase the role of mental investment in work, it is not necessary to put emotional and physical resources into a job at the same time (e.g., *I feel very good about the work that I do*). This research defines cognitive engagement as a degree of attention, concentration, engrossment, and concentrated intensity for a job, emotional engagement as enjoyment for a job, and physical engagement as work intensity (energy absorbed by labour).

This study takes an "economic" vulnerability-focused strategy. Nonetheless, economic vulnerability has several aspects. The argument for emphasising the economic factor is that, in general, labour standards address labourers' economic and employment experiences on the job. "Vulnerability at Work" is the main element of vulnerability which is analysed in the study. Mapping precarious employment as a means of recognising contract workers' susceptibility across several dimensions will significantly advance our knowledge of labourers' job satisfaction and work engagement levels. Inadequate wages, poor productivity, and unpleasant working conditions are common characteristics of jobs that put employees at risk. The present conceptual model incorporates unfavourable working conditions as the main form of employment vulnerability.

The research gives a conceptual model which will be assessed in practice. The need for designing a dependable scale to assess employee involvement, vulnerability, and job satisfaction is emphasised. The proposed model is concerned with the factors of employee engagement and their relationship to other variables such as vulnerability and job satisfaction. The theoretical and practical implications of this domain's investigation are discussed, with a particular focus on future research themes.

The review of literature has revealed that the workers under temporary contracts are suffering from low level of job satisfaction but job involvement and autonomy at work can mitigate it. Hence, further clarification is required to investigate if the level of employee engagement also drastically affects the job satisfaction level.

A majority of the studies have considered workers as a homogeneous group or have drawn a comparison between permanent and temporary workers. Hence, this research considers the heterogeneity among the workers supplied through contractors. It contributes to the academic knowledge by answering the concerns over the dearth of empirical research on employee engagement and the possibility that it is only the newest management trend.

3.6 OPERATIONAL DEFINITIONS

Section 2 of the Contract Labour (Regulation and Abolition) Act (1970) states that a worker is regarded to be Contract Labour if he or she is contracted by or through a contractor in connection with the work or "contract for service" of a business. They are indirect workers; individuals engaged, supervised, and compensated through a contractor who is, in turn, paid by the organisation. In either case, contract labour is not reflected on a pay register or muster record, nor is it compensated directly. The researcher has taken the following adopted definitions as a guideline for the study:

Kahn (1990) defines employee engagement as the level to which an individual demonstrates preference for themselves in job tasks to foster interconnections across self and job, which can enhance performance in a position through mental, psychological, and muscular self-investment.

Weiss (2002) outlines job satisfaction as an attitude—positive or negative—about one's employment or job circumstance.

Bocquier, Nordman, and Vescovo (2010) refer to a person's exposure to potentially unfavourable circumstances at their place of employment. Precarious work puts workers at risk of poverty and injustice because of power imbalances between employers and workers.

3.7 SUMMARY

Although the industrial sector is paying more empirical attention to psychological empowerment, very little is known about its causes and effects. In order to fill these gaps in the literature and develop a conceptual model for the manufacturing industry based on the contract labour system, where there is a lack of a direct employee-employer relationship, this research builds on earlier studies that used social exchange theory and other related theories. On the basis of social exchange theory and other similar ideas, this study creates a conceptual model for the contingent workforce in the manufacturing sector. The purpose of this research is to examine employee involvement as a precursor to work satisfaction. This research also examines the psychological vulnerability associated with employment as a mediator for this association. Various variables' related dimensions are also given significant consideration. The focus is on providing a framework that incorporates the answers needed for proactive human resource management along with

suggested human resource strategies that may aid in minimising worker vulnerability and increasing the level of job satisfaction among the contractual workforce in firms. There is a need for a current understanding of the interrelationships between employee engagement, employment vulnerability and job satisfaction. Examining the relationship with employment vulnerability as the mediator, this study addresses this lacuna in the literature. This discovery can assist management in predicting behavioural responses by focusing on these constructs. This may also have an effect on collective bargaining processes. Therefore, it is crucial that management develop an awareness of the relationship, as it will facilitate a better understanding of low-income employees and the "how to" of effectively managing and relating to them. This study's findings make a significant contribution to the scant existing literature on aspects pertaining to contract labourers.

CHAPTER IV

RESEARCH METHODOLOGY

4.1 INTRODUCTION

Research is a unique addition to the existing body of knowledge. Study, observation, evaluation, and experimentation are all tools used to pursue truth. In a nutshell, research is the pursuit of information via an impartial and rigorous approach to determining a solution to a problem. Research may be defined as a methodical approach to developing a theory and an overview. In other words, the term research refers to the process through which one gathers information about a topic, formulates a hypothesis, gathers data, analyses it and draws a conclusion.

Methodological components described in this chapter include the setting of the research, sampling method., standard instruments, data gathering methods and statistical methodologies for data analysis. This research is primarily an analytical examination of the doctrinal components of the research subject. The amount of empirical research on the link between employee engagement and job satisfaction among contract workers is limited and mostly descriptive.

In a world where the global work environment and the age of the workforce are changing, getting engaged employees could prove to be a vital component of competitiveness. This will be particularly true if we can demonstrate how well the engagement construct produces effects at different levels of analysis. As with all positive things, establishing behavioural employee engagement circumstances will present a formidable obstacle. Companies that achieve these conditions will have achieved something that rivals will find extremely challenging to replicate. It is simple to alter the price and product, but much more difficult to establish an effectively engaged workforce therein.

This study's approach is empirical in nature and is regarded as suitable for its intended goal. The methodology of this study is based on a review of the relevant literature, with a focus on publications on employee engagement, job satisfaction and employment vulnerability. This is a preliminary examination that may lead to more research and contributions in various disciplines. The evaluation attempts to give knowledge of concerns, unanswered

questions, challenges, and elements that may contribute to the achievement of employee job satisfaction and its relationship to employee engagement for contract workers.

The use of contract workers is highly prevalent in the industrial estate in the state of Goa. Typically, contract employees with technical responsibilities are engaged in production-related tasks. There are agencies that specialise in providing contract labour for production-related tasks. There is a surge in contract labourers from the adjacent states of Karnataka and Maharashtra and other parts of the country, as revealed by the supply side of the picture.

4.2 SETTING OF THE PRESENT RESEARCH

Goa was liberated in December 1961 after more than four hundred and fifty years of Portuguese control. Together with Daman and Diu, Goa became a union territory following its liberation. It attained statehood in 1987. With an area of 3702 square kilometres, it is the smallest state in India. Goa is a well-governed state despite its modest size. Altogether, 22 industrial estates have been set up in the state, out of which 14 are located in North Goa and 8 in South Goa. There is a significant concentration of medium and large-scale industries in the industrial estates in Goa. Contract labour is classified into two categories – Direct workers and Contract workers. The former is the workforce directly recruited by the principal employer, whereas the latter is engaged through a contractor. Although the Contract Labour Regulation and Abolition Act (1970) permits only the registered contractors to supply the contract labourers, in reality, a web of sub-contracting networks exists.

The dearth of a regular record by the government that maintains the data regarding the number of contract workers employed in the manufacturing units as well as the stone walling by the principal employers and the contractors has led to the observation that the definitive population of the study is unknown and will remain so for the stated reasons.

Due to the ambiguous nature of the universe, the sample used for the study is selected from a working universe, covering both districts of the state of Goa and comprising only those contract labourers supplied through a contractor to 100 companies, registered and located within the industrial estates. The study includes only private enterprises employing 300 and above workers. The units targeted comprised a wide range of companies, including metal

moulding units, pharmaceuticals, packaging, marine equipment, fabrication, plastic moulded furniture, sterilisation tunnel, vial filling and machine building, optical fibre cable, powder coating, transport trailer and gas heaters, steel furniture, hydraulic pumps, automotive body building, etc. The survey was conducted from September 2020 to March 2021. The list of companies registered in the industrial estates has been obtained from the official website of the Industrial Development Corporation, Goa. Multistage sampling is used in this scenario. Initially, a firm is chosen, and then as many contract workers as possible are interviewed. The number of firms chosen from each subgroup is proportional to the total number of firms in the group.

As often seen by economists working on this subject, gathering data on contract labour is highly challenging owing to the lack of assistance from firms, contractors, and the workers themselves. By freely interacting informally with the employees, it was possible to overcome the obstacles imposed by the contractors' limited collaboration and the respondents' fear of contractors while answering the interview. Initially, it was intended to segregate the population into multiple strata based on various characteristics of contract labour, such as years of professional experience, job type, nature of work, etc. However, due to difficulties encountered in the pilot survey, the final survey was limited to a simple sampling technique. The fact that the respondents, the principal employers, and the contract employees only consented to participate in the study project under the condition that they would remain anonymous, information such as the firm name, contracting agencies and the personal details of the contract workers are omitted from this study.

4.3 SAMPLING PROCEDURE AND SAMPLE OF THE STUDY

Given that nonprobability sampling does not assert representativeness, it is found appropriate for this study as there was little possibility that every unit would be selected. Non-probability sampling is employed when certain individuals of the population have a larger, but unknown, chance of being selected than others. Sample selection is based on the researcher's subjective opinion and personal preferences. Following a qualitative study approach, the focus was on the complexities of the analysed sample. During the COVID-19 pandemic wave, non-probability sampling methods were the most appropriate. Non-probability sampling offers increased convenience in sample selection, particularly in cases when the population is not easily accessible. This research involves the collection of data via interviews conducted with workers randomly selected from four large industrial estates

in a convenient manner. The presence of vulnerable situations of contract workers posed challenges in implementing probability sampling, therefore necessitating the use of non-probability sampling to assure the careful and respectful treatment of respondents. When selecting the industrial estates within the State, four main industrial estates have been taken into account due to their significant coverage of around 75% of the workforce from different regions of the country. The research encompasses a range of employment classifications, including labourers and supervisors, that were present in units situated on large industrial estates. The little industrial estate experienced a restricted range of perspectives. The selection of workers for conducting interviews was based only on a random process, ensuring that there was no personnel bias involved in the interview and data gathering process. Additionally, the interviews were conducted in a language that was readily comprehensible to the workers. While convenience sampling was employed to select respondents, the interview process was conducted in a random manner to ensure that all participants had an equal opportunity to be included in the study. No sample frame is available. The value of randomness has been emphasised. The unfinished questionnaires were eliminated.

Utilising respondents who are "convenient" for the researcher is what is meant by convenience sampling. Convenience sampling, sometimes known as incidental sampling, is a non-probability sampling technique in which the researcher picks sample members from respondents who are readily available and easily accessible. In this case, the researcher makes little attempt to communicate with the various clusters or subgroups of the population. Instead, they collect data from every member they can locate; no other criterion governs which variables are included in the sample. Population size, time constraints, and accessibility are the primary reasons a researcher might use convenience sampling.

Snowball sampling, also known as chain-referral sampling, is a non-probability sampling approach in which the samples have uncommon characteristics. Existing participants offer recommendations in order to gather the samples necessary for a study using this sampling approach. All three approaches -Linear Snowball Sampling, Exponential Non-discriminatory Snowball Sampling, and Exponential Discriminatory Snowball Sampling were utilized in the study.

The observance of research ethics is needed for all research projects, and this study is no exception. One ethical issue for this research was enabling participants to engage willingly and without compulsion or force. Each respondent's permission was also requested before including their replies in the research. The research participants were assured that the outcomes of this study would not expose them to criminal or civil responsibility or harm their financial position, employment, or reputation in any way. Therefore, the confidentiality of the participant's personal information is maintained.

In the current research, the sample is diverse, and respondents were selected using a convenience sampling technique. Consequently, the questions about employee engagement, job satisfaction, and employment vulnerability are of a general nature. In spite of this constraint, an assiduous study has been made to observe the contentment level of the labourers who suffer from vulnerability at work. Thorough attention is also paid to the differences in educational level, job category, gender, income and household consumption expenditure.

Understanding the functioning of the industry and the supply of contract labourers was facilitated through direct observation and discussions with contractors, government officials responsible for labour administration, and union leaders. Krejcie and Morgans' (1970) table for estimating sample size is utilised in the research to calculate the sample size. As a result, the sample size for an unknown population is 580.

For the purpose of the study, four major industrial estates housing a large number of manufacturing companies engaged in producing various products in Goa were identified. These industrial estates are situated in North Goa and South Goa districts in Kundaim, Pilerne, Verna, and Cuncolim, respectively. The survey was conducted using a structured questionnaire covering various topics, including respondents' demographics, professional information, self-reported levels of work engagement, job satisfaction, and employment vulnerability. While convenience sampling was used, the selection of respondents and administration of interviews was conducted in a fully random manner in the study.

4.4 Profile of the Sample Studied

Table 4.1: Industrial estate wise breakup of sample collected

		Verna	Cuncolim	Kundaim	Pilerne	Total
Gender	Male	80	101	85	100	366
	Female	66	44	59	45	214
		146	145	144	145	580
Job Type	Technician	28	28	24	22	102
	Plant & Machinery Operator	33	31	33	38	135
	Assembly worker	22	21	27	31	101
	Packaging	40	33	37	34	144
	Supervisor	9	13	8	4	34
	Helper & Loader	14	19	15	16	64
	Total	146	145	144	145	580
	Educational level	Illiterate	2	1	3	3
Elementary		21	18	25	24	88
SSC		49	51	50	55	205
HSSC		23	22	26	30	101
Graduate		33	33	23	21	110
Diploma		18	20	17	12	67
Total		146	145	144	145	580
Age (years)	18-30	95	83	84	91	353
	30-40	49	52	54	47	202
	40 and above	2	10	6	7	25
		146	145	144	145	580

Source: Computed from primary data

The socio-demographic data of the sample population is provided in Table 4.1 and Table 4.2. An analysis of respondents by their age, as seen in Table 4.1, reveals that the majority of them belonged to the young workers category, as, 61% belong to the 18-30 years age category, 35% from the 30-40 years age category and just 4% are from 40 and above years category. A large majority are employed in the packaging section, which comprises 23.3

percent, and in plant and machinery operation, comprising 24.8 percent. Only 5.9 percent of the experienced and qualified workers are engaged as Supervisors. Many of the Supervisors perform a dual role of labourer and Supervisor. 30% of workers are well educated. The workers in the SSC category of the educational level were found to be the most common, as 35.3% of workers are educated up to SSC. Workers with some skill-based diploma constitute a small percentage of the total. Furthermore, if we divide the sample as per gender, we find the proportion of male contract workers much higher than female category.

Table 4.2. State of origin of the respondents

Region	Count	Percentage
North India (UP, Bihar, Rajasthan)	191	33
North East (West Bengal, Chhattisgarh, & Orissa)	126	22
South India (Andhra& Kerala)	33	6
Neighbouring States (Mah, Kar)	165	28
Other (Nepal)	9	2
Goa	56	10
Total	580	100

Source: Compiled from primary data

The respondents were asked about the region from which they originated. It can be observed from Table 4.2 that the majority of them had a North Indian background, and workers predominantly belonged to rural areas. The following table spells out the origin of respondents by region. From the survey, it is noticed that 10% of workers are from Goa, whereas 88% are from other states (North India, Eastern states, and Southern States), and 2 % of workers are from Nepal.

Table 4.3: Summary of Work Experience among contract workers

Experience	Previous Experience		Present Experience		Total Experience	
	Count	Percentage	Count	Percentage	Count	Percentage
No Experience	188	32	-	-	-	-
1-5 Years	312	54	277.0	48	127	22

5-10Years	80	14	258.0	44	300	52
10-15 Years	-	-	45.0	8	127	22
15 & above	-	-	-	-	26	4
Total	580	100	580	100	580	100

Source: Computed from primary data

As can be observed from Table 4.4, out of the total respondents, 32% of workers are fresh workers having no previous experience. They may land in Goa to gain work experience before approaching some better prospects in the field. 54% have work experience in a previous job between 0-5 years, and 14% of workers have more than 5 years of work experience in previous job. 48% have work experience of 1-5 years in the present job.

4.5 METHODS AND INSTRUMENTS USED FOR DATA COLLECTION

The study uses primary data made available by means of a well-structured interview questionnaire administered to a sample of 600 contract labourers across four industrial estates, two from each district of Goa. A systematic questionnaire addressed many variables, such as the respondents' demographic profile and the various constructs under study. The content of the questionnaire and the technique of the study were modified based on the results of a pilot survey with 50 respondents, which uncovered certain problems. The scale designed for employee engagement is in line with the items generated from Kahn's theory (1990), new work engagement items developed by Kuok & Taormina (2017), and the multiple item scale of Karatepe (2013), to be specific. The items reflect the emotional, physical, and cognitive aspects of engagement with work. The concept of burnout was not included as workers were not openly admitting to being worn out with work as they feared a negative impact on their future job prospects. For measuring job satisfaction, the existing scale from the review of literature is studied, which steered the formation of statements to study the construct, namely, Singh & Loncar (2010), Peng & Mao (2015), and Yeh (2015), respectively. The items include both intrinsic and extrinsic satisfaction aspects (the work itself, the working hours, the level of attention given by seniors in the company, the cooperation from co-workers, and the wages). In light of the

vast number of possible contributors to work satisfaction, the focus is on those that have been shown to be particularly important in the existing literature.

The vulnerability at work scale contains measurement items listed by Greenan & Seghir (2017) as a lodestar. The items included reflected the physical environment related to work. Apart from close ended questions, seven-point Likert scales from 1 (Strongly Disagree) to 7 (Strongly Agree) were supplied. After collecting responses from the respondents during the pilot study, the scale is transferred to one direction. In the analysis, the ranking is inverted such that higher values represent greater amounts of the investigated construct. Altogether, 600 workers under contract were interviewed, out of which only 580 could be included in the study as the responses of the remaining 20 were incomplete. Face validity was determined by pre-testing the questionnaire with 20 respondents (Kumar, 2014; Leedy & Ormrod, 2015). Content validity was determined by administering the survey questions to professionals from human resource management, academia, the labour department, and the industry. To attain concept validity, exploratory factor analysis was done. After determining the existence of the three constructs and validating the dependability of their foundation scales, their potential implications on workers' job participation satisfaction were assessed, and various hypotheses were formulated for this purpose. Factors such as marital status, religious affiliation, place of origin, family composition, and the number of breadwinners in a household served as control variables. Aside from their potential influence on the anticipated association, the factors mentioned above were not the primary focus of this investigation.

The data for the research was collected through field surveys, interview schedules, and questionnaire methods. The list of industrial estates was obtained from the office of the Industrial Development Corporation of the state of Goa. The list of the firms under the industrial estates were obtained from the official websites of the Industrial Development Corporation, Goa. The official under Human Resource Management was contacted for assistance to meet the contract labourers. The contractors were also approached for the same. The respondents were taken into confidence by giving assurances of confidentiality and with an elaborate explanation of the purpose of the research. Out of 600 questionnaires, only completed questionnaires (N=580) were considered for analysis. The samples were either used in total or distributed into two segments as per the requirement of the statistical technique used for data analysis. Secondary data could not be incorporated into the study due to the absence of an exhaustive inventory of contract employees employed in

manufacturing facilities in Goa's industrial estates during the study period, either with the employer or available from government agencies.

4.6 STATISTICAL TECHNIQUES USED FOR DATA ANALYSIS

Exploratory Factor Analysis is the primary data analysis technique used in measurement purification to determine the parameters of the constructs. The result is subsequently verified by means of Confirmatory Factor Analysis, and the reproducibility of the result is evaluated by dividing the samples. Path evaluation under Structural Equation Modeling (SEM) is used to test the designed model, revealing the relationship between the model's constructs. An inter-rater reliability test on the statements identified from the review of the literature was conducted by subjecting the statement to experts and reviewers from various fields like academia, labour department, and industry.

Different statistical software has been used for data analysis based on the objective. Structural Equation Modeling was appropriate for the first objective. Construction of the Job Satisfaction measuring scale is achieved by Exploratory Factor Analysis. Further, the scale has been validated using Confirmatory Factor Analysis using the statistical software IBM SPSS AMOS version 22. It is a robust programme for Structural Equation Modeling (SEM) that supports research and theories by expanding basic multivariate analytic techniques. Parametric tests were suitable for the second and non-parametric tests for the third objective, respectively. The statistical package included is SPSS version 22 for MANOVA, Kruskal-Wallis test and Mann-Whitney U test.

4.6.a Structural Equation Modelling

SEM is a collection of statistical methods used to assess and evaluate the correlations between observable and latent variables. Similar to, but more robust than, regression analysis, it evaluates linear causal links between variables while concurrently adjusting for measurement error. SEM is often justified because it identifies factors that are assumed to exist yet cannot be directly observed.

The empirical matter is derived from original data collected in the field via a survey collected from the contract workers. The entire sample was divided into two segments. Initially, the Exploratory Factor Analysis (EFA) model test was performed with data collected from 300 sample numbers, and the remaining 280 samples were used for Confirmatory Factor Analysis (CFA) and Structural Equation Modeling (SEM). The

research is based on primary data acquired from workers using a well-written, pre-tested, and organised questionnaire. On the basis of the responses of 580 employees, a factor analysis was conducted to determine the relationship between employee engagement and job satisfaction to encapsulate the information covered by a number of prior parameters into a narrower set of dimensions (factors) with minimal loss of information. For greater clarity in the model equation and to eliminate errors, the varimax approach of factor rotation was used. Prior to performing factor analysis, however, data sufficiency checks for principal component analysis was conducted, the computation matrix was constructed, and sufficient correlations were identified for factor analysis purposes. The value of the Kaiser-Meyer-Okin (KMO) sample size measure was determined, demonstrating that the sampling was suitable for factor analysis. The test result of Bertlett's Test of Sphericity was also used to validate the sufficiency of available data for the factor analysis that will be conducted in order to advance the study. Responses were sorted into categories using exploratory factor analysis, and concept validity (Cronbach's alpha) was evaluated.

Further analysis of the assumptions was conducted using a two-stage Structural Equation Modeling technique as suggested by Byrne (2010), who states that the term "structural equation modelling" conveys two key aspects of the procedure. Firstly, the correlational methods under investigation are depicted by a set of related equations. Secondly, these structural links can be modelled graphically to facilitate a clearer conceptual framework of the concept under study. The hypothesised model is then statistically evaluated in a simultaneous study of the full relationship between variables to assess how well it fits the data. If goodness-of-fit is sufficient, the prototype argues for the plausibility of supposed links between elements; if it is insufficient, the model rejects the validity of such ties.

First, a confirmatory factor analysis is performed to test the validity of a measurement model (baseline model) and to guarantee that the constructs are different from one another (discriminant validity). The second phase is the transformation of the measurement model to a structural model that enables testing of the links between the constructs. The method of Confirmatory Factor Analysis analyses measurement models in which both the number of components and their relationship along with the indicators are clearly stated. Items with poor factor loadings were dropped.

SEM is performed to evaluate the model. Path analysis is performed to examine the assumptions on the links between the constructs in the model. The indirect influence

between a dependent and independent variable is examined for significance, and an investigation is done on the mediating and moderating role of the selected variable. Hair et al. (2014) have elaborated that Exploratory Factor Analysis is used to determine the underlying structure of variables, which aids in the reduction of data.

The application of SEM to extensive empirical data clarifies where future efforts to increase Contract Labourers' work satisfaction should be directed. In addition, SEM allows modification of measurement error and simultaneous estimation of all included variables. Through the implementation of a mathematically-recognised modelling approach, this research is able to extract important information from a complete data sample. Consequently, the results may serve as support for increasing the satisfaction level and level of Employee Engagement of the most susceptible segment of the workforce.

Table 4.4: Breakup of Sample used for analysis

	Item	EFA	CFA & SEM	Objective 2 (Total)
Gender	Male	190 (63.33)	176 (62.86)	366 (63.1)
	Female	110 (36.67)	104 (37.14)	214 (36.9)
	Total	300 (0)	280 (100)	580 (100)
Job Type	Technician	56 (18.67)	46 (16.43)	102 (17.59)
	Plant & Machinery Operator	70 (23.33)	65 (23.21)	135 (23.28)
	Assembly worker	44 (14.67)	57 (20.36)	101 (17.41)
	Packaging	74 (24.67)	70 (25)	144 (24.83)
	Supervisor	22 (7.33)	12 (4.29)	34 (5.86)
	Helper & Loader	34 (11.33)	30 (10.71)	64 (11.03)
	Total	300 (100)	280 (100)	580 (100)
Educational Level	Illiterate	3 (1)	6 (2.14)	9 (1.55)
	Elementary	41 (13.67)	47 (16.79)	88 (15.17)
	SSC	104 (34.67)	101 (36.07)	205 (35.34)

	HSSC	47 (15.67)	54 (19.29)	101 (17.41)
	Graduate	67 (22.33)	43 (15.36)	110 (18.97)
	Diploma	38 (12.67)	29 (10.36)	67 (11.55)
	Total	300 (100)	280 (100)	580 (100)
Industrial Estate**	Verna	146 (48.67)		146 (48.67)
	Cuncolim	145 (48.33)		145 (48.33)
	Kundaim	9 (3)	135 (45)	144 (48)
	Pilerne		145 (48.33)	145 (48.33)
	Total	300 (100)	280 (93.33)	580 (193.33)

Note: **Data collection was in progress. With a reasonable sample size data analysis was started to identify patterns in it.

4.6.b Multivariate analysis of variance MANOVA

MANOVA is an enhancement of ANOVA (Analysis of Variance). In an ANOVA, we test for statistical differences between one continuous dependent variable and a grouping variable that is independent. This analysis is extended by the MANOVA, which considers numerous continuous dependent variables and combines those into a linear weighted composite variable. The MANOVA will determine whether or not the newly constructed combination varies across the various groups or levels of the independent variable. In this manner, MANOVA analyses whether the independent grouping variable concurrently describes a statistically significant variation in the dependent variable. If more than one dependent variable is supplied, both the univariate and multivariate analyses of variance utilising Pillai's trace, Wilks' lambda, Hotelling's trace, and Roy's biggest root criteria with an approximation F statistic are provided. Multivariate analysis of variance (MANOVA) generates parameter estimates in addition to evaluating hypotheses. There are accessible a priori contrasts often utilised for hypothesis testing. In addition, when an overall F test has shown significance, post hoc testing may be used to analyse differences between individual means. Estimated marginal means provide estimates of the expected mean values for the model's cells, and profile plotting (interaction plotting) of these means facilitates the

visualisation of certain interactions. The post hoc inferential statistical tests are carried out independently for each dependent variable.

4.6.c The Kruskal-Wallis test

The Kruskal-Wallis test, which was introduced in 1952 by Kruskal and Wallis, is a nonparametric technique for determining whether samples are drawn from the exact same distribution. It expands the Mann-Whitney U test to include several groups. The null hypothesis of the Kruskal-Wallis test is that the rankings of the groups' means are identical. A Kruskal-Wallis test is applied to determine to see if the median values of three or more independent (unrelated) groups vary statistically significantly. The Kruskal–Wallis test is simply a rank-sum test applied to several samples. Consider it a test to see whether the distributions have a similar median. The chi-square (X^2) approximation needs a sample size of at least five members. The data are aggregated and sorted from smallest (1) to biggest (N), then the sums of rankings in each subgroup are summed, and the probability is computed. In the statistical form, the equation for the Kruskal-Wallis test is written as:

$$H = \left[\frac{12}{n(n+1)} \sum_{j=1}^c \frac{T_j^2}{n_j} \right] - 3(n+1) \dots\dots\dots (1)$$

In the equation, n is the sum of sample sizes for all samples, c is the number of samples, T_j is the sum of ranks in the j^{th} sample, and n_j is the size of the j^{th} sample.

H is compared to the chi-square distribution with k -1 degrees of freedom, wherein k is the total number of groups. If there are matched rankings, an adjustment is applied.

It is hypothesised that there is no significant impact of Gender, Job type and Educational level on Employment Vulnerability, Job satisfaction, and Employee Engagement of contract workers.

When the dependent variable is ordinal or continuous but not normally distributed, the Mann-Whitney U test is used to assess the differences between two independent groups.

5.6.d Mann-Whitney U test

Mann-Whitney U test permits the drawing of various inferences about the data based on the distributional assumptions applied. These results might vary from merely declaring whether or not the two populations vary to evaluating whether or not the medians of the two groups differ. This test is often administered as a two-sided test; hence, the study hypothesis suggests that populations are unequal rather than identifying their direction. A one-sided study hypothesis is used if the objective is to discover a positive or negative change in one group relative to the other. The process for the test consists of combining the data from the two samples into a single sample, keeping account of which sample each data is from, and then rating the observations from lowest to highest, from 1 to n_1+n_2 , accordingly.

$$U = n_1 n_2 + \frac{n_2 (n_2 + 1)}{2} - \sum_{i=n_1+1}^{n_2} R_i \dots\dots\dots(2)$$

In this equation, U symbolizes the Mann -Whitney U test, n_1 represents Sample size one, n_2 depicts Sample size two, and the Rank of the sample size is shown by R_i .

4.7 TESTING OF RESEARCH HYPOTHESES

The following null hypotheses have been tested under the research using the relevant statistical methods:

Ho1(i) There is no significant relationship between employee engagement, job satisfaction, and employment vulnerability of contract workers in the manufacturing units.

Before assessing the relationship, the scale is created to measure the structures based on Structural Equation Modeling, and then the relationship is evaluated. An assessment is made of the various and interdependent constructs in a single study. SEM requires the development of a model.

Ho1(ii) Employment vulnerability does not significantly mediate the relationship between employee engagement and job satisfaction in the manufacturing units.

Structural Equation Modeling - a multivariate statistical analysis approach - is used to evaluate structural relationships, including the introduction of a mediating variable and the subsequent influence on the strength of the link between the constructs.

Ho1(iii) Gender, job type, and educational level do not significantly moderate the mediating role of employment vulnerability on the relationship between employee engagement and job satisfaction of contract workers in manufacturing units.

Using SEM, three more moderator variables are added to represent a scenario where the connection between the different constructs, changes. The moderator construct modifies the strength or direction of a model's link between two constructs.

Ho2(i) There is no significant difference in job satisfaction, employment vulnerability, and employee engagement across the gender of contract workers in the manufacturing units.

This hypothesis is tested using MANOVA, which assists in comparing the level of job satisfaction, the feeling of vulnerability, and employee engagement among the workers in the companies. The hypotheses are tested to determine if a statistically significant difference exists between the two genders using mean, standard deviation, and multivariate tests.

Ho2(ii) There is no significant difference in job satisfaction, employment vulnerability, and employee engagement across the job type of contract workers in the manufacturing units.

In order to compare the degree of work satisfaction, sense of insecurity, and job involvement among employees in the companies and determine whether there are statistically significant differences between the various categories of workers with regard to their level of work, this hypothesis is tested using MANOVA. The hypothesis is examined using mean, standard deviation, and multivariate tests.

Ho2(iii) There is no significant difference in job satisfaction, employment vulnerability, and employee engagement across the educational level of contract workers in the manufacturing units.

This assertion is put to the test using MANOVA, which compares the degree of job satisfaction, sense of vulnerability, and employee engagement among employees in the companies and determines whether there are statistically significant differences between the various categories of workers based on their educational attainment. The hypothesis is evaluated using mean, standard deviation, and multivariate testing.

Ho3(i) There is no significant association between gender and household consumption expenditure pattern on food and non-food items of contract workers in the manufacturing units.

To test the hypothesis, the nonparametric Mann-Whitney U test, which represents the difference between the scores of means, median, range, standard deviation, and mean rank, is used. On the basis of the results of the U test statistic, the Z test statistic, and the p-value, a conclusion is drawn about the statistical difference in the household spending pattern of contract employees in manufacturing units depending on gender.

Ho3(ii) There is no significant association between job type and household consumption expenditure pattern on food and non-food items of contract workers in the manufacturing units.

Non-parametric Kruskal Wallis test is used to test the hypothesis. The test is run to find the statistical difference in the household spending pattern of contract employees in manufacturing units based on various job types.

Ho3(iii) There is no significant association between educational level and household consumption expenditure pattern on food and non-food items of contract workers in the manufacturing units.

Non-parametric The Kruskal Wallis test is utilized to evaluate the hypothesis. The test is conducted to determine the statistical difference between the spending patterns of contract employees in manufacturing divisions with varying levels of education and the p-value is also taken into consideration. This conclusion was reached in order to draw attention to the fact that different spending patterns are associated with different levels of education.

4.8 SUMMARY

This chapter elaborates on the sampling procedure, data collection methodology and the analysis tool used to achieve the objectives formulated under the study. Using Structural Equation Modelling, an effort is made to comprehend the effects of the many aspects of employee engagement on the degree of job satisfaction among employees. Structural Equation Modeling (SEM) has been used to design a scale to quantify the components of employment involvement, as well as their dimensions and their sensitivity to unemployment. Since work satisfaction, employee engagement, and employment vulnerability are all conceptually connected and were all scored by employees; discriminant validity tests are performed to determine the distinctions between the three variables. Discriminant validity refers to the degree to which the items depicting a latent variable distinguishes it from the items representing other latent variables. The items used to create the employee engagement, job satisfaction, and employment vulnerability

indicators were assessed using confirmatory factor analysis. Their relationship has been further investigated by exploring the influence of demographical and occupational variable under One-way MANOVA. Kruskal Wallis test and Mann Whitney U tests are used to determine whether the determinants significantly impact variables and their direction of association with each other. The tests are used to examine the correlation between variables. This independent inquiry into the various aspects that affect the job satisfaction level of temporary contractual workers in a company paves the way for identifying the factors that must be taken into account by the relevant authority for the greatest good of the workers. A unified approach in this regard will be advantageous for both the business and the employees.

CHAPTER V

EMPLOYEE ENGAGEMENT, JOB SATISFACTION, EMPLOYMENT VULNERABILITY OF CONTRACT WORKERS: SCALE DEVELOPMENT AND FACTOR ANALYSIS

5.1 INTRODUCTION

An examination of the literature on constructs revealed irregularities in the concept's evolution and fragmented studies. As a result, this research produces a more comprehensive description of the concept. Items assessing the psychometrics of the three constructs of employee engagement, work satisfaction, and employment vulnerability are developed and evaluated specifically for contract labourers in companies. Their credibility is evaluated using exploratory and confirmatory factor analysis. The new measures' dependability and validity are also experimentally examined. A credible and reliable measure is created for each of the construct dimensions. This study discusses the confirmability of the newly developed measure, then explores the coexisting connection between contract worker-work engagement, job satisfaction, and employment insecurity. Stage I of the research documented in this chapter, focuses on reconfirming the hypothesised relationship captured about the construct chosen for study. This preliminary round gave a better understanding of the dimensions to be covered under the study which further assisted in the modification of the questionnaire as well. The investigation proceeds further in the line of Structural Equation Modeling and testing of the hypotheses.

Research Objectives

- I To study the relationship between employee engagement, job satisfaction and employment vulnerability of the contract workers.
 - a. To understand the mediating influence of employment vulnerability in the relationship between employee engagement and job satisfaction of contract workers.

- b. To examine whether the influence of employment vulnerability on the relationship between employee engagement and job satisfaction differs as per the difference in gender, job type and educational level of the contract workers.

Based on the objectives of the study, the following hypotheses are drawn:

Research Hypotheses

Ho1(i) There is no significant relationship between employee engagement, job satisfaction and employment vulnerability of contract workers in the manufacturing units.

Ho1(ii) Employment vulnerability does not significantly mediate the relationship between employee engagement and job satisfaction in the manufacturing units.

Ho1(iii) Gender, job type and educational level do not significantly moderate the mediating role of employment vulnerability on the relationship between employee engagement and job satisfaction of contract workers in manufacturing units.

The study has two sections-scale designing and hypothesis testing. After designing of the scale for the measurement of the constructs and their dimensions, the relationship between the three constructs is tested using Structural Equation Modeling (SEM). Initially, the individual relationship is checked, namely, Employee Engagement (Independent variable) and Job Satisfaction (Dependent Variable). Further, Employee Engagement (Independent variable) and Employment Vulnerability (Dependent Variable) and finally Employment Vulnerability (Independent variable) and Job Satisfaction (Dependent Variable). Then the research proceeds to study the mediating effect of Employment Vulnerability. At the final stage, three moderators – Gender, Job type and Education are introduced to study the change in the relationship. Stage I of the questionnaire's validation is done to check if the validity of the content is in accordance with the purpose of the research.

5.2 STAGE I -SUMMARY OF NARRATIVE DESCRIPTION OF FIELDWORK: EXPLORATORY STUDY

To investigate the possibility of a connection between the constructs under investigation, namely employee engagement, job satisfaction, and employment vulnerability, a systematic literature review was conducted. To capture the hypothesised relationship in a more comprehensive context, a qualitative research approach of contract labourers was conducted to collect evidence about the constructs' dimensions. Horton (2004) suggests using simple semi-structured interviews to ascertain the participants' opinions, feelings,

and perspectives. This recommendation is pertinent to this study. The flexibility of semi-structured interviews significantly surpassed the statistical analysis limitations that would result. They are chosen to allow interviewees a degree of autonomy to explain their opinions, highlight areas of specific knowledge and interest that they felt they possessed, and enable specific replies to be questioned in more depth and in particular, to reveal and resolve apparent contradictions.

Questions Asked:

- 1.To which State do you originally belong?
- 2.For how many years have you been working as contract labour?
- 3.What is the nature of your work?
- 4.Are there any kind of risks associated with your job?
- 5.Do you feel very much connected to your work and the co-workers in the company?
- 6.Are you satisfied with your work?

Table 5.1: Linkages between the constructs and their dimensions identified through the narrative description

Narrative Description	Dimensions of Employee Engagement	Dimensions of Job Satisfaction
<p><i>“I have spent around 10 years in this very company but I have not been made permanent. The Supervisors are good and we workers generally don’t fight.”</i></p> <p><i>“I get respect for being main operator, but they don’t take my advice.”</i></p> <p><i>I am contended as I am not pressurised.”</i></p>	Emotional Employee Engagement	Treatment by Seniors
<p><i>“I am happy with my work.”</i></p> <p><i>“I feel tired as I have to stand a lot. I will quit.”</i></p>	Emotional Employee Engagement	Nature of Work
<p><i>“When I shifted to another Contractor, I did not get the due amount from the monthly deductions. I feel cheated.”</i></p>	Emotional Employee Engagement	Salary

<p><i>“During COVID-19 time, we were not compensated by Contractor.”</i></p> <p><i>“New employee or experienced, Salary is same. It does not feel right.”</i></p> <p><i>“The company closed down. Still, I have not received the payment from the contractor. It gives me stress.”</i></p>		
<p><i>“I get stressed in the room. I feel good at work.”</i></p>	Cognitive Employee Engagement	Nature of Work
<p><i>“I am used to hard work. I have not saved money. I work on Sunday also.”</i></p>	Physical Employee Engagement	
Narrative Description	Employment Vulnerability	Dimensions of Job Satisfaction
<p><i>“I can’t stand A.C but what to do. So, I somehow work.”</i></p> <p><i>“I am from Mizoram. Due to my eastern looks I am disliked so I don’t give any suggestions at the workplace.”</i></p>		Treatment by Seniors
<p><i>“Only limited company gives facilities. Not all companies provide all the facilities at work place.”</i></p> <p><i>“Metal moulding is dangerous so I deserve a better wage and a permanent job.”</i></p>		Nature of Work
<p><i>“I don’t mind working even if income is not much as my children are grown up and I am free at home.”</i></p>		Salary
Narrative Description	Dimensions of Employee Engagement	Employment Vulnerability
<p><i>“We are scared all the time. Scared of taking leave, scared of talking to the permanent employees, scared of not getting</i></p>		Emotional Employee

<p><i>work on each day.”</i></p> <p><i>“I have been working for 12 years and earn the same as a new worker. How am I supposed to feel?”</i></p>	<p>Engagement</p>	
<p><i>“We are constantly working and the permanent workers try to push their work on us. How is this fair?”</i></p> <p><i>” I get respect from my seniors. So, I enjoy my work.”</i></p>	<p>Cognitive Employee Engagement</p>	
<p><i>“The shoes and the vest given by the company are not providing sufficient protection against the drops of melted metal that sometimes fall on us. We even spend around 600/- Rs. from our pocket and buy shoes.”</i></p>	<p>Physical Employee Engagement</p>	

Source: Primary Survey

5.3 STAGE II- MODEL FORMATION AND TESTING OF THE MODEL FORMULATED: SCALE DEVELOPMENT

The survey instrument for this study is composed of four parts. The first part was related to the demographic details; the second part was about the occupational details; the third section investigated the scale of the feeling of employee engagement; the fourth part was related to employees' vulnerability level and the final part was about the job satisfaction level of the labourers. The scale designed is in line with the items generated from Kahn's theory, new work engagement items developed by Kuok, & Taormina (2017). The constructs are measured by referring to the multiple item scale of Karatepe (2013) for employee engagement with work and Utrecht Work Engagement scale whereas for the two constructs -job satisfaction and employment vulnerability, the scales are developed exclusively from review of literature namely, Singh & Loncar (2010), Peng & Mao (2015) and Yeh (2015). The vulnerability at work scale had the measurement items listed by Greenan & Seghir (2017). Taken together, employee engagement has 18 items, job satisfaction has 10 items and employment vulnerability has 8 items in the respective scales.

All the items with poor factor loadings were dropped. The reliability of the scale was checked by Cronbach's Alpha. All dimensions of employee engagement, employment vulnerability and job satisfaction had adequate values on the reliability scale. Hence, all the variables had adequate values on reliability test (values greater than 0.7 are considered to be good on the reliability scale). Measured by Cronbach's alpha values (Cronbach, 1951), reliability examination of the fundamental scales of each identified component permits their acceptance as reliable. The reliability study to evaluate the variables' consistency and stability yields an acceptable coefficient correlation value of 0.57.

Multigroup Structural Equation Modeling (SEM) studies with route analyses. A maximum likelihood estimate method is used to investigate the processes and mechanisms. The purpose is to stay connected to a certain theoretical model. Simultaneous testing of connected equations corresponding to a conceptual model is done using SEM. It suggests both a simultaneous assessment of both the linkages among variables in the model and an evaluation of the fit of the complete model with observed data, in contrast to popular linear models, which calculate equations individually. The multigroup technique also allows for comparisons of differences in characteristics that predict intent to stay amongst professional groups. Factor extraction has been the most crucial step along the way of data analysis. Here, the technique called principal component analysis is being used to extract components. The number of such components has been determined based on latent root criterion, where it is expected that eight values with a bigger magnitude would be present. The variables with loadings of 0.45 or higher were deemed very significant, those with loadings of 0.40 or larger were deemed significant, and those with loadings of 0.30 or greater were examined. Those factor loadings 0.40 or above have been kept after Orthogonal Rotation using Varimax has been applied to the data. In order to compress the available data via survey, the number of factor statements has been reduced to ten for job satisfaction, eighteen for employee engagement and eight for employment vulnerability for rotation reasons. Construction of job satisfaction measuring scale is achieved by Exploratory Factor Analysis (EFA) and further scale has been validated by using Confirmatory Factor Analysis (CFA) using statistical software Amos.

5.3.1 Exploratory Factor Analysis - Assessing Suitability of data of Employee Engagement

Construction of Employee Engagement (hereafter, EE) measuring scale is achieved by EFA and further scale has been validated by using Confirmatory Factor Analysis (CFA)

using Amos 22(IBM). Modified /Self designed scale of job satisfaction having 18 items has been developed. Varimax factor rotation is used for identification of clear factors of Job Satisfaction. While running the EFA, it is noticed that some of the items have very low factor loadings as well as show cross loadings, these items were eliminated from the EFA. Secondly, the Kaiser-Meyer-Olkin measure of sampling adequacy was .947, above the commonly recommended value of .6, and Bartlett’s test of sphericity was significant Chi sq. (153) = 13354.918, $p < .05$) indicating that data is suitable for factor analysis.

Table 5.2: KMO and Bartlett's Test-Employee Engagement

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.947
Bartlett's Test of Sphericity	Approx. Chi-Square	13354.918
	Df	153
	Sig.	0.000***

Source: Computed from primary data; Note:***p-value<0.01

Table 5.2 depicts that Kaiser-Meyer-Olkin Measure of Sampling Adequacy test is statistically significant, indicating that data is suitable for further data analysis.

Table 5.3: Eigen values and total Variance explained- Employee Engagement

Component	Initial Eigen values			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	11.174	62.079	62.079	11.174	62.079	62.079	5.524	30.691	30.691
2	1.980	10.999	73.078	1.980	10.999	73.078	5.466	30.364	61.055
3	1.411	7.840	80.917	1.411	7.840	80.917	3.575	19.862	80.917

Source: Primary Data

It can be interpreted from Table 5.3 that after running the Factor analysis, three clear factors emerged explaining 80.817% of the total variance in the data. The first, second and third factor explained 62.07%, 10.99% and 7.84% variation, respectively. With the help of Varimax rotation clear factor structure is obtained. Based on the characteristics of the items three factors are named Physical, Emotional and Cognitive Work Engagement. Details about the factor loadings and reliability are shown in the table given below.

Table 5.4: Employee Engagement- Description of the Factors, Loadings and Reliability

Sr. No	Item No	Name of Items	Factor Loadings	Cronbach Alpha	Name of the factor
1	EE18	I am often physically driven by my work.	0.883	0.989	Physical
2	EE 17	I always have a lot of energy for my work.	0.879		
3	EE 16	I have a great deal of stamina for my work.	0.876		
4	EE 20	I find my work physically invigorating (giving strength or energy).	0.876		
5	EE 19	I am frequently energised by my work.	0.875		
6	EE 9	I feel very happy when I am carrying out my responsibilities at work.	0.837	0.946	Emotional
7	EE 8	I am very eager to do my work.	0.831		
8	EE 10	I feel very good about the work that I do.	0.815		
9	EE11	I feel strong enthusiasm for my work.	0.802		
10	EE 7	I feel very delighted about what I am doing whenever I am working.	0.797		
11	EE12	I feel a sense of gratification with my work performance.	0.778		

12	EE14	I am given charge of important task which connects me to the enterprise.	0.589		
13	EE13	The organisational culture keeps me connected to the company.	0.582		
14	EE2	Wherever I am, things that happen often remind me of my work.	0.865	0.877	Cognitive
15	EE1	My mind is often full of ideas about my work.	0.837		
16	EE4	I rarely think about the time when I am working.	0.745		
17	EE3	My mind is fully engaged with my work.	0.739		
18	EE5	My thoughts are fully focused when thinking about my work.	0.652		

Source: Computed from primary data

The variables linked with different dimensions and statements are shown in Table 5.4. Reliability of the factors is assessed with the help of Cronbach's Alpha. The values of coefficients of these components are at an acceptable level.

5.3.2 Confirmatory Factor Analysis -Validation of Factor Analysis of Employee Engagement

AMOS 22 is used to carry out the validation of the Employee Engagement measurement scale.

A summary of the estimates is presented below.

Table 5.5: Regression Weights- Employee Engagement

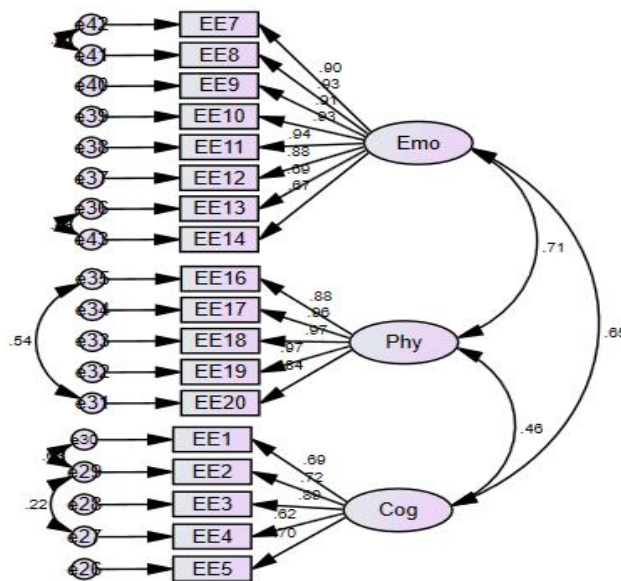
Item	Direction	Latent Variable	Estimate	S.E.	C.R.	P
EE13	<---	Emotional	1	Reference		
EE12	<---	Emotional	0.998	0.07	14.229	***
EE11	<---	Emotional	1.093	0.072	15.181	***
EE10	<---	Emotional	1.013	0.067	15.071	***

EE9	<---	Emotional	0.896	0.061	14.62	***
EE8	<---	Emotional	0.944	0.063	15.044	***
EE7	<---	Emotional	0.919	0.063	14.514	***
EE14	<---	Emotional	0.945	0.085	11.135	***
EE20	<---	Physical	1	Reference		
EE19	<---	Physical	1.215	0.05	24.174	***
EE18	<---	Physical	1.294	0.055	23.578	***
EE17	<---	Physical	1.223	0.052	23.577	***
EE16	<---	Physical	1.118	0.039	28.789	***
EE4	<---	Cognitive	1	Reference		
EE3	<---	Cognitive	1.235	0.112	11.045	***
EE2	<---	Cognitive	1.371	0.114	12.056	***
EE1	<---	Cognitive	1.173	0.1	11.701	***
EE5	<---	Cognitive	0.819	0.094	8.713	***

Source: Computed from primary data; Note: ***p-value<0.01

Table 5.5 depicts that all the regression weights are highly significant and all standardised path coefficients are greater than 0.7, indicating that unidimensionality is achieved by this scale. The three dimensions are hereafter mentioned as Emotional, Physical, and Cognitive.

Figure 5.1: Path Diagram Employee Engagement (EE)



Note: - Emo- Emotional, Cog-Cognitive, Phy-Physical

Figure 5.1 shows the correlation between the dimensions of Employment Engagement.

Table 5.6: Fit Indices-Employment Engagement

Fit Index	CMIN /DF	GFI	AGFI	NFI	RFI	IFI	TLI	CFI	RMS EA
Employee Engagement	1.991	0.911	0.88	0.958	0.949	0.978	0.974	0.978	.06
Remarks	Excellent	Excellent	Excellent	Excellent	Excellent	Excellent	Excellent	Excellent	Excellent

Source: Computed from primary data

It can be inferred from Table 5.6 that all the fit indices of the construct of employee engagement are at an acceptable level.

Table 5.7: Reliability & Variance Shared-Employment Engagement

	Construct Reliability (CR)	Average Variance Extracted (AVE)	Cronbach's Alpha
Emotional	0.958	0.744	0.952
Physical	0.968	0.857	0.977
Cognitive	0.849	0.534	0.861

Source: Primary Data

It can be observed from Table 5.7 that since values of CR, AVE are above the threshold level of 0.5, hence it is concluded that the Work Engagement model is validated.

Table 5.8: Discriminant Validity--Employment Engagement

	Emotional (Emo)	Physical (Phy)	Cognitive (Cog)
Cognitive (Cog)	.730		
Physical (Phy)	.462***	0.926	
Emotional (Emo)	.647***	0.711***	0.863

Source: Computed from primary data; Note: ***p-value<0.01

Table 5.8 shows that the square root of AVE Emotional dimension is greater than the correlation coefficients between Emotional, with Physical, and Cognitive Employee Engagement. The square root of AVE Physical is greater than correlation coefficients

between the Physical, with Emotional and Cognitive Employee Engagement. The square root of AVE Cognitive is greater than the correlation coefficients between the Cognitive with Emotional and Physical Employee Engagement. Therefore, discriminant validity was achieved.

5.3.3 Multicollinearity for Employee Engagement

In order to identify the degree of multicollinearity among the variables, the Variance Inflation Factor (VIF) is used. It displays information about the contribution of a variable to the standard error in the regression. A VIF of 3 or below 3 is acceptable as it shows lesser multicollinearity.

Table 5.9: Collinearity Diagnostic for Physical Employment Engagement (Phy)

Model	Collinearity Statistics	
	Tolerance	VIF
Emo	.582	1.717
Cog	.582	1.717

Source: Primary Data

Table 5.10: Collinearity Diagnostic for Emotional Employment Engagement (Emo)

Model	Collinearity Statistics	
	Tolerance	VIF
Cog	.751	1.332
Phy	.751	1.332

Source: Primary Data

Table 5.11: Collinearity Diagnostic for Nature of Cognitive Employment Engagement (Cog)

Model	Collinearity Statistics	
	Tolerance	VIF
Phy	.464	2.155
Emo	.464	2.155

Source: Primary Data

5.3.4 Second order Confirmatory Factor Analysis –Employee Engagement

As can be observed from Figure 5.2 that all factor loadings are greater than 0.5 and are significant. Cross loading was avoided by examining the modification indices to ensure that the dimensions of Employee Engagement are unidimensional.

The results depicted in Table 5.12 assert that Composite validity is found to be .838 and AVE is .640; hence, convergent validity is achieved, according to Hair et al. (2014). Discriminant Validity can also be checked by comparing the fit of the three-factor model with the two and three factor model. Here, first model is fit is estimated by considering three constructs as one. Next, model fit is estimated by considering three constructs as two and finally, three factor model fit is estimated.

Figure 5.2: Second order CFA – Employee Engagement

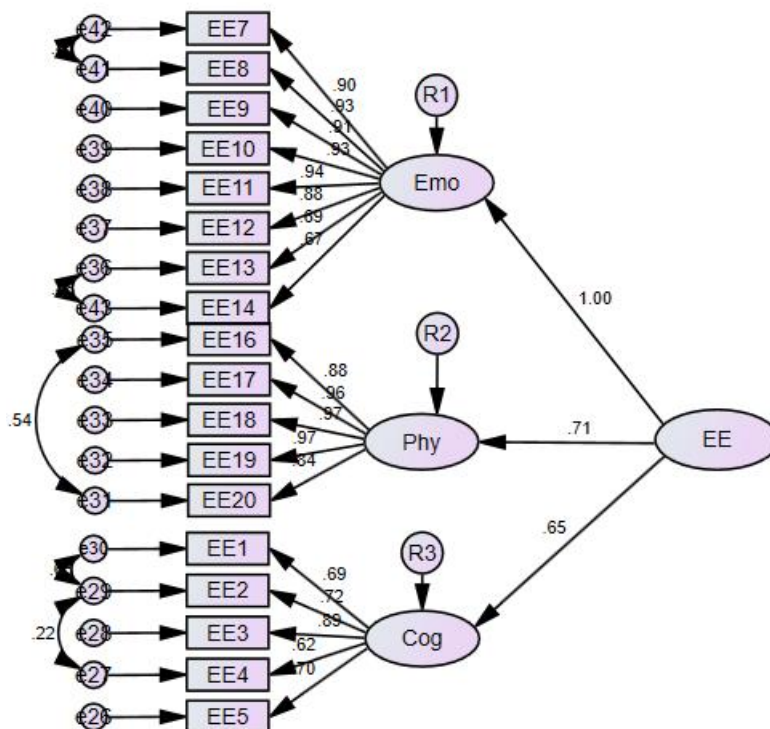


Table 5.12: Second Order Factor Loadings for Employee Engagement

Sr. No	Name of Construct	Factor Loading
1	Emo	.99***
2	Phy	.71***
3	Cog	.65***

Source: Computed from primary data; Note:***p-value<0.01

Table 5.13: Model fit indices-Employee Engagement

Fit Index	CMIN/DF	GFI	AGFI	NFI	RFI	IFI	TLI	CFI	RMS EA
Model 1: Fit score 1 factor model	15.263	.452	.301	.660	.609	.675	.625	.673	.227
Model 2: Fit score 2 factor model	6.283	.730	.651	.862	.839	.881	.861	.881	.138
Model 3: Fit score 3 factor model	1.991	0.911	0.88	0.958	0.949	0.978	0.974	0.978	.06
Recommended value	≤3.00	≥.8	≥.8	≥.9	≥.9	≥.8	≥.8	≥.9	≤.08

Source: Computed from primary data

According to the data shown in Table 5.13, the Model fit indices of all the above three models are compared, and it is seen that the three-factor model is having the best fit compared to the other two models. It suggests that the eighteen elements reflect three distinct domains, namely Emotional, Physical, and Cognitive Engagement.

5.3.5 Exploratory Factor Analysis -Assessing Suitability of data of Job Satisfaction

Exploratory factor analysis is intended for situations where the relationship between observable and latent variables is unclear or ambiguous. Thus, an exploratory study is conducted to investigate how and to what degree the measured variables are related to their underlying determinants (Byrne 2016). Varimax factor rotation is used for identification of clear factors of Job Satisfaction. While running the EFA, it was noticed that some of the items had very low factor loadings and some of the items had cross loadings; such items

were eliminated from the EFA. Secondly, the Kaiser-Meyer-Olkin measure of sampling adequacy was .789, above the commonly recommended value of .6, and Bartlett’s test of sphericity was significant Chi sq. (45) = 967.131, $p < .05$) indicating that data is suitable for factor analysis (Hair et al. (2014).

Table 5.14: KMO and Bartlett's Test-Job Satisfaction

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.789
Bartlett's Test of Sphericity	Approx. Chi-Square	967.131
	df	45
	Sig.	.000

Source: Computed from primary data; Note: ***p-value<0.01

Table 5.14 show the result of the first test for the suitability of the data for factor analysis. The Kaiser -Meyer -Olkin coefficient obtained was 0.789, which signifies the correctness of data for further factor analysis. The second test -Bartlett's Test of Sphericity has resulted in chi-square statistics of 967.131 with a p-value of 0.000 which is less than 0.05. This indicates that there is a sufficient correlation among the variables and also confirms the appropriateness of factor analysis.

Table 5.15: Rotated Factor Solution- Job Satisfaction

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	3.640	36.397	36.397	3.640	36.397	36.397	2.559	25.589	25.589
2	1.716	17.156	53.553	1.716	17.156	53.553	2.199	21.994	47.583
3	1.252	12.518	66.071	1.252	12.518	66.071	1.849	18.488	66.071

Source: Computed from primary data

Table 5.15 shows that the Principal Component Analysis factor extraction method is used for job satisfaction and 3 clear factors have emerged from this analysis, explaining 66.07% total variation of the data set. These three components explain 36.39%, 17.15%, and 12.51% of the variation in the data.

Table 5.16: Job Satisfaction -Description of the Factors, Loadings, and Reliability

Sr. No	Description	Item No	Factor Loadings	Cronbach's Alpha	Name of the Factor
1	I get assistance from colleagues if you ask for it	JS19	.846	0.79	Treatment by Seniors (TbS)
2	I respect my seniors.	JS20	.817		
3	I am treated with respect and dignity by my senior	JS17	.730		
4	I am treated with respect and dignity by my co-workers.	JS23	.703		
5	The working hours are convenient and fair.	JS27	.834	0.80	Nature of Work (NW)
6	I find my working conditions safe because safety equipments are provided.	JS28	.808		
7	I am satisfied with the type of work allotted to me in the department.	JS26	.799		
8	My income is larger than I would have received under any other contractor and firm	JS2	.766	0.68	Salary (S)
9	I am satisfied with the monetary allowance given apart from the salary.	JS3	.761		
10	I am satisfied with my present salary	JS1	.761		

Source: Computed from primary data

Table 5.16 depicts the result of the Varimax rotation technique where clear factor structure is obtained. It may be noted that the emerging factors are named Treatment by Seniors (TbS), Nature of Work (NW), and Salary (S). The average variance extracted (AVE), Reliability coefficient is also shown in the above table. The reliability of the factors is assessed with the help of Cronbach's Alpha coefficients if these constructs are at an acceptable level. From the above analysis, the three factors can be identified as the effective criteria for determining job satisfaction levels among contract workers in the manufacturing industry in Goa.

5.3.6 Confirmatory Factor Analysis -Validation of Factor Analysis of Job Satisfaction

EFA is used to construct the Job Satisfaction measurement scale, which has been verified using Confirmatory Factor Analysis (CFA). Varimax factor rotation is used to identify distinct Job Satisfaction factors. Confirmatory Factor Analysis is to be performed by using a separate set of the sample collected from the survey, which will further confirm the replication of the results from Exploratory Factor Analysis (Hair et al.2014). Confirmatory Factor Analysis is used to validate the tool that is designed to study Job Satisfaction. AMOS 22(IBM) is used to carry out the validation of the Job satisfaction measurement scale.

Table 5.17: Regression Weights- Job Satisfaction

Item	Direction	Latent Variable	Estimate	S.E.	C.R.	P
JS17	<---	TbS	1	Reference		
JS20	<---	TbS	0.781	0.098	7.941	***
JS19	<---	TbS	0.534	0.065	8.267	***
JS26	<---	NW	1	Reference		
JS28	<---	NW	0.8	0.131	6.129	***
JS27	<---	NW	0.778	0.118	6.613	***
JS3	<---	S	1	Reference		
JS2	<---	S	1.429	0.192	7.437	***
JS1	<---	S	1.503	0.203	7.423	***
JS23	<---	TbS	0.77	0.086	8.981	***

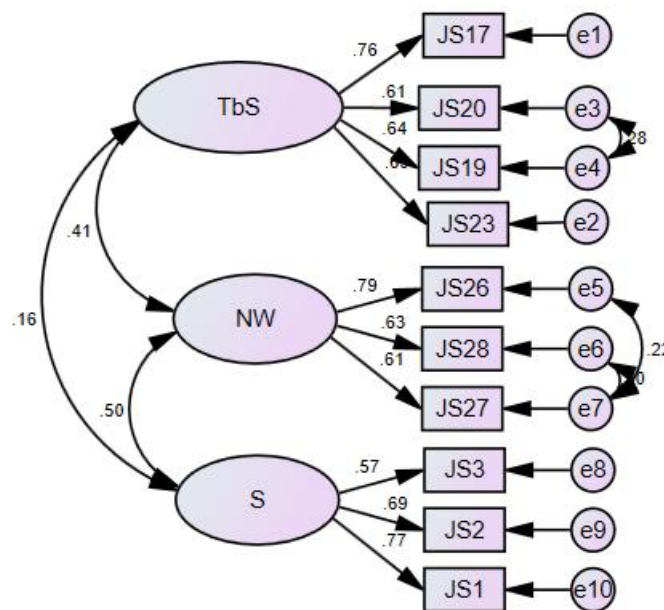
Source: Compiled from SEM results; Note: ***sig at 1%

From Table 5.17, it is clear that all the unstandardised items load significantly on the respective latent variable.

5.3.6.a Unidimensionality

The unidimensionality of the construct is evaluated by the factor loadings, all standardised factor loadings should be 0.5 or higher and ideally higher than 0.7 and statistically significant, and there should not be cross loadings, in the items of one construct on other constructs. Items should be unidimensional; in other words, only one underlying construct can explain a set of measured variables (Hair et al., 2014). Hence, it is noticed in the path diagram and Table 5.1 on regression Weights that unidimensionality is achieved for all constructs of the job satisfaction scale.

Figure 5.3: CFA for Job Satisfaction (JS)



Source: Drawn from primary data

Tbs=Treatment by seniors, NW=Nature of work, S=Salary, JS=Job Satisfaction

It can be seen from Figure 5.3 that all of the factor loadings are more than 0.5, which is in agreement with the recommendations proposed by (Hair et al. 2014).

5.3.6.b Reliability & Validity

Table 5.18: Composite validity, Average Variance Extracted, Reliability & Variance Shared

	Composite Reliability (CR)	Average Variance Extracted (AVE)	Cronbach's Alpha
Treatment by Seniors (TbS)	0.769	0.456	0.776
Nature of Work (NW)	0.723	0.469	0.789
Salary (S)	0.719	0.464	0.717

Source: Computed from primary data

It is noticed from Table 5.18 that AVE is less than 0.5, but if CR is more than the acceptable level of 0.6, then Job Satisfaction Measurement scale is valid for further analysis. AVE should be higher than 0.5. However, the value of 0.4 is acceptable due to the condition that the AVE value is less than 0.5. However, composite reliability is higher than 0.6, and the convergent validity of the construct is acceptable. Cronbach's Alpha for all three constructs is above 0.7, indicating that the reliability of the construct is above the threshold value. All constructs pose good reliability.

Table 5.19: Discriminant Validity

	TbS	NW	S
TbS	.675		
NW	.413***	.685	
S	.163*	.501***	.681

Note:***p-value<0.01

It can be interpreted from Table 5.19 that the bold values are the square root of AVE, and the other values are the correlation value between the construct. It is noticed that every bold value in the above table is higher than other values in that particular row and column; hence, discriminant validity is achieved by the scale.

5.3.6.c Model Fit

Fit indices for the model are given in table 5.17. It is seen that all fit indices are at an acceptable level.

Table 5.20: Fit indices of Measurement Model

Fit Index	CMIN/DF	GFI	AGFI	NFI	RFI	IFI	TLI	CFI	RMSEA
Model Fit Scores	1.777	0.965	0.933	.939	.905	.972	0.956	0.972	.053
Recommended value	≤ 3.00	$\geq .8$	$\geq .8$	$\geq .9$	$\geq .9$	$\geq .8$	$\geq .8$	$\geq .9$	$\leq .08$

Source: Computed from primary data

It can be observed from Table 5.20 that the model fit is in accordance with (Hair et al. 2014)

5.3.7 Multicollinearity for Job Satisfaction

The correlations between the three dimensions of Job Satisfaction were assessed after their individual CFA. The variance inflation factor (VIF) was checked to see if Salary (S), Nature of Work (NW), and Treatment by Seniors (TbS) are found to be distinct constructs. The constructs were checked for multicollinearity.

The constructs of the Job Satisfaction Scale (JS) are checked for multicollinearity. After checking the Variance Inflation Factor (VIF) for all three constructs, VIF was found to be less than 5 and tolerance was $> .2$, as can be seen in the Table below, demonstrating that there is no multicollinearity problem and the three constructs are distinct.

Table 5.21: Collinearity Diagnostic for Salary (S)

Model	Collinearity Statistics	
	Tolerance	VIF
NW	.743	1.346
TbS	.743	1.346

Source: Computed from primary data

Table 5.22: Collinearity Diagnostic for Nature of Work (NW)

Model	Collinearity Statistics	
	Tolerance	VIF
TbS	.955	1.047
S	.955	1.047

Source: Computed from primary data

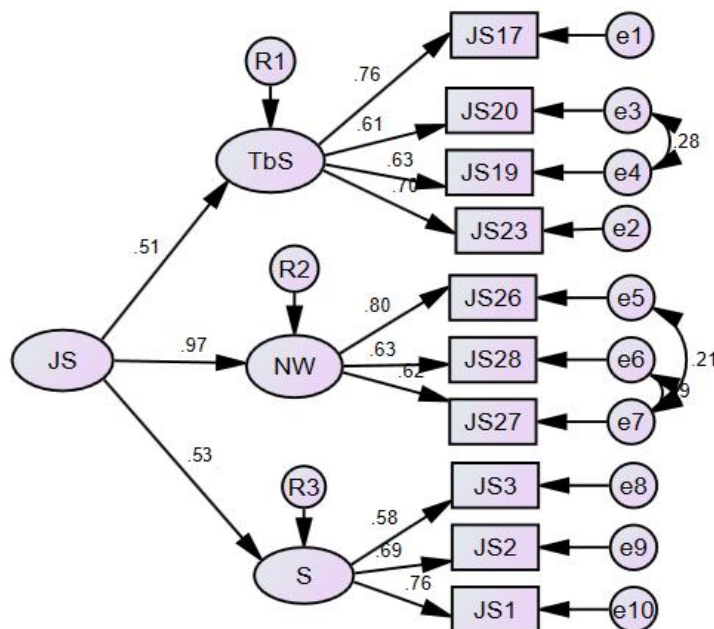
Table 5.23: Collinearity Diagnostic for Nature of Treatment by Seniors (TbS)

Model	Collinearity Statistics	
	Tolerance	VIF
S	.624	1.604
NW	.624	1.604

Source: Computed from primary data

5.3.8 Second order Confirmatory Factor Analysis – Job Satisfaction

Figure 5.4: CFA of Second order construct Job Satisfaction



Source: Drawn from primary data

Tbs=Treatment by Seniors, NE=Nature of Work, S=Salary, JS=Job Satisfaction

Figure 5.4 depicts that all standardized factor loadings are above 0.5 and ideally above 0.7. Items of the job satisfaction construct are unidimensional as a set of measured variables is elaborated by a single construct (Hair et al.,2014)

Table 5.24: Second order factor loadings for Job Satisfaction

Sr. No	Name of Construct	Factor Loading
1	TbS	.51***
2	NW	.97***
3	S	.53***

Source: Computed from primary data; Note: ***p-value<0.01

It can be comprehended from Table 5.24 that the Composite validity is found to be .732 and AVE is .501; hence convergent validity is achieved. According to Hair et al. (2014), discriminant validity can also be checked by comparing the fit of the three-factor model with the two and three factor model. Here, the first model's fit is estimated by considering three constructs as one. Next, model fit is estimated by considering three constructs as two, and finally, three factor model fit is estimated.

Table 5.25: Discriminant validity

Fit Index	CMIN/DF	GFI	AGFI	NFI	RFI	IFI	TLI	CFI	RMSEA
Model 1: Fit score 1 factor model	8.94	.803	.661	.659	.521	.686	.551	.680	.169
Model 2: Fit score 2 factor model	3.891	.918	.855	.856	.792	.889	.836	.887	.102
Model 3: Fit score 3 factor model	1.777	.965	.933	.939	.905	.972	.956	.972	.053
Recommended value	≤3.00	≥ .8	≥ .8	≥ .9	≥ .9	≥ .8	≥ .8	≥ .9	≤ .08

Source: Computed from primary data

It can be observed from Table 5.25 that the Model fit indices of the above three models are compared. It is seen that three factor model has the best fit compared to the other two models indicating that the items represent the construct.

5.3.9 Exploratory Factor Analysis –Assessing Suitability of data of Employment Vulnerability

Construction of the Employment Vulnerability measuring scale is achieved by EFA, and further scale has been validated by using Confirmatory Factor Analysis (CFA) using AMOS. While running the EFA, it is noticed that many of the items have very low factor loadings as well as show cross loadings; these items were eliminated from the EFA. Secondly, the Kaiser-Meyer-Olkin measure of sampling adequacy was .841, above the commonly recommended value of .6, and Bartlett’s test of sphericity was significant Chi sq. (21) = 1432.756, $p < .05$ indicating that data is suitable for factor analysis.

Table 5.26: KMO and Bartlett's Test-Employment Vulnerability

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.841
Bartlett's Test of Sphericity	Approx. Chi-Square	1432.756
	Df	21
	Sig.	.000

Source: Computed from primary data; Note: ***p-value<0.01

From Table 5.26, it can be observed that the Kaiser -Meyer -Olkin coefficient obtained was .841 which signifies the correctness of data for further factor analysis. The second test - Bartlett's Test of Sphericity has resulted in chi-square statistics of 1432.756 with a p-value of 0.000 which is less than 0.05. This indicates that there is a sufficient correlation among the variables and also confirms the appropriateness of factor analysis.

Table 5.27: Total Variance explained -Employment Vulnerability

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	4.959	61.985	61.985	4.959	61.985	61.985

Source: Computed from primary data

Table 5.27 depicts that the factor analysis envisaged that 61.985% of the variation is explained by one clear factor.

Table 5.28: Employment Vulnerability -Description of the Factors, Loadings, and Reliability

Sr. No.	Item	Description	Factor Loadings	AVE	Reliability	Name of the Factor
1	V6	My main job does involve vibrations from hand tools, machinery, etc.	.866	.620	.895	Employment vulnerability
2	V3	My work does expose me to breathing in smoke, fumes, powder or dust, etc.	.862			
3	V1	During work, I am exposed to extreme temperatures that would make me perspire even when not working.	.853			
4	V7	My work does involve handling or being in direct contact with dangerous substances such as chemicals, infectious materials, etc.	.841			
5	V4	I have not been provided with Safety Gears.	.759			

6	V9	My work does involve carrying or moving heavy loads.	.724			
7	V13	My work does involve working night shifts.	.702			
8	V14	I am working more than 8 hours a day.	.664			

Source: Computed from primary data

The factorial loadings (strength of emphasis) and Reliability are presented in Table 5.28.

5.3.10 Confirmatory Factor Analysis -Validation of Factor Analysis of Employment Vulnerability

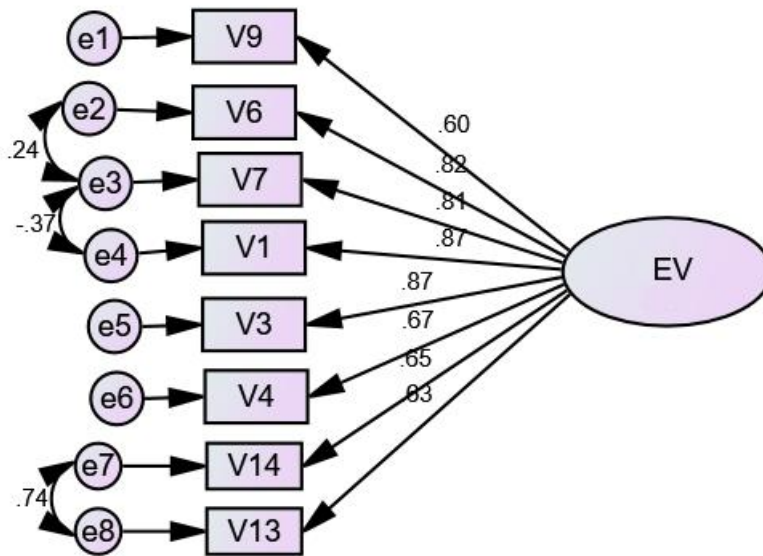
Table 5.29: Regression weights for - Employment Vulnerability

	Direction	Latent Variable	Estimate	S.E.	C.R.	P
V9	<---	EV	1	-----Reference-----		
V6	<---	EV	1.366	0.128	10.655	***
V7	<---	EV	1.195	0.115	10.363	***
V1	<---	EV	1.614	0.146	11.045	***
V3	<---	EV	1.285	0.116	11.116	***
V4	<---	EV	0.776	0.084	9.279	***
V14	<---	EV	1.571	0.173	9.096	***
V13	<---	EV	1.529	0.173	8.85	***

Source: Computed from primary data; Note: ***p-value<0.01

On the basis of the factorial composition of the job-satisfaction as specified in Table 5.29 reflecting the regression weights, the indicators have a significant P value. Thus, it can be concluded that the items pass the construct validity test, making them all valuable data collection items.

Figure 5.5: Path Diagram for Employment Vulnerability



From Figure 5.5, it can be observed that all path coefficients are significant and standardised path coefficients are above .5, which indicates that unidimensionality is achieved in the Scale.

Table 5.30: Fit Indices - Employment Vulnerability

Model	CMIN/DF	GFI	AGFI	NFI	RFI	IFI	TLI	CFI	RMSEA
Vulnerability	1.799	0.974	0.945	0.98	0.967	0.991	0.985	0.991	0.054
Recommended value	≤3.00	≥.8	≥.8	≥.9	≥.9	≥.8	≥.8	≥.9	≤.08

Source: Computed from primary data

Fit indices for the model are given in Table 5.30. It is seen that all fit indices are at an acceptable level.

Table 5.31: Reliability and Validity - Employment Vulnerability

	Composite Reliability (CR)	Average Variance Extracted (AVE)	Cronbach's Alpha
EV	.909	.562	.901

Source: Computed from primary data

From Table 5.31, it can be observed that the $AVE > .50$ and $CR > .6$ indicate that convergent validity is achieved. Since Cronbach's Alpha is 0.901, it indicates that the reliability of the scale is excellent.

Discriminant validity measures the uniqueness of the construct. While developing the employment vulnerability scale, only one construct has emerged. Therefore, there is no issue related to discriminant validity.

5.4 TESTING OF HYPOTHESES USING STRUCTURAL EQUATION MODELING METHOD

HYPOTHESES TESTING

The structural model demonstrates a strong match with the observed data by creating a logical link in route estimation and by explaining the variance of each dependent variable. The developed hypotheses are evaluated using SEM. The findings are presented in a suitable manner, and the results are discussed accordingly. By creating a logical link in route estimation and explaining the variance of each dependent variable, the structural model demonstrates a strong match with the observed data. The developed hypotheses are evaluated using SEM. The findings are presented in a suitable manner.

5.4.1 Testing of hypothesis Ho1(i), the statistical results and interpretation

Ho1(i): There is no significant relationship between employee engagement, job satisfaction, and employment vulnerability of contract workers in the manufacturing units.

The hypothesis is further divided into sub hypotheses to study the individual relationship between the constructs in the following manner:

Ho1(i)a. There is no significant relationship between Employee Engagement and Job Satisfaction.

Ho1(i)b. There is no significant influence of the dimensions of Employee Engagement on the Job Satisfaction.

Ho1(i)c. There is no significant influence of dimensions of Employee Engagement on dimensions of Job Satisfaction.

Ho1(i)d. There is no significant relationship between Employee Engagement with Employment Vulnerability.

Ho1(ii)e. There is no significant influence of dimensions of Employee Engagement on Employment Vulnerability.

Ho1(i)f. There is no significant relationship between Employment Vulnerability with Job Satisfaction.

Ho1(i)g. There is no significant influence of Employment Vulnerability on the dimensions of Job Satisfaction.

Ho1(i)a There is no significant relationship between Employee Engagement with Job Satisfaction.

Figure 5.6: Structural Model for the Relationship of Employee Engagement (EE) with Job Satisfaction (JS) of Contract Workers

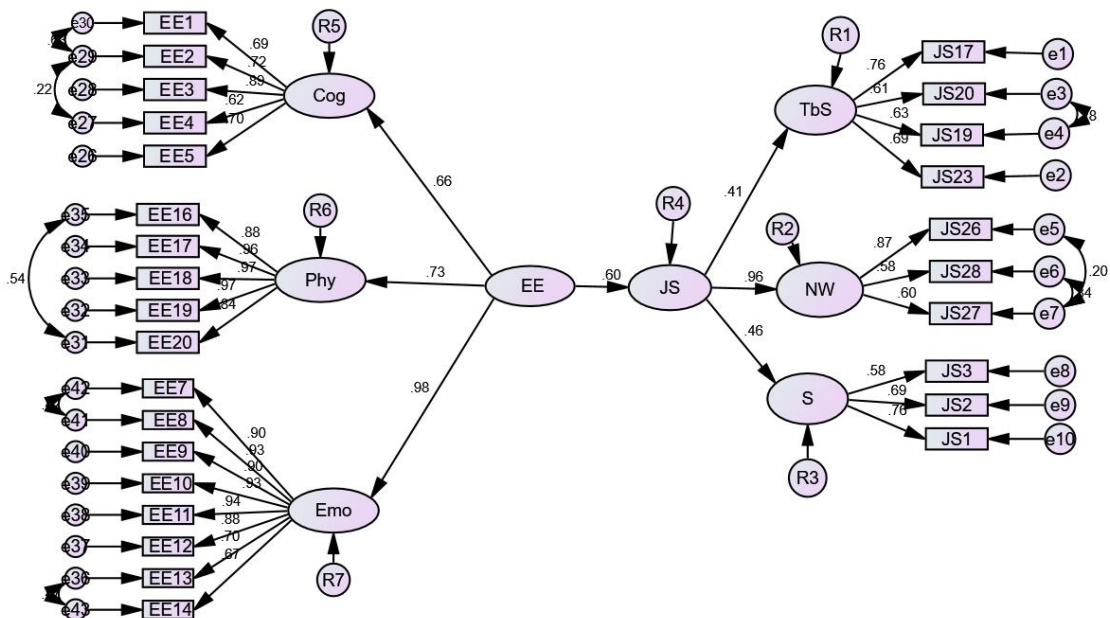


Figure 5.6 shows the Structural Model for the influence of Employee Engagement (EE) on the Job Satisfaction (JS) of Contract workers.

Table 5.32: Structural Model Regression Path Coefficients for the Influence of Work Engagement (EE) on Job Satisfaction (JS)

Relation	Std Estimates Value	Estimate	S.E.	C.R.	P	Significant/ Not Significant
EE---> JS	.596	.479	084	5.738	***	Positive & Significant

Source: Computed from primary data;

Notes: ***p-value<0.01, **p-value<0.05, *p-value<0.10

As is seen from Table 5.32, the relationship of Employee Engagement with Job Satisfaction is both positive and significant.

Table 5.33: Fit Indices for the structural model of the Influence of Employee Engagement on Job Satisfaction

Fit Index	CMIN/DF	GFI	AGFI	NFI	RFI	IFI	TLI	CFI	RMSEA
Model Fit Scores	2.006	0.862	0.833	0.907	0.895	0.951	0.945	0.951	0.06
Recommended value	≤3.00	≥.8	≥.8	≥.9	≥.9	≥.8	≥.8	≥.9	≤.08

Source: Computed from primary data

It is noticed from table 5.33 that Employee Engagement (EE) significantly influences the Job Satisfaction (JS) of contract workers; 35% of the variance in Job Satisfaction is explained by EE. All Fit indices of the model are in the acceptable range. Hence, Ho1(i)a stands rejected.

Ho1(i)b: There is no significant influence of the dimensions of Employee Engagement on Job Satisfaction.

Figure 5.7: Structural Model for the influence dimensions of Employee Engagement (EE) on Job Satisfaction (JS) of Contract Workers

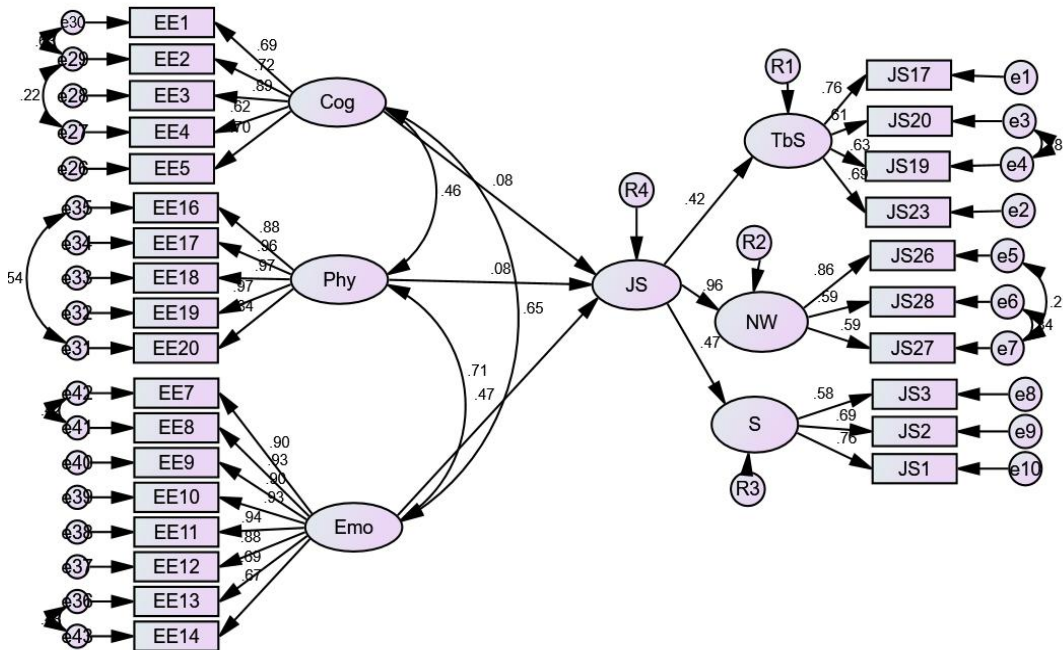


Table 5.34: Structural Model Regression Path Coefficients for Influence of Dimensions of Employee Engagement (EE) on Job Satisfaction (JS) of contract workers

Path	Std Estimates	Estimate	S.E.	C.R.	P	Significant/ Not Significant
Cog ---> JS	.079	.084	.107	.792	.428	Not Significant
Phy---> JS	.077	.075	.085	.890	.373	Not Significant
Emo ---> JS	.465	.384	.100	3.838	***	Positive & Significant

Source: Computed from primary data; Note:***p-value<0.01

It can be seen from Table 5.34 that the Emotional Employee Engagement (Emo) dimension of EE has a positive and significant influence on the JS of contract workers;21% variance is explained by Emo. However, it is observed that Cognitive Employee Engagement (Cog)

and Physical Work Engagement (Phy) do not significantly influence JS. This result is consistent with the different definitions and perspectives of employee engagement, which identify "passion for work" as a significant component (Truss et al., 2006)

Table 5.35: Fit Indices for the structural model impacts of Dimensions of Employee Engagement on Job Satisfaction

Fit Index	CMIN/DF	GFI	AGFI	NFI	RFI	IFI	TLI	CFI	RMSEA
Model Fit Scores	2.021	.863	.833	.907	.895	.951	.944	.951	.061
Recommended value	≤3.00	≥ .8	≥ .8	≥ .9	≥ .9	≥ .8	≥ .8	≥ .9	≤ .08

Source: Computed from primary data

It is seen from Table 5.35 that all Fit indices of the model are in the acceptable range.

Hence Ho1(i)b stands rejected.

I Influence of dimensions of Employee Engagement on Treatment by Seniors (TbS) dimension of JS

Ho1(i)c: There is no significant influence of dimensions of Employee Engagement on dimensions of Job Satisfaction.

Figure 5.8: Structural Model for the Influence of dimensions of Employee Engagement (EE) on Job Satisfaction (JS) of Contract workers

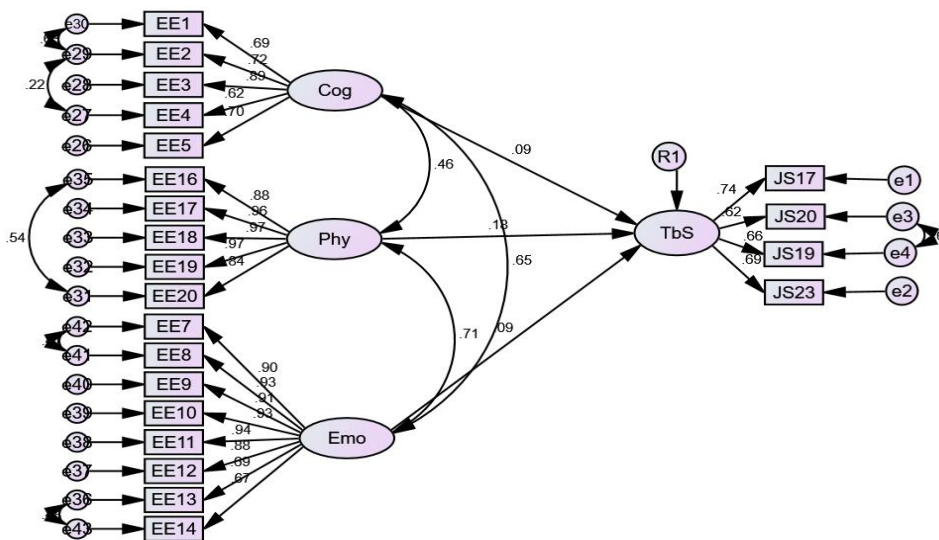


Figure 5.8 depicts the Structural Model for the influence of Employee Engagement (EE) dimensions on Contract workers' Job Satisfaction (JS).

Table 5.36: Structural Model Path Coefficients and its significance for the influence of dimensions of EE on the Treatment by Seniors (TbS) dimension of JS

Path	Std Estimates	Estimate	S.E.	C.R.	P	Significant/ Not Significant
Phy ---->TbS	0.178	0.173	0.095	1.807	0.071	Not Significant
Cog ---->TbS	0.089	0.108	0.12	0.9	0.368	Not Significant
Emo ---->TbS	0.09	0.075	0.099	0.757	0.449	Not Significant

Source: Computed from primary data

From Table 5.36, it is evident that the relation between TbS and Physical Employee Engagement (Phy) is found to be marginally significant ($P < .10$); hence it can be concluded that TbS marginally impacts the Phy dimension of EE. On the other hand, TbS does not influence the Cog and Emo dimensions of WE as $p > .05$. It indicates that engaged workers want effective communication with their leaders.

Table 5.37: Fit Indices for the structural model of the influence of dimensions of EE on TbS dimension of JS

Fit Index	CMIN/DF	GFI	AGFI	NFI	RFI	IFI	TLI	CFI	RMSEA
Model Fit Scores	1.917	.894	.864	.941	.931	.971	.966	.971	.057
Recommended value	≤ 3.00	$\geq .8$	$\geq .8$	$\geq .9$	$\geq .9$	$\geq .8$	$\geq .8$	$\geq .9$	$\leq .08$

Source: Computed from primary data

From Table 5.37, it is observed that all Fit indices of the model are in the acceptable range.

II Influence of dimensions of Employee Engagement on Treatment by Nature of Work (NW) dimension of Job Satisfaction (JS)

Figure 5.9 illustrates the Structural Model for the influence of Employee Engagement (EE) dimensions on the Job Nature of Work (NW) dimension of Contract workers' Job Satisfaction (JS).

Figure 5.9: Structural Model for the influence of dimensions of Employee Engagement (EE) on Nature of Work (NW) dimension of Satisfaction (JS) of Contract workers

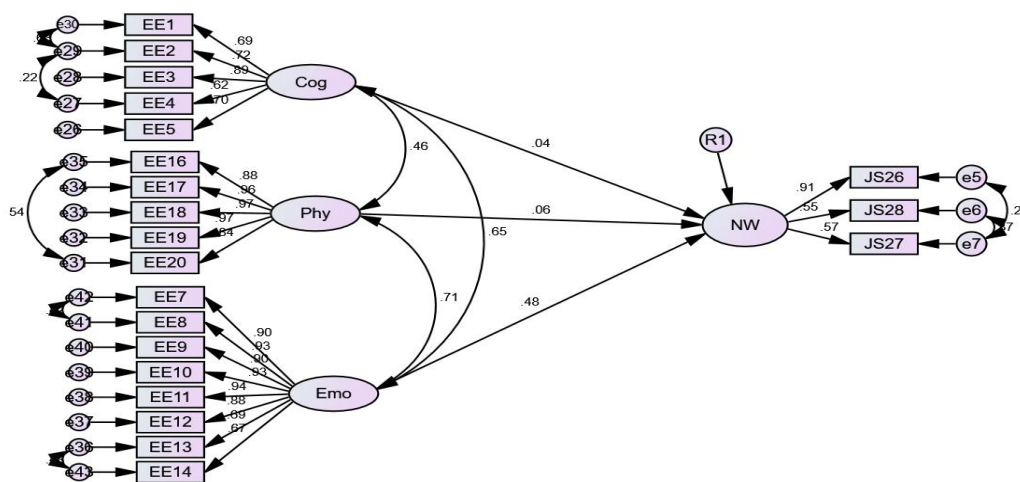


Table 5.38: Structural Model Path Coefficients and their Significance for the influence of dimensions of EE on the Nature of Work (NW) dimension of Job Satisfaction

Path	Std Estimates	Estimate	S.E	C.R	P	Significant/ Not Significant
Cog ---> NW	0.037	0.042	0.097	0.434	0.664	Not Significant
Phy ---> NW	0.056	0.051	0.077	0.663	0.507	Not Significant
Em---> NW	0.484	0.375	0.102	3.685	***	Positive & Significant

Source: Computed from primary data; Note: ***p-value<0.01

As seen from Table 5.38, since p -values in the above table are > .05, hence it is concluded that NW does not influence dimensions of Employee Engagement, i.e .Phy and Cog. On

the other hand, NW significantly influences the Physical Employee Engagement (Phy) dimension of EE, and NW explains 23% of the variance in Emotional engagement.

Table 5.39: Fit Indices for the structural model of the influence of dimensions of EE on NW dimension of JS

Fit Index	CMIN /DF	GFI	AGFI	NFI	RFI	IFI	TLI	CFI	RMSEA
Model Fit Scores	2.33	.885	.849	.936	.924	.963	.955	.962	.069
Recommended value	≤3.00	≥.8	≥.8	≥.9	≥.9	≥.8	≥.8	≥.9	≤.08

Source: Computed from primary data

It can be inferred from Table 5.39 that all Fit indices of the model are in the acceptable range.

III Influence of dimensions of Employee Engagement on Treatment by Salary (S) dimension of Job Satisfaction (JS)

Figure 5.10: Structural Model for the Influences of Dimensions of Employee Engagement (EE) on Salary (S) Dimension of Job Satisfaction (JS) of Contract Workers

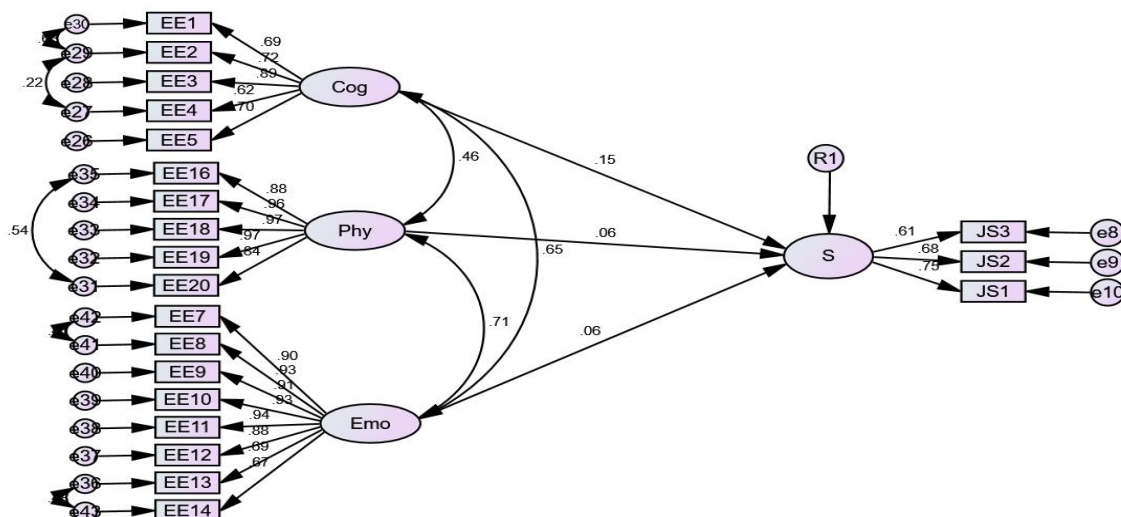


Figure 5.10 depicts the Structural Model for the influences of Employee Engagement (EE) dimensions on the Salary (S) dimension of Contract workers' Job Satisfaction (JS).

Table 5.40: Structural Model Path Coefficients and their significance for the influence of dimensions of WE on the Salary (S) dimension of Job Satisfaction

Path	Std Estimates	Estimate	S.E.	C.R.	P	Significant/ Not Significant
Cog ---> S	0.153	0.129	0.088	1.471	0.141	Not Significant
Phy ---> S	0.065	0.044	0.069	0.637	0.524	Not Significant
Emo----> S	0.057	0.033	0.071	0.458	0.647	Not Significant

Source: Computed from primary data

From Table 5.40, it is observed that all p values in the above table are greater than .05; hence, salary (S) does not significantly influence all three dimensions of EE.

Table 5.41: Fit Indices for the structural model of the influence of dimensions of EE on the dimension of JS

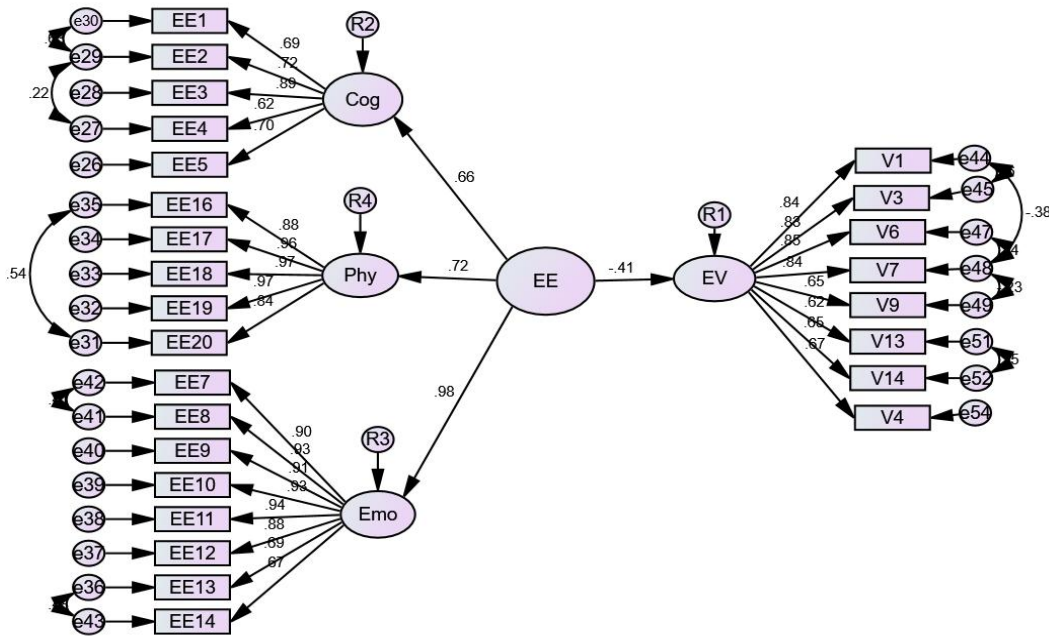
Fit Index	CMIN/DF	GFI	AGFI	NFI	RFI	IFI	TLI	CFI	RMSEA
Model Fit Scores	1.87	.902	.873	.946	.937	.974	.97	.974	.056
Recommended value	≤3.00	≥.8	≥.8	≥.9	≥.9	≥.8	≥.8	≥.9	≤.08

Source: Computed from primary data

It is evident from Table 5.41 that all Fit indices of the model are in the acceptable range. Therefore, it can be seen that dimensions of EE vary in their significance of influence and strength of influence in the relationship with dimensions of JS of residents. From the above model, it is also noticed that Emotional Employee Engagement has a strong influence over the dimensions of JS. Hence H1(i)c is rejected.

Ho 1(i) d: There is no significant relationship between Employee Engagement with the Employment Vulnerability of Contract Workers

Figure 5.11: Structural Model for the Influence of Employee Engagement (EE) on Employment Vulnerability (EV) of Contract Workers



The influence of Employee Engagement (EE) on the Employment Vulnerability (EV) of Contract employees is depicted in Figure 5.11.

Table 5.42: Structural Model Regression Path Coefficients for the influence of Work Engagement (WE) on Employment Vulnerability (EV) of Contract Workers

Relation	Std Estimates	Estimate	S.E.	C.R.	P	Significant/ Not Significant
EE ---> EV	-0.405	-.709	.131	-5.406	***	Negative & Significant

Source: Computed from primary data; Note: ***p-value<0.01

From Table 5.42, it is observed that the relationship between Employee Engagement (EE) and Employment Vulnerability (EV) is negative and significant at a 1 % level of

significance. Independent variable EE explains that 16.81% variance is Employment Vulnerability. Thus, we conclude that EE influences EV; hence Ho1(i)d is rejected.

Table 5.43: Fit Indices for the structural model impacts of EE on EV

Fit Index	CMIN/DF	GFI	AGFI	NFI	RFI	IFI	TLI	CFI	RMSEA
Model Fit Scores	2.027	.866	.835	.926	.916	.961	.956	.961	.061
Recommended value	≤3.00	≥.8	≥.8	≥.9	≥.9	≥.8	≥.8	≥.9	≤.08

Source: Computed from primary data

From Table 5.43, it is seen that all fit indices are in the acceptable range, and SEM can be used for testing of hypothesis.

Ho1(i)e: There is no significant influence of dimensions of Employee Engagement on Employment Vulnerability.

The following Figure 5.12, illustrates the Structural Model for the influence of Employee Engagement (EE) dimensions on the Employment Vulnerability (EV) of Contract employees.

Figure 5.12: Structural Model for the Influence of Dimensions of Employee Engagement (EE) on Employment Vulnerability (EV) of Contract Workers

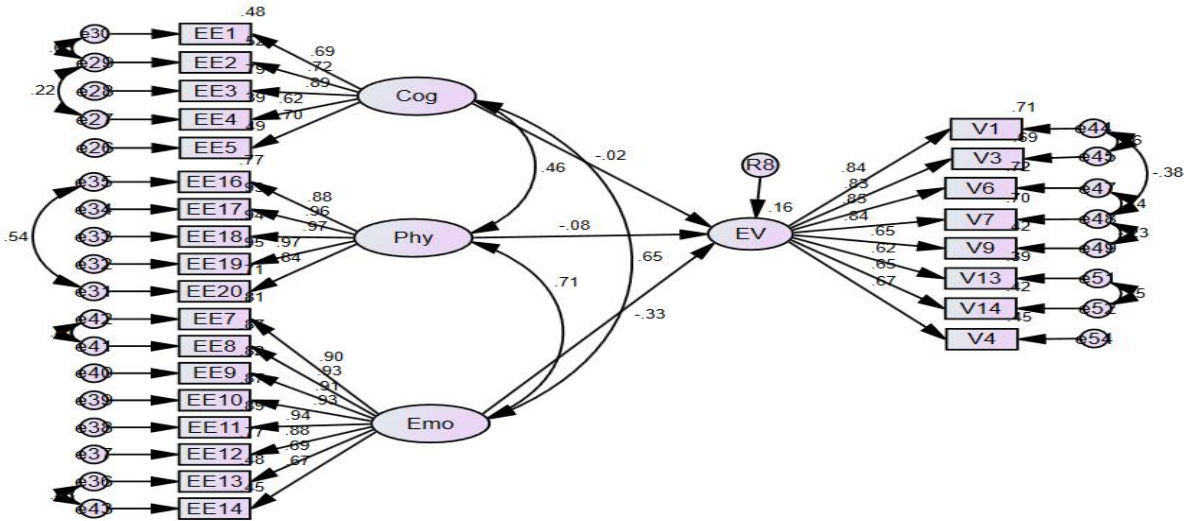


Table 5.44: Structural Model Regression Path Coefficients for Influence of Dimensions of Employee Engagement (EE) on Employment Vulnerability (EV)

Relation	Std Estimates	Estimate	S.E.	C.R.	P	Significant/ Not Significant
Cog ---> EV	-0.017	-0.043	0.215	-0.2	0.841	Not Significant
Phy ---> EV	-0.079	-0.159	0.171	-0.924	0.355	Not Significant
Emo ---> EV	-0.329	-0.565	0.185	-3.052	0.002	Negative & Significant

Source: Computed from primary data; Note:***p-value<0.01

As is observed from Table 5.44, two dimensions of EE, i.e., Cognitive Work Engagement (Cog) and Physical Employee Engagement (Phy), have no significant influence on the Vulnerability (EV) of contract workers. The third dimension of EE, i.e., Emotional Employee Engagement, significantly and negatively influences the Employment Vulnerability of contract workers as $p < .01$. Hence $H_01(i)$ is rejected. It can be interpreted that if a worker is emotionally engaged in his/her work, he/she is likely to feel less vulnerable.

Table 5.45: Fit Indices for the structural model of impacts of dimensions of EE on EV

Fit Index	CMIN/DF	GFI	AGFI	NFI	RFI	IFI	TLI	CFI	RMSEA
Model Fit Scores	2.039	0.867	0.835	0.926	0.916	0.961	0.955	0.961	0.061
Recommended value	≤ 3.00	$\geq .8$	$\geq .8$	$\geq .9$	$\geq .9$	$\geq .8$	$\geq .8$	$\geq .9$	$\leq .08$

Source: Computed from primary data

It is seen from Table 5.45 that all fit indices are in the acceptable range, and SEM can be performed.

Ho1(i)f: There is no significant influence of Employment Vulnerability on Job Satisfaction.

The following Figure 5.13 , portrays the Structural Model for the relationship between Employment Vulnerability (EV) and Job Satisfaction (JS) of Contract employees.

Figure 5.13: Structural Model for the Influence of Employment Vulnerability (EV) on Job Satisfaction (JS) of Contract Workers

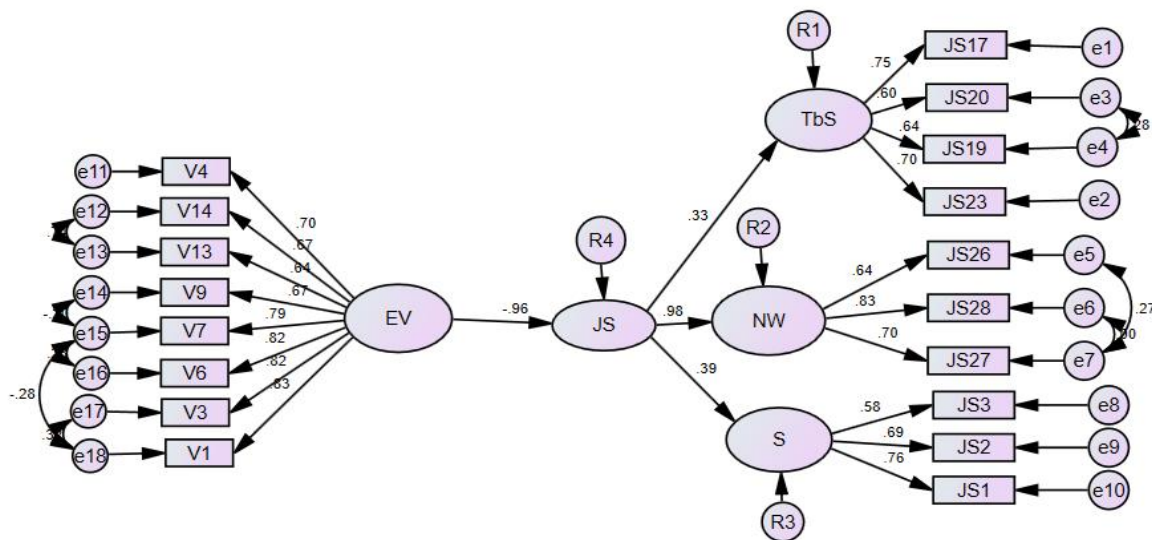


Table 5.46: Structural Model Regression Path Coefficients for Employment Vulnerability (EV) on Job Satisfaction (JS)

Path	Std Estimates	Estimate	S.E.	C.R.	P	Significant/ Not Significant
EV ---> JS	-0.96	-.613	.053	-11.559	***	Negative & Significant

Source: Computed from primary data; Note: ***p-value<0.01

As can be observed from Table 5.46 that the relationship between Employment Vulnerability (EV) and Job Satisfaction (JS) is negative and significant at a 1 % level of significance. Independent variable EV explains that 92% variance is JS. Thus, we conclude that EV influences JS. Meaningful and motivating work, and a secure workplace are vital for the workers. Hence, Ho1(i)f is rejected.

Table 5.47: Fit Indices for the structural model of the influence of EV on JS

Fit Index	CMIN/DF	GFI	AGFI	NFI	RFI	IFI	TLI	CFI	RMSEA
Model Fit Scores	3.510	.863	.811	.855	.822	.892	.866	.901	.095
Recommended value	≤3.00	≥.8	≥.8	≥.9	≥.9	≥.8	≥.8	≥.9	≤.08

Source: Computed from primary data

From Table 5.47, it can be seen that all fit indices are in the acceptable range, and SEM can be performed.

Ho1(i) g: There is no significant influence of Employment Vulnerability on the dimensions of Job Satisfaction.

I Influence of Employment Vulnerability on Treatment by Seniors (TbS) dimension of Job Satisfaction.

Figure 5.14: Structural Model for the Influence of Employment Vulnerability (EV) on TbS Dimension of Job Satisfaction (JS) of Contract Workers

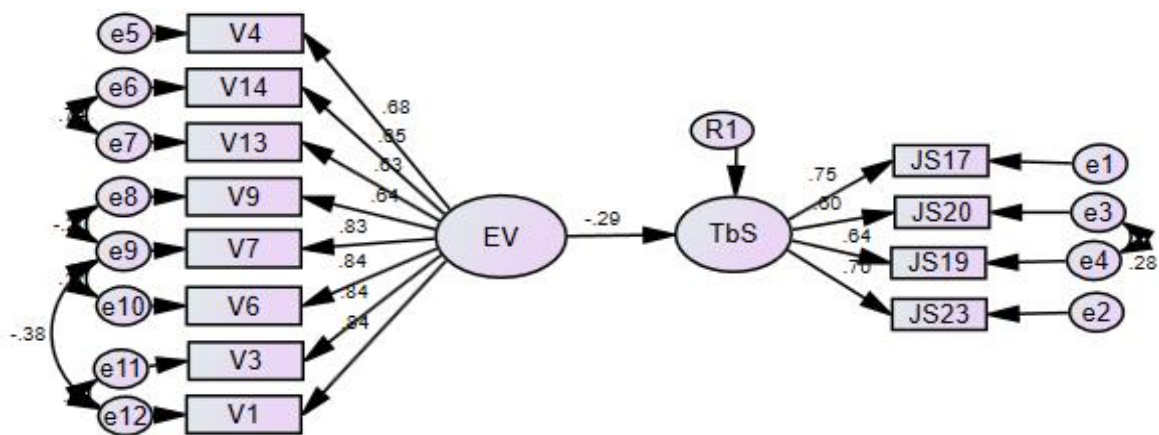


Figure 5.14 displays the Structural Model for the impact of Employment Vulnerability (EV) on the TbS dimension of Job Satisfaction (JS) among Contract employees.

Table 5.48: Structural Model Regression Path Coefficients for the influence of Employment Vulnerability (EV) on the dimension of Job Satisfaction (JS), Treatment by Superiors/Seniors (TbS)

Path	Std Estimates	Estimate	S.E.	C.R.	P	Significant/ Not Significant
EV --->TbS	-0.294	-.143	.036	-3.969	***	Negative & Significant

Source: Computed from primary data; Note: ***p-value<0.01

It is seen from Table 5.48 that $p < .01$; hence, we conclude that EV negatively significantly influences the TbS dimension of Job Satisfaction of workers and EV explains 8% variance in the TbS.

Table 5.49: Fit Indices for the structural model impacts of EV on TbS dimension of JS

Fit Index	CMIN/DF	GFI	AGFI	NFI	RFI	IFI	TLI	CFI	RM SEA
Model Fit Scores	2.301	.942	.904	.945	.923	.968	.955	.968	.068
Recommended value	≤ 3.00	$\geq .8$	$\geq .8$	$\geq .9$	$\geq .9$	$\geq .8$	$\geq .8$	$\geq .9$	$\leq .08$

Source: Computed from primary data

All fit indices are in the acceptable range, and SEM can be performed, as is evident from Table 5.49.

II Influence of Employment Vulnerability on the Nature of Work (NW) dimension of Job Satisfaction (JS)

Figure 5.15: Structural Model for the Influence of Employment Vulnerability (EV) on NW Dimension of Job Satisfaction (JS) of Contract Workers

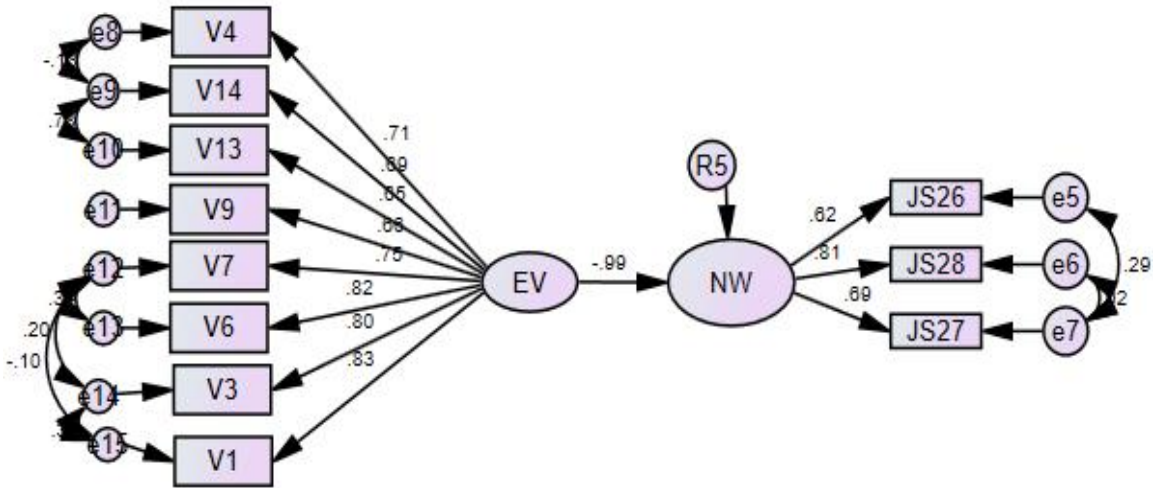


Figure 5.15 illustrates the Structural Model for the impact of Employment Vulnerability (EV) on the NW dimension of Job Satisfaction (JS) among Contract workers.

Table 5.50: Structural Model Regression Path Coefficients for Employment Vulnerability (EV) on the dimension of Job Satisfaction (JS) - Nature of Work (NW)

Path	Std Estimates	Estimate	S.E.	C.R.	P	Significant/ Not Significant
E V ---> NW	-.988	-.609	.050	-12.137	***	Negative & Significant

Source: Computed from primary data; Note: ***p-value<0.01

According to Table 5.50, a high degree of negative and significant relation is noticed between Employment Vulnerability and the Nature of Work (NW) dimension of JS. Employment Vulnerability explains 97% variance in NW. In other words, as Employment Vulnerability increases, Job Satisfaction related to the nature of work reduces.

Table 5.51: Fit Indices for the structural model impacts of EV on the NW dimension of JS

Fit Index	CMIN/DF	GFI	AGFI	NFI	RFI	IFI	TLI	CFI	RMSEA
Model Fit Scores	4.91	.897	.812	.912	.866	.927	.888	.927	.0791
Recommended value	≤3.00	≥.8	≥.8	≥.9	≥.9	≥.8	≥.8	≥.9	≤.08

Source: Computed from primary data

From Table 5.51, it may be observed that all fit indices are in the acceptable range, and SEM can be performed.

III Influence of Employment Vulnerability (EV) on Salary (S) Dimension of Job Satisfaction (JS) of Contract Workers.

Figure 5.16: Structural Model for the Influence of Employment Vulnerability (EV) on Salary (S) Dimension of Job Satisfaction (JS) of Contract Workers

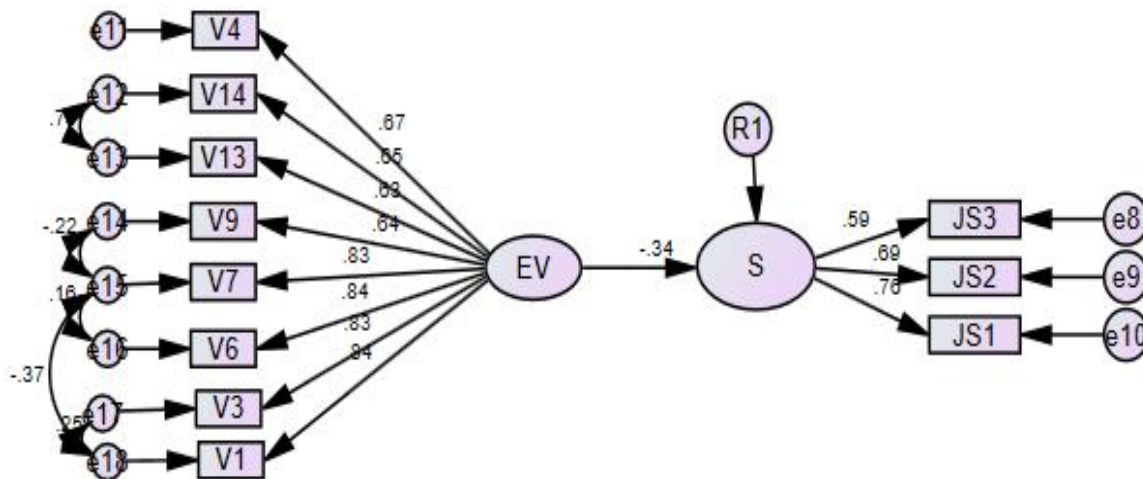


Figure 5.16 depicts the Structural Model for the influence of Employment Vulnerability (EV) on the Salary (S) dimension of Contract workers' Job Satisfaction (JS).

Table 5.52: Structural Model Regression Path Coefficients for Employment Vulnerability (EV) on the dimension of Job Satisfaction (JS), Salary (S)

Path	Std Estimates	Estimate	S.E.	C.R.	P	Significant/ Not Significant
EV---> S	-.339	-.109	.026	-4.195	***	Negative & Significant

Source: Computed from primary data; Note: ***p-value<0.01

From Table 5.52, it is seen that $p < .01$; hence we conclude that employment vulnerability significantly influences the Salary (S) dimension of Job Satisfaction of the contract workers, but the influence is negative. Employment vulnerability explains an 11.4 % variance in the S. Hence, sub null hypothesis $H_{01(i)g}$ stands rejected.

Table 5.53: Fit Indices for the structural model impacts of EV on the dimension of JS

Fit Index	CMIN/DF	GFI	AGFI	NFI	RFI	IFI	TLI	CFI	RMSEA
Model Fit Scores	2.601	.941	.898	.945	.921	.966	.950	.965	.076
Recommended value	≤3.00	≥.8	≥.8	≥.9	≥.9	≥.8	≥.8	≥.9	≤.08

Source: Computed from primary data

Table 5.53 shows that all fit indices are in the acceptable range, and SEM can be performed.

5.4.2 Testing of hypothesis $H_{01(ii)}$, the statistical results, interpretation

5.4.2.1 MEDIATION

Mediation is most effective when the relationship between the independent variable and the outcome variable is strong. According to Hayes (2009), the indirect effect measures the variation in Y traceable to a one-unit transformation in X through the effect of X upon M and that in turn affects Y, and is used to statistically assess the mediation hypothesis. To study the mediating effect, Baron and Kenny (1986) state that three requirements must be

satisfied for it to be established. First, the independent variable (employee engagement) must relate to the mediator (employment vulnerability). Second, the relationship between the mediator (employment vulnerability) and the dependent variable (job satisfaction) must exist. Third, when controlling for the mediator, a significant association between an independent variable and a dependent variable will be reduced (partial mediation) or eliminated (full mediation) (employment vulnerability). The aforementioned conditions, one and two, are satisfied. For the third requirement, Employee Engagement must be connected to Job Satisfaction. This condition too is satisfied.

Ho1 (ii): Employment Vulnerability does not significantly mediate the relationship between Employee Engagement and Job Satisfaction.

Figure 5.17: Structural Model for the mediating influence of Employment Vulnerability (EV) on the relationship between Employee Engagement and Job Satisfaction (JS) of Contract workers

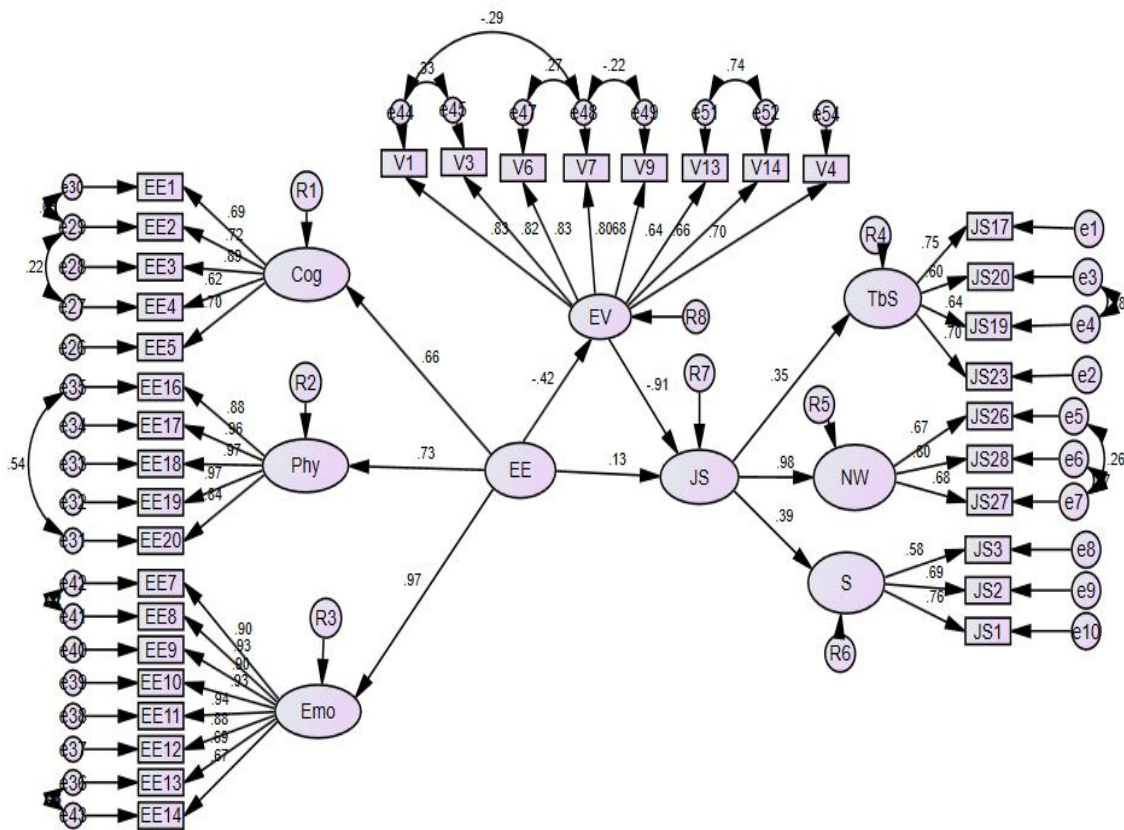


Figure 5.17 shows the mediating influence of employment vulnerability on the relationship between Employee Engagement and Job Satisfaction.

Table 5.54: Structural Model Regression Path Coefficients of mediation effect of EV on the relationship between EE and JS

Relation	Std Estimates	Estimate	S.E.	C.R.	P	Significant/ Not Significant
Employee Engagement (EE) ----> Job Satisfaction (JS)(W/o Mediating variable) Total Effect	.596	.479	.084	5.738	***	Significant
Employee Engagement (EE) ----> Employment Vulnerability (EV)	-.416	-1.180	.206	-5.734	***	Significant
Employment Vulnerability (EV)----> Job Satisfaction (JS)	-.909	-.569	.053	-10.755	***	Significant
Employee Engagement (EE) ----> Job Satisfaction (JS)(With Mediating Variable) Direct Effect	.134	.237	.089	2.679	.007	Significant
Employee Engagement (EE) ----> Job Satisfaction (JS)(Indirect effect)	.378				.003	Significant

Source: Computed from primary data; Note: ***p-value<0.01

Hence from Table 5.54, it is noticed that the effect of EE on JS is reduced from .596 to .134, indicating the influence of the mediating factor. In the presence of Employment Vulnerability, the indirect effect is .378 and is statistically significant. Thus, we conclude that Employment Vulnerability partially mediates the relation between EE and JS. Hence, null hypothesis Ho1(ii) is rejected.

Table 5.55: Fit Indices for the structural model impacts of Employment Vulnerability on the relationship between Employee Engagement and Job Satisfaction (JS) of Contract Workers

Fit Index	CMI N/DF	GFI	AG FI	NFI	RF I	IFI	TLI	C FI	RM SEA
Model Fit Scores	2.425	.797	.764	.857	.843	.911	.901	.910	.072
Recommended value	≤3.00	≥.8	≥.8	≥.9	≥.9	≥.8	≥.8	≥.9	≤.08

Source: Computed from primary data

The overall result shown in Table 5.55 confirms the prominent influence of vulnerability at work in the relationship between employee engagement and job satisfaction of the workers, but the influence is partial in nature. It represents that besides employment vulnerability, other variables also cast their impact on this relationship.

5.4.3 Testing of hypothesis Ho1(iii), the statistical results, interpretation

5.4.3.1 MODERATION

Ho1(iii) Gender, job type, and educational level do not significantly moderate the mediating role of employment vulnerability on the relationship between employee engagement and job satisfaction of contract workers in manufacturing units.

The hypothesis is further divided into sub hypotheses to study the individual relationship between the constructs in the following manner:

Ho1(iii)a: Gender does not significantly moderate the mediating role of Employment Vulnerability on the relationship between Employee Engagement and Job Satisfaction of Contract Workers.

Typically, moderator variables are used when the relationship between a predictor and a dependent variable is particularly weak or irregular (e.g., a relation stands strong in one situation but not in another one).

A moderator is a quantitative or qualitative variable that modifies the direction or intensity of the relationship between an independent variable and a dependent variable.

(A) Moderation: Gender

Table 5.56: Moderating Effect of Gender on the Relationship of EE and JS

	Male		Female		Test stat
	Std Effect	p	Std Effect	p	
Employee Engagement (EE) ----> Job Satisfaction (JS) (W/o Mediating variable) Total Effect	.555	.000***	.389	.013**	
Employee Engagement (EE) ----> Job Satisfaction (JS) Indirect Effect	.396	.015**	.004	.974	Z =.928, p> .05
Employee Engagement (EE) ----> Job Satisfaction (JS) (With Mediating variable) Direct Effect	.159	.005***	.384	.010**	

Source: Computed from primary data; Notes: ***p-value<0.01, **p-value<0.05

From Table 5.56, it can be observed that, in the case of Male Workers, the direct influence remains statistically significant even after introducing vulnerability as a mediating variable. It shows that Employment Vulnerability partially mediates the relationship between Employee Engagement and Job Satisfaction for Male Contract Workers. Therefore, it can be concluded that Employment Vulnerability mediates the relationship between EE and JS for Male contract workers.

For Female contract workers, it is observed that the indirect effect between WE and JS is not significant. Therefore, it can be concluded that Employment Vulnerability does not mediate the relationship between EE and JS for Female workers.

Z-test statistics are statistically insignificant, which indicates that Gender does not moderate the mediating effect of Employment Vulnerability on the relationship between Employee Engagement and Job Satisfaction. Hence, we fail to reject the null hypothesis - Ho1(iii) a.

(B) Moderation: Job Type

Ho1(iii)b: Job type does not significantly moderate the mediating role of Employment Vulnerability on the relationship between Employee Engagement and Job Satisfaction of Contract Workers.

Table 5.57: Moderating Effect of Job Type on the Relationship between EE and JS

		Std effect	P value	Significant / Not Significant	Mediation
Employee Engagement (EE) ----> Job Satisfaction (JS) (W/o Mediating variable) Employee Engagement (EE) ----> Job Satisfaction (JS) (W/o Mediating variable) Total Effect	Technician	0.505	0.005***	Significant	-
	Plant & Machinery Operator	0.445	0.026**	Significant	-
	Assembly worker	0.457	0.009***	Significant	-
	Packaging	0.552	0.01**	Significant	-
	Supervisor	0.386	0.097*	Not Significant	-
	Helper & Loader	0.594	0.02**	Significant	-
Employee Engagement (EE) ----> Job Satisfaction (JS) Indirect Effect Indirect	Technician	0.302	0.011**	Significant	Partial
	Plant & Machinery Operator	0.283	0.03**	Significant	Partial
	Assembly worker	0.247	0.077*	Significant (at 10%)	

					No Mediation
	Packaging	0.299	0.006***	Significant	Partial
	Supervisor	0.231	0.0186**	Significant	Full
	Helper & Loader	0.454	0.009***	Significant	Partial
Employee Engagement (WE) ----> Job Satisfaction (JS) (With Mediating variable) Direct Effect	Technician	0.203	0.008***	Significant	-
	Plant & Machinery Operator	0.162	0.019**	Significant	-
	Assembly worker	0.21	0.009***	Significant	-
	Packaging	0.253	0.009***	Significant	-
	Supervisor	0.155	0.139	Not Significant	-
	Helper & Loader	.140.	0.012**	Significant	-

Source: Computed from primary data;

Notes: ***p-value<0.01, **p-value<0.05, *p-value<0.10

Table 5.57 shows the test result of Moderating Effect of Job Type on the relationship between EE and JS. In the case of Technician, Plant & Machinery Operator, Assembly worker, Packaging and Helper & Loader workers, it is observed that the direct effect remains statistically significant even after introducing employment vulnerability as a mediating variable.

In the case of Technician, the direct effect drops from 0.505 to 0.203 after the introduction of EV as the mediating variable and is significant. This indicates that the relationship between EE and JS is explained to some extent by EV (partial mediation). The indirect effect of 0.302 is significant at a 5% significance level. It can be concluded that Job Type partially mediates the relationship between EE and JS in the case of Technicians at a 5% significance level. This could be attributed to the fact that the Technicians must compete for jobs and constantly perform to their optimal level for better job prospects.

As far as Plant & Machinery Operator is concerned, the direct effect drops from 0.445 to 0.162 after the introduction of EV as the mediating variable and is significant. This indicates that the relationship between EE and JS is explained to some extent by EV (partial mediation). The indirect effect of 0.283 is significant at a 5% level of significance. It can be concluded that Job Type partially mediates the relationship between EE and JS in the case of Plant & Machinery Operators at a 5% level of significance. They work in a precarious kind of work generally.

In the case of Helpers & Loaders, the direct effect drops from 0.594 to 0.140 after the introduction of EV as the mediating variable and is significant. This indicates that the relationship between EE and JS is explained to some extent by EV (partial mediation).

The indirect effect of 0.454 is significant at a 5% level of significance. It can be concluded that Job Type partially mediates the relationship between EE and JS in the case of Helpers & Loaders at a 5% significance level. The workers under this category are the least educated, and they are employed in a physically demanding job. The feeling of vulnerability related to work is higher. Subsequently, it casts a mediating impact on the relationship between EE and JS. Hence, it is concluded that Employment Vulnerability partially mediates the relationship between Employee Engagement and Job Satisfaction for these job types of Contract workers. In the case of Assembly workers, since the p-value is 0.077, no mediation is observed at a 5% level of significance.

In the case of Assembly workers, the Indirect effect between EE and JS is significant at 10%. It is concluded that Job Type does not mediate the relationship between EE and JS in the

case of Assembly workers. The job of an Assembly worker does not require high skills, and the work environment is less stressful.

In the case of Supervisors, the Indirect effect between EE and JS is significant. A full mediation effect is observed in the case of Supervisors. It is concluded that Job Type mediates the relationship between EE and JS in the case of Supervisor and is statistically significant at a 5% significance level. Supervisors are generally with more work experience; therefore, the feeling of vulnerability is lesser.

Table 5.58: Moderation Test Statistics (Pairwise Z test results)

Z test Statistics	Plant & Machinery	Assembly	Packaging	Supervisor	Helper & Loader
Technician with -→	Z= 1.19, p > .05	Z= 0.36 p > .05	Z= -0.26 p > .05	Z=1.19, p > .05	Z=1.29, P > .05
Significant / Not Significant	Not Significant	Not Significant	Not Significant	Not Significant	Not Significant
Plant & Machinery with -→		Z= -0.82, p > .05	Z= -1.83, p >.05	Z= 0.10, p > .05	Z= 0.45, p >.05
Significant / Not Significant		Not Significant	Not Significant	Not Significant	Not Significant
Assembly with -→			Z= -0.69, p > .05	Z= 1.00, p > .05	Z= 1.00, p > .05
Significant / Not Significant			Not Significant	Not Significant	Not Significant
Packaging with -→				Z= 1.37, p > .05	Z= 1.68, p >.05

Significant / Not Significant				Not Significant	Not Significant
Supervisor with -→					Z= -0.37, p > .05
Significant / Not Significant					Not Significant

Source: Computed from primary data

Notes: ***p-value<0.01, **p-value<0.05, *p-value<0.10

In Table 5.58, the pairwise Z test is shown, and all p -values are greater than .05; hence, it is concluded that Job type does not moderate the mediating effect of Employment Vulnerability on the relationship between Employee Engagement and Job Satisfaction. Hence, we fail to reject the null hypothesis. Ho1(iii) b .

(C) Moderation: Educational level

Ho1(iii)c: Educational level does not moderates the mediating effect of Employment Vulnerability on the relationship between Employee Engagement and Job Satisfaction of contract workers.

Table 5.59: Moderating Effect of Educational Level on the Relationship of EE and JS

Path	Educational level	Std Effect	P Value	Significant / Not Significant	Mediation
Employee Engagement (WE) ----> Job Satisfaction (JS) (W/o Mediating	Illiterate & elementary	0.157	0.295	Not Significant	-
	SSC	0.627	0.01**	Significant	-

variable) Employee Engagement (WE) ---- > Job Satisfaction (JS) (W/o Mediating variable) Total	HSSC	0.569	0.009***	Significant	-
	Graduate & Diploma	0.63	0.011**	Significant	-
Employee Engagement (WE) ---- > Job Satisfaction (JS) Indirect Effect Indirect	Illiterate & elementary	0.035	0.862	Not Significant	No mediation
	SSC	0.515	0.012**	Significant	Partial
	HSSC	0.368	0.006***	Significant	Partial
	Graduate & Diploma	0.41	0.012**	Significant	Partial
Employee Engagement (WE) ---- > Job Satisfaction (JS) (With Mediating variable) Direct Effect Direct	Illiterate & elementary	0.122	0.012**	Significant	-
	SSC	0.112	0.009***	Significant	-
	HSSC	0.2	0.023**	Significant	-
	Graduate & Diploma	0.219	0.006***	Significant	-

Source: Computed from primary data

Notes: ***p-value<0.01, **p-value<0.05, *p-value<0.10

As can be observed from Table 5.59, in the case of workers educated up to SSC, HSSC, and Graduate & Diplomas, it is observed that the direct effect remains statistically significant even after introducing employment vulnerability as a mediating variable. It

shows that Employment Vulnerability partially mediates the relationship between Employee Engagement and Job Satisfaction for this educational level category of Contract workers. In the case of the Illiterate &Elementary category, there is no evidence of mediation.

Table 5.60: Moderation Test Statistics (Pairwise Z test results)

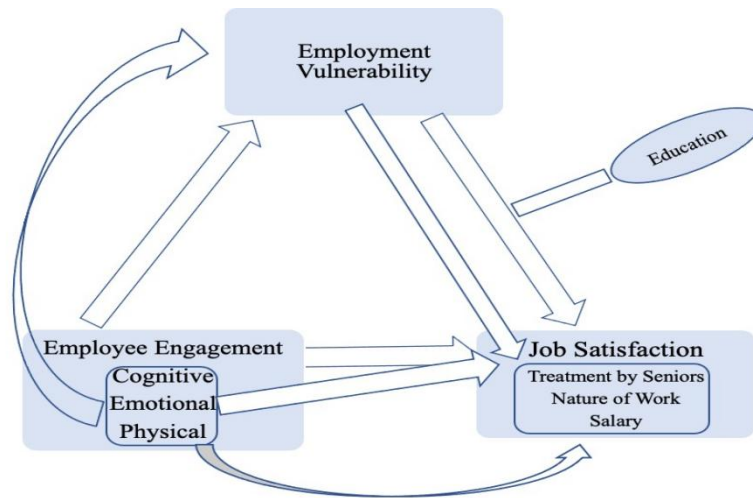
	Illiterate & elementary	SSC	HSSC	Graduate & Diploma
Illiterate & elementary		Z=0.766, p >.05	Z=2.691, p< .05	Z=3.007, p< .05
Significant / Not Significant		Not Significant	Significant	Significant
SSC			Z=2.193, p< .05	Z=2.279, p < .05
Significant / Not Significant			Significant	Significant
HSSC				Z=-0.609, p > .05
Significant / Not Significant				Not Significant

Source: Computed from primary data; Notes: ***p-value<0.01, **p-value<0.05,

*p-value<0.10

From Table 5.60, it can be observed that the Pairwise Z test statistics are statistically significant for four pairs, namely i) Illiterate & Elementary and HSSC ii) Illiterate & Elementary and Graduate & Diploma iii) SSC and Graduate & Diploma iv) SSC and HSSC. Hence, Ho1(iii) c is rejected, and it is concluded that educational level of Contract workers moderates the mediating effect of Employment Vulnerability on the relationship between Employee Engagement and Job Satisfaction.

Figure 5.18: Revised Final Model Of The Study On Contract Labourers



5.5 CONCLUSION

This research investigates the factor validity of a novel instrument for measuring contract employees' engagement, job satisfaction, and employment vulnerability. It is found that contract workers' job satisfaction was positively correlated with their levels of employee engagement. At the same time, the reverse is true for the relationships between employment vulnerability, and job satisfaction. This research identifies the relationship of these constructs with each other, which results in four findings. First, the level of employee engagement is positively linked to the job satisfaction level of contract labourers in the manufacturing sector. Second, there is a difference in the strength of significance. The emotional dimension of engagement level plays a significant role in influencing the job satisfaction level of the workers. This is an important aspect for an enterprise's human resource management team to focus on for a better job satisfaction level of the workers. Third, besides employment vulnerability, other factors influence the relationship between employee engagement and job satisfaction of the labourers employed through a contractor. Fourth, the educational level of the workers is a crucial moderator in the mediating effect of employee engagement and job satisfaction. Based on cross-sectional research approach, this study estimates a structural equation model in which employment vulnerability mediates the links between employee engagement and job satisfaction among contract employees. In doing so, it establishes the discriminant validity of employee engagement, work satisfaction, and employment vulnerability. It provides data that challenges the

existing understanding of the temporal link between the categories. The resultant evidence for the mediating function of employment vulnerability has the potential to further discussions about the links between employee engagement, job satisfaction, and employment vulnerability. It is concluded that a greater comprehension of employee engagement, job satisfaction, employment vulnerability, and their interrelationships can lead to the identification of more effective strategies for engaging contract employees, not only in the manufacturing industry, but possibly in other industries.

CHAPTER VI

INFLUENCE OF GENDER, JOB TYPE, EDUCATION ON THE LEVEL OF EMPLOYMENT VULNERABILITY, EMPLOYEE ENGAGEMENT AND JOB SATISFACTION OF CONTRACT WORKERS

6.1 INTRODUCTION

Contract employees in the manufacturing sector are economically disadvantaged. This group continues to perform from menial to skilled tasks in industries but lacks access to a significant portion of the wage or pay structure, benefits, and social security offered to regular industry workers. A majority of this group is deployed seasonally or periodically based on industry demand. Even though they might have worked in similar positions or industries for several years, possibly with lapses, but there has been no substantial increase in benefits relative to regular employees. Their seasonal employment and lower wages have continued to exacerbate social tension. The contract labour population mainly consists of migrant workers. The percentage of employees in poverty is strongly related to the percentage of employees in vulnerable employment. As a result of their migrant status, discriminatory labour regulations, and ambiguous employment relationships, contract workers are more likely to be employed in precarious jobs. There is currently no gender wise data on contract labourers in vulnerable employment. In the International Labour Organisation's statistics on International Labour Migration, vulnerable employment is not included. There is an absence of clear information about the proportion of workers suffering from employment vulnerability even in the database of the International Labour Organisation. As a result, the researcher acquired information from the contract workers' self-reports based on the idea of job related risk.

Employee engagement is classified by Kahn (1990) as the extent to which a person exhibits self-preference in duties at work to foster linkages among self and job, which may enhance performance in a position through psychological, mental, and muscular self-investment.

The attitudes and feelings individuals have about their jobs are known as their job satisfaction. This shows that favourable attitudes and positive attitudes imply job satisfaction whereas unfavourable attitudes and negative attitudes indicate job discontent. The level of happiness that a person experiences at work is determined by how emotionally they feel about it and how it compares to their expectations. Bocquier, Nordman and Vescovo (2010) define employment vulnerability as unfavourable conditions at work evaluated in terms of the individual's place of employment. Precarious employment exposes individuals to persistent destitution and injustice due to a power imbalance between employer and employee.

Human resources management aimed at enhancing work happiness has attracted a rising amount of professional and academic attention. Scholars have explored the effect of job satisfaction on corporate success. Albrecht & Anglim (2018) examine how job features affect workers' emotional well-being and participation in fly-in-fly-out work practises and highlight the significance of managing the day-to-day work demands.

There is a lack of studies on the link between gender and job satisfaction, and there are no consistent empirical results concerning the gender effect on work satisfaction (Ellickson & Logsdon, 2001; Sloane & Williams, 2000). This study targets filling this lacuna in the literature.

Researchers have paid very little attention to concerns of gender diversity in organisations as a whole (Dwyer, Richard & Chadwick, 2003). Gender composition has been urged for greater study at the organisational level. Despite this, there has been little research on how gender composition affects employee engagement.

Using empirical information from contract labourers from listed firms in Goa, this study is a methodical and scientific effort to resolve the identified research gaps in the existing literature about employee engagement, job satisfaction, and employment vulnerability among contract workers. This research investigates the influence of job type, educational level, and gender on employment vulnerability, job satisfaction, and employee engagement of contract workers. Based on theoretical and empirical accounts, a set of hypotheses was developed and tested using data gathered from 580 labourers. A total of three main hypotheses are examined in a natural context as part of a cross-sectional study with little researcher intervention.

6.2 PSYCHOLOGICAL ASPECTS OF THE STUDY

In this study, an attempt has been made to measure employment vulnerability, employee engagement and job satisfaction of contract workers from a self-designed instrument. Level of employment vulnerability, employee engagement, and job satisfaction is based on a score range of instruments. Based on their scores, respondents are classified into three groups: Low, Moderate, and High.

Table 6.1: Criteria for classification of Employment Vulnerability

Sr. No	Scale	Score Value	Classification	Count (%)
1	Employment vulnerability	8-24	Low	283 (48.9)
		24-40	Moderate	172 (29.7)
		40-56	High	124 (21.4)

Source: Computed from primary data; Note: Percentage is in parentheses

As is observed from Table 6.1, the workers whose scores are below 24 are Low, those above 24 & below 40 are Moderate and those above 40 are at a high level of vulnerability. It is noticed from the scores of contract workers that 48.9% of the contract workers are classified as Low vulnerability, 29.7% are Moderately vulnerable, and 21.4% are highly vulnerable. The 48.9% of workers include 130 workers from Packaging, 71 assembly, 20 Technicians, 19 Plant & Machinery operators, 28 Supervisors, 15 Helpers & Loaders. 29.7% of workers include 13 workers from Packaging, 24 Assembly workers, 63 Technicians, 30 Plant & Machinery operators, 6 Supervisors, 36 Helpers & Loaders. In 21.4%, workers are included in a high level of vulnerability as their scores are between 40-56. The workers include 19 Technicians, 86 Plant & Machinery operators, 6 Assembly workers, and 13 Helpers & Loaders. From the above classification, it is very clear that jobs that put more mental and physical pressure are making workers more vulnerable.

Table 6.2: Criteria for the Classification of Employee Engagement

Sr. No	Scale	Score Value	Classification	Count (%)
2	Emotional Employee Engagement	8-24	Low	45 (7.8)
		24-40	Moderate	246 (42.5)
		40-56	High	288 (49.7)
	Physical Employee Engagement	6-18	Low	32 (5.5)
		18-30	Moderate	179 (30.9)
		30-42	High	368 (63.6)
	Cognitive Employee Engagement	5-15	Low	27 (4.7)
		15-25	Moderate	388 (67)
		25-35	High	164 (28.3)
	Employee Engagement	33-57	Low	32 (5.5)
		57-95	Moderate	346 (59.8)
		95-133	High	201 (34.7)

Source: Computed from primary data; Note: Percentage is in parentheses

As it can be inferred from Table 6.2, in the case of employee engagement, it is noticed that 59.8 % of workers are moderately engaged in their work, 34.7 % of workers are highly engaged, and just 5.5% are with low engagement level.

Table 6.3: Criteria for the Classification of Job Satisfaction

Sr. No	Scale	Score Value	Classification	Count (%)
3	Treatment by Seniors –Job Satisfaction	4-12	Low	4 (0.7)
		12-20	Moderate	142 (24.5)
		20-28	High	433 (74.8)
	Nature of Work Job Satisfaction	3-9	Low	113 (19.5)
		9-15	Moderate	227 (39.2)
		15-21	High	239 (41.3)
	Salary Job Satisfaction	3-9	Low	450 (77.7)
		9-15	Moderate	122 (21.1)
		15-21	High	7 (1.2)
	Job Satisfaction	10-30	Low	41 (7.1)
		30-50	Moderate	504 (87)
		50-70	High	34 (5.9)

Source: Computed from primary data; Note: Percentage is in parentheses

As is seen from Table 6.3, 87% of workers are moderately satisfied with their job. It is also noted that 77.7% of workers are not satisfied with their current salary. 74.8% of workers are highly satisfied with the treatment received from Seniors at the workplace. The proportion of workers' satisfaction with respect to the Nature of work is 41.3%,39.2%, and 19.5% for High, moderate & low levels, respectively.

6.3 NORMALITY OF DATA

Multivariate Analysis of Variance (MANOVA) can detect patterns between multiple dependent variables. This study attempts to explore the differences across gender, job type, educational qualification of workers and employment vulnerability, job satisfaction & employee engagement through MANOVA test. Since the sample size is too large and the Kolmogorov-Smirnov test is very sensitive to the sample, the evaluation of univariate normality is carried out by using Skewness and Kurtosis at every level of the independent variable of each dependent variable. It was noticed that data was approximately normally distributed as values of Skewness and Kurtosis were in acceptable ranges. Before conducting MANOVA, the following aspects have been verified:

1. Multivariate Normality - Within each category of the factor variable, response values are multivariate and distributed normally. MANOVA is well-known for resisting deviations from multivariate normality; therefore, modest to moderate deviations usually do not create difficulties.
2. Independence - Each observation is chosen randomly and separately from the population. In a probability sampling procedure (every member of a population has an equal chance of being picked up to be in the sample) is employed to gather the data; each observation may be assumed to have been collected randomly and independently.
3. Equal Variance - Each group's population covariance matrices are equal.

The most frequent method for testing this assumption is Box's M test. Because this test is notoriously stringent, a significance threshold of .001 is normally utilised to assess the degree to which the population covariance matrices are identical. It is presumed that this condition is satisfied if the p-value for Box's M test is larger than .001. Furthermore, even though the p-value for the test is smaller than .001, a MANOVA is resistant to deviations from this assumption.

4. No Severe Multivariate Outliers - No extreme multivariate outliers exist. The most popular technique to test this assumption is to compute the Mahalanobis distance, which indicates the distance between two locations in a multivariate space for each observation. Any observation is deemed an extreme outlier if the matching p-value for a Mahalanobis distance is less than .001.

This chapter deals with the descriptive statistics of the sample on the basis of the demographic and occupational characteristics of contract workers and the constructs.

Objective II: To study the impact of demographical and occupational variables- gender, job type, and educational level on employment vulnerability, job satisfaction, and employee engagement of contract workers.

6.4 Gender-based comparison of employment vulnerability, employee engagement and job satisfaction.

Gender prejudice and inequalities are likely to manifest at three stages: during the recruiting process, in the workplace, and during career advancement. These concerns are fundamental to the field of Gender Economics. In terms of female labour force participation, there have been setbacks in the past and they may occur again in the future. The participation of women in the labour force has begun to flatten off. This study aims to investigate employees' level of engagement in their jobs and the difference in their contentment levels. To investigate the aims associated with this field of research, the underlying hypothesis is developed.

Ho2(i) There is no significant difference in job satisfaction, employment vulnerability and employee engagement across the gender of contract workers in the manufacturing units.

Sub -Hypothesis that can be driven as follows:

Ho2(i)a There is no significant difference between gender and employment vulnerability.

Ho2(i)b There is no significant difference between gender and employee engagement.

Ho2(i) c There is no significant difference between gender and Job Satisfaction.

Table 6.4: Descriptive Statistics -Gender

Gender	Mean	Std. Deviation	N
Employment Vulnerability			
Male	33.68	11.04	366
Female	15.99	4.59	214
Total	27.17	12.55	580
Employment Engagement			
Male	82.16	16.68	366
Female	90.07	13.90	214
Total	85.07	16.16	580
Job Satisfaction			
Male	38.58	6.85	366
Female	43.99	5.12	214
Total	40.57	6.78	580

Source: Primary data

The multivariate test determines whether the independent variable influences the result when other dependent variables are present.

Table 6.5: Multivariate Tests-Gender

Effect		Value	F	Hypothesis df	Error df	Sig.	Partial Eta Squared
Intercept	Pillai's Trace	.990	18261.373 ^b	3.000	572.000	.000***	.990
	Wilks' Lambda	.010	18261.373 ^b	3.000	572.000	.000***	.990
	Hotelling's Trace	95.776	18261.373 ^b	3.000	572.000	.000***	.990
	Roy's Largest Root	95.776	18261.373 ^b	3.000	572.000	.000***	.990

Gender	Pillai's Trace	.464	164.810 ^b	3.000	572.000	.000***	.464
	Wilks' Lambda	.536	164.810 ^b	3.000	572.000	.000***	.464
	Hotelling's Trace	.864	164.810 ^b	3.000	572.000	.000***	.464
	Roy's Largest Root	.864	164.810 ^b	3.000	572.000	.000***	.464
a. Design: Intercept + Sex							
b. Exact statistic							

Source: Computed from primary data; Note: *** Sig at 1%

Multivariate testing is a method of hypothesis testing wherein multiple variables are altered. The purpose of multivariate tests is to find out which mixture of variations out of all conceivable combinations performs the best. The test determines if the individual variable influences the score or not in the presence of the other two dependent variables.

As seen from Table 6.5, Pillai's Trace, $F = 164.810$, ($df_1 = 3$, $df_2 = 572$), $p = .000$. There is a significant difference across gender and employment vulnerability, employment engagement and job satisfaction of contract workers. The follow-up tests, such as the tests of between-subject effects, as given in the table below:

Table 6.6: Tests of Between-Subjects Effects - Gender

Tests of Between-Subjects Effects							
Source		Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Gender	Employment Vulnerability	41963.701	1	41963.701	495.013	.000***	.463
	Employment Engagement	8391.209	1	8391.209	33.976	.000***	.056
	Job Satisfaction	3919.556	1	3919.556	99.771	.000***	.148

a. R Squared = .463 (Adjusted R Squared = .462)
b. R Squared = .056 (Adjusted R Squared = .054)
c. R Squared = .148 (Adjusted R Squared = .147)

Source: Computed from primary data; Note: *** *Sig at 1%*

On examination of Table 6.6, it is found that in the case of employment vulnerability, $F=495.013$ (($df = 1, df2 = 574$), $p = .000$, which is <0.01 . Hence, the sub hypothesis $Ho2(i)a$ is rejected. There is a significant difference across gender and employment vulnerability.

In case of Employment Engagement, $F=33.976$ ($df = 1, df2 = 574$), $p = .000$, which is <0.01 . Hence, the sub hypothesis $Ho2 (i) b$ is rejected. There is a significant difference across gender and Employment Engagement.

It can be inferred from the above table that, in the case of Job Satisfaction, $F=99.771$ ($df = 1, df2 = 574$), $p = .000$, which is <0.01 . Hence, sub-hypothesis $Ho2(i)c$ is rejected. There is a significant difference across gender and Job Satisfaction.

Partial eta square (η^2) shows how much variance is explained by the independent variable., gender, in the above case for vulnerability 46.3%, Employment Engagement. 5.6% and Job Satisfaction 14.8% variance is explained by gender.

This leads to rejecting the null hypothesis $Ho2(i)$, which asserts no significant difference in job satisfaction, employment vulnerability, and employee engagement across the gender of contract workers in the manufacturing units. This implies that for contract employees' participation, happiness on the job, and safety in the workplace, gender plays a major role. The result contradicts the presumption that employment vulnerability is the same for workers of both genders. The result depicts that the male employment vulnerability is significantly higher than females in manufacturing firms. The male workers are the main earning members in the family. They are employed in precarious work, making them feel vulnerable. On the contrary, female workers opt to work when their children are grown up or start attending school. They are not the main breadwinners of the family. They prefer to work in the Packaging section mainly, which does not involve a precarious form of work. Hence, the feeling of vulnerability is lesser among female contract workers compared to their male counterparts. It can also be added that this degree of gender disparity in precarious work is virtually fully unexplained by normal individual and household labour

supply parameters. Instead, the existing difference is largely the result of attitudes and systems that continue to relegate women to the status of secondary earners due to their gender, as the difference is found in the job satisfaction level with respect to gender. Females are generally not the main breadwinners. No monetary disparity exists in any of the units considered in the study. Both male and female employees receive equal pay and all other perks. The female workers are very contented with the job. Women are more satisfied with the job than males, supporting the expectation assumption that individuals with fewer aspirations are much more likely to be happy at work.

There are two opposing opinions about the influence of gender on workplace satisfaction depending on whom the female workers choose to match themselves to: the highly aspiring males or their role as supplementary earners in the household. This result aligns with previous findings in the literature. Park Kang (2017) have confirmed that non-standard employees seeking work–life balance may find that they are just as satisfied with their jobs, if not more so, than standard employees because of the additional time they have at their disposal. One’s individual heterogeneity had an effect on job happiness for non-standard employees. Women who work part-time are more satisfied with their jobs than those who work full-time (Zou, 2015).

6.5 JOB TYPE BASED COMPARISON OF JOB SATISFACTION, EMPLOYMENT VULNERABILITY AND EMPLOYMENT ENGAGEMENT

On the one hand, the increase in labour flexibility has been viewed as having a beneficial effect on economic development, but on the other hand, it has led to an increase in irregular forms of employment with potentially negative consequences, commonly known as precarious employment. It is increasingly acknowledged as a hazard to the overall well-being of employees and their families, as well as a risk factor for mental and physical well-being and occupational injury. However, the degree of danger differs by occupation. The purpose of this investigation is to determine the level of job satisfaction and engagement among contract employees.

Ho2(ii) There is no significant difference in job satisfaction, employment vulnerability and employee engagement across the job type of contract workers in the manufacturing units.

For a better understanding, the hypothesis is further divided into sub-hypotheses:

Ho2(ii)a There is no significant difference between job type and employment vulnerability.

Ho2(ii) b There is no significant difference between job type and employee engagement.

Ho2(ii)c There is no significant difference between job type and job satisfaction.

Table 6.7: Descriptive Statistics - Job Type

	Mean	Std. Deviation	N
Employment Vulnerability			
Technician	30.82	8.41	102
Plant & Machinery Operator	39.79	10.76	135
Assembly worker	21.28	8.74	101
Packaging	17.15	6.23	144
Supervisor	18.00	6.48	34
Helper& Loader	30.55	12.53	64
Total	27.09	12.58	580
Employment Engagement.			
Technician	88.44	12.36	102
Plant & Machinery Operator	75.02	17.02	135
Assembly worker	87.81	12.86	101
Packaging	88.03	13.25	144
Supervisor	98.79	11.28	34
Helper&	83.34	20.91	64

Loader			
Total	85.15	16.15	580
Job Satisfaction			
Technician	40.18	6.30	102
Plant & Machinery Operator	35.53	5.41	135
Assembly worker	41.45	5.68	101
Packaging	43.93	5.79	144
Supervisor	45.71	3.83	34
Helper & Loader	40.73	8.39	64
Total	40.63	6.82	580

Source: Computed from primary data

It is observed from Table 6.7 that Supervisors who work and also monitor the group of workers seem to be more engaged in all three aspects of employee engagement. It can also be noticed from the above figure that Plant Machinery Operators who are involved in heavy work sometimes are exposed to high temperatures or hazardous chemical substances while performing their duties and seem to be less engaged as compared to labourers in other Job types. Operators of plant and equipment are rarely afforded the same privileges as employees in other fields.

The multivariate test tells whether the independent variable influences the score in the presence of alternative, dependent variables.

Table 6.8: Multivariate Tests- Job Type

Effect		Value	F	Hypothesis df	Error df	Sig.	Partial Eta Squared
Intercept	Pillai's Trace	.988	15995.831 ^b	3.000	571.000	.000***	.988
	Wilks' Lambda	.012	15995.831 ^b	3.000	571.000	.000***	.988
	Hotelling's Trace	84.041	15995.831 ^b	3.000	571.000	.000***	.988
	Roy's Largest Root	84.041	15995.831 ^b	3.000	571.000	.000***	.988
Job Type	Pillai's Trace	.568	26.767	15.000	1719.000	.000***	.189
	Wilks' Lambda	.470	33.071	15.000	1576.681	.000***	.223
	Hotelling's Trace	1.048	39.807	15.000	1709.000	.000***	.259
	Roy's Largest Root	.968	110.912 ^c	5.000	573.000	.000***	.492
a. Design: Intercept + Job Type							
b. Exact statistic							
c. The statistic is an upper bound on F that yields a lower bound on the significance level.							

Source: Computed from primary data; Note: *** Sig at 1%

Table 6.8 shows the statistical result of Multivariate Tests. Pillai's Trace, $F = 26.767$, ($df_1 = 15$, $df_2 = 1719$), $p = .000$, Hence, Null Hypothesis is rejected. There is a significant difference across the job type, employment vulnerability, employment engagement, and job satisfaction of contract workers. The follow-up tests, such as the tests of between-subject effects, as given in the table below:

Table 6.9: Tests of Between-Subjects Effects: Job Type

Source		Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Job Type	Employment Vulnerability	44304.075	5	8860.815	107.798	.000***	.485
	Employee Engagement	23396.194	5	4679.239	21.042	.000***	.155
	Job Satisfaction	6039.143	5	1207.829	33.241	.000***	.225
a. R Squared = .485 (Adjusted R Squared = .480)							
b. R Squared = .155 (Adjusted R Squared = .148)							
c. R Squared = .225 (Adjusted R Squared = .218)							

Source: Computed from primary data; Note: *** Sig at 1%

On examination of Table 6.9, it is found that in the case of Employment Vulnerability, $F=107.798$ ($df = 5$, $df_2 = 573$), $p = .000$, which is <0.01 . Hence, sub hypothesis $Ho_2(ii)a$ is rejected. There is a significant difference across job type and Employment Vulnerability.

In case of Employment Engagement, $F=21.042$ ($df = 5$, $df_2 = 573$), $p = .000$, which is <0.01 . Hence, the sub hypothesis $Ho_2(ii)b$ is rejected. There is a significant difference across job type and Employment Engagement.

In case of Job Satisfaction= 33.241 ($df = 5$, $df_2 = 573$), $p = .000$, which is <0.01 . Hence, the sub hypothesis $Ho_2(ii)c$ is rejected. There is a significant difference across job type and Job Satisfaction.

Partial eta square (η^2) shows how much variance is explained by the independent variable, i.e., job type in the above case for employment vulnerability 48.5%, Employment Engagement 15.5% and Job satisfaction 22.5% variance is explained by job type.

In the case of employment vulnerability, it is observed that there are pairwise significant differences between Technician & Plant & Machinery Operator, Technician & Assembly worker, Technician & Packaging, Technician & Supervisor, Plant & Machinery Operator & Assembly worker, Plant & Machinery Operator & Packaging, Plant & Machinery Operator & Supervisor, Plant & Machinery Operator & Helper & Loader,

Assembly worker & Packaging, Assembly worker & Helper and Loader, Packaging & Helper and Loader and Supervisor & Helper and Loader pairs. Hence, we reject sub null hypothesis under study.

Least Significant Difference (LSD) MULTIPLE COMPARISONS

Table 6.10: Post Hoc test for Job Type –Employment Vulnerability

		Mean Difference (I-J)	Std. Error	Sig.
Technician	Plant & Machinery Operator	-8.9617*	1.18943	.000***
	Assembly worker	9.5463*	1.27268	.000***
	Packaging	13.6767*	1.17502	.000***
	Supervisor	12.8235*	1.79540	.000***
	Helper & Loader	.2767	1.44576	.848
Plant & Machinery Operator	Assembly worker	18.5080*	1.19278	.000***
	Packaging	22.6383*	1.08797	.000***
	Supervisor	21.7852*	1.73968	.000***
	Helper & Loader	9.2383*	1.37594	.000***
Assembly worker	Packaging	4.1304*	1.17841	.000***
	Supervisor	3.2772	1.79762	.069
	Helper & Loader	-9.2696*	1.44851	.000***
Packaging	Supervisor	-.8531	1.72986	.622
	Helper & Loader	-13.4000*	1.36351	.000***
Supervisor	Helper & Loader	-12.5469*	1.92404	.000***

Source: Computed from primary data; Note: *** Sig at 1%

A post hoc analysis is a statistical analysis conducted after the research investigation is over, and data has been collected. A post hoc test is performed to determine precisely which differ significantly. It provides pair-specific significance. It can be observed from Table 6.10 that in the case of employee engagement, the workers in the Supervisor category paired with Assembly workers are found to be significant at a 10% level of significance. There are pair wise significant differences at Technician & Plant & Machinery Operator, Technician & Supervisor, Technician & Helper and Loader, Plant & Machinery Operator & Assembly worker, Plant & Machinery Operator & Packaging, Plant & Machinery Operator & Supervisor, Plant & Machinery Operator & Helper & Loader, Assembly worker & Supervisor, Packaging & Supervisor, Packaging & Helper and Loader and Supervisor & Helper and Loader. Hence, the null hypothesis stands rejected.

Table 6.11: Post Hoc test for Job Type –Employee Engagement

		Mean Difference (I-J)	Std. Error	Sig.
Technician	Plant & Machinery Operator	13.4190*	1.95639	.000***
	Assembly worker	.6293	2.09332	.764
	Packaging	.4062	1.93270	.834
	Supervisor	-10.3529*	2.95310	.000***
	Helper & Loader	5.0974*	2.37801	.032
Plant & Machinery Operator	Assembly worker	-12.7897*	1.96190	.000***
	Packaging	-13.0127*	1.78952	.000***
	Supervisor	-23.7719*	2.86145	.000***
	Helper & Loader	-8.3215*	2.26318	.000***
Assembly worker	Packaging	-.2231	1.93827	.908
	Supervisor	-10.9822*	2.95676	.000***
	Helper & Loader	4.4681	2.38254	.061
Packaging	Supervisor	-10.7592*	2.84530	.000***
	Helper & Loader	4.6912*	2.24273	.037
Supervisor	Helper & Loader	15.4504*	3.16470	.000***

Source: Computed from primary data; Note: *** Sig at 1%

In the case of Employment Engagement, it is observed from Table 6.11 that there are pairwise significant differences between Technician & Plant & Machinery Operator, Technician & Packaging, Technician & Supervisor, Plant & Machinery Operator & Assembly worker, Plant & Machinery Operator & Packaging, Plant & Machinery Operator & Supervisor, Plant & Machinery Operator & Helper & Loader, Assembly worker & Packaging, Assembly worker & Supervisor, Packaging & Helper and Loader Supervisor & Helper and Loader. Helper & Loader when paired with Technician are found to be significant at 5%, when paired with Assembly worker are found to be significant at 10% and when paired with Packaging are found to be significant at 5% level of significance. Hence, Null (sub) hypothesis stands rejected.

Table 6.12: Post Hoc test for Job Type –Job Satisfaction

		Mean Difference (I-J)	Std. Error	Sig.
Technician	Plant & Machinery Operator	4.6505*	.79081	.000***
	Assembly worker	-1.2691	.84616	.134
	Packaging	-3.7536*	.78123	.000***
	Supervisor	-5.5294*	1.19370	.000***
	Helper & Loader	-.5579	.96124	.562
Plant & Machinery Operator	Assembly worker	-5.9196*	.79304	.000***
	Packaging	-8.4041*	.72336	.000***
	Supervisor	-10.1800*	1.15665	.000***
	Helper & Loader	-5.2084*	.91482	.000***
Assembly worker	Packaging	-2.4845*	.78349	.002
	Supervisor	-4.2603*	1.19518	.000***

	Helper & Loader	.7112	.96307	.461
Packaging	Supervisor	-1.7758	1.15013	.123
	Helper & Loader	3.1957*	.90655	.000***
Supervisor	Helper & Loader	4.9715*	1.27923	.000***

Source: Computed from primary data; Note: *** Sig at 1%

On the examination of Table number 6.12, it is observed that all the highlighted pairs are significant at 1% level of significance. This result leads to rejecting the null hypothesis Ho2(ii), which claims that there is no significant difference in job satisfaction, employment vulnerability, and employee engagement across the job type of contract workers in the manufacturing units. In other words, it indicates that the kind of job considerably impacts the degree to which employees are engaged in their work, how satisfied they are with their jobs, and how vulnerable they feel to losing their jobs.

6.6 EDUCATIONAL LEVEL BASED COMPARISON OF JOB SATISFACTION, EMPLOYMENT VULNERABILITY, AND EMPLOYEE ENGAGEMENT

This study contributes to the pool of research that attempts to calculate the social returns associated with higher levels of educational level. As stated in the introduction, the purpose of this study is not to challenge the issues of income inequality raised in relation to increased access to higher educational levels; rather, it aims to contribute another facet to this discussion. It establishes quantifiable returns on expenditures on education at the local level, where little proof has been documented, using socially and economically linked indicators. This complements and bolsters other research findings promoting the long-term value in society of greater levels of higher educational level in a country, thereby lending support to policies that encourage the distribution of additional resources towards this aim.

Ho2(iii) There is no significant difference in job satisfaction, employment vulnerability, and employee engagement across the educational level of contract workers in the manufacturing units.

Sub -Hypothesis:

Ho2(iii)a There is no significant difference between educational level qualification and employment vulnerability.

Ho2(iii)b There is no significant difference between educational level qualification and employee engagement.

Ho2(iii)c There is no significant difference between educational level qualification and Job Satisfaction.

Table 6.13: Descriptive Statistics -Educational level

Educational level	Mean	Std. Deviation	N
Employment Vulnerability			
Illiterate	32.63	11.50	9
Elementary	25.64	14.07	88
SSC	32.01	13.85	205
HSSC	25.43	11.49	101
Graduate	21.06	8.15	110
Diploma	25.66	7.65	67
Total	27.09	12.58	580
Employment Engagement.			
Illiterate	71.88	10.16	9
Elementary	78.49	14.24	88
SSC	80.66	16.71	205
HSSC	85.50	14.51	101
Graduate	94.88	14.29	110
Diploma	92.67	11.37	67
Total	85.15	16.15	580

Job Satisfaction			
Illiterate	35.38	7.15	9
Elementary	39.17	5.79	88
SSC	38.00	6.48	205
HSSC	42.26	7.94	101
Graduate	43.91	5.78	110
Diploma	43.37	4.43	67
Total	40.63	6.82	580

Source: Computed from primary data

It can also be noticed from Table 6.13 that as the educational level goes up from Illiterates & Elementary to Graduates and Diplomas, the level of employee engagement also improves. Employees adversely value over education in terms of absolute job satisfaction and happiness. At the same time, under education does not have much of a high effect on job satisfaction. Educational level mismatches have far less of an effect on employee job satisfaction (Badillo& Vila 2013).

Definitely, higher educational level and better skill training give an upper hand to the workers in being content with their job. However, diploma holders with specialisation in industrial skills have higher expectations from their work, so they end up being less satisfied with jobs as compared to graduates.

The multivariate test may determine whether the independent variable affects the score when other dependent factors are present.

Table 6.14: Multivariate Tests-Educational level qualification

Effect		Value	F	Hypothesisd f	Error df	Sig.	Partial Eta Square d
Intercept	Pillai's Trace	.975	7327.0 67 ^b	3.000	571.000	.000***	.975

	Wilks' Lambda	.025	7327.067 ^b	3.000	571.000	.000***	.975
	Hotelling's Trace	38.496	7327.067 ^b	3.000	571.000	.000***	.975
	Roy's Largest Root	38.496	7327.067 ^b	3.000	571.000	.000***	.975
Educational Qualification	Pillai's Trace	.258	10.772	15.000	1719.000	.000***	.086
	Wilks' Lambda	.755	11.283	15.000	1576.681	.000***	.090
	Hotelling's Trace	.309	11.726	15.000	1709.000	.000***	.093
	Roy's Largest Root	.245	28.124 ^c	5.000	573.000	.000***	.197
a. Design: Intercept + Old_Edu_7							
b. Exact statistic							
c. The statistic is an upper bound on F that yields a lower bound on the significance level.							

Source: Computed from primary data; Note: *** Sig at 1%

On examination of Table 6.14, it is seen that Pillai's Trace F value = 10.772, p = 0.000) is significant at 0.01 level. Hence Null Hypothesis Ho2(iii) is Rejected. There is a significant difference across the educational qualification and employment vulnerability, employee engagement, and job satisfaction of contract workers. The follow-up tests, such as the tests of between-subject effects, as given in the table below:

Table 6.15: Tests of Between-Subjects Effects -Educational Qualification

Source		Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Educational Qualification	Employment Vulnerability	9805.111	5	1961.022	13.771	.000***	.107

	Employment Engagement.	23662.395	5	4732.479	21.325	.000***	.157
	Job Satisfaction	3786.037	5	757.207	18.804	.000***	.141
a. R Squared = .107 (Adjusted R Squared = .099)							
b. R Squared = .157 (Adjusted R Squared = .150)							
c. R Squared = .141 (Adjusted R Squared = .133)							

Source: Computed from primary data; Note: *** Sig at 1%

Since the MANOVA results are significant, the 'Tests of Between-Subject Effects' (univariate results) are examined to determine whether the educational qualification influences the dependent variables under study. Table 6.15 shows the results of the educational level qualification tests between the effects of the subject.

On examination of Table 6.15, it is found that in the case of employment vulnerability, $F=13.771$ ($df = 573, df_2 = 3$), $p = .000$, which is <0.01 . Hence, the sub hypothesis $Ho_2(iii)a$ is rejected. There is a significant difference across educational level qualification and employment vulnerability.

In case of employment engagement, $F=21.325$ ($df = 573, df_2 = 3$, $p = .000$, which is <0.01 . Hence, the sub hypothesis $Ho_2(iii)b$ is rejected. There is a significant difference between educational qualification and employee engagement.

In case of job satisfaction, $F=18.804$ ($df = 573, df_2 = 3$), $p = .000$, which is <0.01 . Hence, the sub hypothesis $Ho_2(iii)c$ is rejected. There is a significant difference between educational qualifications and job satisfaction.

Partial eta square (η^2) shows how much variance is explained by the independent variable, i.e., educational qualification, in the above case for vulnerability 10.7%, employee engagement 15.7% and job satisfaction 14.1% variance is explained by educational qualification.

If there is a significant difference between groups, then LSD post hoc tests are performed to determine where the significant differences lie; from the above table, A pairwise comparison of mean differences is carried out for each pair of educational level qualification for employment vulnerability, employee engagement, and job satisfaction.

In the case of employment vulnerability, it is observed that there are significant pairwise differences for Illiterate & Graduate, Elementary & SSC, Elementary & Graduate, SSC & HSSC, SSC & Graduate, SSC & Diploma, HSSC & Graduate and Graduate & Diploma pairs.

Table 6.16: Post Hoc test for Educational Qualification–Employment Vulnerability

		Mean Difference (I-J)	Std. Error	Sig.
Illiterate	Elementary	6.9886	4.40670	.113
	SSC	.6152	4.30063	.886
	HSSC	7.1993	4.38300	.101
	Graduate	11.5614*	4.36982	.008
	Diploma	6.9683	4.46388	.119
Elementary	SSC	-6.3734*	1.52083	.000***
	HSSC	.2106	1.74017	.904
	Graduate	4.5727*	1.70671	.008
	Diploma	-.0204	1.93487	.992
SSC	HSSC	6.5840*	1.45073	.000***
	Graduate	10.9461*	1.41041	.000***
	Diploma	6.3530*	1.67932	.000***
HSSC	Graduate	4.3621*	1.64455	.008
	Diploma	-.2310	1.88027	.902
Graduate	Diploma	-4.5931*	1.84934	.013

Source: Computed from primary data; Note: *** Sig at 1%

On examination of Table number 6.12, it is observed that all the highlighted pairs are significant at 1% level of significance. It can be observed from Table 6.16 that in the case of Employment engagement, there are significant pairwise differences for Illiterate & HSSC, Illiterate & Graduate, Illiterate & Diploma, Elementary & HSSC, Elementary & Graduate, Elementary & Diploma, SSC & HSSC, SSC & Graduate, SSC & Diploma,

HSSC & Graduate, HSSC & Diploma, Graduate & Diploma pairs. The diploma and graduate pairs are found to be significant at 5% level of significance.

Table 6.17: Post Hoc test for Educational Qualification - Employment Engagement

		Mean Difference (I-J)	Std. Error	Sig.
Illiterate	Elementary	-6.6136	5.50103	.230
	SSC	-8.7884	5.36862	.102
	HSSC	-13.6300*	5.47145	.013
	Graduate	-23.0068*	5.45500	.000***
	Diploma	-20.7966*	5.57241	.000***
Elementary	SSC	-2.1748	1.89850	.252
	HSSC	-7.0163*	2.17232	.001***
	Graduate	-16.3932*	2.13054	.000***
	Diploma	-14.1830*	2.41536	.000***
SSC	HSSC	-4.8415*	1.81100	.008
	Graduate	-14.2184*	1.76067	.000***
	Diploma	-12.0082*	2.09636	.000***
HSSC	Graduate	-9.3769*	2.05295	.000***
	Diploma	-7.1667*	2.34721	.002
Graduate	Diploma	2.2102	2.30859	.339

Source: Computed from primary data; Note: *** Sig at 1%

In the case of job satisfaction, it is observed from Table 6.17 that there are pair wise significant differences among Illiterate & HSSC, Illiterate & Graduate, Illiterate & Diploma, Elementary & HSSC, Elementary & Graduate, Elementary & Diploma, SSC & HSSC, SSC & Graduate, SSC & Diploma holders. The level of significant difference in the Illiterate and HSSC pair is 5%.

Table 6.18: Post Hoc test for Educational Qualification - Job Satisfaction

		Mean Difference (I-J)	Std. Error	Sig.
Illiterate	Elementary	-3.7955	2.34330	.106
	SSC	-2.6201	2.28689	.252
	HSSC	-6.8824*	2.33070	.003***
	Graduate	-8.5341*	2.32369	.000***
	Diploma	-7.9981*	2.37370	.001
Elementary	SSC	1.1753	.80871	.147
	HSSC	-3.0870*	.92535	.001
	Graduate	-4.7386*	.90756	.000***
	Diploma	-4.2027*	1.02888	.000***
SSC	HSSC	-4.2623*	.77144	.000***
	Graduate	-5.9140*	.75000	.000***
	Diploma	-5.3780*	.89299	.000***
HSSC	Graduate	-1.6517	.87451	.059
	Diploma	-1.1157	.99985	.265
Graduate	Diploma	.5360	.98340	.586

Source: Computed from primary data; Note: *** Sig at 1%

The result depicted in Table 6.18 infers that the test statistics are statistically significant, indicating that educational level influences the employment vulnerability of workers. The workers with schooling up to SSC do not enjoy any upper hand in the job market, as they end up working in the Packaging section or as Assembly workers. In contrast, the illiterate workers feel very uncertain about the future. The workers with basic elementary education feel that whatever he gets is better in all respects, so he feels less vulnerable. The HSSC & Graduate pair is at a 10% level of significant difference.

This result leads to the rejection of the null hypothesis Ho2(iii), which asserts that there are no significant differences in job satisfaction, employment vulnerability and employee

engagement based on the educational level of contract workers in manufacturing units. In other words, it indicates that the educational level has a considerable impact on the degree to how much workers are engaged in their work, how satisfied they are with their jobs, and how susceptible they are to losing their jobs.

6.7 CONCLUSION

This chapter analyses the impact of gender, job type, and educational level on employment vulnerability, job satisfaction, and employee engagement of contract workers. Based on the findings in this chapter, it can be concluded that male contract workers are more vulnerable than female workers in the industrial sector. Female contract workers are substantially more engaged than male contract employees. There is a considerable gender disparity in the parameters of Job Satisfaction. This is due to the fact that the female contract workers seek short-term jobs and choose to work in less susceptible environments. Plant & Machinery Operators, Technicians, and Helpers & Loaders feel more insecure because of the nature of their profession, which is either precarious or heavy labour. Contract employees who are illiterate or only have an SSC educational level are more susceptible because of the uncertainty they experience due to their poor formal educational level. They have to resort to precarious forms of work so as to make both ends meet. Relative to their male counterparts, female contract workers are substantially more pleased with their jobs. The category of Supervisors has the greatest work satisfaction. They are proud of their status as Supervisors because they believe a feeling of leadership has been entrusted to them. Contract employees with a bachelor's degree or a diploma report greater job satisfaction since they get a better remuneration package than individuals with less education. Female contract employees are substantially more engaged than their male counterparts. This is achievable because female employees are more engaged in less hazardous work that does not generate either stress or boredom. Employee engagement varies by job type, with plant and machinery operators having the lowest engagement compared to other job types. They are physically committed to their profession, but they do not have a very strong connection to the firm. Graduates and Diploma holders are highly involved in their job because they are more likely to be hired as permanent employees. However, the supply of less educated workers greatly exceeds demand, resulting in a sense of uncertainty reflected in their degree of involvement. As a result of receiving proper attention from their company's superiors, the work satisfaction of Supervisors is enhanced.

The same is true for female contract workers as well. In every regard, diploma holders and graduates report greater work satisfaction. The female labour force is strongly involved in all aspects of employee engagement. Plant and Machinery Operators are the least enthusiastic about their employment in every regard. They may be exposed to high temperatures or hazardous substances while doing their tasks and seem less engaged than workers in other categories. Diploma and bachelor's degree holders are more involved in all aspects of their work, demonstrating the importance of educational qualifications in improving employees' passion for their jobs.

CHAPTER VII

ASSOCIATION BETWEEN GENDER, JOB TYPE, EDUCATIONAL LEVEL, INCOME AND HOUSEHOLD CONSUMPTION EXPENDITURE PATTERN OF CONTRACT WORKERS

7.1 INTRODUCTION

It is generally accepted that a nation's human resources, not its geographical resources, ultimately define the nature and speed of its financial and social development. Human capital produces macroeconomic advantages and contributes to economic growth. To comprehend the nature and extent of labour force insecurity faced by distinct categories of labourers, it is necessary to study from the inside the category of unskilled and semi-skilled work in order to understand the numerous elements of precarious employment. In 1943, Abraham Maslow's hierarchy of needs made waves by claiming that people's motivations for taking action derive from a set of five wants, in descending order of importance: physical sustenance, security, affection, respect, and self-consciousness. According to Maslow, unfulfilled wants drive humans. As one of these requirements is substantially met, it drives and compels the emergence of the following need. Maslow categorised the five needs as greater needs and smaller needs. Lower-order demands included physiological and safety requirements. These lower-order demands are mostly met from the outside. Higher-order wants comprise of social, prestige, and identity requirements. Typically, these higher-order requirements are met internally, i.e., inside a person. Taking a clue from the hierarchy of needs theory, this study's third objective is to analyse the socio-economic indicators of contract labourers.

A person's or family's level of consumption is a strong predictor of their economic position and standard of life. Workers' socioeconomic standing in the industrial sector is influenced by their spending habits. Numerous analyses of spending trends have been undertaken over aggregated occupational groupings and other forms of groupings. Nevertheless, limited studies directly analyse and contrast spending trends within industrial groups inside a particular sector. The permanent income and life cycle theory states that consumer behaviour is mostly stable across the lifespan. However, there may be significant

differences in consumer behaviour across economic sectors due to inherent differences in features, life events, wants, and resources. The changing age composition and variety of the workforce make it imperative to analyse the spending patterns of low- and middle-income workers. There exists little study on how the identity of contract employees in the Indian environment affects their social or purchasing choices. Researchers have recently examined how migrant workers handle their money, although their primary emphasis is the Hukou policy of migrant employees. Chu, Liu and Shi (2015) have looked into the impact of social identity on the spending choices of Chinese migrant workers. In order to examine the link between their socioeconomic variables, the current research also considers the professional identity of contract employees in companies. Li and Luo (2021) conclude that the pattern of migrant workers' consumption is consistent with the migration theory as well as the life cycle theory; the consumption of migrant employees with diverse movement patterns differ significantly. The consumption levels of migrant workers who migrate to the metropolis, away from their families, are lower.

The previous studies have ignored the labourers working in the lower strata of the hierarchy in the industries and specifically in the contract form of employment. In this section, it is attempted to study how educational level, job type, gender and income influence the pattern of household consumption of contract workers with the help of non-parametric tests such as the Kruskal Wallis test (One way ANOVA –analysis of variance) and the Mann-Whitney U test. The variables taken here are categorical in nature, namely, in terms of gender, it is male and female; in terms of educational level, the workers are categorised as illiterate, elementary, SSC, HSSC, graduate, and diploma, and with regards to job type the categories are Technician, Plant and Machinery operator, Assembly worker, Packaging, Supervisor and Helpers & Loaders. In a similar fashion, the workers are also clubbed into different income groups.

It should be noted that some respondents did not reveal their expenditures on Food, House, Medical, Education and Entertainment. The Mann-Whitney U test is a prominent non-parametric test for comparing results between two independent groups. This test compares the medians of the two populations to determine if two separate sets of samples are likely to be derived from the same population. The Mann-Whitney U test is a non-parametric analysis of the null hypothesis that a randomly chosen value from one sample is equally likely to be less than or larger than a randomly selected figure from a second sample.

The chapter deals with the test results and interpretations of the Chi-Square Test for the association between the demographic and occupational variables of contract workers and the dependent variable.

Objective III: To study the association between demographic and occupational variables and household expenditure patterns of contract workers in manufacturing units.

Hypotheses to be tested in these sections are as follows:

Ho3 (i): There is no significant association between gender and household consumption expenditure pattern on food and non-food items of contract workers in the manufacturing units.

Ho3 (ii): There is no significant association between job type and household consumption expenditure pattern on food and non-food items of contract workers in the manufacturing units.

Ho3(iii): There is no significant association between the educational level and household consumption expenditure pattern on food and non-food items of contract workers in the manufacturing units.

7.2 ASSOCIATION BETWEEN HOUSEHOLD CONSUMPTION EXPENDITURE PATTERN OF CONTRACT LABOURERS WITH JOB TYPE, EDUCATIONAL LEVEL AND GENDER

Population expansion, increased affluence, and changes in people's interests and preferences make it essential to analyse the consumption of various goods by any sector of society. It provides a clearer understanding of their socioeconomic status. Overall household consumption comprises expenditures on food and non-food categories. Based on the job type and educational level of contract workers, their expenditure pattern is studied; further, with the help of Kruskal Wallis test statistics, it is noticed that expenditure patterns of these contract workers differ significantly. Since data is noticed to be highly skewed (Not normally distributed), so Non parametric test is used to test the hypotheses. The Kruskal-Wallis test is a non-parametric version of the Analysis of Variance test used to compare means of more than two groups. The test uses Chi-Square test statistics to test the

null hypothesis under the study. In the following section, the expenditure of contract workers is studied with respect to Job Types, Educational level, and Gender of contract workers. Summary tables consisting of Mean, Median, Range, Standard Deviation, and Mean rank computed while administering Kruskal-Wallis test.

7.2.1 Gender of Contract Workers and Pattern of Household Consumption Expenditure on food and non-food items

Ho3 (i): There is no significant association between gender and household consumption expenditure pattern on food and non-food items of contract workers in the manufacturing units.

Table 7.1: Genders of contract workers and pattern of household consumption expenditure on food (Amount in Rupees)

Statistics	Male	Female	Mann-Whitney U test
Mean	2935.09	2636.32	Mann-Whitney U =33490.500, Z =-2.679, p= .007
Median	2700.00	2500.00	
Range	9000	5800	
Std. Deviation	1225.621	901.579	
Mean Rank	302.4931	264.4741	

Source: Computed from primary data; Note: *** Sig at 1%

The findings depicted in Table 7.1 infers that the Median expenditure of Male workers is Rs. 2700 and Female workers is Rs. 2500. Mann-Whitney test statistics are statistically significant at 1% significance level (U =33490.500, Z =-2.679, p= .007). Hence, it is concluded that male workers spend more comparatively to female workers as the Mean Rank expenditure for Food differs significantly across Gender; for Males, it is 302.4931, and for Females, it is 264.4741.

Table 7.2: Gender of contract workers and the pattern of household consumption expenditure on house rent/repair/maintenance (Amount in Rupees)

Statistics	Male	Female	Mann-Whitney U test
Mean	2121.80	2217.05	Mann-Whitney
Median	2000.00	2000.00	U =

Range	14500	8800	26912.500, Z=-2.121, p=.034**
Std. Deviation	1373.432	968.560	
Mean Rank	250.734	279.5881	

Source: Computed from primary data; Note: ** Sig at 5%

As is observed in Table 7.2, the Median expenditure of male and female contract workers is the same at Rs. 2000. The mean for Male contract workers is 2121.80, and for Female workers is 2217.05. The Mean Ranks are 250.734 for male and 279.5881 for female workers, respectively. The p-value of Test Statistics is 0.034**, less than .05, hence, Mann-Whitney U test statistics are significant (U = 26912.500, Z= -2.121, p=.034**) at a 5% significance level. This indicates that the expenditure pattern on House rent, repair, and maintenance differs significantly across gender.

Table 7.3: Gender of contract workers and Pattern of household consumption Expenditure on Education (Amount in Rupees)

Statistics	Male	Female	Mann-Whitney U test
Mean	990.00	931.43	Mann-Whitney U = 2642.000, Z=1.866, p=.062
Median	800.00	1000.00	
Range	3800	1700	
Std. Deviation	670.745	278.996	
Mean Rank	74.85556	87.75714	

Source: Computed from primary data; Note: *** Sig at 10%

It can be interpreted from Table 7.3 that Median expenditure on education is not differing significantly as Mann-Whitney U test statistics are insignificant at a 5% level of significance. The median Expenditure of males is Rs. 800, and Females are Rs. 1000, and it does not differ significantly. Mann-Whitney U test was conducted to determine whether there is a difference in the expenditure on the educational level between male and female contract workers. The results indicate a non-significant difference between groups (U = 2642.000, Z=1.866, p=.062). The p-value of Test Statistics is 0.062, which is less than 0.10. This indicates that the expenditure pattern on education differs as per gender. In conclusion, it can be said that there is a significant statistical difference in expenditure between males and females.

Table 7.4: Gender of contract workers and pattern of household consumption expenditure on Medicine, Health care (Amount in Rupees)

Statistics	Male	Female	Mann-Whitney U test
Mean	1180.00	863.16	Mann-Whitney U = 1500.000, Z =1.901, p=.057
Median	1000.00	1000.00	
Range	3800	1800	
Std. Deviation	825.984	465.845	
Mean Rank	66.92308	55.31579	

Source: Computed from primary data; Note: *** Sig at 10%

Mann-Whitney U test was undertaken to evaluate if there is a difference between male and female monthly Expenditure on Medicine, Health care. According to Table 7.4, the Expenditure on Medicine, Health care for Male workers is ₹ 1180(Mean), ₹1000 (Median), and for female workers, Mean= Rs. 863.16, Median = ₹1000. The findings suggest that there is no significant difference between groups. (U = 1500.000, Z =1.901, p=.057). The p-value of the Test statistics is 0.057, which is less than 0.10, indicating that Expenditure on Medicine, Health care differs significantly for gender.

Table 7.5: Gender of contract workers and pattern of household consumption expenditure on travelling (Amount in Rupees)

Statistics	Male	Female	Mann-Whitney U test
Mean	1062.60	844.29	Mann-Whitney U = 3080.500, Z= 3.319, p =.001***
Median	1000.00	550.00	
Range	3800	2700	
Std. Deviation	703.667	695.042	
Mean Rank	106.9553	79.50714	

Source: Computed from primary data; Note: *** Sig at 1%

It can be observed from Table 7.5 that the Expenditure of Males on travelling is Rs.1000 and for females 550. Mann-Whitney test (U = 3080.500, Z= 3.319, p =.001***) indicates that median expenditure on travelling differs significantly. Test statistics are significant at a 1% level of significance.

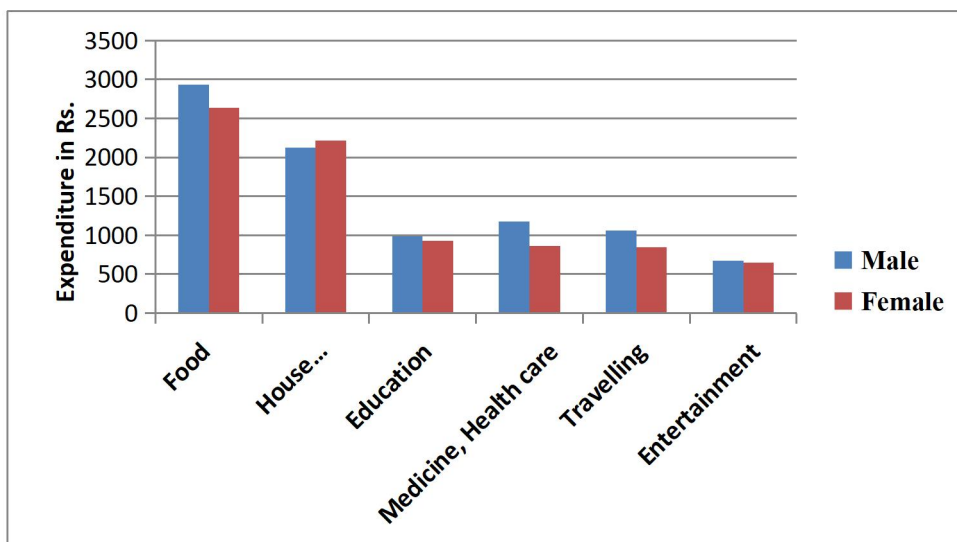
Table 7.6: Gender of contract workers and Pattern of household consumption expenditure on Entertainment (Amount in Rupees)

Statistics	Male	Female	Mann-Whitney U test
Mean	671.43	647.17	Mann-Whitney U = 5108.000, Z=-3.27, p=.744
Median	500.00	500.00	
Range	3800	2800	
Std. Deviation	665.561	591.227	
Mean Rank	117.188	120.366	
	6	7	

Source: Computed from primary data

Mann-Whitney U testing was run to see whether there were significant differences in monthly Expenditure on Entertainment between the two genders. It can be seen from Table 7.6 that the Expenditure on Entertainment for Male workers is Mean = 671.43, Median = 500, and for female workers, Mean= Rs 647.17, Median =Rs 500. There is no statistically significant difference between the groups (U =5108.000, Z=-3.27, p=.744). The p-value of the Test statistics is 0.744, which is neither significant at 5% nor 10%, which indicates that monthly household expenditures on Entertainment do not differ significantly for gender. Gender has no association with the household expenditure on Entertainment in the family of contract workers.

Fig 7.1: Monthly household expenditure pattern with respect to gender of contract workers



Source: Researcher's calculation based on primary data

Figure 7.1 gives a graphical representation of collective average expenditure. The study of spending patterns, considering the varied tastes of men and females, enables us to comprehend the consumption preferences of each gender independently.

Food expenditure is the major shareholder of the gross monthly expenditure for both gender; however, the female respondents spend more on the basic necessity of life. Surprisingly, both prefer to spend less on the educational level. This result reveals that the majority of the respondents spend on entertainment also. This is due to the fact that taking pleasure in enjoyment is intrinsic to being human. When they do so, they can relax from their jobs and have pleasure. They spend between 200 and 300 rupees of their monthly salary on mobile phone upkeep.

Since there is a significant association between gender and expenditure patterns on food and non-food items of contract workers in the manufacturing hypothesis, Ho3 (i) thus stands rejected.

7.2.2 Job Type of Contract Workers and pattern of household consumption expenditure on food and non-food items

Ho3 (ii): There is no significant association between job type and household consumption expenditure pattern on food and non-food items of contract workers in the manufacturing units.

Table 7.7: Job Type and pattern of household consumption expenditure on Food (Amount in Rupees)

Statistics	Technician	Plant & Machinery Operator	Assembly worker	Packaging	Supervisor	Helper & Loader	Test stat
Mean	3577.45	2602.02	2845.54	2522.38	2776.47	2868.75	Chi.S q. (5) =53.8 5, p=.00 0***
Median	3000.00	2500.00	2800.00	2500.00	2650.00	2500.00	
Range	4500	4200	5500	4000	3800	8800	
Std. Deviation	1275.582	710.479	909.013	810.792	1237.803	1810.978	
Mean Rank	391.03	262.46	305.56	249.04	277.79	260.52	

Source: Primary data; Note: *** Sig at 1%

In Table 7.7 above, the expenditure on food by contract workers is shown. Since there are six groups of contract workers based on job type Kruskal Wallis test is run to find the significant difference in the expenditure pattern. The highest expenditure is seen amongst Technician (Mean Rank= 391.03, median = 3000, Mean = 3577.45) followed by Helper & Loader (Median Rank=260.52, Median = 2500, Mean = 2868.75). The lowest expenditure is noticed amongst packing workers (Mean Rank=249.04, Median = 2500, Mean = 2522.38). The Helpers' expenditure is the second highest, showing the highest variation among other job type categories. Using a chi-square goodness-of-fit test, it is determined if the expenditure on food is equal among the workers employed in different job categories. The preference for the expenditure on food is not evenly distributed, Chi sq. (5) = 53.85, p=. 000. Chi. sq. test statistics is found to be statistically significant as $p < .01$, hence it is concluded that Median expenditure for Food differs significantly across Job Type. Subsequently, food spending trends demonstrate that factors other than money have a substantial influence on behaviour. Food no longer remains a mere necessity as some believe that higher expenditure is justified as they work hard.

Table 7.8: Job Type and pattern of household consumption expenditure on House rent/repair/maintenance (Amount in Rupees)

Statistics	Technician	Plant & Machinery Operator	Assembly worker	Packaging	Supervisor	Helper & Loader	Test stat
Mean	2130.34	2134.07	2087.50	2189.52	2610.00	2015.79	Chi.Sq. (5) =25.46, p=.000***
Median	2000.00	1800.00	2000.00	2000.00	3000.00	2000.00	
Range	3300	14500	6500	3600	8000	3000	
Std. Deviation	617.437	2020.350	825.849	767.301	1409.659	784.171	
Mean Rank	284.41	220.17	251.52	285.39	341.10	249.75	

Source: Researcher's calculation based on primary data; *Note: *** Sig at 1%*

Given that there are six groups of contract employees depending on job type, the Kruskal-Wallis test is used to determine if there is a significant variation in the spending pattern on

House rent, repair, or maintenance. As it can be inferred from Table 7.8, the Mean Expenditure on House rent/repair/maintenance varies between 2610 to 2015.75. Supervisors are paid the highest as they earn better salaries compared to other categories of job types. The Median Rank is 341.10. Helpers are spending the lowest amount on their House rent. Technicians, Plant Machinery Operators, and Packaging workers are spending rupees 2087 to 2134. The Median Rank expenditure of the workers employed as Plant and Machinery operators is the lowest at 220.17. To find out if the monthly Expenditure pattern does vary with respect to the six groups of Job Type of the contract workers, a chi-square test of goodness-of-fit was run. The group did not have an equal expenditure on House rent/repair/maintenance (Chi sq. (5) =25.46, p=.000***). Chi.Sq. test statistics are found to be statistically significant at 1%. Hence it is concluded that the household expenditure pattern varies with respect to Job as Mean Rank expenditure for House rent differs significantly across Job Types.

Capital and skilled labour are complementing manufacturing elements. The highest expertise, educational level, and training gives a better placement potential. This significantly increases the complementarity between capital and labour in all vocations. Even in the contract type of work, a substantial correlation exists between basic educational level and ability. Hence, it becomes significant to study how much they invest in human resource development.

Table 7.9: Job Type and pattern of household consumption expenditure on Education (Amount in Rupees)

Statistics	Technician	Plant & Machinery Operator	Assembly worker	Packaging	Supervisor	Helper & Loader	Test stat
Mean	1188.24	673.68	830.95	1000.00	973.68	500.00	Chi.sq.(5) =26.84, p=.000***
Median	1000.00	800.00	800.00	1000.00	1000.00	500.00	
Range	3700	800	1700	0	1500	0	
Std. Deviation	764.891	294.094	308.804	0.000	539.385	0.000	
Mean Rank	92.70	53.16	70.38	105.00	81.55	26.00	

Source: Researcher's calculation based on primary data; Note: *** Sig at 1%

As there are six groups of contract employees depending on job type, the Kruskal Wallis test is used to determine if there is a significant variation in the spending pattern on the educational level. As per Table 7.9, Expenditure on education is found to be lowest in Helpers & Loaders; on the other hand, Technician's expenditure on Education is the highest among all Job types (Median = 1000, Mean = 1188.244. Mean Rank expenditure for Education differs significantly across job types. The Mean Rank of the contract workers in the Packaging section is 105.00; whereas the workers employed as Helper & Loader have a low rank at 26.00. The monthly expenditure of the contract workers on education was compared using a chi-square goodness-of-fit test to see whether they are equally preferred. The group's preference for monthly expenditure on education is not spread evenly, as shown by the statistic Chi sq. (5) =26.84, p=.000***. Kruskal Wallis test statistics are found to be statistically significant as $p < .01$. Hence, it concluded that expenditure on education differs significantly with respect to job type of workers.

Table 7.10: Job Type and pattern of Household consumption expenditure on Medicine, Health Care (Amount in Rupees)

Statistics	Technician	Plant & Machinery Operator	Assembly worker	Packaging	Supervisor	Helper & Loader	Test stat
Mean	1364.86	966.67	1002.70	552.38	1142.86	500.00	Chi.sq. (5) =26.54, p=.000***
Median	1000.00	1000.00	1000.00	500.00	1000.00	500.00	
Range	3800	300	1800	600	1800	0	
Std. Deviation	950.209	100.000	506.889	191.361	679.043	0.000	
Mean Rank	72.99	72.33	65.45	31.52	67.86	29.50	

Source: Author's calculation based on primary data; Note: *** Sig at 1%

Since there are six groups of contract employees depending on job type, the Kruskal-Wallis test is used to determine whether or not there is a significant variation in the spending pattern on health care. To check whether all the six groups of contract workers are equally spending on medical care, a chi-square goodness-of-fit test was run. There is a significant difference in the expenditure pattern (as Chi sq. (5) =26.54, p=.000***). In Table 7.10, the significant value of Chi. Sq. test statistics indicates that expenditure on medicine and health care vary amongst contract workers. Helpers& Loaders and Packaging

workers spend less than Rs. 600 of their income on Medicine & Health care. Technicians, Assembly workers, and Supervisors spend more than Rs. 1000 on health care. Significant difference is observed in mean rank across Job Type ,with Technicians at 72.99 and Assembly workers at 65.45.

Table 7.11: Job Type and pattern of Household consumption expenditure on Travelling (Amount in Rupees)

Statistics	Technician	Plant & Machinery Operator	Assembly worker	Packaging	Supervisor	Helper & Loader	Test stat
Mean	1243.28	720.69	760.00	904.17	879.31	2000.00	Chi.sq. (5) =51.93, p=.000** *
Median	1000.00	400.00	800.00	500.00	800.00	2000.00	
Range	2800	3700	1700	2700	2700	0	
Std. Deviation	580.288	921.326	395.358	912.940	640.524	0.000	
Mean Rank	129.03	57.48	83.94	74.46	88.64	173.50	

Source: Researcher's calculation based on primary data; Note: *** Sig at 1%

Since workers interviewed in this study are from different parts of the country, travelling is one component on which expenditure cannot be avoided. These workers have to visit their home town once or twice a year. These workers neither get any special travelling facility from their company nor the contractor they are working under. So, the entire local travelling cost is borne by the worker. As there are six distinct categories of contract employees, the Kruskal Wallis test is used to determine whether or not there is a statistically significant variation in the expenditure structure between them. Table 7.11 determines that the average travelling expenditure of contract workers varies between 720 to 2000. A chi-square test of goodness-of-fit was carried out to evaluate if there was a significant difference in preference for monthly expenditure on travelling between the six

groups of contract workers as per the job type. There is no uniformity in the expenditure (as Chi sq.(5) =51.93, p=.000***), which is significant compared to the 0.05 level. Chi. Sq. test statistics are statistically significant. It indicates that expenditure on Travelling does vary significantly with respect to the Job Type of workers. As a result, null hypothesis Ho3(ii) is rejected as Mean Rank expenditure for Travelling differs significantly across job types, with Helpers and loaders at 173.50 and Technicians at 129.03.

Table 7.12: Job Type and pattern of household consumption expenditure on Entertainment (Amount in Rupees)

Statistics	Technician	Plant & Machinery Operator	Assembly worker	Packaging	Supervisor	Helper & Loader	Test stat
Mean	860.42	610.53	517.50	726.32	715.38	545.83	Chi.sq (5) =15.80, p=.007***
Median	500.00	500.00	500.00	500.00	500.00	500.00	
Range	2800	3700	1570	2700	1500	700	
Std. Deviation	835.066	714.904	265.754	689.569	418.023	218.650	
Mean Rank	129.95	101.34	104.25	134.96	158.31	118.79	

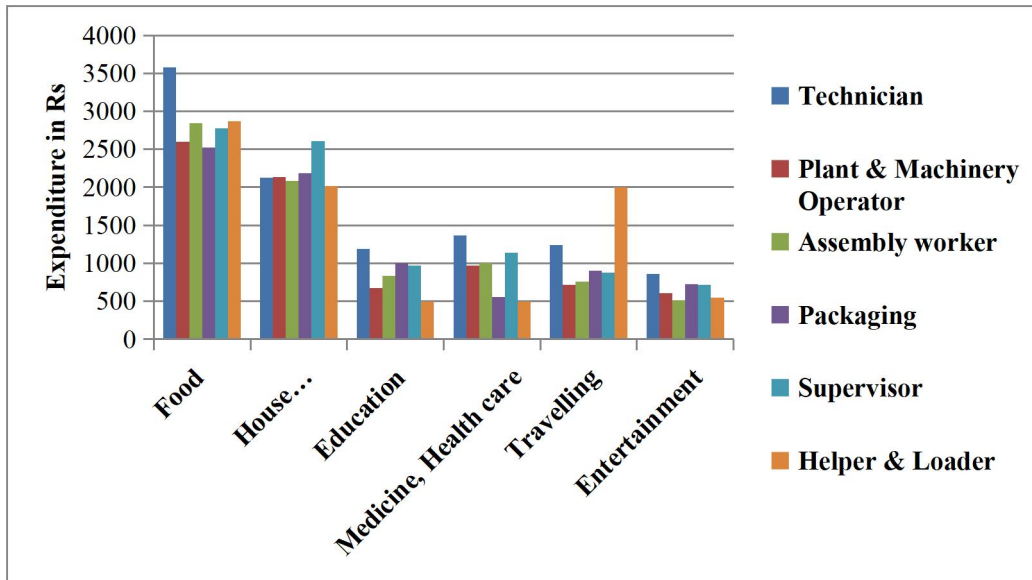
Source: Researcher's calculation based on primary data; Note: *** Sig at 1%

Entertainment expenditure includes recreational activities like movies, parties with friends, etc. Since there are six categories of contract employees, Kruskal Wallis is used to compare spending patterns on entertainment. Table 7.12 summarises that the average expenditure of contract workers varies between Rs. 545 to Rs. 860. The pattern of monthly expenditure of contract workers from six different job categories on entertainment is determined using a chi-square test. The result shows unequal monthly expenditure on entertainment Chi sq.(5) = 15.80, p =.007).Chi.Sq. test statistics are statistically significant, indicating that expenditure on Entertainment varies significantly with respect to the Job Type of workers. The Mean Rank household expenditure for Entertainment differs

significantly across job types, with Supervisors at 158.31 and Plant and Machinery operators at 101.34.

Fig 7.2: Household expenditure pattern with respect to job type of contract workers

(Amount in Rupees)



Source: Researcher's calculation based on primary data

Figure 7.2 shows that the expenditure pattern among the contract workers differs among the workers employed in various job categories. The expenditure on necessities like food occupies the major expenditure. However, the value of the income elasticity of food is prone to substantial variance among industrial sector employees at any given period.

This results in the rejection of the null hypothesis Ho3(ii), which claims that there is no statistically significant association of the job type with the expenditure pattern on food and non-food items of contract workers in the manufacturing units.

7.2.3 Educational level of contract workers and pattern of Household consumption expenditure on food and non-food items.

Ho3 (iii): There is no significant association between educational level and household consumption expenditure pattern on food and non-food items of contract workers in the manufacturing units.

Table 7.13: Educational Level of contract workers and pattern of Household consumption expenditure on Food (Amount in Rupees)

Statistics	Illiterate	Elementary	SSC	HSSC	Graduate	Diploma	Expenditure Criteria
Mean	2721.63	2590.91	2629.76	2579.21	2989.09	3941.79	Chi.sq. (5) =77.24, p=.000 ***
Median	2800.00	2500.00	2500.00	2500.00	2500.00	4000.00	
Range	609	3000	5000	3500	8800	4500	
Std. Deviation	286.032	615.814	791.092	850.802	1701.286	1157.865	
Mean Rank	311.69	261.63	271.36	254.24	278.40	454.66	

Source: Author's calculation based on primary data; Note: *** Sig at 1%

From Table 7.13, it can be concluded that the Median expenditure of Diploma Holders on food is Rs. 4000, which is higher amongst all educational level categories of contract workers, followed by Graduates SSC, Elementary, and HSSC Rs. 2500 each. Chi.Sq. (5) = 77.24, p = .000 is statistically significant. Hence, we conclude that there is a significant difference in the expenditure on food with reference to educational level as Mean Rank expenditure for Food differs significantly across educational levels,

Table 7.14: Educational level of contract workers and pattern of household consumption expenditure on House rent /Repair/Maintenance (Amount in Rupees)

Statistics	Illiterate	Elementary	SSC	HSSC	Graduate	Diploma	Expenditure Criteria
Mean	1800.00	2165.48	2204.12	1979.27	2094.85	2356.90	Chi.sq. (5) =17.41 p=.000 ***
Median	1850.00	2000.00	2000.00	1800.00	2000.00	2000.00	
Range	500	2500	14000	4500	6600	8800	
Std. Deviation	226.779	620.628	1750.998	669.943	857.245	1144.033	
Mean Rank	204.00	285.12	250.30	227.65	265.62	318.16	

Source: Computed from primary data; Note: *** Sig at 1%

The Kruskal Wallis test is used to identify any significant differences in the spending pattern on house rent/repair/maintenance since contract employees are divided into six groups according to their educational level. According to Table 7.14, the Expenditure on House rent/repair/maintenance varies between Rs. 1800 to Rs. 2356. Diploma holders' expenditure is higher as compared to other categories. Chi.sq. (5) = 17.41, p = .000 is statistically significant. Mean Rank expenditure for House rent /repair/maintenance differs significantly across the level of Education, with the Diploma holders at 318.16 and the Illiterate workers at 204.00. Hence, we conclude that there is a significant difference in the expenditure on House rent/repair/maintenance with reference to educational level.

As there are six groups of contract employees depending on their educational level. The Kruskal Wallis test is used to determine whether or not there is a significant variation in the spending pattern on educational activities.

Table 7.15: Educational level of contract workers and Pattern of Expenditure on Education (Amount in Rupees)

Statistics	Illiterate	Elementary	SSC	HSSC	Graduate	Diploma	Expenditure Criteria
Mean	500.00	917.24	842.22	716.67	1059.09	1197.83	Chi.sq. (5) =14.29, p=.014* *
Median	500.00	1000.00	1000.00	500.00	1000.00	1000.00	
Range	0	500	1800	500	2700	3700	
Std. Deviation	0.000	144.096	312.242	250.294	613.855	767.533	
Mean Rank	26.00	87.36	76.68	58.86	91.32	92.08	

Source: Researcher's calculation based on primary data; Note: *** Sig at 5%

Table 7.15 shows that the Expenditure on Education varies between Rs. 500 to Rs. 1197.83. Diploma holders' expenditure is higher as compared to other categories. Chi.Sq. (5) =

14.29, $p = .014$, is statistically significant. Hence, we conclude that there is a significant difference in the expenditure on Education with reference to the workers' education level as the Mean Rank expenditure for educational level differs significantly with the diploma holders at 92.08 and the illiterate labourers at 26.00.

Table 7.16: Educational level of contract workers and pattern of Household expenditure on Medicine, Health Care (Amount in Rupees)

Statistics	Illiterate	Elementary	SSC	HSSC	Graduate	Diploma	Expenditure Criteria
Mean	500.00	1016.67	765.71	925.00	1110.00	1344.12	Chi.sq. (5) =11.68, p=.039**
Median	500.00	1000.00	500.00	500.00	750.00	1000.00	
Range	0	1500	1300	1500	3800	2800	
Std. Deviation	0.000	348.590	307.689	591.052	1005.197	817.309	
Mean Rank	29.50	71.96	52.26	56.58	54.53	75.26	

Source: Researcher's calculation based on primary data; note: ** Sig at 5%

As there are six groups of contract employees depending on their educational level, the Kruskal-Wallis test is conducted to see if there is a significant variation in the spending pattern on health-related activities. Table 7.16 shows the result of the comparison of Mean expenditure on Medicine and health care among the workers with different educational level qualifications. The Mean expenditure on Medicine, Health care varies between Rs. 500 to Rs. 1344.12. Diploma holder's expenditure is highest amongst other categories. Chi.sq. (5) = Rs. 11.68, $p = .039$ is statistically significant at a 5% significance level. Hence, we conclude that there is a significant difference in the Expenditure on House rent/repair/maintenance with reference to educational level as Mean Rank of expenditure on Medicine, Health care differs with the Diploma holders at 75.26 and the Illiterate labourers at .29.50.

Table 7.17: Educational level of contract workers and pattern of Household consumption expenditure on travelling (Amount in Rupees)

Statistics	Illiterate	Elementary	SSC	HSSC	Graduate	Diploma	Expenditure Criteria
Mean	625.00	1157.14	600.00	706.06	1069.39	1238.71	Chi.sq. (5) =38.67, p=.000* **
Median	600.00	800.00	500.00	500.00	900.00	1000.00	
Range	500	3600	1700	1500	2700	2800	
Std. Deviation	262.996	1227.076	327.618	471.659	787.984	620.776	
Mean Rank	64.75	95.29	65.47	69.52	100.01	127.48	

Source: Researcher's calculation based on primary data; Note: *** Sig at 1%

Since six distinct categories of contract employees are delineated by their educational level, a Kruskal Wallis test was used to identify any statistically significant differences in spending behaviour on travelling. Table 7.17 depicts that the Mean expenditure on Travelling varies between Rs 600 to Rs. 1238.71. Diploma holder's expenditure is highest amongst other categories. The Chi.sq. (5) = 38.67, $p = .000$ is statistically significant at a 1% significance level. Hence, we conclude that there is a significant difference in the Expenditure on Travelling with reference to educational level. Subsequently, as Mean Rank of expenditure for Travelling differs significantly across educational levels, with the Diploma holders at 127.48 and the less fortunate labourers who could not seek any education at 64.75.

Table 7.18: Educational Level of contract workers and pattern of Household consumption expenditure on Entertainment (Amount in Rupees)

Statistics	Illiterate	Elementary	SSC	HSSC	Graduate	Diploma	Expenditure Criteria
Mean	300.00	828.00	662.50	493.25	657.14	810.71	Chi.sq. (5) =20.77,p
Median	300.00	500.00	500.00	500.00	600.00	500.00	
Range	0	2800	3800	1770	1600	2800	

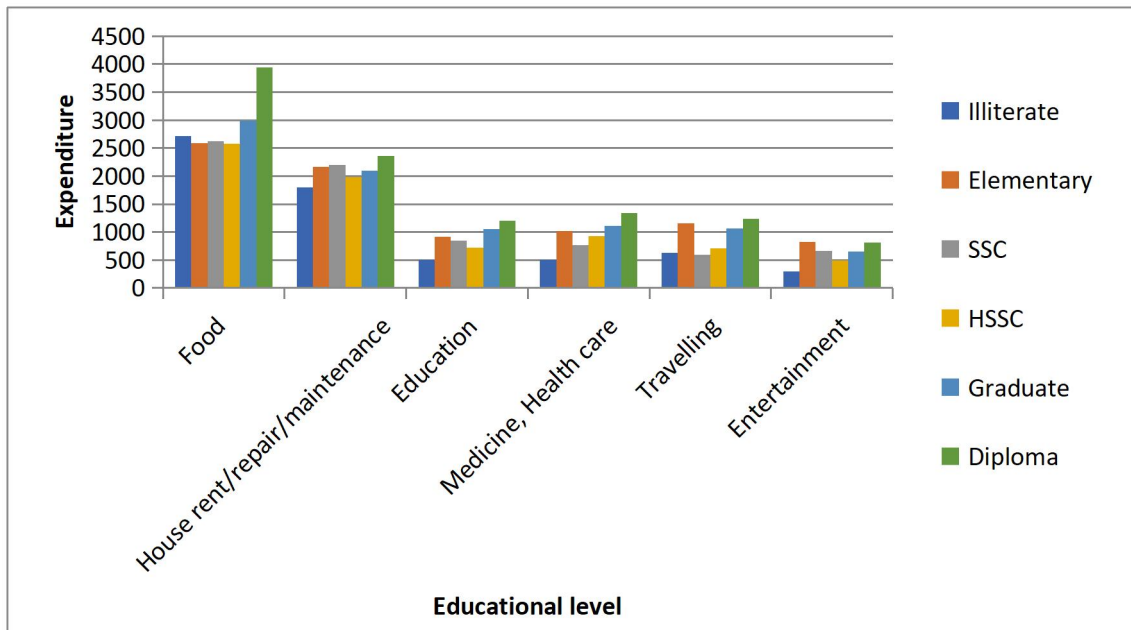
Std. Deviation	0.000	974.474	714.096	272.269	328.215	603.287	=.000** *
Mean Rank	27.50	106.34	114.22	98.98	140.36	154.82	

Source: Researcher's calculation based on primary data; Note: *** *Sig at 1%*

Since there are six groups of contract employees depending on educational level, Kruskal Wallis is used to comparing spending patterns on entertainment. It is observed from Table 7.18, that the Mean expenditure on Entertainment varies between Rs. 300 to Rs. 810.71. Diploma holder's expenditure is highest amongst other categories. Chi.sq. (5) = 20.77, p = .000 is statistically significant at a 1% significance level. Hence, we conclude that there is a significant difference in the Expenditure on Entertainment regarding educational level. Mean Rank expenditure for Entertainment differs significantly across educational levels, with the diploma holders at 154.82 and the labourers with no educational level at 27.50.

A study by Chamon & Prasad (2010) emphasise that parents' plans to invest in their children's future education strongly impact their household expenditure spending. But the vital question here is that does the same consideration prevail uniformly among all the workers employed at different job type and with different educational level. This forms the basis of the next section. Similarly, other variables like food, housing, medical care, travelling, and entertainment have also been considered in various studies related to the consumption pattern of workers.

Fig 7.3: Household consumption expenditure pattern with respect to Educational Qualification of Contract workers (Amount in Rupees)



Source: Researcher’s calculation based on primary data

Figure 7.3 shows an overview of the Expenditure pattern with respect to the educational level of the contract workers. As observed, the workers with advanced degrees had higher than average expenditures for all food and non-food items. The contract workers with diplomas stand a better chance of getting a job, and with decent payment, their intensity to spend on all items is much higher in comparison to the illiterate workers.

This leads to the rejection of the null hypothesis $H_03(iii)$, which asserts that there is no statistically significant relationship between educational level and the expenditure pattern on food and non-food items of contract labourers in the manufacturing industry.

7.3 EDUCATIONAL LEVEL AND JOB TYPE OF CONTRACT WORKERS: AN INCOME APPROACH

This section presents the result of the study on how the educational level and job type of the contract workers influence their income with the help of the Chi-Square test. In the empirical literature, however, a worker’s level of formal education is most often used as a proxy for his/her level of professional skill because the latter is presumably more difficult to identify and measure (Lex et al., 2001). Knowledge is created via the educational level, as is self-assurance and the ability to think more critically. An educated professional,

regardless of the post that he is currently employed, has an advantage in decision-making across industries due to superior judgment and information-using skills benefits over the competition and stands for a chance of better employment and higher income. The presumptions made here are:

- The monthly income and educational level of contract workers are not associated with each other.
- The monthly income and job type of contract workers are not associated with each other.

Table 7.19: Educational Level and Income of Contract Workers

Income Category (Rs.)	Educational level Category						
	Illiterate	Elementary	SSC	HSSC	Graduate	Diploma	Total
5000-10000	7 (77.8)	54 (61.4)	99 (48.3)	60 (59.4)	69 (62.7)	0 (0)	289 (49.8)
10000-15000	1 (11.1)	21 (23.9)	79 (38.5)	34 (33.7)	34 (30.9)	42 (62.7)	211 (36.4)
15000+	1 (11.1)	13 (14.8)	27 (13.2)	7 (6.9)	7 (6.4)	25 (37.3)	80 (13.8)
Total	9 (100)	88 (100)	205 (100)	101 (100)	110 (100)	67 (100)	580 (100)

Source: Researcher's calculation based on primary data; Note: Row wise percentage in brackets

It is observed from Table 7.19 that 49.8 percent of workers earn up to Rs. 10,000 per month. 36.4% of workers earn between Rs. 10-15 thousand per month, and 13.8% earn above Rs. 15 thousand per month. The sample consists of 35.4% of contract workers who are educated up to SSC, 17.4% are educated up to HSSC, 30.6 % are educated up to Graduation, and 16.6% are illiterate/elementary. Since Chi.Sq. (10) = 99.236, $p = .001$, we conclude that Income and Educational level are significantly associated, supporting the strong association.

Table 7.20: Job Type and Income of Contract Workers

Income Category (Rs.)	Job Type						Total
	Technician	Plant & Machinery Operator	Assembly worker	Packaging	Supervisor	Helper & Loader	
5000-10000	6 (5.9)	47 (34.8)	85 (84.2)	119 (82.6)	10 (29.4)	22 (34.4)	289 (49.8)
10000-15000	71 (69.6)	67 (49.6)	16 (15.8)	18 (12.5)	7 (20.6)	32 (50)	211 (36.4)
15000+	25 (24.5)	21 (15.6)	0 (0)	7 (4.9)	17 (50)	10 (15.6)	80 (13.8)
Total	102 (100)	135 (100)	101 (100)	144 (100)	34 (100)	64 (100)	580 (100)

Source: Researcher's calculation based on primary data; Note: Row wise percentage in brackets

Table 7.20 depicts the association between the job type and the income level of the contract workers. In the case of Technician, 94% of workers are earning above Rs. 10,000/-, 84% of Plant & Machinery Operators are earning up to Rs. 15,000/- per month, 84.2 % of Assembly workers & 82.6% of Packaging workers are earning up to Rs. 5000-10000 per month, 50% of Supervisor are earning more than Rs. 15,000/- per month. 50% of Helper & Loader earnings are between Rs. 10,000-15,000 per month. This indicates that workers' income varies across job types of contract workers. Chi.Sq. (10) = 249.137, $p = .000$ is significant at 1%, indicating that income and Job type are significantly associated.

7.4 CONCLUSION

Job type, gender, and educational level are all significant drivers of food spending patterns among the working class, while their relative relevance varies greatly. The study sheds light on the precarious position of Goa's working class during the research. In light of these findings, it is seen that the workers spend more of their money on necessities like food and housing. Regarding health and medicine consumption, higher subsistence consumption levels are mainly due to the lower medical insurance coverage for contract workers, as they are only covered under the mandatory health insurance scheme. Most of the workers are not completely aware of the health insurance coverage. Extensive research indicates that

differences in spending may be attributed mostly to factors like occupational status, educational level and income, with gender playing only a minor role in explaining these variations. The consumption structure of contract employees conforms to Abraham Maslow's hierarchy of needs as the expenditure moves from food and shelter to other items like entertainment. The study shows that contract labourers working as Helpers and Loaders incur household expenditure on travelling and housing to the maximum amount. This phenomenon is not observed among the contract workers in other job categories. Their spending shifts from physiological requirements to self-actualization wants, as they first spend money on their physiological demands and subsequently on amusement. It is also observed that there are considerable differences in household consumption pattern among contract employees of various job types, educational levels, and even gender. The findings of this research might serve as a reference for market segmentation in the relevant regions. The results contribute to the research evidence on assessing spending patterns, therefore assisting policymakers in formulating adaptable policies for the consumption improvement of contract employees. However, this also contradicts Maslow's Hierarchy of Requirements theory since evidence demonstrates that not all workers are driven by the same needs. At the same moment, various people may be motivated by different needs. A person is constantly driven by their most compelling unfulfilled desire.

CHAPTER VIII

FINDINGS AND CONCLUSIONS

8.1 INTRODUCTION

In this final section, the study's theoretical contribution is emphasised, its key results are highlighted, and potential future research topics are identified. The research contributes to the current literature on the organisational behaviour of workers in the manufacturing sector by providing further evidence of the relationship between employee engagement and job satisfaction level of the contract workers in the industries and also partly explains this relationship through employment vulnerability. The implications of the study are examined for better policy decisions. This research reveals an intriguing gender difference in work satisfaction. This research concludes that employee happiness and engagement are associated with the contentment of the contract workers with their job. This result is significant for enterprises.

Work and workplace relations seem to be a significant factor in determining economic vulnerability. Difficult working circumstances, the collaboration of seniors and colleagues, and work arrangements are all related to various types of vulnerability at work. An appropriate combination of items assessing concerns at the core of the workplace, issues that are essential to workers, and that management, has significant implications for understanding the real nature of individual and business-unit-level overall satisfaction. The vulnerability of employees in the industrial jurisdiction along with several parameters, comprising of employment status, demographic factors, and job characteristics, continues to be a significant problem for the economy. Employing organisations should maintain ideal levels of factors catering to communication and emotional needs in order to safeguard the day-to-day well-being of contract employees. This section presents major findings, conclusions, suggestions, study limitations, and opportunities for further research.

8.2 CHAPTER SUMMARY

The first chapter of the thesis describes the structure of the contract labour system, the robust constructs connected with worker well-being, the research challenge, and the study's primary goals with hypotheses. The second chapter consists of a literature review that emphasises on research using units and techniques on the constructs. The third chapter presents the conceptual framework based on a linked theory survey. In the fourth chapter, the study's research methodology is described. There is an elaboration on the sampling and the statistical technique used for analysing data. A summary of the primary fieldwork for collecting the essential items for drafting the questionnaire for scale designing is given.

The fifth chapter focuses on the scale's design and the investigated construct's factor analysis. Based on similar ideas, it examines the influence of a model of employee engagement approach on the job satisfaction level of contract employees. This study's objective is to identify the dominant element in the connection. The sixth chapter summarises the influence of demographic and occupational factors on the constructs. In the seventh chapter, an effort is made to evaluate the direction of the link between factors such as income, educational level, job type, and spending pattern among state-employed contract employees. The emphasis is on establishing the association's direction to anticipate the approach to improve the employees' situation. In the eighth and last chapter, the study's results are provided.

8.3 MAJOR FINDINGS

The major findings from the study on contract labour are given below:

Taking the foreground of literature and theory, a conceptual model has been designed to assess the impact of Employee Engagement on the job satisfaction level of contract workers employed in the industries. The ready scales designed by Kuok & Taormina (2017), designed to study work engagement, was used for measuring Employee Engagement as Kosaka & Sato (2020) have stated that both concepts are the same. The scale for job satisfaction and employment vulnerability were formulated to study this relationship exclusively with reference to workers employed on contract. Organisations might use the metrics to concentrate on aspects that enhance employee engagement and workplace happiness, which would result in a reduction in staff turnover as well as an improvement in overall profits and performance. The scales may also be relevant to

contract employees located in other regions of the world. With appropriate adjustment for organisational, social, and cultural contexts, this study contributes to existing investigation on employee engagement and job satisfaction by constructing a valid and reliable metric for contract employees. In addition, the study contributes to research that has already been conducted on employee engagement and job satisfaction.

The SEM results show that the contract employees' Job Satisfaction (JS) is substantially influenced by Employee Engagement (EE). The Emotional Work Engagement (Emo) component of (EE) Employee Engagement has a positive and statistically significant effect on the Job Satisfaction of contract employees, as it explains 21% of the variation. This section explains the emphasis on the emotional parameters and the statistical significance of the construct.

- Scales to measure the construct of Employment Vulnerability and Job Satisfaction were developed. The ready scales designed by Kuok & Taormina (2017) was retested in the context of the contract form of employment and used for measuring the Employee Engagement level of the workers.
- The model is empirically tested, and the analysis reveals that with a standard estimate of .596, the impact of Employee Engagement on Job Satisfaction is positive and statistically significant. It means that the workers with higher Employee Engagement are more satisfied with their job. In contrast, lower work engagement results in lesser job satisfaction.
- Employee engagement comprises of various factors, notably cognitive, emotional, and physical factors. As per the study, it is concluded that the Emotional aspects of the Employee Engagement level has an extremely strong influence on the Job Satisfaction level. The Cognitive and Physical aspects are not strong influencers for these workers.
- After establishing a strong significant path from employee engagement to job satisfaction, it is further investigated to learn if the employment vulnerability of the workers mediates this relationship between Employee Engagement and Job Satisfaction. It is found that the standard estimate of this strength gets reduced from .596 to .134, which indicates a partial mediation of employment Vulnerability in the relationship.

- Vulnerable employees have less ability to shape their work environment. Although the workers engage themselves in work and derive satisfaction from their job, the feeling of vulnerability experienced at work does influence their level of satisfaction derived from their involvement with work.
- Gender studies on contract labourers reflect that gender does not moderate the mediating impact of Employment Vulnerability of the workers on the relationship between Employee Engagement and Job Satisfaction. Female workers choose the safe option of working as Assembly workers or in the Packaging department. Hence, they feel less vulnerable. Furthermore, gender disparities have been identified, such that males enjoy enrichment from job to family, but women suffer depletion.
- In the study of job type as a moderator in the mediating role of employment vulnerability on the relationship between work engagement and job satisfaction of contract workers, it was found that workers in the Supervisor category experienced full mediation, marginal mediation in the case of Assembly workers, and partial mediation for labourers employed as Technicians, Operators of machinery and equipment. It is determined that job type does not modify the mediating impact of vulnerability on the link between employee engagement and job satisfaction based on the pair-wise Z test results, which are provided, and all p-values are larger than .05. Job type of the contract labourers, too, does not moderate the mediating impact of employment vulnerability of the workers on the relationship between employee engagement and job satisfaction.
- The educational level of the contract labourers moderates the mediating impact of employment vulnerability of the workers on the relationship between employee engagement and job satisfaction. It is noted that the direct effect is still statistically significant for workers with educational levels up to SSC, HSSC, Graduate & Diplomas, even after the inclusion of employment vulnerability as a mediating component. It demonstrates how vulnerability mediates the link between employee engagement and job satisfaction to a certain extent for these contract employees. There is no indication of mediation in the case of the workers in the illiterate and elementary categories.
- According to Gender based comparison and the p-value, the mean employment vulnerability score for male contract employees is 33.68. In contrast, for female

contract workers it is 15.99. The standard deviation score for male is 11.04 whereas for female is 4.59. The results show a disparity between male and female contract workers employment vulnerability ratings. This outcome supports the general assumption that workers of both sexes are equally at risk, but the degree varies. The findings show that vulnerability is much greater among men than women in factories. The male workers are the breadwinners of their families, yet they work in jobs that are not secure, leaving them feeling exposed.

- The women tend to return to the labour force after their children are either out of the house or enrolled in formal education. They do not contribute much to the household's income. They would rather work in the more secure environment of the packing department. Therefore, women tend to feel less exposed than men. This is likely because they relate to jobless or underemployed women rather than their male coworkers. The gender gap in insecure employment is hard to explain using traditional individual and family labour supply measures. Instead, the current disparity is mostly attributable to ingrained stereotypes and discriminatory policies that continue to treat women as second-class citizens in the workplace.
- The study findings indicate that as per the MANOVA result the mean score of illiterate workers for employment vulnerability is 32.63 where as for the diploma holders it is 25.66. This shows a significant difference in the level of feeling of vulnerability. A worker who is illiterate or has a minimum primary education believes that anything he receives is a boon as even despite being the least educated, he can earn enough to take care of the basic needs of himself and his family.
- The job type does affect the job satisfaction of the contract workers. The workers in the Supervisor category have the highest mean score of 45.71 and the Plant and Machinery operators with a poor mean score of 35.53. The nature of work has a deep impact on the satisfaction level.
- With a high mean score of 98.79, the workers in the Supervisor category are found to be more engaged in their work. In contrast, the least engaged group comprises of the workers from the plant and machine operator category, with a low score of 75.02.

Understanding the factors under job involvement that affect the employees' job satisfaction is useful to the company management. Those that are really useful should be taken into

account to ensure the appropriate benefit of the new advantages that can be provided to competent and engaged contract labour.

8.4 CONCLUSIONS

The results of the study are discussed in the preceding section. Several conclusions based on these findings are presented in this section:

The following conclusions are derived from the first objective:

- A strong significant path is found between employee engagement and job satisfaction of contract workers. Engaged employees are more job satisfied. The results of the data analysis support the hypothesis that the relationship between employee engagement and job satisfaction can be partly explained by employment vulnerability. Moreover, the selection of contract employees as a research unit contributes to the discussion over the rationale for the rising use of contract labour in the industrial sector.
- The connection between employee engagement and job satisfaction is both positive and substantial. Contract employees' Job Satisfaction (JS) is substantially influenced by Employee Engagement (EE). The Emotional Employee Engagement (Emo) dimension of Employee Engagement (EE) has a positive and significant impact on the job satisfaction of contract workers. The relationship between TbS and Physical Employee Engagement (Phy) is marginally significant, indicating that TbS has a marginal impact on the Phy dimension of EE. Nature of Work substantially impacts the Physical Employee Engagement (Phy) factor of EE. Emotional Employee Engagement has a significant impact on JS dimensions. EE has a negative effect on EV, particularly the affective component of employee engagement has a negative impact on JS. Meaningful and motivating work, as well as a safe working environment, are crucial for employees. Negatively and substantially, EV influences the TbS dimension of employees' Job Satisfaction.
- A highly significant negative relationship exists between Employment Vulnerability and the Nature of Work (NW) dimension of Job Satisfaction. Negatively and substantially, employment vulnerability influences the Salary (S) dimension of employees' Job Satisfaction. Employment Vulnerability mediates the relationship between EE and JS to a certain extent. Only the educational level of contract employees moderates Employment Vulnerability's moderating effect on

the relationship between Employee Engagement and Job Satisfaction. The findings of the current study's analysis using Structural Equation Modeling revealed that worker's emotional involvement has a greater influence on their job satisfaction than their cognitive and physical work engagement.

- This research supports the view that organisations must become more aware of changes in daily job engagement and that, regrettably, present advice and policy are oblivious to the significance of internal processes. The study indicates that expanding access to employee involvement practices might significantly improve job satisfaction for vulnerable employees.
- Employee engagement is undoubtedly the primary priority of human resources department and the whole corporate organisation. Engaged workers' performance, contributions, personalities, and work styles have propelled organisations forward. This is also true for contract labourers, as the level of Employee engagement has a significant relationship with job satisfaction.

The following are inferences made based on the second objective of the research.

- Contract kind of work is dominated by vulnerable employment, and illiteracy is connected with it. The worker working under a precarious form of employment and the company's core job merits particular consideration, as it sets out as a factor leading to the rapid increase in precariousness. There are substantial gender and employment vulnerability, employment engagement, and job satisfaction differences among contract workers. In manufacturing firms, male employment vulnerability is substantially greater than female employment vulnerability. Contract employees who are female are significantly more engaged than their male counterparts. Significant differences exist in the job satisfaction, employment vulnerability, and employee engagement of contract workers in manufacturing divisions. Certain categories of workers are the least enthusiastic about their employment in every respect. There are significant differences between contract employees' educational qualifications, employment vulnerability, employee engagement, and job satisfaction. The educational level substantially affects all three parameters of contract labourers.

- The female employees are extremely satisfied with their jobs. Women are more contented with their jobs than men, supporting the expectation that employees with fewer goals are significantly more likely to be content with their employment.
- The group of Supervisors has reported the highest levels of job satisfaction. They are proud of their position as administrators because they believe they have been entrusted with a sense of leadership. Contract employees with a college degree or a diploma are more satisfied with their jobs than those with less education because they receive a better job package. Contract employees who are female are significantly more involved than those who are men. This is possible due to the fact that female contract workers are more frequently engaged in less dangerous, stress- and boredom-free work. Plant and machinery operators have the lowest employee engagement relative to other occupations. They are physically dedicated to their line of work, but their connection to the company is weak. Graduates and diploma holders are highly engaged in their work because they have a greater likelihood of being employed as permanent employees, whereas the supply of less-educated workers vastly surpasses demand, leading to a sense of unpredictability that is reflected in their level of engagement. Supervisors' job satisfaction is increased when they receive adequate consideration from their company's superiors. The same applies to female contract employees. Diploma recipients and graduates report increased job satisfaction in every respect. Female workers are highly engaged in every aspect of employee engagement. In every respect, plant and machinery operator are hardly passionate about their jobs. While performing their duties, they may be subjected to high temperatures or dangerous substances and appear less engaged than employees in other categories. Diploma and graduates with bachelor's degrees are more engaged in every element of their work, showing the significance of educational credentials in fostering a greater passion for work among employees.

The following conclusions are derived based on the third objective of the research's findings:

- Job type, gender, and extent of educational level are all significant determinants of food expenditure patterns among contract workers, although their relative importance varies considerably.

- A strong and significant relationship exists between educational level and the spending patterns of contract labourers in the manufacturing industry on food and non-food items. Classification of employment, gender, and level of educational level are all significant determinants of food expenditure patterns among the working class, although their relative importance varies considerably.
- Based on these findings, it is reasonable to conclude that contract employees spend more of their income mainly on necessities such as food and lodging. A strong connection between educational level and income means that workers in Packaging, Assembly section and Helpers & loaders categories compromise on the basic necessities of life.

8.5 SUGGESTIONS

- Firms must allow their workers the freedom to make their job interesting and foster an atmosphere conducive to an engaged professional life. Employees are the most valuable assets of any firm. If the workers are not provided sufficient time and space to create a balance between work and contentment at the office, disengagement sets in. Organisations and personnel rely on one another to achieve their respective aims and objectives. Therefore, employee involvement must not be considered just as a one-time activity but should be incorporated into the company's culture. Engagement of employees should be a constant process of learning, progress, and action. Firms should strive to meet employees' expectations to influence their performance, directly affecting their productivity.
- To achieve parity between academic achievement and occupational incomes of the contract workers, skill-oriented courses must be promoted.
- Engagement occurs on a variety of levels, including organisational, task, and individual. Organisations must provide the finest policies and work environments possible to keep workers engaged and motivated. Effective employee engagement initiatives need the collaboration of specialists, diverse stakeholders, workers, and management. It is well known that experienced employees' key skill sets are difficult to replace. The most effective way to manage employees and their performance is to engage them at the highest possible level by ensuring that all necessary conditions for their emotional, cognitive and physical needs are met.

- The human resource management division of the company should seek an opportunity for improvement—right the balance of elements impacting job satisfaction by improving the physical and cognitive demands of contract employees in the workplace. Building upon skill mapping/skill development, a friendly work environment, and improved safety equipment for employees engaged in precarious labour is a must. A long-term employment contract may help employees feel more emotionally secure and drive them to perform better. Awareness of the many requirements of the labour law for them might lessen their sense of insecurity since precarious employees are the most susceptible and adversely impacted. Organisations must re-evaluate their human resource strategy in order to increase employee engagement, which has a huge influence on job happiness.
- The mere adoption of the ILO's new set of standards - the Wage Code, the Social Security Code, the Occupational Safety, Health, and Working Conditions Code, and the Industrial Relations Code - is insufficient. The labour department should actively strive to strictly implement these four new labour rules as quickly as is feasible. Working conditions and industrial relations are significant influences on the link between the perceived sense of wellbeing of contract labourers and their work satisfaction.
- Every single employee under the contract labour system has a wealth of experience and expertise that the primary employer should make the most of. An organisation should not harbour any ill will or mistrust against those who work tirelessly to achieve its goals. Additionally, contract employees should be seen as a vital commodity for the business. Working and producing outcomes are impossible if the basic work-related facilities, both material and intangible, are insufficient. Senior leadership must explain their roles and responsibilities, the organisation's core values, purpose, and other important information to contract employees, in order to keep the wheels of production rolling. Each contract worker's aptitudes and abilities should be taken into account while creating a job profile.
- It is critical to recognise and address any weaknesses, knowledge gaps of the workers or skill shortages, and to implement training programmes and seminars to address such issues. To ensure contract employees have a secure future, they have

to be thoroughly informed and educated about government programmes on gratuity, insurance and other benefits so as to provide a sense of security.

- This research indicates that the Social Exchange Theory is a suitable theoretical framework for explaining why workers become more or less involved in their job and organisation. The conditions of engagement in Kahn's works have been effectively investigated in relation to contract labourers who have shown a strong emotional connection to their jobs despite their brief tenure.

8.6 IMPLICATIONS OF THE STUDY

- This work supplements the body of knowledge in three distinct ways. First, this is among the first studies to strongly evaluate the effect of employee involvement on the satisfaction of contract employees. Second, there are a few significant studies on contract employees who experience high levels of occupational vulnerability to date. Third, according to the employee engagement hypothesis, three elements of employee engagement, namely physical, cognitive, and emotional involvement, are connected with the employees' job satisfaction. In addition, given that the sample under consideration comprises contract workers, the emerging idea of vulnerability is presented in this context. This research also provides a thorough understanding of the primary focus areas that must be considered when developing policies for the well-being of contract employees.
- The findings have consequences for developing instruments that assess the theoretical concept of interest and tools that serve as the foundation for practice. The feasibility of longitudinal investigation in the field of employee engagement as well as job satisfaction hinges on the utility of tools for managers and workers. Useful instruments give managers actionable data to enhance their management processes.
- Understanding the factors and the dynamics of the contract labour employment systems that produce vulnerability – particularly, how the work and worker's characteristics interact to generate vulnerability; understanding the implications of vulnerability for workers, and examining the policy responses is of the utmost importance in light of the fact that employment vulnerability has a substantial impact on the level of engagement and the level of satisfaction of contract labourers.

- This finding can assist management in predicting employee behaviour by focusing on job satisfaction, employee engagement, and employment vulnerability. This may also affect collective bargaining procedures. Consequently, it is crucial that management develops an awareness of the connection between employee engagement, job satisfaction, and employment vulnerability. This will facilitate a greater knowledge of the needs of these low-income contract workers and suggest the way to manage them. The findings of this study contribute significantly to the scant established literature on the concept of contract form of employment exclusively in the industrial sector.
- Identifying the influence of employment vulnerability on worker satisfaction is only useful if policies are established to mitigate vulnerability related to work. These rules might be devised to address the vulnerability of all types of contract labour.
- The attention is drawn towards the formation of a common forum for an open dialogue to design a constructive approach amongst the various stakeholders such as representatives of the Labour Commission, local government bodies, members from the industry, Contractors, Voluntary agencies, Non-Governmental Organisations, independent social workers, lawyers, and academicians and the contract labourers is a dire need for economic prosperity and social stability.
- Labourers must be educated on their rights and obligations. Contract workers should be allowed to lodge concerns with an impartial body, which should, after that, convey them to the labour inspector. Unless such precautions are enacted, just a subset of society will reap the advantages of liberalisation.
- The problem of insufficient skill training among workers is of significant concern. The absence of skill training may be attributed to a significant disparity between the skills required by businesses and the abilities held by the workforce. Contract employees get limited training on the job, resulting in insignificant skill development. This deplorable state of the labour market and the absence of assistance during periods of unemployment—training facilities to upgrade their skill for better employability and career growth needs a thought by the policy makers.
- Timely clearance for dues of Provident Fund and Employee State Insurance benefits, even in the case where the contract workers shift to work under another

contractor, should be ensured by the concerned administrative authority. It is vital to have an effective social security net that can increase the negotiating power of labour. Strengthening the legislation ensures employees are not deprived of their social security benefits even if they switch contractors. This casts a deep impact on their engagement with work.

- Creating self-sustaining welfare funds would be more practicable. The fund may be maintained by a society or a trust, or the local branch of the labour commission. It can be extremely effective at fulfilling the immediate needs of employees in distress, making them feel less vulnerable and boosting their participation and job satisfaction.
- Digitalisation of the entire system of contract labour employment for transparency in providing all details related to the labours should become mandatory. The Labour Commission has to take a proactive role in this regard.
- There must be a mechanism to avoid substituting regular labour with contract labour for the firms' core activity, which is generally precarious in nature. The principal employer must get a thorough clearance before using contract labour for core functions of the enterprise.
- It is unlikely that pay and working conditions will improve if employees do not negotiate the terms of employment collectively. This involves fixing salaries jointly based on skill and working conditions. As long as governments enforce a strict implementation of labour codes, there is a small chance of improvement in the condition of the contract workers.
- Strict implementation of the occupational safety, health, and working condition code 2020 is necessary. The code unites and modifies the regulations governing the occupational safety, health, and working conditions of an establishment's employees. It includes provisions for free yearly health exams for workers and official appointment letters. A stern application of the code would reduce feelings of vulnerability and increase employee motivation and work satisfaction.
- The study has shown that all the stakeholders- government, principal employer, and contractor, have a great deal of work to do to increase employee engagement. Regardless of demographic characteristics, all workers have the maximum capacity and drive to be involved in their job. The resulting higher degree of satisfaction will

promise a much more productive workforce for the contractor and the principal employer. Hence, their cooperation is significant.

8.7 LIMITATIONS OF THE STUDY

The research is not without limits. The study is restricted to contract labourers only. The focus is on major industrial estates only. Micro, small and medium enterprises are not part of the study. To begin with, the response rate is relatively low, and statistics on the exact numbers of workers engaged by Contractors were inaccessible. Due to the immensity and breadth of the contract labour scenario in Goa, it was difficult to include all industries, locations, and sectors wherein contract workers are employed in the research. It is anticipated that the outcomes of this research will be a reflection of the overall association between employee engagement and job satisfaction among only contract labourers who are also vulnerable to unemployment.

The sensitivity of the respondent's opinions when comparing groupings of engagement elements and single engagement factors, as well as the range of organisations and respondents, as also the kind of organisation in which the research was done, maybe a limitation of the study. All respondents were employed in the manufacturing sector only. This also imposes constraints on general statements and use in different fields.

The survey's cross-sectional form hinders assessing the causation of model routes and evaluating model stability and consistency. Hence, causal relationships cannot be tested.

These findings may not be generalisable to workers beyond industrial units and Goa. However, the relationship studied is strengthened by existing literature on related themes. The results' congruence with established findings in the literature review is comforting.

Information obtained via self-reported data collection has greater risks associated with frequent technique variation. Structural equation Modeling (SEM) encourages a focus on worldwide fit at the cost of the rest of an evaluation of various lower-order characteristics of the data, which also has a substantial impact on the analysis of a model. In this regard, SEM may be inferior to more traditional statistical methods, which may be viewed as a drawback.

8.8 SCOPE FOR FURTHER RESEARCH

This research can provide a direction to the point of departure for longitudinal and experimental study with a further analysis of the impact of the partial moderation of employment vulnerability on the mediating effect of employee engagement on job satisfaction and the productivity of contract workers. Further research should give an insight into more factors influencing this relationship, such as vulnerability due to societal instability and economic and political shocks. A more diverse sample and an inter-sectoral study can shed more clarity on the mediation of the insecure position of workers employed under contract. Future studies should seek to find other mediators or moderators of this association. Extended research may continue to investigate the role of external elements (such as technological advancement) in enhancing employee engagement and performance in the workplace.

Monitoring of employment vulnerability does not have to rely only on quantitative data since qualitative sector-level evaluations may guide choices about the concentration of scientific data gathering. In contrast, quantitative data analysis might indicate the necessity for a larger labour market examination of certain industries. In this approach, quantitative and qualitative data may influence the formulation of country-specific policies to decrease deficiencies in decent employment. Further research in this area would be beneficial.

The research on employee involvement in the contractual workforce on a national and international scale is valuable in light of the rise of multinational corporations and outsourcing. The research could be expanded to incorporate more apparent components of employee engagement, such as work-life balance. Only the group levels of unskilled and semi-skilled workers were assessed for diversity. The research may also be expanded to the most advanced levels of contract workers at the management level and other industries. It is also fair to draw comparisons with the more long-term employees. A further comparative empirical study using data from multiple nations is required to improve our knowledge of employee engagement and work satisfaction across nations. Research can be done to explore how cultural traditions influence job satisfaction and participation among contract labourers.

There is an additional study possibility based on the procedure for generating employee engagement strategies for a firm. This requires a more thorough examination of how firms

have embraced employee involvement, created successful initiatives, and continued to enhance as necessary. In simple words, a study of the contract and principal employer's point of view can provide a better understanding. Other organisations like the public sector and educational institutions can also profit from this study through similar research in those sectors. This will enrich the research conducted on contract labourers and contribute towards increasing the welfare of this segment of the workforce.

Future research may investigate how other variables, such as family dynamics, cultural norms, and technological developments interact with one another. To meet the varied financial requirements of contract workers in different demographic contexts, it is necessary to further examine the complex connection across gender, job type, educational level, and workers' spending preferences. This will lead to the development of targeted strategies at both micro and macro policy levels for contract workers.

**APPENDIX
QUESTIONNAIRE**

(This survey is for research titled, “A Study of Contract Labour in the Registered Manufacturing Units in Goa” in Goa Business School, Goa University. The following questions are designed only for research purposes. The information will be kept confidential)

- K. Sangeeta (Research Scholar)

SECTION I- DEMOGRAPHIC PROFILE

1.CODE (instead of name) _____ Mob No. _____ E mail
ID _____

2.Name of the firm(Optional) _____

3.Gender: 1. Male _____ 2. Female _____ 3.Other _____

4.Age: _____ years

5.Marital Status: i.Married _____ ii Unmarried _____ iii.Separated _____
iv Widow/Widower _____

6.Family type: i. Joint family _____ ii. Nuclear Family _____
iii. Independent _____

7.No. of family members: Adult ____ Children ____ Male ____ Female ____

Senior Citizen _____

8.State of origin: _____

9.Educational level Qualifications:

Illiterate	
Elementary	
Secondary	
Higher Secondary	
Graduation	
Diploma	
Other (Post Graduation)	

10. Religion _____

11. Caste _____ (Gen./OBC/SC/ST)

12. No. of earning members in the family _____

13. Total monthly family income (Rupees)

(Rupees)	
Upto 5000/-	
5001-10000/-	
10001-20000/-	
20001-30000/-	
30001-40000/-	
Above 40001/-	

14. Monthly savings (If Any):

	Amount in Rupees		Amount in Rupees	
I	Upto 5000/-	iv	20001-30000/-	
II	5001-10000/-	v	30001-40000/-	
III	10001-20000/-	vi	Above 40001/-	

15. Consumption expenditure details:

	ITEMS	Approximate Amount (Rs.)
a	Food	
b	House rent/repair/maintenance	
c	Educational level	
d	Medicine, Health care	
e	Travelling	
f	Entertainment	
g	Any other (Specify)	

16. Loan (If Any) Yes/No. _____

17. Reasons for Loan:

a	Consumption	
b	Repair of House	
c	Studies/Training	
d	Social Occasions	
e	Medical Help	
f	Repay old Loan	
h	Any other (Specify)	

SECTION II- OCCUPATIONAL DETAILS

18. Previous Job (If any, specify) _____

19. Years of experience in the previous job: _____

20. Years worked in total (Present and Previous): _____

21. Reasons for leaving the previous job:

i	Low wages	v	Working conditions
ii	Heavy workload	vi	Timely wages not paid
iii	Poor safety standards	vii	Ill-treatment
iv	Inconvenient timings	viii	Others (specify)

22. I have another job to supplement my income. 1. Yes _____ 2. No _____.

PRESENT JOB

23. Nature of work:

Technician	
Plant & Machinery Operator	
Assembly worker	
Packaging	
Supervisor	
Helper & loader	
Any Other	

24. Recruitment Through: Individual Contractor _____ Contracting Agency _____

25. Nature of contract: Written/Oral _____

26. The duration of your contract:

i	One to six months	
ii	Seven to eleven months	
iii	One year	
iv	Up to two years	
v	Other	

27.Monthly Income from all sources:

Rupees	
Upto 5000/-	
5001/- to 10000/-	
10001/- to 15000/-	
15001/-to 20000/-	
20001/- to 25000/-	
25001/- to 30000/-	
30001/- to 40000/-	
Above 40001/-	

28.No. of years associated with the present contractor:

Below one year	
1 to 5 yrs	
6 to 10 yrs	
11to 15 yrs	
Above 15 yrs	

29.Type of work shift:

Day		Night		Irregular/On call/Rotation	
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30.No. of years of work experience in the present firm:

1-5yrs		6-10yrs		11-15 yrs		15 &Above	
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31.The wages are paid:

i	Piece Rate	v	Bi-weekly	
ii	Hourly	vi	Fortnightly	
iii	Daily	vii	Monthly	
iv	Weekly	viii	Any Other	

32.No. of Working hours per day:

Up to 8 Hrs.	Up to 9 Hrs	Up to 10 Hrs	Above 10 Hrs

33. The set rate of wage/salary as per the government:

	Amount in Rupees			Amount in Rupees	
i	Up to 5000/-		iv	20001-30000/-	
ii	5001-10000/-		v	30001-40000/-	
iii	10001-20000/-		vi	Above 40001/-	

34. The actual wage/ salary paid :

Amount in Rupees		Amount in Rupees	
Up to 5000/-		Up to 5000/-	
5001-10000/-		5001-10000/-	
10001-20000/-		10001-20000/-	
20001-30000/-		20001-30000/-	
30001-40000/-		30001-40000/-	
Above 40001/-		Above 40001/-	

35. Availing the benefit of government schemes: Yes _____ No _____

Scheme	Amount in Rupees
Employment State Insurance (ESI)	
Employment Provident Fund (EPF)	
Any other	

36. Amount deposited in Bank account: Wage _____ EPF _____ ESI _____ Others _____

37. Any payment is received in kind, such as food, housing, etc. : Yes/No _____.

If yes, then the estimated value of that in Rupees will be _____.

38. Member of Labour Union: Yes/No _____

39. Name of Labour Union _____

40. Union is recognised by: Principal Employer _____ Contractor _____

41. Incentives received: (Other than Salary and D.A.): _____

SECTION III- EMPLOYEE ENGAGEMENT

(Please tick mark the rating for each question that comes close to reflecting your opinion) Rating: SA- Strongly Agree, MA- Moderately Agree SL. A-Slightly Agree UD- Undecided SI. D-Slightly Disagree MD- Moderately Disagree SD- Strongly Disagree.

Sr. No	Score	7	6	5	4	3	2	1
	STATEMENT	SA	M A	SI A	U	SI D	M D	S D
1	My mind is often full of ideas about my work.							
2	Wherever I am, things that happen often remind me of my work.							
3	My mind is fully engaged with my work.							
4	I rarely think about the time when I am working.							
5	My thought is fully focused when thinking about my work.							
6	I give a lot of mental attention to my work.							
7	I feel very delighted about what I am doing whenever I am working.							
8	I am very eager to do my work.							
9	I feel very happy when I am carrying out my responsibilities at work.							
10	I feel very good about the work that I do.							
11	I feel strong enthusiasm for my work.							
12	I feel a sense of gratification with my work performance.							
13	The organisational culture keeps me connected to the company.							
14	I am given charge of important task which connects me to the enterprise.							
15	No matter how much I work, I have a high level of energy.							
16	I have a great deal of stamina for my work.							
17	I always have a lot of energy for my work.							
18	I am often physically driven by my work.							
19	I am frequently energised by my work.							
20	I find my work physically invigorating (give strength or energy to).							

SECTION IV -MAGNITUDE OF EMPLOYMENT VULNERABILITY

(Please tick mark the rating for each question that comes close to reflecting your opinion) Rating: SA- Strongly Agree, MA- Moderately Agree SLA-Slightly Agree UD- Undecided SI. D-Slightly Disagree MD- Moderately Disagree SD- Strongly Disagree.

Sr. No	SCORE	7	6	5	4	3	2	1
	STATEMENTS	SA	MA	SLA	U	SI D	MD	SD
1.	During work, I am not exposed to high temperatures that would make me perspire even when not working.							
2	I am not exposed to low temperatures, whether indoors or outdoors.							
3	My work does not expose me to breathing in smoke, fumes, powder, dust, etc.							
4	I have been provided safety gear, a helmet, mask, Gloves, Boots, and Hand Sanitisers.							
5	Social distancing is practiced as much as possible (COVID situation).							
6	My main job does not involve vibrations from hand tools, machinery, etc.							
7	My work does not involve handling or being in direct contact with dangerous substances such as chemicals, infectious materials, etc.							
8	My work does not require me to be in painful or tiring positions.							
9	My work does not involve carrying or moving heavy loads.							
10	My work activities do not involve							

	repetitive arm movements.								
11	I do not have to work at a very high speed.								
12	My work is not subjected to meeting tight deadlines.								
13	My work does not involve working night shifts.								
14	I am working more than 8 hours a day.								

SECTION V- JOB SATISFACTION INDEX

(Please tick mark the rating for each question that comes close to reflecting your opinion) Rating: SA-Strongly Agree, M A- Moderately Agree SL. A-Slightly Agree UD- Undecided SI. D-Slightly Disagree MD- Moderately Disagree SD- Strongly Disagree.

Sr. No	SCORE	7	6	5	4	3	2	1
		SA	MA	SLA	U	SI	MD	SD
	STATEMENT							
1	I am satisfied with my present salary.							
2	My income is larger than I would have gotten under any other contractor and firm.							
3	I am satisfied with the monetary allowance given apart from the salary.							
4	I find the mode of provident fund payment very convenient.							
5	I am satisfied with the method of allocation of my increments.							
6	I am satisfied with the basic facilities like the canteen, drinking water, washroom, and other							

	non-medical benefits.								
7	Timely medical facilities are provided in case of accidents.								
8	I am satisfied with the deduction for Social Security coverage, e.g., EPF, ESI.								
9	If I want to take an off, I receive leave facilities.								
10	Maternity benefits are provided (Female Workers).								
11	I am given enough on-the-job training to improve my skill.								
12	My work experience has made me more employable.								
13	There is a cordial relationship between contract and permanent workers.								
14	The principal employer gives reasonable attention to the contract workers.								
15	I do not have any grievances with the contractor.								
16	I do not have any grievances with the principal employer.								
17	I am treated with respect and dignity by my senior								
18	My job gives me a chance to do the things I do best.								
19	I get assistance from colleagues if you ask for it.								
20	I respect my seniors.								
21	My abilities and performance on this job are appreciated.								
22	My suggestions regarding the work are given attention.								
23	I am treated with respect and dignity by my co-workers.								

24	I am satisfied with working as a contract labour.								
25	I do not have any feelings of job insecurity.								
26	I am satisfied with the type of work allotted to me in the department.								
27	The working hours are convenient and fair.								
28	I find my working conditions safe because safety equipments are provided.								

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