

IMPACT OF TALENT MANAGEMENT STRATEGIES ON EMPLOYEE ENGAGEMENT

Thesis

Submitted in partial fulfilment of the requirements for the degree of

DOCTOR OF PHILOSOPHY

by

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DECLARATION

I hereby declare that the research thesis entitled “**Impact of Talent Management Strategies on Employee Engagement**” which is being submitted to the **National Institute of Technology Karnataka, Surathkal**, in partial fulfilment of the requirements for the award of the degree of **Doctor of Philosophy in School of Humanities, Social Sciences and Management** is a *bonafide report of the research work carried out by me*. The material contained in this research thesis has not been submitted to any other Universities or Institutes for the award of any degree.

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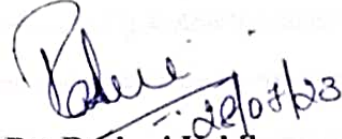


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CERTIFICATE

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Abstract

In the present business environment, there is always a shortage of talented employees, hence business leaders find it a huge challenge to attract, engage and retain talented employees in their organisations. In a knowledge-intensive service industry of information technology, the availability of talented workforce is a crucial resource to operate their business successfully. To sustain and be competitive business organisations, the management has to strategise towards managing their talented resources. The research study deals with the various talent management strategies and understanding their impact on engaging employees at work. The research study was undertaken based on two theoretical frameworks of the resource-based view and social exchange theory. The research is an empirical study undertaken in the Indian IT industry; the research tool was administered to a sample of 554 employees. The data were analysed using SPSS and relationships were tested among the various talent management strategies and their impact on talent management. Talent management model was also developed SEM and AMOS. The results state that employer branding, mentorship and training and development are the main drivers of employee engagement. The employees are keen towards flexibility at work and work culture. Transformational leadership plays an essential role of a moderator in terms of talent development, talent assessment, and talent retention towards employee engagement. The research study has built an empirically tested model of talent management having a positive and significant impact on employee engagement. The research study provides academic and practical insights into the concepts of talent management and employee engagement.

Keywords: Talent Management, Employee Engagement, Talent, Development

Declaration

Certificate

Acknowledgement

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List of Abbreviations

AGFI	Adjusted Goodness Fit of Index
AMOS	Analysis of Moment Structures
AVE	Average Variance Extracted
BR	Employer Branding
CFA	Confirmatory Factor Analysis
CFI	Comparative Fit Index
CR	Critical ratio
EE	Employee Engagement
ER	Employee Referral
GFI	Goodness of Fit Index
IT	Information Technology
KMO	Kaiser Meyer Olkin
MT	Mentorship
RBV	Resource Based View
RMSEA	Root Mean Square
SE	Standard Error
SEM	Structural Equation Modelling
SET	Social Exchange theory
SM	Social Media
SPSS	Statistical Package for the Social Sciences
TAS	Talent Assessment
TD	Training and Development
TL	Transformational Leadership
TLI	Tucker Lewis Index
TM	Talent Management
TR	Talent Retention
VIF	Variance Inflation Factor

CHAPTER 1

INTRODUCTION

1.1 INTRODUCTION

Winston Churchill predicted that the future business empires in the world would be of 'the mind' where knowledge industries are the engines of global growth, and there would be battles of minds to dominate the future (Cannon and Mcgee 2011). The future predicted by Winston Churchill is the present scenario of our business world. Traditionally, the employers held an upper hand and had the power in the workplace wherein they were the decision makers regarding where the employees would work, at what pay, and how much information needed to be shared. But at present, this dynamic does not exist; the employees have the upper hand as there is a scarcity of talented workforce. The technology empowers employees to share and have access to information. At present, the knowledge of technological know-how and the drive to achieve success are the traits of business tycoons. In order to be successful, business leaders rely extensively on people's innovative and creative minds. People are given prominence in the global business world, and business leaders are always searching for talented individuals who would lead organisations to greater success. Humans have a unique intellectual capacity with which they strategise, innovate and lead organisations up the success ladder. In the knowledge economy, people are the backbone of the economy. In the knowledge economy, the main player is the Information Technology (IT) industry. This industry is a people-centric and knowledge-intensive industry. There are several examples of individuals such as Bill Gates, Steve Jobs, Mark Zuckerberg, Larry Page, Sergey Bin, Jeff Bezos, Narayan Murthy, and many more business magnets who have created revolutions in the Information Technology (IT) industry. India is one leading IT nations and the largest exporter of IT products and services. There is huge potential for growth in the Indian IT industry. Even in the Indian IT industry, there is always a dearth of talented employees. Ensuring the smooth flow of talented employees at the right time and place ensures the firm's sustainability. The talent lifecycle encompasses the various stages of interaction between the organisation and its human capital (Schiemann 2014). The author also states that talent life cycle ranges from

building a talent brand that attracts the right talent to acquiring, onboarding, developing, managing, retaining and even recovering talent. Managing, engaging and retaining talented individuals is always crucial for firms, as there is always competition for a talented workforce in the labour market. The changing needs and requirements of talented employees belonging to different generations and also the scarcity of talented skills make the management of talents an ever-challenging task for business heads. The strategies implemented to ensure employees in the firms are engaged at work need to change in accordance with the changing needs. During the pandemic situation, the IT industry survived due to its strategies of flexibility in the workplace and a hybrid model of working. Several companies in the IT industry still have provided work-from-home options to their employees in order to ensure employees are given flexibility. Hence, managing talented employees, engaging them at work, and retaining skilled employees is a challenge faced by leaders, particularly in the IT industry.

1.2 RESEARCH BACKGROUND

The business environment is drastically changing due to internal and external factors. Managing the Volatile, Uncertain, Complex and Ambiguous (VUCA) business world has been challenging for the business heads. The current business environment is characterised by acute global competition, ever-changing technology and the growth of the knowledge economy. In the knowledge economy, the Information Technology (IT) industry is a knowledge-intensive industry that relies on the knowledge and capacities of its workforce. The traditional sources of gaining competitiveness in a knowledge economy are losing importance, whereas human talent, a renewable resource that cannot be easily copied or stolen by competitors (Dries 2013; Iles 1997) is resulting in the firm's competitive advantage. Issues related to the availability of talent are a significant concern for many business heads (Bhalla et al. 2018; Groysberg and Connolly 2015). More than 75% of business leaders showcase that the critical threat to their business growth is the scarcity of essential skills and capabilities (PWC 2017). It is a continuous challenge faced by business heads to select and retain the quality and quantity of talented workforce (Vaiman et al. 2017). The shortage in the supply of talented workforce has resulted in knowledge-intensive companies adopting talent management strategies. In today's knowledge-intensive firms, employers have

understood that an engaged, skilled and motivated workforce is the key to growth and achieving competitive advantage. Hence there is a need to find practical solutions to resolve the problems faced by business leaders. The research tries to provide the various strategies adopted to manage talent in the IT industry and their significance, especially towards engaging employees.

Talent Management (TM) as a discipline has been considered fast-growing over the last decade (Collings et al. 2015) but has many unresolved questions relating to practice (Thunnissen and Gallardo-Gallardo 2017). There is little knowledge on how TM is conceived, developed and implemented in organisations. Talent Management (TM) is a critical strategic challenge facing managers (Gallardo-Gallardo and Thunnissen 2016). In today's competitive world, it is one of the most important factors ensuring sustainable organisational success (McDonnell et al. 2011). The effect of talent management strategies has been empirically tested for business performance, but from the non-economic point of view or the employee's point of view such as retention, engagement of employees, and well-being of employees, is yet to be analysed.

In the field of management, the concept of employee engagement in recent years has become significant and widespread (Crawford et al. 2014; Saks and Gruman 2014; Bailey et al. 2017). Xu and Thomas (2011) define employee engagement as an emotional state of mind inspiring individuals to be involved in work and also perform at higher levels of productivity. Engaged employees are known to be active, energetic and contribute to their best of abilities for an organisation (Shuck and Wollard 2010). Engaged employees contribute towards firm's creativity, production and long-term viability (Bhuvanaiah and Raya 2015). Schaufeli et al. (2008) states that engaged employees who are engrossed and enthusiastic at work are essential to take the organisation to the next level. Engagement of employees at work provides for better organisational sustainability, talent retention and work culture, which in turn leads better business performance and sustainability.

1.3 PROBLEM STATEMENT

The concepts of talent management and employee engagement have gained attention from academicians and practitioners due to their importance in the corporate world. Several research studies have focused on talent management and employee engagement as separate areas of research. But there lies a dearth of research in studying the two concepts together, their relationships and outcomes. To date, there is very little empirical evidence to show the relationships between the two concepts. Therefore, this research aims at analysing the implications of talent management strategies on effectively engaging employees in the growing IT industry in India.

1.4 NEED FOR THE STUDY

There is always a shortage of talented workforce, which provides for the development and growth of the organisation. Every individual employee is unique and has the knowledge, skill and potential to offer to an organisation. Tapping this uniqueness leads to gaining a competitive advantage among firms. In the volatile and ever-changing business environment, acquiring, developing and managing talented people is a challenge business leaders face. Particularly in a knowledge-intensive service industry of information technology, the availability of talented workforce is a crucial resource to operate their business successfully.

1.5 RESEARCH QUESTIONS

The following research questions are designed based on the research gaps identified:

1. What are the various talent management strategies adopted for knowledge workers in the Indian IT sector?
2. What is the impact of talent management strategies on employee engagement?
3. What is the influence of leadership on TM and employee engagement?
4. What is the framework of TM enhancing employee engagement in the IT industry?

1.6 RESEARCH OBJECTIVES

The following research objectives are framed for the study:

1. To determine the various talent management strategies adopted in IT Industry
2. To analyse the relationship between talent management strategies and employee engagement.
 - 2.1. To analyse the relationship between talent acquisition and employee engagement.
 - 2.2. To analyse the relationship between talent development and employee engagement.
 - 2.3. To analyse the relationship between talent assessment and employee engagement
 - 2.4. To analyse the relationship between talent retention and employee engagement.
3. To examine the influence of transformational leadership as a moderator on TM and employee engagement.
4. To design a model of TM that assists in enhancing employee engagement in the IT industry

1.7 SIGNIFICANCE OF THE STUDY

Human resources are considered the best resource available to the business organisation as they are capable of achieving a competitive edge to the firms. Talented workforce is always scarcely available in the labour market. Knowing several talent management strategies supports business leaders in ensuring sustainability and also aids in a competitive edge. Acquiring, developing, engaging and retaining talent is the success mantra for sustainability among business heads. The study of talent management helps in understanding the issues pertaining to the management of talent. It also provides suitable strategies which aid in managing and engaging the talented workforce in the present challenging business environment. It enables leaders to identify strategies that help in acquiring new skills, developing existing skills as well as also engaging employees in their work.

1.8 SCOPE OF THE STUDY

India is considered the fastest-growing knowledge economy with a stronghold in Information, Communication and Technologies (ICT) industries and has a mass of skilled English-speaking knowledge workers. According to NASSCOM (2021), India is the world's largest sourcing destination for the Information Technology (IT) industry,

accounting for approximately 67 per cent of the US\$ 124-130 billion market. This sector is expected to triple its current annual revenue to reach US\$ 350 billion by FY 2025. The industry has an employee base of 3.9 million and plans to grow in employment opportunities by creating 2.5-3 million new jobs.

The study of TM strategies and their impact on employee engagement is confined to the Indian knowledge economy. The study focuses on the knowledge workers working in Indian IT organisations which have already implemented talent management strategies in their organisations.

1.9 ASSUMPTIONS OF THE STUDY

The phenomenon of talent management studied in this research is implicit in nature; hence there are assumptions. These assumptions unknowingly may have influenced the research study; thus, they are stated. It is assumed that the employees working in IT firms are aware and have knowledge of the strategies adopted by their individual organisations. It is also assumed that the employees who are the respondents to the study are competent to respond to the questions asked in the questionnaire by the researcher. The respondent's response is assumed to be made willingly and honestly.

1.10 OVERVIEW OF THE KNOWLEDGE ECONOMY

Over the years, the creation and preservation of knowledge have been the key tool to gain competitiveness and enhance organisational capabilities to respond to market changes. (Bryan 2004). An economy which includes jobs, companies and industries based on the knowledge and capabilities of people rather than machines or technologies is known as a knowledge economy (Lengnick-Hall and Lengnick-Hall 2002).

Powell and Snellman (2004) define knowledge economy as products and services based on knowledge-intensive activities that contribute to advances in technology and sciences as well as leading to rapid obsolescence. Arporn (2008) suggests that companies and firms that have to grow with global needs have to improve their performance, and to do so, firms have to focus on improving their workforce and management style. The knowledge economy relies significantly on the intellectual capabilities (Powell and Snellman 2004) of knowledge workers, who play a major role in gaining a competitive advantage for firms.

Knowledge workers are employees who are known for adding value to the organisation because of their knowledge (Lee and Maurer 1997). Knowledge work can be differentiated from other forms of work by emphasising "non-routine" problem solving that requires a combination of convergent, divergent, and creative thinking. (Reinhardt et al. 2011).

1.11 INTRODUCTION TO INFORMATION TECHNOLOGY (IT) INDUSTRY

According to NASSCOM, Indian IT sector employment prospects in the near and long term are expected to be broadly positive and encouraging for the future. Indian IT companies currently serve two-thirds of the Fortune 500 companies and have created 40 lakhs of direct jobs in India. NASSCOM has confirmed that the industry continues to be a net hirer and reports that 2.5-3 million new jobs will be created by 2025, and in FY 2017, the industry added 1,70,000 new jobs and incremental revenue of USD 7 million. IT industry added 600,000 employees in the last three years and, at present, boasts of a total employee base of 3.9 million. An article in Hindu Business Line dated 27th April 2017 states that around 65 per cent of the workforce preferred working in the IT sector. India's total software product market grew by 9.5 per cent in FY2017 to reach USD 7 billion (Exports grew by 7.8 per cent to reach USD 2.3 billion). In comparison, the domestic market grew much faster, at 10.4 per cent, reaching USD 4.8 billion. According to India Brand Equity Foundation, September 2017, report India as a country is known as the world's largest sourcing destination for the IT industry, accounting for approximately 67 per cent of the US\$ 124-130 billion market. As stated by NASSCOM, the sector is also expected to triple its current annual revenue to reach US\$ 350 billion by FY 2025. The IT industry is characterised by knowledge workers or gold-collared workers who contribute to the industry with their specialised knowledge and skills. In the global world, India is a leading player in Information technology and related (Nayak et al. 2018; Lahiri 2013). The industry is growing towards a digital revolution, and the industry is training its employees in digital skills such as big data analytics, cloud and cyber security services, robotics, etc. There is a new talent addition in emerging job roles, such as subject matter experts and domain hybrid professionals possessing soft skills and domain and technical skills. The industry overall is a growing industry and is changing at par with the requirements of the environment. A lot of investments are

being made by the business heads toward building an organisation which employee oriented as well as technology-driven.

1.12 OPERATIONAL DEFINITIONS

According to Neuman (2014), operationalisation is the process of moving from a construct's conceptual definition to specific measures that allow the researcher to analyse it. He also states that an operational definition means a variable in terms of the specific actions to measure or indicate it in the empirical world. Below are the various operational definitions of the concepts studied in the research.

Talent: Talent means the sum total of all the experience, knowledge, skills, and behaviours that a person possesses and brings to work (Cheese, Thomas and Craig 2008). In the study, talent refers to the knowledge, skills, experience, and behaviour of employees working in the IT industry.

Talent management Strategies: The strategies adopted by the management of IT firms in order to acquire, develop, assess and retain talent.

The independent variables of employer branding, employee referral, social media, training and development, mentorship, talent assessment and talent retention are all measured and analysed as strategies of talent management.

Talent Acquisition: Talent acquisition refers to attracting potential talents, sourcing and hiring the talented workforce required for attaining the predetermined business objectives. The variables for analysing talent acquisition strategies are employer branding, employee referral and social media.

Employer branding: The firm's image as an employer to the public at large and communicating employment policies as an employer to the present and future employees. The study analyses the employer branding variable as a talent acquisition strategy.

Employee referral: It is an internal source of talent acquisition in IT firms, wherein the present employees refer individuals known to them to apply for job vacancies in the organisation they work for.

Social media: Social media refers to the use of web-based conversational media among communities who are online to share information, knowledge and opinion (Safko and Brake 2009). The research study has analysed the use of social media as a strategy for talent acquisition, wherein the employer, the employees and the potential employees interact based on web-based communities such as LinkedIn, Facebook, etc.

Talent Development: Talent development efforts focus on planning, selecting and implementing development strategies for all employees to ensure that the organisation has both the current and future supply of talent to meet strategic objectives (Garavan et al. 2013).

Training and Development: Training and development, an essential aspect of the talent development concept, are the strategies implemented for developing competencies of employees in the organisation for performing the present job and career advancement.

Mentorship: A relationship where the experienced and wiser person (mentor) assists and helps the less experienced individual (protégé/ mentee) to develop based on organisational requirements. The research study analyses the variable of mentorship as an aspect of talent development.

Talent assessment: Talent assessment refers to the review or evaluation of the performance of employees working in IT firms. The variable tries to analyse the effectiveness of the firms' strategies to assess the performance of individual employees and its linkage to training and development and also compensation and benefits.

Talent retention: The processes and strategies framed by the IT firms in order to retain their talents in their organisation.

The dependent variable for the research study is employee engagement.

Employee engagement: Schaufeli et al. (2002) define employee engagement as 'a positive, fulfilling, work-related state of mind that is characterised by vigour, dedication, and absorption.

1.13 ORGANISATION OF THESIS

The entire thesis is organised into five chapters. The following are the details of the chapterisation:

Chapter 1: The first chapter introduces the subject matter of the research, followed by the research background, problem statement, and objectives of the research. In addition, the chapter provides an overview of the knowledge economy and the IT industry as the research study is based on this industry.

Chapter 2: The second chapter provides detailed insights into the relevant literature on all the concepts related to the study. Theoretical framework of the study is discussed. Talent management concept is discussed in depth along with the variables utilised for the research. The chapter also provides a detailed literature review of the dependent construct of employee engagement. The review of literature for the moderating variable of transformational leadership is also explained. The research gaps are identified, and the conceptual framework is depicted along with the various hypotheses.

Chapter 3: The third chapter discusses in depth the research methodology adopted for the research study. It explains the research paradigm, research design and research approach utilised for the study. The data collection methods, sampling and measurement scales of the variables are also explained.

Chapter 4: The fourth chapter describes in detail the statistical analysis performed on the data collected. It provides all the details of the results of the descriptive analysis, reliability and validity tests, measurement model and structural model.

Chapter 5: The fifth chapter discusses the various findings of the research and is followed by the implications of the study. The conclusions of the research are explained, the limitations of the research are outlined, and future research suggestions are also proposed.

CHAPTER 2

LITERATURE REVIEW

2.1 CHAPTER OVERVIEW

This chapter details the literature background for all the constructs chosen for the study. The literature review begins with an understanding of the theoretical framework for the analysis. Next, the meaning of the term talent as per the study is explained. The literature review of the primary independent construct of talent management is discussed. The elements of talent management which frame the main constructs for study are listed. The chapter details the theoretical framework of the research. The theories chosen for the analysis are explained in view as to how it integrates with the research study. The review of the literature is done for each of the elements, namely talent acquisition, talent development, talent assessment and talent retention. These elements are analysed with concepts. Employer branding, Employee referral and Social media are the constructs for talent acquisition. The review of the literature is discussed in detail in this chapter. Talent development constructs are analysed based on two constructs, namely training and development and mentorship. The literature review is explained based on these two concepts. Talent assessment and talent retention literature review are both discussed in detail. The literature review for the dependent construct of the study, employee engagement, is also provided in detail. The moderating variable of transformational leadership is also discussed in detail in this chapter. Overall, the chapter gives an overview of the construct studies with the literature background. The research gaps are also identified based on the literature review, which provides the direction and based on which the research questions are drafted.

2.2 THEORETICAL BACKGROUND FOR THE STUDY

There are several theoretical frameworks applied to the concept of talent management. Theoretical frameworks which are frequently used in academics of TM are strategic human resource management (SHRM), Resource Based View, International human resource management (HRM), Capability theory, etc. The previous research studies suggest that TM acts as a “bridging field” (Sparrow et al. 2014) based on ideas from

human resource management (HRM), in addition to other approaches such as the resource-based view (RBV) and capability theory (Sparrow and Makram 2015). It is developing into its own area and is becoming less limited to HRM practices. This trend suggests that future lines of research should address the relationship between TM and competitive advantage in greater depth through the development of the competencies of not only company members but also future workers. In the research on Talent Management, Resource Based View (RBV) is found to be the most dominant theoretical framework used (Gallardo-Gallardo et al. 2015).

The **Resource Based View** is a way in which firms design strategies. It views a firm as a bundle of resources, both physical as well as knowledgeable. It focuses on the development of its resources and gaining a competitive advantage from using available resources. RBV claims that an organisation can derive a sustainable competitive advantage from a firm's resources that are rare, difficult to imitate and not substituted (Barney 2001). Intangible assets of the organisation, such as proprietary intellectual capital, winning brands, and innovation and creativity, have become the major ideas that leads to competitive advantage (Michaels et al. 2001). This stream of thought, termed as strategic HRM, is premised on the RBV (Wright et al. 2001). Employees of the organisation are the knowledgeable resources who are the source of sustainable competitive advantage. The human resource of an organization fulfils all the criteria of the firm's resource that is capable of creating a sustained competitive advantage (Wright et al.1994). Knowledgeable resources are the best available resources for an organisation in times of uncertainty and volatility. Focus on managing and developing the available, talented workforce helps firms to gain competitive advantage as well as increase sustainability.

Social Exchange Theory (SET) has its origin in economics, sociology, and psychology (Homans 1958, 1974). Most theorists concur that social exchange involves multiple series of interactions between different groups or different people, and obligations are created as a result (Cropanzano and Mitchell 2005). A fundamental component of social exchange theory is that, potentially, if specific "rules" of exchange are followed, relationships can develop into two-way mutual commitments (Cropanzano and Mitchell 2005). These rules involve repayment or reciprocity. This theory is beneficial

to employee engagement research as organizations and employees ultimately have two-way relationships in which exchanges are constantly occurring. Saks (2006) found that when individuals receive economic and socio-emotional resources from their employer, they feel obliged to repay the organization with engagement

When organizations take care of the employees, exchange relationships evolve. This leads to positive reciprocation from the employees, leading to beneficial consequences. More precisely, employees may feel obliged to reciprocate the favours and rewards received from the organization. They may return with positive attitudes like affective commitment, less intention of leaving the job, and work performance (Kuvaas and Dysvik 2010). The Social Exchange Theory (SET) framework is used to predict employee-level outcomes of human resource management, such as employee motivation, employee commitment, and intention to stay (Gould-Williams and Davies 2005). On a similar line, SET has been frequently applied in the talent management literature. The social exchange theory is more robust in theoretical reasoning, which explains employee engagement, according to which obligations are generated through a series of interactions between parties who are in a state of reciprocal interdependence (Saks 2006). The theory is based on the principle that relationships evolve over time into a loyal, trustworthy and mutual commitment if the parties involved follow the rules of exchange (Cropanzano and Mitchell 2005).

The research uses a combined framework of the resource-based view and social exchange theory as the theoretical framework for the study. Both RBV and SET have equal relevance and basis for the analysis undertaken.

2.3 TALENT

The word talent has been described in several disciplines. In fields of sports, arts, psychology, in the area of gifted individuals, etc. In this research, the word ‘talent’ means the experience, knowledge, skills, and behaviours of employees working in the IT industry. To clearly analyse the term talent management, there is a need to first understand the term talent. Cheese et al. (2008) state that ‘talent has become a precious resource fought over by competitors in a global war for talent’. A key measure of success is in the investment of talent as a resource when the ‘return’ is considered

broadly to include benefits beyond financial ones alone (Schiemann 2014). The word talent has been analysed from different perspectives in human resource management, such as human capital, positive psychology, vocational psychology, educational psychology and social psychology (Dries 2013).

Ulrich and Smallwood (2012) define talent as “Talent = competence [knowledge, skills and values required for today's and tomorrow's job; right skills, right place, right job, right time] × commitment [willing to do the job] × contribution [finding meaning and purpose in their job]”. There are two approaches to the word talent, one being the subject approach and the other being the object approach. The subject approach refers to the people or the workforce of the organization, which is inclusive in nature. The object approach refers to the talents and exceptional abilities of a small segment of the workforce which is exclusive in nature (Thunnissen et al. 2013).

The basic assumptions and beliefs about the nature, value, and instrumentality of talent are thought by the organisation's key decision-makers (Meyers and Woerkom 2014). The researchers also developed a conceptual framework of four talent philosophies, which vary along the two dimensions of exclusive/inclusive and innate/developable. The exclusive/stable talent philosophy reflects the managerial belief that only a small percentage (< 20%) of employees are talented and that nature has provided these employees with special skills, capabilities, or ‘gifts’ (Tansley 2011). Exclusive/developable talent philosophy believes that talent is rare and latent so if only systematically developed, it would result in high-level performance and if undiscovered, can go wasted (Gagné 2015). The inclusive/stable talent philosophy builds on positive psychology and the inherent assumption that every individual possesses stable, positive traits referred to as ‘strengths’ (Seligman and Csikszentmihalyi 2000). Individuals who hold an inclusive/developable talent philosophy assume that all seemingly ‘ordinary’ people can become extraordinary performers through dedicated training (Biswas-Diener et al. 2011; Ericsson et al. 1993).

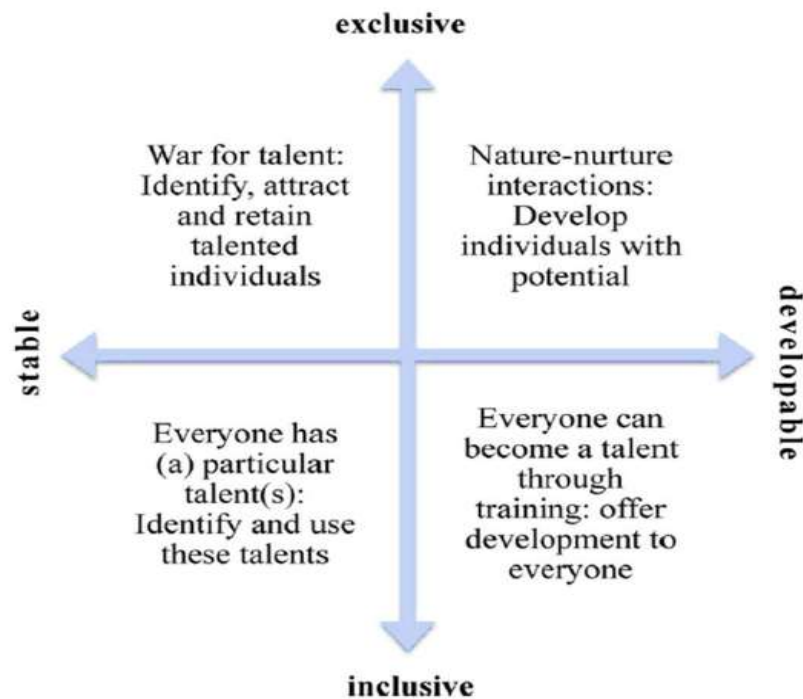


Figure 2.1: Talent Philosophy

Source: Meyers and Woerkom (2014)

There are two dimensions to define talent in the business arena; the first dimension treats talent as people, and the other deals with talent as characteristics of people such as abilities, knowledge and competencies (Gallardo-Gallardo et al. 2013). It refers to a set of competencies that, being developed and applied, allows the person to perform a certain role in an excellent way (Gallardo-Gallardo et al. 2013).

Talent can be considered a complex amalgam of employees' skills, knowledge and cognitive ability. Potential employees' values and work preferences are of major importance (Gallardo-Gallardo et al. 2013). Talent may be considered a strategic resource to create a competitive advantage in organisations (Warrach and Ahmed 2020). The research studies the word 'Talent' as the sum total of all the experience, knowledge, skills, and behaviours that a person possesses and brings to work (Cheese et al. 2008).

In this research, the inclusive subject approach of talent is considered, where all employees working in the organisation are considered as talents. Attracting, managing and retaining talents in the workplace is a huge challenge faced by managers in the

knowledge economy. Talent management strategies focus on attracting, developing, assessing and retaining the knowledge, skill and abilities of the talented workforce, leading towards gaining higher business performance.

2.4 TALENT MANAGEMENT

The term Talent Management (TM) gained momentum when a group of McKinsey consultants coined the phrase ‘the war of talent’ in 1997 (Axelrod et al. 2002). Beecher and Woodward (2009) state that the four main factors influencing the war of talent are the changing trends of global economics and demographics, the increasing mobility of people and organisations, drastic changes in skills, culture and business environments and workforce diversity. Since then, the shortage in supply of human talent, a valuable corporate resource and the pressure faced by organisations in attracting and retaining them and also the changing demographics of the workforce with the onset of globalisation and knowledge workers led to the development of the field of talent management (McDonnell et al. 2017). The business scenario is marked with unprecedented complexity by globalisation, technology, socioeconomic, political and demographical changes which increases the need for talent management strategies which would navigate through the challenges faced (Gallardo-Gallardo et al. 2020). Business leaders have felt the need to focus their attention to human capital, the most important asset in the organisation, their employees. In today’s competitive world, talent management is one of the most important factors ensuring sustainable organizational success (McDonnell et al. 2011).

The important findings which are highlighted from research studies (Al Ariss et al. 2013; Chadee and Raman 2012; Mellahi and Collings 2010) is that organisations struggle in talent management is due to lack of talent pipeline and lack of alignment between talent and firm’s strategies. From academic research point of view, the area of talent management has moved from infancy to adolescence stage (Gallardo-Gallardo, Nijs, Dries and Gallo 2015; McDonnell et al. 2017) and is yet to reach the status of maturity (Dries 2013).

Definitions and Conceptualisation of Talent Management

Talent Management practices comprise several specific processes inclusive of planning for the workforce, gap analysis of talents, recruitment, staffing, education and talent development, retention of talents, review of talents, succession planning and evaluation (McCauley and Wakefield 2006).

TM could also be defined as a strategic and integrated approach to managing the organisation's human resources career from attracting them, retaining and developing to transitioning them to be talented resources (Dijk 2008).

Talent management has been defined by the Chartered Institute of Personnel and Development (CIPD) 2006, as the systematic attraction, identification, development, engagement, retention and deployment of those individuals with high potential who are of particular value to an organization.

The definition of TM can be stated as the set of activities and processes that involve the systematic attraction, identification, development, engagement, retention and deployment of those talents which are of particular value to an organization in order to create strategic sustainable organizational success (Scullion et al. 2010; Collings and Mellahi 2009; Thunnissen and Gallardo-Gallardo 2019).

Talent management as a concept has lacked consistency in terms of its definition and its boundaries. (Narayanan et al. 2019; Ashton and Morton 2005; Collings and Mellahi 2009; Lewis and Heckman 2006). Lewis and Heckman (2006), critically reviewed the literature and depicted three main ideologies of TM. The first stream includes those studies which merely replace the term "human resource management" with "talent management" and contribute nothing or little to the domain. The second stream is built on succession planning literature and highlights the concept of talent pool development based on organizational objectives. The third stream focuses on managing talented people by filling all organisational roles with "A" performers (Lewis and Heckman 2006). Collings and Mellahi (2009) have proposed a fourth stream that emphasizes the identification of key positions, which may be the starting point of the talent management process. According to Collings and Mellahi (2009), talent management includes activities and processes that involve the systematic identification of key positions which differentially contribute to the organisation's sustainable competitive

advantage, the development of a talent pool of high-potential and high-performing incumbents to fill these roles, and the development of a differentiated human resource architecture to facilitate filling these positions with competent incumbents and to ensure their continued commitment to the organisation has been considered as a phenomenon for research studies (Dries 2013; Gallardo-Gallardo et al. 2015). TM is strategised and implemented in an organisation which is a part of broader society or an operating context; hence it cannot be regarded as a stand-alone phenomenon (Gallardo-Gallardo et al. 2020). Strategic management of the talent flow through an organization, and its purpose is to ensure that the supply of talent is available to align the right people with the right jobs at the right time based on strategic business objectives (Dries 2013). Effective talent management strategy is a key to competitive success, and it will become more strategically important in future years (Michaels et al. 2014).

The concept of TM has been attracting practitioners' interests more than just academicians. (Lewis and Heckman 2006; Cappelli and Keller 2014; Thunnissen et al. 2013; Gallardo-Gallardo and Thunnissen 2019). TM has been criticized for being indifferent from HRM and considered as old wine in a new bottle (Iles et al. 2010; Lewis and Heckman 2006; Cooke et al. 2014). TM is attempting to change its view from HRM by having the view of employees being treated as respected individuals, treated fairly and valued and appreciated for, rather than considering employees as capital resources (Pandita and Ray 2018). The concept of TM is also different from HRM with the view changing from authority and control to a direction of shared sense of achievement of goals (Casse 1994; Pandita and Ray 2018). TM has also been considered to a mere management fad. But talent management has been in discussion by both academicians and practitioners as a hot topic for more than a decade. TM is a phenomenon to stay in the research field for a long time as there is vast scope for research. It also provides direction for the business heads to navigate through the challenges they face in the ever-changing business environment and labour market dynamics. In the business scenario, which is volatile and ever-changing due to globalization, technology, and broader socio-economic, geopolitical and demographic changes, there is an increased need to focus on identifying, attracting, recruiting, developing and retaining talent to sustain and direct through the challenges of it

(Gallardo-Gallardo et al. 2020; Claus 2019; Reiche et al. 2019; World economic forum (WEF) 2016). According to Wilska (2014), internal conditions of an organisation affecting talent management are corporate culture, managerial staff, human resources department, employee talents, management system and leadership, the brand image of the organisation and the budget. The external conditions which have an impact on talent management are the micro environment comprising customers, society, competitors, and the macro environment comprising legal, state policy, social and economic conditions and also cultural aspects. Recent emerging research both conceptual and empirical have drawn their attention towards the complex external macro environment within which an organisation functions and strategise their TM systems. To attract, develop and retain talent, the previous studies also focus on elements such as flow of talent across countries and governmental policies in a global competitive business scenario.

Talent Management literature consists of two approaches which are inclusive and exclusive. The inclusive approach considers all the employees as talented resources and the exclusive approach considers only a set of employees, such as top managerial talents, and high or star performers, as talented resources.

The conventional exclusive TM practices is considered less effective for ensuring a favourable attitude and behaviour from employees in highly functional groups (Gallardo-Gallardo et al. 2020). Cooke et al. (2014) show that the homogeneity of the workforce and the type of jobs, and the egalitarian culture make it necessary for firms to adopt an inclusive TM approach in China and India. Previous research works state that organizational cultural factors, transformational leadership, and job sharing have a positive impact on talent management, and talent management when implemented as an impact on job satisfaction, job performance, and commitment sustainability (Sariwulan et al. 2021).

The TM literature is biased as it is focused more towards the managerial approach. There is very little literature available on one of the more important aspects of TM, which is employees' opinions and perspectives. There is still very little known as to how really TM works in practice (McDonnell et al. 2017; Thunnissen 2016). The role of talent management in terms of business performance and competitive advantage has

been empirically tested (Sparrow et al. 2011; Stahl et al. 2012). Dries (2013) states that there is scope for future research in talent management's interaction with organisational (culture, communication and strategy), team and individual level, psychological reactions of individual employees to TM practices, and the prevalence of different types of TM practices.

Work engagement and organisational alignment are considered as indirect objectives of talent management (Cheese 2008). Highly engaged workers perform better in terms of high productivity, customer satisfaction and retention (Cheese et al. 2009). McDonnell et al. (2017) state that there is a need to identify in TM literature as to the influence of individuals on organisational performance and the impact of TM, which may maximise the contributions of individuals. There is a dearth of empirical research studies which explain the outcomes of TM and the effectiveness of the implementation of TM strategies need more understanding on what happens in practice, which will help to offer more relevant research. Review of literature of TM (Thunnissen and Gallardo-Gallardo (2017) clearly stated that the factors external and internal of TM have been studied, and the primary focus of TM strategy its implementation and the reactions of employees towards the strategies is very scarce. Talent management strategies is a futuristic approach closing the gap between organisation's current needs and to meet the future challenges (Coculova and Tomcikova 2021).

Elements in Talent Management

The talent lifecycle encompasses all stages of interaction between an organization and its human capital. This ranges from building a talent brand that attracts the right talent to acquiring, on boarding, developing, managing, retaining and even recovering talent (Schiemann 2014). TM is also described as the activities and processes that involve the systematic attraction, identification, development, engagement, retention, and deployment of those talents that add value to an organization to create sustainable strategic success (Boudreau and Ramstad 2005). The process of talent management activities is considered cyclical in nature (Forman 2005). Pandita and Ray (2018) states that the TM is a cyclical process composing of five consecutive steps and the elements in it are talent planning, talent acquisition, talent development, talent retention and talent evaluation. According to Orlova et al. (2015); Shafieian (2014) there are four

elements in talent management. The components of talent management are depicted in Figure 2.2. These four elements are the basis for the research study.

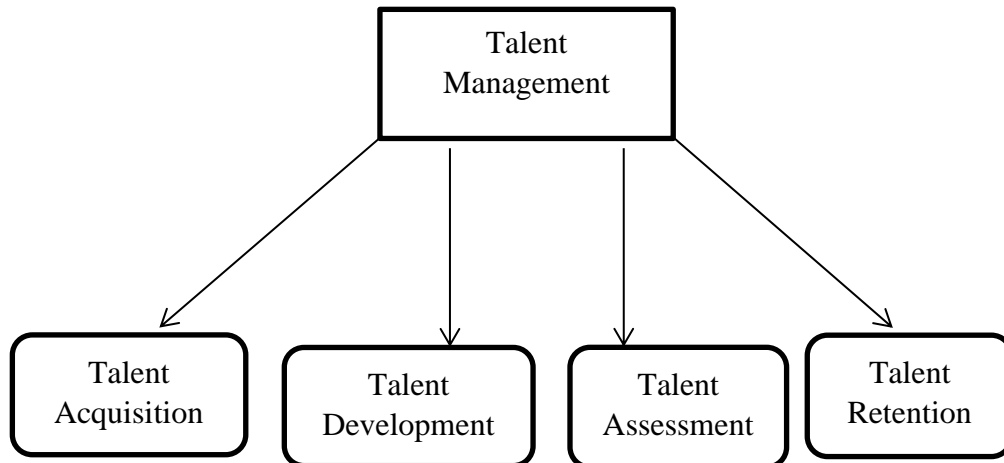


Figure 2.2: Elements in Talent Management

Source: Orlova, Afonin, and Voronin, (2015) and Shafieian, (2014)

2.5 TALENT ACQUISITION

Talent acquisition is a strategic approach in identifying talent pools in the labour market, attracting the best fit talents to the firm, onboarding them effectively and efficiently in line with the strategic goals. Talent acquisition refers to attracting potential talents, sourcing and hiring the talented workforce required for the present and future needs in order to attain the predetermined business objectives. As talent are rare and difficult to find and hard to substitute, the organisations which are better in attracting and retaining them are always ahead of competition (Srivastava and Bhatnagar 2008; Barney and Wright 1998). Talent acquisition has to analyse both internal mobility of employees as well as potential external hires for gaining competitive advantage and cost-effective strategies. Attracting the best talents possessing critical skills are one of the top human resource challenges faced by organisations in India (Ranstad, 2016). Cappelli (2008) states that organizations need to shift from vacancy-led recruitment to recruit ahead of the curve and to strategically think about ‘make and buy talent’ to fulfil the shortfall of talent. Effective talent acquisition focuses on sourcing the best potential employees from a bigger talent pool

than the available applicants (Srivastava and Bhatnagar, 2010). According to Deloitte 2021 report on optimising talent acquisition for the future, clearly states that talent acquisition is no longer acquiring people to fill vacancies but instead, the modern TA uses analytics and technology to discover talents, build relationships with talent pools, assess capabilities for current and future needs of the organisation and also predict future patterns. Talent acquisition strategy to be successful should be framed to fit the organisational culture and objectives (Srivastava and Bhatnagar, 2008). In the past, talent acquisition has been more administrative oriented, but at present, it is a strategic endeavour focused towards overall business performance. In spite of the pandemic situation the demand for skilled workers is growing, with seven in 10 employers globally state that they are struggling to find employees with apt technical and human skills (Deloitte, 2021). The six key elements of talent acquisition strategies are talent planning, present and future, employer brand building, sourcing and recruiting required talents, both internal and external, recruiting technology, effective onboarding and use of data analytics (SHRM 2017). The talent acquisition strategies that are analysed in the present study are explained as follows:

2.5.1 EMPLOYER BRANDING

To attract and engage talented workforce, employer branding plays a key role. Employer branding helps in communicating the employment policies of the organisation to future and present employees and the public at large by creating an image of itself as a distinct employer within and outside the organisation (Srivastava and Bhatnagar, 2010). The process of employer branding includes developing an image as an employer and also depicts the working relationships between organisation and potential recruits. The view point of the potential candidates regarding the reputation of the candidate is necessary for talent attraction (Poorhosseinzadeh and Subramaniam, 2013). Ambler and Barrow (1996) define the employer brand from the point of view of benefits, stating that it is “the package of functional, economic and psychological benefits provided by employment, and identified with the employing company.” According to Backhaus and Tikoo (2004), “Employer branding encompasses the firm’s value system, policies and behaviours towards the objectives of attracting, motivating, and retaining the firm’s current and potential employee.” The term employer branding

from the perspective of managing talents is described as to how firms market their offerings to potential and present employees, communicate with them and build loyalty both within and outside the firm and also a clear picture as to what makes an organisation different and desirable as an employer (Sokro, 2012). At present organisations are ready to invest more in employee branding programs as it creates a positive image among the public at large. According to LinkedIn Global recruiting trends report 2017, the top most wish list of leaders is to invest in organisational branding, as 80% leaders agree that employer branding has a great impact towards their ability in hiring talents. Employer branding creates a value proposition for employees which in turn contributes towards retention and engagement levels. The results of empirical research conducted in India's service industry indicated that there are strong positive relationships between employer branding and employee engagement (Burawat 2015). In a literature review on the concept of employer branding for a range of ten years between 2010 and 2019 revealed that majority of the empirical studies proved that employer branding creates employee engagement (Easa and Baza 2020). Based on an empirical analysis (Gupta et al. 2020) clearly state that there is a strong association between employer branding and work engagement. An empirical study done in the ITES industry in India clearly identified that employer branding is a comprehensive strategy for engaging employees (Chawla 2020). Based on previous literature the research study has drafted its hypothesis in alignment with its research objective.

Hypothesis 1: There is a positive relationship between Employer Branding and Employee Engagement.

Employer branding is very crucial for an organisation to attract individuals (Sivertzen et al. 2013). According to Brewster et al. (2005); Srivastava and Bhatnagar (2010), the key strategy to attract and retain talent is employer branding. Employer branding aids in avoiding any mismatches between the employer and the employees' requirements, which in turn reduces early attrition. Creating a positive employer image radiates to the community at large and attracts potential job applicants. Improving the external and internal communication, signals to the potential talent about the total employee experience there. (Srivastava and Bhatnagar 2010). The present employees are also a

source for employer branding through word of mouth. They help in employer branding and also refer potential employees to the organisation.

2.5.2 EMPLOYEE REFERRAL

The concept of employee referral is found in the literature of human resource management, organisation behaviour and also in service marketing disciplines (Bloemer 2010). Employee referral is an internal source of talent acquisition, wherein the present employees refer known individuals to them to apply for job vacancies in the organisation they work for. According to Schalter and Pieper (2017) employee referral is a popular strategy of hiring by using an organisation's current employee's social network (referrers) to fill job vacancies with referred workers. The success of any organisation is closely linked to the quality of its employees; which is linked to the effectiveness of talent acquisition strategies (Breaugh 2016). The most common source for talent acquisition is employee referral (Silzer and Dowell 2010). Employee referrals results in increased likelihood of a successful hire (Brown et al. 2012; Fernandez et al. 2000; Pieper 2015) and also reduces any wastage of resources during the recruitment process. (Pieper et al. 2018). Though a traditional source, referral from existing employees is the most effective and widely used source for talent acquisition in the knowledge industry. The LinkedIn Global Recruiting Trends 2017 states that employee referral is the top channel for quality talent acquisition. The Global report also states that India as a country stands highest in utilising employee referral as an effective channel followed by United States. Employee referral is a popular channel of talent acquisition as many costs associated with formal recruitment such as advertisements, recruiting agency fee, etc. (Pieper et al. 2018). Employee referral has been advantageous for the potential employee during the job interviews and also for the organisations as the candidates have been pre-screened and prepared by the employee (Breaugh, 2008). An employee's job involvement and affective commitment are the key elements which determine employee referral (Bloemer 2010). Only if an employee feels involved and committed to the organisation, then he would refer a known person for a job vacancy. Employee referrals is considered as an expression which shows employee loyalty which shows positive effect of employees recommending the organisation

(Pieper et al. 2019). In alignment with the literature, the second hypothesis tests the relationship between employee referral engagement of employees.

Hypothesis 2: There is a significant relationship between employee referral and employee engagement.

2.5.3 SOCIAL MEDIA

Marketo (2010) defines social media as “the production, consumption and exchange of information through online social interactions and platforms.” O’Reilly (2010) states Web 2.0 as the ‘second generation of internet-based services that facilitate interactive information sharing, social networking, collaboration and end user participation’. Social media and social networking sites are words which are often used interchangeably. The meanings of the two are clearly stated by Villeda and McCamey (2019) and by Haag and Cummings (2013). According to them social media allows individual interactions through devices powered with web 2.0 and that social networking sites are platforms in which individuals can create accounts, make friends and exchange information, it is an element of social media. They also state that the organisations make use of social media very often and also promote their organisation. One of the modern strategies for talent acquisition is the use of social media. It has already been established by researchers that the most popular social media sites for talent acquisition are Facebook and LinkedIn (Villeda and McCamey 2019; Melanthiou et al. 2015). Facebook reported approximately 1.93 billion daily active users. Overall, daily active users accounted for 66 percent of monthly active users. With roughly 2.89 billion monthly active users, Facebook is the most popular social network worldwide. In 2040, the number of Facebook users in India was expected to reach 970 million, up from 357 million in 2020 indicating a steady growth in the social media platform's user base. LinkedIn boasts over 740 million users in more than 200 countries and territories across the globe (LinkedIn 2021). In the last five years LinkedIn nearly tripled its user base from 160 million to 400 million. The highest postings of jobs during the first six months of 2018 were for software engineers followed by application developers. Millennials are always very keen towards their access to cutting edge technology (Wetsch 2012). This growing trend of users can be a vital tool for acquiring of talented

workforce through social media. In addition, research scholars have accepted that the popularization of social networking sites have resulted in the growth of social network theory as an academic field (Lewis et al. 2008). The trend of increased usage of social media is common among Indians as it is worldwide and provides for identifying employment (Nayak and Bhatnagar 2018). Villeda and McCamey (2019) points out the benefits of using social media is reduced cost and time of hiring, reaching out to the young masses, attract a larger pool of applicants and providing employers with an effective tool for prediction. Social media is also a well-known tool for advertisements and increasing the reputation of the firm. According to SHRM (2017), the top channel used for branding is through social media. The millennials and the generations that follow rely more on social media for seeking employment through the use of social media (Broughton et al. 2013; Villeda and McCamey 2019). SHRM (2022) explains that social media, as an effective tool for talent acquisition also drives the engagement of prospective and present employees. Social media is regarded as highly individualised and engaging for talent acquisition (Dutta 2014). Based on the literature, the research proposes to test the hypothesis for the relationship between social media and employee engagement.

Hypothesis 3: Social media has an impact on employee engagement.

2.6 TALENT DEVELOPMENT

Garavan et al. (2012) define Talent Development as strategies focussed towards planning, selection and implementation of development strategies for all the talented employees in an organisation in order to meet the current and future supply of talent in order to meet organisational goals. Golubovskaya et al. (2019) clearly depicted that talent development is an important function of talent management. Every organisation has to be a learning organisation in order to survive in the volatile business environment. Talent development is becoming increasingly crucial for individual talent growth and organizational performance towards a sustainable competitive advantage as by the model; (Kaliannan et al. 2022). Traditionally the focus was towards developing technical skills, but at present along with technical, generic skills, are given a lot of prominence (Garavan et al. 2012). Generic skills are also known as soft skills

are problem solving and reasoning, creative imagination, persistence, integrity, tolerance, intellectual rigour, communication, team building and knowledge management (Wang et al. 2009; Sandberg 2000). The main elements in talent development are learning, career and leadership development, and performance feedback and talent recognition {Formatting Citation}. The components of an effective talent development system include workforce planning, talent selection, performance management, career management processes and succession planning (Doherty et al. 2011; McDonnell and Collings 2011). There is an increased emphasis on customising talent development

strategies to meet the needs of individuals; therefore, needs to be less prescriptive and far more about the needs of individual talent (Garavan et al. 2012). The main advantages of talent development are achievements of business objectives; competitive advantages enhance employees' motivation and sense of belonging. (Dalal and Akdere 2018). Training and development, and mentorship are considered critical strategies for talent development (Morethe et al. 2020).

2.6.1 TRAINING AND DEVELOPMENT

Learning and development should become an integral part of the organisational culture in order to face the challenges of the knowledge economy. Training and development of employees are the essential practices in talent management (Gallardo-Gallardo and Thunnissen 2016). Training and development of employees in the organisation is known for influencing employee attitudes (Edgar and Geare 2017). The current increase in learning and development is more focused towards online delivery, social and collaborative learning and coaching and mentoring (CIPD 2016). When opportunities are provided for training and also support towards career development for employees, then they foster employee engagement (Mone et al. 2011). Jacobs and Park (2009) also supports the stand stating that when managers offer on-the-job learning opportunities and the autonomy to pursue the learning opportunities, the engagement levels of employees are enhanced. Talent management literature promotes attention towards continuity-based strategies such as succession planning and retention (De Vos and Dries 2013). Career management of employees is an organisational strategy in TM literature (De Vos and Dries 2013). In the literature of TM, there is a mention of the

development of talents focussed towards staffing key positions (succession planning) (Claussen et al. 2014). Seijts and Crim (2006) state that employees feel more engaged when they are provided with opportunities for career advancement. There has been a change to a learning perspective where people prefer lifelong learning, employability, and talent management over job security and lifelong employment (Nilsson and Ellström 2012). Career development opportunities for personal development is one of the important drivers for engagement (Mehta and Mehta 2013). Adler (2013) from Aon Hewitt believes that strategic talent development of employees is linked to employee engagement. The study conducted by Jain and Khurana (2017) depicts that training and development has a significant effect on job satisfaction, commitment, retention and also employee engagement. Learning and development of talents should be across the levels so that all the members are prepared to align themselves to the changing environmental needs of the business. If the employees are developed in accordance with the technological advancements, then they would be the successors for the organisation. The present development programmes should move from process oriented and administration approach towards a strategic approach with the help of leadership. The literature clearly states how development of employees' aids in engagement, with this consideration, the hypothesis is developed.

Hypothesis 4: Training and development has a positive impact on employee engagement

2.6.2 MENTORSHIP

Mentorship is a process that brings together inexperienced and experienced individuals in an attempt to enable the former to gain knowledge, self-confidence, and skills as the other benefits from the latter as they transit through the process (Colky and Young 2006).

Kosgei (2012) established that mentorship has a large number of outcomes for the mentor, the protégé and the organization. Protégé outcomes include career advancement, success and satisfaction, whilst mentors can benefit from increased promotion rates, rejuvenation and the acquisition of useful information. Furthermore, organizational outcomes include increased employee motivation, better job performance and increased competitive advantage. Clutterbuck et al. (2012) found out that mentorship has the net effect of enhancing the mentee's competence; provide

psychological support, motivation and job satisfaction which enhances performance not only for the employee but the organization as a whole which may translate into a competitive advantage position to the organization. Cheronno et al. (2016) states that, in order to improve performance of employees, mentorship practices should be considered as part of the organisational strategy. There is scope for research studies in this area and for understanding the impact of mentorship on engagement.

The hypothesis is developed to test the association between mentorship and employee engagement.

Hypothesis 5: Mentorship has an impact on employee engagement

2.7 TALENT ASSESSMENT

Talent assessment focuses on understanding the skills of individuals, their behaviour, their working styles, their hidden potentials in order to evaluate them against set standards in accordance with the organisational objectives. Traditionally measuring performance of talented workforce provides for determining rewards, recognition and also succession planning, but at present it is also for identifying employee potentials. Identifying potentials of the workforce is considered as competitive advantage (Silzer and Church 2009). It is an integrated strategy impacting the compensation and benefits and also the training and development of the employee. Davis et al. (2007) explains that talent assessment determines how to manage individual needs in alignment with firm's needs; it also aids in identifying the aspirations and potentials of performers and also assists in developing and managing them. This involves using techniques to assess their mindsets, behaviours and skills and then providing effective training, development and performance management interventions. According to Nijs et al. (2014) the various tools used for talent measurement are assessment centres, development centres, verbal and analytical reasoning tests and assignments. Davis et al. (2016) state that talented employees remain in the organisation only when they are offered with ongoing development opportunities, motivation and be nurtured towards realising their potentials. Schultz (2015) explains that ongoing feedback provided by mentors should replace annual performance reviews. He also offers certain principles to be followed; according to him, managers of performance should focus on improvement and not judging the employee, the communication between the assessor and assess should be

positive, individualised, valuable and constructive, focussing on the strengths and areas of improvement with an action plan and the aim is not of layoff but to ignite peak performance. A research study by Kabalina and Osipova (2022) of 45 MNCs show that organisations assess the cultural fitness of talents, their impact on social intelligence, commitment predictors, managerial or leadership potentials for future strategic jobs, and also characteristics of personal resources. Talent assessment is a known tool for providing inputs for identifying training and development needs and also a tool for succession planning. For assessing the talents of individual members in the organisation, the initial step is aligning the set targets of every individual to the departmental targets and the departmental goals with the organisational goals. The skills of individuals should be mapped in accordance with the organisational goals and the individual employee should be clearly informed about his job and the targets expected. Talent assessment helps to identify the high performers and also talent gaps for each job role. The assessment of individuals should be directed towards providing the members of the organisation with rewards, incentives and salary increments. The talent assessment should be objective-oriented, which helps the individual employee in climbing his career steps ahead and also help him in his career development. There should be a clear analysis of the individual’s critical thinking and problem-solving approach. Leadership assessment is a tool for talent retention and engagement (Glen 2006).

Table 2.1: Framework for Talent Assessment

Pressures	Actions	Capabilities	Enablers
Competitive landscape forcing focus towards higher productivity and performance	Build a competency framework which provides for efficient selection, development and promotion decisions. Alignment of business objectives with workforce	Support for assessment from senior management. Job roles and specifications needs to be clearly defined Clearly defined process for assessment of employees and applicants Collaboration between line managers and HR department for ensuring assessment content addresses the business needs.	Behaviour based assessments Skill based assessments Critical thinking/ cognitive thinking assessments 360-degree assessment Competency model libraries Competency gap analysis Assessment/test building software tools

Source: Aberdeen Group (2011).

An effective talent management strategy has in depth talent assessment based on competency framework of existing employees and new hires (Sharma and Bhatnagar 2009). The research tries to identify the relationship between talent assessment and the engagement of employees.

Hypothesis 6: Talent assessment has an impact on employee engagement

2.8 TALENT RETENTION

Talent retention is one of the important elements in talent management. Retention of talented employees has always been a challenge in the organisations functioning in a knowledge economy. Retention is a major priority for the organisations due to stiff competition and also lack of highly talented employees (Bhatnagar 2007). Retention and development of employees have a high impact on employee contribution and commitment levels (Festing and Schafer 2014). Deery (2008) states that job stress, emotional exhaustion, burnout, lack of job satisfaction leads to high retention and the organisations need to strategise work life balance, recruitment and training to retain staff. Talented workforce not only seek monetary benefits but also seek accelerated career, challenging work, associated with innovative products and opportunity to build stakes in high value business (Glen 2006). According to Premalatha (2017) continuous learning and development of talents, positive workplace, good managers and career advancement opportunities are key factors for retention of knowledge workers in IT industry and also that retention is positively impacting organisational commitment and job involvement. Mark Lobosco (2021) LinkedIn clearly predicted for 2022 workplace flexibility will drive employee retention. He also states that job seekers look at diversity, equity and inclusion in the organisation. A report on Top Ten HR trends in the workplace 2022 by Jeanne Meister of Forbes, states hybrid work and employee well-being benefits are the present trends to attract and retain talent (Forbes 2022). Younger generation of talents are giving importance to autonomy, flexible work arrangements, knowledge management, and lack tolerance for bureaucracy (Lin and Wang 2022). Deloitte (2022) also reports that 75% of generation z employees and 76% of millennials prefer flexible work arrangements such hybrid work model or working remotely. The retention strategies as advised by Forbes (2022) are competitive salary,

work from home (flexibility in location of work), flexi working hours, promotion of work life balance, recognition and rewarding employees, amicable work culture, build strategies for engaging workers, team building, employee well-being, reduce burnout, recruit talent who are culturally adaptable, career and personal development.

Hypothesis 7: Talent retention strategies have an impact on employee engagement

Overall, talent management is a cyclical process of talent acquisition, development, assessment and retention. If the strategies are aligned with organisational goals and the individual need of employees, then they tend to be more effective. Talent management strategies should be changing in accordance with the volatile business environment. Talent management strategies are known to have positive impacts on business performance; this research focuses on the impact of various strategies of talent management on employee engagement.

2.9 EMPLOYEE ENGAGEMENT

Employee engagement is gaining popularity in the Human Resource Development (HRD) field (Macey and Schneider 2008; Bedarkar and Pandita, 2014). According to the Deloitte Human Capital Trends 2017, employee engagement is one of the top priorities for organisation. Engagement of workforce is the top challenges faced by business leaders. Particularly in India, the average engagement percentage is as meagre as 13 percent as per the State of the Global Workplace report, 2017 conducted by Gallup. The different names for the construct employee engagement are job engagement and work engagement (Saks and Gruman 2014).

The word engagement was initially coined by Kahn (1990), who defined personal engagement as “the simultaneous employment and expression of a person’s ‘preferred self’ in task behaviours that promotes connections to work and to others, personal presence, and active full role performances”. Employee engagement is also defined as a positive, fulfilling work-related state of mind that is characterized by vigour, dedication, and absorption (Eldor and Harpaz 2016; Macey and Schneider 2008). In accordance to Maslach et al. (2001) engagement is the direct antonym for burnout and is characterised by energy, involvement and efficacy. Engagement is defined as psychological presence involving two elements, attention and absorption; wherein

attention is the cognitive availability and the amount of time spent on thinking on the role and absorption means being engrossed and focused in one's role (Saks 2006; Rothbard, 2001). According to Gibbons (2006) "employee engagement is a heightened emotional and intellectual connection that an employee has for his/her job, organization, manager, or co-workers that in turn influences him/her to apply additional discretionary effort to his/her work". In the words of Hewitt and Associates (2004), Employee engagement is: A measure of the energy and passion that employees have for their organizations and who are action oriented to improve business results.

The concept of employee engagement is broad in definition and in theoretical concepts (Christian et al. 2011). The construct of employee engagement can be explained in dimensions namely the cognitive engagement, emotional engagement and behavioural or physical environment. The cognitive engagement realties as to how much focus an employee is towards his job, Emotional engagement deals with one's sense of purpose and belongingness, and behavioural engagement deals with the extent of effort an employee is ready to put towards his work.

Work engagement is defined as a concept: "a positive, fulfilling, work related state of mind that is characterized by vigour, dedication, and absorption" (Schaufeli et al. 2002). Vigour refers to high energy levels in work, ready to invest effort and persistence to face challenges ; dedication refers to one being strongly involved in work feeling a sense of importance and enthusiasm; and absorption is fully engrossed and happy in the work one is doing (Schaufeli 2013).

Kahn (1990) identified three psychological conditions associated with engagement or disengagement at work: meaningfulness, safety, and availability. May et al. (2004) stated that meaningfulness, safety, and availability were significantly related to employee engagement. They also said that enriched jobs and role fit are factors leading to meaningfulness; supportive supervisors and cordial relations with co-workers are the safety factors, and availability of resources leads towards psychological availability (Saks 2006). It is believed that there is a connection between employee engagement and business results (Saks 2006; Harter, Schmidt, and Hayes 2002). Maslach et al. (2001) state that the six factors leading to the engagement of employees are sustainable workload, autonomy, rewards and recognition, community and social support,

perceived fairness, and valued work. According to Saks (2021), engagement levels of employees increases if the employees are provided with a climate of care through well designed programs of development, job design, flexibility, work life balance, health and safety, work life balance and wellness.

According to a report by Dale Carnegie Training, 2014, only 46 per cent of the Indian workforce are engaged. India tops the charts as compared to the global average of 34 per cent and of the US nationals is only 30 per cent.

Antecedents of Employee Engagement

Saks (2006) states that job characteristics, perceived organisational support, supervisor's support, rewards and recognition, and procedural justice are the antecedents of engaging employees. The consequences are job satisfaction, organisational commitment and citizenship, and employee retention. According to Zhang (2010) the positive predictors of employee engagement are communication, trust and integrity, enriched and involving oneself with the job, supportive superiors, career opportunities, employee's contribution to organisations success, supportive team and pride in the organisation. Gibbons (2006) identified the top drivers of employee engagement, they include:

- Trust and integrity –what are the perception of management toward its employees, do they listen to and respond to employees, do they practice what they preach, and trustworthiness.
- Nature of the job – employee's participation degree, autonomy,
- Alignment of individual and organisational performance – clarity of firm's goals, future and current, and individual contribution towards it.
- Career growth opportunities- - clearly defined career paths and opportunities provided for the growth of employees
- Being proud about the organisation – proud being associated with organisation and the extent to which employees feel self-esteem about their work.
- Team members or Co-workers- Being associated with co-workers, team members, and their perception and attitudes towards the job and the organisation.



Figure 2.3: Deloitte Model -Five drivers of engagement

Source: Josh Bersin, Deloitte 2015

Josh Bersin (2015) from Deloitte states that organisations have to focus towards attracting, engaging and retaining talent by becoming irresistible. She also explains the key drivers of engagement. The details are clearly demonstrated in the figure 2.3.

In the present scenario, especially after COVID 19, the IT industry follows hybrid working models. Hence flexibility in work arrangements is the need of the hour. The concept of virtually engaging employees is a challenge faced by leaders. Riya (2022) from the Economic times states that in an enforced work-from-home model post-pandemic, though the business has been successful in achieving targets, and retaining productivity, but it has lowered the company’s engagement levels with employees, hence it is imperative that now organisations have to focus towards engaging their workforce. A literature review by Pandita and Ray (2018) depicts that talent management is one of the most effective tools in engaging employees and increasing their commitment levels in the organisation.

The research study has considered employee engagement as the dependent construct, and the talent management strategies of employer branding, employee referral, social media, training and development, mentorship, talent assessment, and talent retention are regarded as separate independent constructs. Transformational leadership is considered a moderating variable between TM and employee engagement.

2.10 TRANSFORMATIONAL LEADERSHIP

Leadership is critical for talent management (Sparrow and Makram 2015). Good leadership is contagious and results in employee engagement (Kerfoot 2007). Welborne (2007) also confirms that leaders in organisations are the drivers of engagement of employee. Leadership is responsible for the integration and the implementation of TM in organisation (Hughes and Rog 2008). Research has shown that an employee's relationship with his supervisor is an essential factor influencing a person's decision to stay or leave the organisation (Mayer et al. 2011). Effective leadership drives engagement (Mehta and Mehta 2013). A study conducted by Corporate Leadership Council in 2004 states that, there is high correlation between engagement and the extent to which the manager clearly articulates goals, sets performance expectations and also is flexible to changing needs (Robertson-Smith and Markwick 2009). Leadership is considered the biggest factors influencing the perception of employees and work engagement (Macey and Schneider 2008; Popli and Rizvi 2016). For TM to be effective, organisations need to build a strong link between leadership and talents in order to translate specific value-based behaviours (Lockwood 2006). The organisations' management must be drivers for talent management strategies to ensure high-performing and engaged employees. Ulrich and Allen (2014) state that the line managers are regarded as the 'owners of talent' as they are responsible for the investments and decision-making towards talented employees and their impact on performance. Transformational leadership theory has become very prominent in leadership research in the last two decades (Dvir et al. 2002).

Transformational leaders uplift and motivate the followers' needs for achievement and self-development and also ensure the promotion of group and organisational development (Bass and Avolio 1990). They also explain the four 'I' or elements of transformational leadership by stating that transformational leaders showcase an ideal influence, individualised considerations, intellectual simulations and inspirational motivation.

According to Hayati et al. (2014) Transformational Leadership (TL) has a significant and positive effect on employee engagement. Bhatnagar (2007), in the study of

managers in the Information Technology (IT)/Information Technology Enabled Service (ITES) sector, analysed that one of the critical factors that increase engagement is supportive management. Supportive management is a characteristic of transformational leaders (Popli and Rizvi 2016). The results of the statistical analysis done by Dutu and Butucescu (2019) indicate that transformational leadership style is a significant predictor of engagement. Lacap's (2019) study reveals that transformational leadership has a positive impact on employee engagement. Moreover, it was also found that transformational leadership, employee engagement, and grit negatively affected the intention to quit. According to Zhang (2010); Popli and Rizvi (2016), there are negative associations between classical leadership style and employee engagement, transactional leadership style and employee engagement, and positive associations between visionary leadership style and engagement and also between organic leadership style and employee engagement.

The research study results of Ghafoor et al. (2011) explained that transformational leadership was positively related to talent management. Onyango (2015), also stated based on his research that talent management was affected by transformational leadership. Widodo and Mawarto (2020) found that there is a significant relationship between talent management and transformational leadership. Thus, it is proven with previous studies that transformational leadership has an impact on TM and employee engagement.

Transformational leadership as a moderator

The results of quantitative research by Ntseke et al. (2022) indicate that transformational leadership moderates work engagement and turnover intentions. Transformational leadership as moderator on the relationships between deviant work behaviour and job performance, the study proved that transformational leadership could moderate the deviant employee's behaviour and in return, achieve higher job performance (Howladar et al. 2018). Chi et al. (2012) in their research prove the moderating effect of TL on knowledge management and organisational effectiveness. Based on previous literature it is evident that as a moderator transformational leadership has positive effects, also that TL has an impact on TM and engagement. The study

considered to analyse the moderating effects of TL on talent development and engagement, mentorship and engagement, talent assessment and engagement and talent retain strategies and employee engagement. With the literature background, the following hypotheses was developed:

Hypothesis 8: Transformational leadership has a moderating effect on the relationship between training and development and Employee engagement

Hypothesis 9: Transformational Leadership is having a moderating effect on mentorship and employee engagement

Hypothesis10: Transformational Leadership is having a moderating effect on Talent assessment and employee engagement

Hypothesis 11: Transformational Leadership is a moderator between talent retention and employee engagement.

2.11 RESEARCH GAPS

Based on the literature review, the following gaps were established and are being depicted in the Table No. 2.2 below.

Table No. 2.2: Research Gaps

Year	Author	Journal	Research Gap
2017	McDonnell, A., Collings, D. G., Mellahi, K., and Schuler, R.	European Journal of International, Vol :11(1)	In the area of talent management there are a large number of conceptual research studies but the TM literature still lags behind in empirical research, which still has vast scope for exploration.
2016	Thunnissen. M	Management Employee Relations Vol: 38(1)	Therefore, there is a need for empirical research in the area of talent management.
2017	McDonnell, A., Collings, D. G., Mellahi, K., and Schuler, R.	European Journal of International Management Vol: 11(1)	In spite of the existing empirical research in TM, there is very less understanding of the practical implications of the effectiveness of various talent management strategies in managing talented individuals.

2016	Gallardo- Gallardo and Thunnissen.M	Employee Relations Vol: 38(1)	<p>There is very little research in TM devoted to work practices.</p> <p>Hence this research gap has been identified to study the various strategies which are implemented in the IT industry and the outcomes of the same in terms of employee engagement.</p>
2016	Gallardo- Gallardo and Thunnissen.M	Employee Relations Vol:38(1)	<p>Most of the empirical research focuses on TM issues at the organisational level and very little research focuses on TM issues at the employee level. The empirical studies on TM focus more on specific group such as managerial talent, executive positions, star performers, and data is not often collected directly from employees.</p> <p>This research would utilise the inclusive approach of TM and not to a specific group. This study would be a new approach to study the impact of TM directly from the employees in general across different levels.</p>
2016	Thunnissen M	Employee Relations Vol:38(1)	<p>The strategies of talent management have been empirically tested towards higher business performance. “Non-economic” objectives are largely neglected in the TM literature.</p> <p>Hence there is need to explore the impact of TM on employee engagement, a non-economic objective which cannot be measured in terms of economic value but has an impact on the long run business objectives and performance of the firm.</p>

2015	Gallardo-Gallardo, E., Nijs, S., Dries, N., and Gallo	Human Resource Management Review Vol:25(3)	There is scope for studies in identifying causal relationship between individual employee engagement and talent management programmes. Hence there is a need to analyse the effect TM strategies towards engaging employees.
2016	Gallardo-Gallardo and Thunnissen. M	Employee Relations Vol: 38(1)	The role of leadership in TM is under explored.
2015	Carasco-Saul, Marie, Woocheol Kim and Taesung Kim	Human resource Development Reiew Vol: 14(1)	In the human resource literature, there is very little literature which explains the relationship between leadership and employee engagement. Hence there is need to analyse the impact of leadership on employee engagement.
2018	Manish Gupta	Advances in Developing Human Resources Vol: 20(1)	Research in area of engagement is lacking in emerging economies like India. Hence there is a need to analyse the engagement levels of employees in India.
2019	Thunnissen.M and Eva Gallardo-Gallardo	BRQ Business Research Quarterly Vol: 22(3)	There is a vast scope for empirical research in the area of TM in order to bridge the gap between academia and practice.
2019	Paul Sparrow	BRQ Business Research Quarterly Vol: 22(3)	Research of TM is focussed towards organisational level analysis and there is limited attention given to the individual level research.

2020	Eva Gallardo-Gallardo, Thunnissen, and Scullion	International Journal of Human Resource Management Vol 30(4)	There is dearth in area of research of the actual implementation of TM strategies or the employee's opinions towards it. Practical solutions need to be identified to solve the known problem of shortage of talents.
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Source: Literature review

As depicted in the Table no. 2.2 the research gaps are identified based on the literature review. The research utilises the inclusive approach of TM and not to a specific group in the organisation; hence all employees working in the Indian IT industry constitute the population of the study. The study aimed to understand the impact of TM strategies on employee engagement based on the opinions and responses of the employees working in different levels in the IT firms. The study is to identify the impact on employee engagement which is a non-economic objective which cannot be measured in terms of economic value but has an effect on the long-run business objectives and performance of the firm.

2.12 CONCEPTUAL FRAMEWORK

Based on previous literature, the conceptual model for the study was developed. The four elements of talent management, which are talent acquisition, talent development, talent assessment and talent retention were considered for the overall model. The main independent constructs or the exogenous variables for the study were employer branding, employee referral, social media, training and development, mentorship, talent assessment and talent retention strategies. The dependent or the endogenous construct is employee engagement. Transformational leadership is a moderating variable, between the relationship of training and development and employee engagement, mentorship and engagement, talent assessment and engagement and talent retention strategies and employee engagement. The conceptual model for the research study is depicted in the figure 2.4.

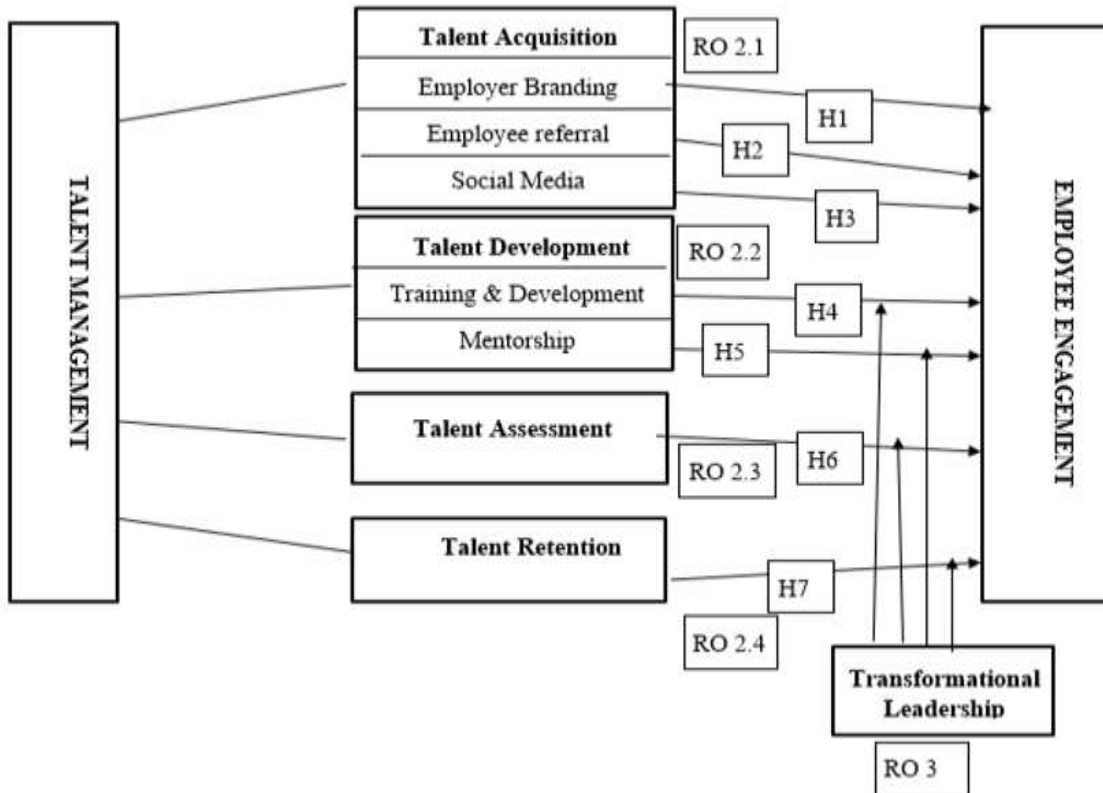


Figure 2.4: Conceptual Framework

Source: Literature Review

2.13 CHAPTER SUMMARY

The second chapter discusses in depth the exhaustive literature background for the study. The chapter provides the theoretical framework for the research. The literature related to all the constructs of the study are discussed in detail. The research gaps were identified and brought to light. The conceptual framework for the study is also depicted in the chapter. The next chapter explains the methodology used for the research in detail.

CHAPTER 3

RESEARCH METHODOLOGY

3.1 CHAPTER INTRODUCTION

The research methodology explains the overall systematic process of the research conducted. It is an overall blueprint of the logical research plan. It explains the various steps systematically adopted in order to solve the research problem. The chapter explains the research philosophy, approach, design and tools utilised for the research. It gives details of the sampling design, measurement scales for the variables, the details of the instrument used for data collection and the various tools utilised for data analysis.

3.2 RESEARCH PARADIGM AND PHILOSOPHY

A research paradigm enables to smoothly carry out the investigation. It is an important element of research methodology and a broad method which enables to smoothly conduct an investigation (Myers and Smith 2012). A research paradigm refers to ‘the set of common beliefs and agreements shared between scientists about how problems should be understood and addressed’ (Kuhn 1962). It can also be referred to as ‘the net that contains the researcher’s ontological, epistemological and methodological premises’ (Gubba 1990). Ontology is concerned with the nature of reality and existence. Epistemology refers to the theory and nature of knowledge. The methodology is all about how to understand the world or how to gain knowledge. The selection of the right research paradigm facilitates the achievement of the overall research objectives. There are three different philosophies such as positivism, interpretivism and critical research philosophies in research (Scotland 2012). The Interpretivism paradigm holds that the social world cannot be studied with the scientific method of investigation which is applied in the natural world and needs to be studied using a different epistemology. In positivist philosophy, ontology is one of realism, which indicates that reality already exists independent of the researcher (Pring 2000). The choice of a research paradigm is based on the nature of the research problem, and also the environment it is done (Trauth 2005). A research paradigm consists of ontology, epistemology, methodology, and research methods. Ontology is concerned with what constitutes reality or the study of

being (Crotty 1998). Epistemology is concerned with the nature and forms of knowledge (Cohen et al. 2007). Positivist epistemology is one of objectivism, which is used to describe how we come to know the truth or reality (Kivunja and Kuyini 2017). The research has dominantly adopted the positivist research paradigm, wherein the theory is tested by framing hypotheses. The theories of Talent management and employee engagement have been tested and also explored in terms of their relationship.

3.3. RESEARCH APPROACH

There are three research approaches, namely deductive, inductive and abductive. In the deductive approach, the research is theory-driven. On the basis of knowledge of a particular domain and the theory related to the domain, hypotheses are framed and then empirically tested. (Bryman and Bell 2015). In an inductive study, the findings and observations relate to the creation of theory. An abductive research approach may emerge from surprising facts and puzzles which a researcher may encounter with an empirical concept that may not be supported by theory. This approach helps to explore a concept, identify themes and explain patterns, to generate a new or modify an existing theory which is subsequently tested (Saunders et al. 2019). The research study has utilized both deductive and inductive research approaches. An extensive review of the literature on talent management and employee engagement was carried out in order to study and analyse the constructs. The various factors, antecedents and outcomes of both the constructs were examined for the study. Based on previously existing theories and studies research hypotheses were formulated connecting the elements of talent management. Inductive reasoning was also utilised as the study explores the relationship between talent management and employee engagement. The relationship between employee engagement and talent management elements of talent acquisition, talent development, talent assessment and talent retention were analysed.

3.4 QUANTITATIVE RESEARCH METHOD

Quantitative research is usually related to positivism, with a deductive approach wherein, data is collected and analysed to test theory (Saunders et al 2019). A quantitative study provides for a numeric trend about the opinion, and attitudes about

the sample population studied (Creswell 2014). The study is aimed at achieving empirical evidence proving the relationship between the elements of talent management and employee engagement. It examines the effect of various talent management strategies on the work engagement of IT employees.

The current research study has adopted quantitative research to analyse the multivariate concept of talent management and its impact on employee engagement. The study utilised the survey design to collect the responses from the employees and draw inferences from the same.

3.5 RESEARCH DESIGN

Descriptive research design usually aids in providing answers to questions such as who, what, when where and how in relation to a research problem. A descriptive approach to research is adopted as it is based on the previous literature for building on the constructs of talent management and employee engagement. The study has also adopted the exploratory approach of research in order to explore the relationship between talent management and employee engagement in the IT industry of India. A combined strategy aids in resolving the research problem and also helps in building a new model for the concept in question.

3.6 SAMPLING

Sampling is a technique of selecting units for the study from the target population. The sample selected should represent the population from which it is taken in a way that is meaningful and in relation to the research objectives (Becker et al. 1998).

3.6.1 Population

The population for the study is the employees working for IT firms located in India. According to the annual report by NASSCOM, 2017 the total number of employees employed in the Indian IT industry is 38, 60,000 employees, which constitutes our total population for the study. The study is based explicitly on employees working for multinational IT firms located in India. According to NASSCOM, India is the world's largest sourcing destination for the Information Technology (IT) industry, accounting for approximately 67 per cent of the US\$ 124-130 billion market. This sector is

expected to triple its current annual revenue to reach US\$ 350 billion by FY 2025. The industry has an employee base of 3.86 million and plans to grow in employment opportunities by creating 2.5-3 million new jobs.

3.6.2 Sample size estimation

The sample size estimation and type of sample depend on the cost and time available to the researcher (Cooper and Schindler 2006). The study has utilised two ways in estimating the size of samples required. The sample size is determined using Slovin's Formula. The sample size using Slovin's formula can be determined by the following equation:

$$n = \frac{N}{(1 + Ne^2)}$$

where n = Number of samples, N = Total population and e = Error tolerance level.

On applying the formula to the current study where N = 3860000, e = ± 0.05

$$n = \frac{3860000}{(1 + 3860000(0.05)^2)}$$

$$n = 400$$

Apart from Slovin's formula for calculating the sample size, the researcher has considered basic sample size requirements as per Structural Equation Modelling. The researcher used Structural Equation Modelling (SEM) for testing the proposed model as the study pertains to multi-factor analysis. According to Bentler and Chou (1987), the bottom-line ratio for the usage of structural equation modelling is 5:1 in case of a normal and elliptical theory, in which 5 is the sample size and 1 is the independent parameter. In the case of arbitrary distributions, this ratio becomes 10:1. The most frequently accepted rule of thumb among the researchers is 10 observations per indicator variable (Nunnally 1978). Hair et al. (2014) state that in SEM larger samples are more reliable for models with more constructs and also produce more stable results. The current study has nine constructs which are being measured with the help of 44

items, which makes the required estimated sample size to be 440. The study has undertaken a total sample of 554 samples. Data was recorded from 554 IT employees hence, the total sample size for the research study is 554, which is above the required sample size of 440 and also above the sample size suggested as per Slovin's formula.

3.6.3 Sampling Frame

The sampling frame refers to the list from which units are drawn to form samples. The study has utilised a list of multinational corporations in the IT industry, which is obtained from NASSCOM. It has been observed that Multinational corporations have incorporated talent management strategies in their firms, hence for the study to analyse the impact of TM strategies we have considered the list of multinational IT firms as the sampling frame. From the list of multinational IT corporations, sample units are drawn, that is employees working for these firms.

3.6.4 Sampling Technique

There are two types of sampling techniques namely, probability sampling and non-probability sampling. The researcher is adopting a mixed sampling technique for collecting the samples from the population in order to avoid bias and sampling error. The simple random sampling technique, a method of probability sampling is adopted by drawing names of large MNCs from the NASSCOM list of IT companies in India; using the random number table. The list obtained from NASSCOM contains 354 multinational IT organisations. Incorporating the simple random technique, we have listed 60 companies using randomly generated list of numbers from simple random table. The first two digits are taken from the list of numbers downwards and then across.

The non-probability sampling method of purposive sampling is also adopted to collect data from respondents. The employees working from the 60 firms listed randomly were approached for the primary data collection. Due to the unavailability of the explicit list of employees working in the multinational firms, non-probability sampling was adopted for the study. The list of employees working in the multinational firms was not available, hence non probability. A total of 554 employees were the respondents for

the study. Mixed sampling technique of probability and non-probability sampling was utilised in order to reduce sampling error and get better response from respondents.

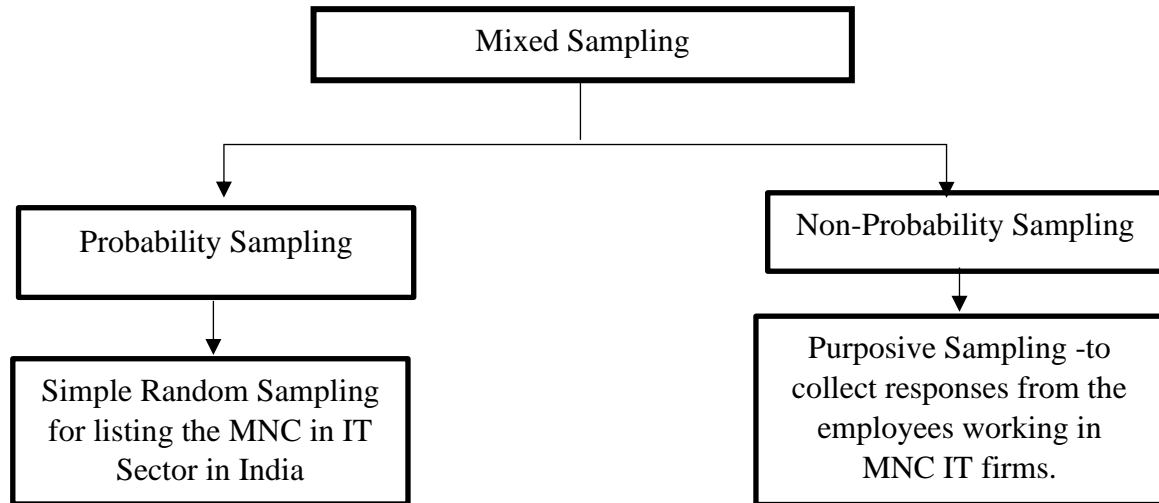


Figure 3.1: Sampling design

Source: Literature review

3.7 RESEARCH TOOL

A quantitative research study can be done through various sources such as structured interviews, survey-based and experiments. A survey is a popular strategy utilised in management research and also for an exploratory and descriptive research approach (Saunders et al. 2019). The research study undertaken has adopted a self-administered questionnaire. A self-administered questionnaire is a research instrument designed for the study, with minimal or no intervention from the researcher and to be filled by the participants selected (Wolf 2008). The questionnaire is a widely used method of data collection within a survey strategy. A questionnaire is best used in analytical research to examine and explain the relationships between the variables and in particular to show the cause-and-effect relationships (Saunders et al. 2019). According to Dillman et al. (2014), a questionnaire can collect three types of data variables which is, demographics, attitudes or opinions, behaviours and events. The research instrument used for this quantitative study is a structured questionnaire. The questionnaire is divided into two sections. The first section contains items pertaining to the demographics of the respondents. The second section contains 44 items pertaining to the measurement of the constructs in question. The independent constructs are employer branding,

employee referral, social media, training and development, mentorship, talent assessment and talent retention. The impact of the exogenous variables (independent constructs) on the dependent construct (endogenous variables) being employee engagement is measured with a 5-point Likert scale. Moderating variable of transformational leadership is also rated with a 5-point Likert scale. The moderating variable of transformational leadership is converted to a categorical variable based on the mean value. Two groups based on effectiveness of leadership was created namely, effective leadership and ineffective leadership, to analyse the moderation effects. The instrument also contains multiple choice questions, category questions, open-ended questions, forced choice, dichotomous questions and ranking questions trying to capture the attitudes and opinions of the respondents. While designing the questionnaire utmost care was taken to avoid bias. The questionnaire was designed to have a greater response rate by ensuring that it is not too lengthy, which results in a low response rate, yet captures all the variables for the study. The questionnaire was sent to respondents through the online mode.

Table No. 3.1: List of Factors and Measurement Levels

Sl.no.	Factors	No. of items	Level of Measurement
1	Demographic Profile Independent Variables	8	Nominal, Ordinal and Interval
2	Employer Branding	4	Interval
3	Employee Referral	4	Interval
4	Social Media	4	Interval
5	Training and Development	5	Interval
6	Mentorship	4	Interval
7	Talent Assessment	5	Interval
8	Talent Retention Dependent Variable	5	Interval
9	Employee Engagement Moderating Variable	7	Interval
10	Transformational Leadership	6	Interval

Source: Literature review

3.8 MEASUREMENT SCALES

The questionnaire for the study was based on multiple scales, chosen based on previous literature. The research study was based on psychometric scales comprising multiple items measuring the construct in focus in a valid and reliable manner. This technique is widely used in human resource management research (Robinson 2018). It is recommended that in a multi-item scale, minimum three items should measure a variable in order to have reliable results in confirmatory factor analysis (Marsh et al. 1998). Caution was taken while selecting the measures, in order to ensure that the measures selected represent the dimension of the construct studied. Robinson (2018), also recommends minor modifications to the existing scales provides for better fit to the concepts. Thus, the multi-item scale adapted from previous literature, has been modified accordingly, matching the concepts for the study in the IT industry. The measurement scales utilised in the study is a five -point Likert scale, which is widely used in social sciences research. The Likert scale utilised for measuring the items is ranging from Strongly Disagree to Strongly Agree, wherein Strongly Disagree is rated as 1, Disagree 2, Neutral 3, Agree 4 and Strongly Agree as 5.

Employer Branding: Employer branding is an important component of talent acquisition. This construct is measured with four items. The measurement scale for this variable is derived from Srivastava and Bhatnagar (2010). The sample items of the scale are: ‘I feel proud being associated with the brand image of my company’, ‘My organisation has good future prospects’.

Social Media: Social media is an important element of talent acquisition in the present scenario. This has been measured with the help of four item scale. The measurement scale has been adapted from an existing scale from Girard, Fallery and Rodhain (2014). The sample items include: ‘Managing one's digital identity is important’, ‘Social networking helps me to identify future career prospects.’

Employee Referral: Employee referral is a strategy of talent acquisition, which is predominantly utilised in the IT industry. There are three scale items measuring this factor. The items have been derived from the existing scale of Bloemer (2010). The sample items of the scale utilised are as follows: ‘My company’s referral policy

motivates me to refer individuals’, ‘I recommend my organisation to others seeking employment’.

Training and Development: Training and development is a vital aspect of talent development. In order to measure the construct of training and development, in this study five-item scale has been utilised. The scale items utilised for the study has been adapted from a validated and reliable scale of Truitt (2011). The sample of the measurement items includes: ‘Skills developed during training and development provided by my organisation boost my career advancement’, ‘There is a process to identify my training needs’ and ‘Training provided by my company improves my job performance’.

Mentorship: Mentorship is an important aspect of talent development, which is prevalent in the present IT industry. There are four measurement item scales utilised to measure the factor of mentorship. The scale utilised for analysing mentorship has been derived from a validated scale of Ensher and Murphy (2011). The sample items include: ‘My mentor gives me good advice’, ‘Mentorship received helps in my development’.

Talent Assessment: Talent assessment in other words, performance assessment of employees, is an integral element of talent management. To analyse the concept of talent assessment, five-item scale has been utilised in this study. The five items have been adapted from the reliable and validated scale of Walker et al (2011). The sample items of the scale are: ‘The standards of performance expected by my superiors are communicated to me at the beginning of the task’, ‘My performance review is accurate and unbiased’ and ‘My performance reviews influence my career development’.

Talent Retention: Retention of talented workforce is a vital element of talent management. The construct of talent retention has been measured with five-item scale. The scale utilised in the study has been adapted from validated and reliable scale of Govaerts et al. (2011). The sample items include: ‘My work environment is flexible’, ‘There is scope for making my job more interesting and challenging’ and ‘My pay is in accordance with the industry standards’.

Employee engagement: The dependent variable of employee engagement is measured with Utrecht Work Engagement Scale by Shaufeli (2002). The 9-item scale of engagement measures three dimensions of vigour, dedication and absorption. This scale is a popular measurement scale adapted by several researchers in a similar area of research. The following are the sample items: ‘I look forward to going to work when I get up in the morning, ‘There is meaning and purpose for the job I do’ and ‘I am happy when I am totally absorbed in work’.

Transformational leadership: To analyse the interaction effect of Transformational leadership on TM and employee engagement, the scale items were adapted from Carless et al (2000). The study had six measurement scale items to measure the moderating effect. The sample items include: ‘My manager clearly communicates the future vision’, ‘My manager fosters creative thinking and ‘There is mutual trust and respect with my manager’.

3.9 DATA COLLECTION

The sources of data for the study have been drawn from both primary and secondary sources. During the exploratory phase of the research extensive secondary sources of data have been collected. In order to get more insights into the construct talent management, Industry sources such as the Indian Brand Equity Foundation (IBEF), Accenture, Infosys and IBM annual reports have been studied. Commercial sources of secondary data have been sourced from NASSCOM, Deloitte, CIPD, SHRM, LinkedIn, etc. Secondary data has also been sourced from various websites, blogs and news articles related to the phenomenon studied. Extensive research review has been done on published articles, books, conference proceedings, and also research theses related to the constructs of talent management and employee engagement. In order to identify the research problem, and research gaps, and analyse the concepts in question, the review of the academic sources of data has been done thoroughly using Scopus, Science Direct, JSTOR and EBSCO databases.

Primary data is very crucial for quantitative research. It helps the researcher to have an understanding of the attitudes and opinions of employees in the IT industry towards

strategies adopted by the management. The primary data collection for the research study was based on a questionnaire. Primary data was collected based on the feedback given by respondents. The data was collected through online sources by making use of Survey Monkey. Primary data for the study was collected in two stages. The first stage data was collected for the pilot study and thereafter the data was collected for the final study.

3.10 PILOT STUDY

Pilot study is a prior testing of the research instrument being the questionnaire with respondents from the same population. The purpose of the pilot is to refine the questionnaire so that the respondents have no problems answering and thereby minimising the problems in data collection (Saunders et al. 2019). A pretesting of the questionnaire ensures whether the questions are well articulated, the wordings are clearly understood, and the ease with which respondents answer the questionnaire. It also ensures the validity and reliability of the questionnaire towards meeting the research objectives.

The pilot analysis was conducted on 55 respondents. The questionnaire consisted of 58 items which is measured using the five-point Likert scale. Principal component analysis, Cronbach's alpha, and composite reliability was analysed. The reliability and validity were measured for all the constructs and the findings proved the internal consistency and acceptable for continuing further data collection. During the pilot study, based on factor analysis out of 58 items, 55 items were considered for the final study. A total of 3 items were deleted from the questionnaire. One item was deleted from talent retention factor, one item from employer branding factor was deleted and one item from social media factor was deleted. A total of 55 items from the pilot analysis was considered for further data collection and data analysis.

Table 3.2: Pilot Analysis Results

Construct	Factor Loadings	Cronbach's Alpha	Average Variance Extracted	Composite Reliability
	0.770			
Employer Branding	0.854 0.710 0.785	0.940	0.579	0.905
Employee Referral	0.812 0.705 0.694	.956	0.582	0.920
	0.811 0.806 0.788			
Social Media	0.811 0.787	0.913	0.594	0.912
	0.801 0.780 0.789			
Training and Development	0.906 0.790 0.908	0.928	0.709	0.943
	0.852 0.857 0.810			
Mentorship	0.871 0.753	0.932	0.653	0.910
	0.856			
Talent Assessment	0.764 0.804 0.861	0.903	0.676	0.926

	0.760			
	0.876			
	0.860			
	0.814			
	0.828			
	0.748			
	0.645			
Talent Retention	0.837	0.860	0.510	0.958
	0.779			
	0.883			
	0.679			
	0.793			
	0.879			
	0.744			
	0.852			
Employee	0.933			
Engagement	0.891	0.919	0.560	0.945
	0.799			
	0.831			
	0.843			
	0.877			
	0.913			
	0.843			
Transformational	0.936			
Leadership	0.931	0.966	0.657	0.962
	0.900			
	0.957			
	0.925			

Source: Pilot data analysis

3.11 DATA ANALYSIS TECHNIQUES

The preliminary analysis of the data was carried out using Statistical Package for the Social Sciences (SPSS 20.0). The demographic information analysis and the descriptive analysis such as mean, standard deviation, were conducted using SPSS. For testing the theoretical model as well as hypotheses developed, the study used Structural Equation Modelling (SEM), which is elaborated, in this section. SEM is a statistical tool for analysing multivariate data that is being widely used in management, psychology and social sciences (Hair et al. 2014). Structural Equation Modelling as the name suggests, examines structure of interrelationships and expresses the same in series of equations. The distinguishing features of SEM are:

1. Estimation of multiple and interrelated dependence relationships.
2. An ability to represent unobserved concepts in these relationships and account for measurement error in the estimation process
3. Defining a model to explain the entire set of relationship

In SEM there are two main elements, the first being Measurement model and the second is the Structural model. The first step is to determine the measurement model through Confirmatory Factor Analysis (CFA). Each construct in the model has to be evaluated and analysed separately through a series of model identification steps. The measurement model relates the indicators or observed variables to latent variables and the structural model specifies relationships among different latent variables. The measurement model ensures that the indicators together define the latent construct and is tested using confirmatory factor analysis. SEM is different from other multivariate techniques as it a covariance structure analysis technique. Covariances arise from statistical considerations, which are advantageous. Covariances can be used as input for any comparisons between sample. In a system of structural equations, to estimate relationships path analysis is estimated by bivariate correlations (Hair et al. 2014). This process estimates the strength of each structural relationship (a straight or curved arrow) in a path diagram. SEM provides the path analysis of each factor. This helps in analysing which factor of TM have significant effect on the dependent variable employee engagement. In this study, a powerful SEM graphical software called Analysis of

Moment Structures (AMOS) is utilised as there are multiple factors to be analysed. It is an added SPSS module, which is preferred for confirmatory research. The study tries to confirm the existing theory of TM and tries to test relationships. SEM modelling helps to analyse multiple relations simultaneously. The multiple factors studied and their relationship is analysed with the help of SEM. To analyse the relationship between the elements of talent management and employee engagement and also to test the model built of TM towards engagement, this study uses SEM and graphically interprets the model using AMOS.

3.12 ETHICAL CONSIDERATIONS

Due considerations were given to ethical issues pertaining to various aspects while conducting the research. National Institute of Technology Karnataka (NITK), stipulates approval from the Research Progress Assessment Committee before conducting the survey research involving human participants which the researcher has to obtain by the submission of an application stating the nature of the research, objectives and procedures involved and a declaration from the researcher that zero risk is associated with the project with no undesirable effect on any participant. Accordingly, prior to the data collection, the researcher has stated all the vital information regarding the research with the intention to obtain informed consent. Also, it has been ensured that the respondents took part in the survey voluntarily and had the choice of withdrawing from it any time. In case the respondent needed additional information with respect to the researcher; a provision was made to contact the researcher. Moreover, the principle of confidentiality was also followed by the researcher. The participants' information, as well as details of the organisation, were not divulged to a third party. The questionnaire captured no data, such as name of the respondents, which would lead to the identification of the individual. Also, the cover letter clearly mentioned that the responses of the individuals would be used only for the stated purpose and all the responses will be analysed overall. Further use of the data for analysis as well as data storage also met the regulations related to data protection. In short, the following criteria were followed as a part of the ethical consideration for this research.

1. The identification of the respondents from whom the data is collected, is not revealed in order to ensure anonymity.

2. Informed consent was ensured from the respondents
3. The data collected is kept confidential and used only for research purposes.
4. It is ensured that the data is in safe custody and not misused

3.13 CHAPTER SUMMARY

Chapter 3 provides in details the research methodology applied for the study. It discusses the research paradigm, approach, methods and design utilised. It describes the research tool and the measurement scales utilised. The details of sampling unit, population and technique of sampling utilised for the study is explained. Details of the methods used in the study for data collection is discussed. It provides details regarding the pilot study executed, and the chapter concludes by explaining the different statistical tools used for the final data analysis and interpretation. The data analysis findings are explained in detail in the next chapter.

CHAPTER 4

DATA ANALYSIS AND RESULTS

4.1 CHAPTER OVERVIEW

This chapter provides details about the data analysis and the results derived. The primary data was collected from IT employees working in multinational firms nationwide. The data was analysed using the statistical software of IBM using Statistical Package for the Social Sciences (SPSS 20.0) and a powerful SEM graphical software called Analysis of Moment Structures (AMOS). The chapter details the data editing, screening and coding before the analysis started. The demographic profile of the respondents is listed in detail. The descriptive statistics of the factors were analysed using version 20 of SPSS. The chapter explains in detail the reliability and validity tests performed for the data. Variance inflation factor, common method bias and multicollinearity were analysed to ensure the data is fit for structural equation modelling. Structural equation modelling was analysed in two models, the measurement model and the structural model. The chapter also gives a description of the respondents, other descriptive questions, ranking questions, and multiple-choice and open-ended questions.

4.2 DEMOGRAPHICS

The demographics of respondents were captured using the questionnaire with multiple-choice questions and open-ended questions. The majority of the respondents, i.e., 62 per cent, are married. The data is skewed towards the male gender; 77 per cent of the respondents are male. In the IT industry, women's employment is 34 per cent and is on the rise (NASSCOM 2021). The majority of the respondents are graduates i.e., 63 per cent. Respondents having at least six months of experience in the present organisation were considered for the study. The majority of the respondents were having experience of above one year and ranging between one to five years of experience. The majority of the respondents belonged to the age group of 31-35 years and were also married. The demographics of the respondents describe that the respondents were with the organisation for more than one year experience, were well-educated and were in a

position to understand the various policies and strategies laid out by the organisation. The diversity in the demographics detailed in Table No. 4.1 of the respondents, provides for universalism. The characteristics of the demographics state that there is diversity; hence, the sample chosen for the research is representative of the population.

Table 4.1: Demographics of the study

Demographic Characteristics	Level	Frequency	Percentage
Age Group (years)	20-25	78	14.1
	26-30	150	27.1
	31-35	125	22.6
	36-40	99	17.9
	41-45	79	14.3
	46-50	20	3.6
	Above 51	3	0.5
Marital Status	Married	347	62.6
	Unmarried	207	37.4
Gender	Male	427	77.1
	Female	127	22.9
Education	Diploma	5	0.9
	Graduation	352	63.5
	Post-Graduation	195	35.2
	Others	2	0.4
Experience (years)	Below 1	45	8.1
	1-5	339	61.2
	6-10	106	19.1
	11-15	53	9.6
	Above 15	11	2.0

Source: Primary Data

4.3 DESCRIPTIVE STATISTICS

Descriptive statistics is carried out to summarise the responses and confer the basic features of the collected data. The total number of responses collected is 586. After checking for incomplete and unengaged responses, there were 568 usable responses. Responses with missing values in the data set constituted less than 10 per cent of the total responses; they were replaced by the series mean. Further, the multivariate outliers were identified by using the boxplot method. All those responses away from the centroid with a probability value of less than 0.001 were deleted (Hair et al. 2014). The responses considered for the final analysis after detecting and eliminating outliers numbered 554. There were 44 variables measured under nine constructs analysed for the research study. Item-wise and construct-wise descriptive statistics are illustrated in Table No. 4.2. The standard deviation of the constructs ranges from 0.918 to 0.886, which confers that the data are clustered close to the mean; hence the data is more reliable. The mean of the constructs ranges between 3.483 to 3.792, which indicates that it is above the mid-value and slightly positively oriented.

Table 4.2: Descriptive Statistics for Various Constructs

Construct	Items	Mean	Standard Deviation
Employer Branding	BR1	3.678	1.030
	BR2	3.644	1.028
	BR3	3.606	1.015
	BR4	3.617	0.985
	Overall	3.636	0.902
Employee Referral	ER1	3.577	1.012
	ER2	3.529	1.004
	ER3	3.557	1.029
	ER4	3.537	1.027
	Overall	3.550	0.907
Social Media	SM1	3.543	1.028
	SM2	3.554	1.023

	SM3	3.536	1.046
	SM4	3.559	1.029
	Overall	3.548	0.916
Training and Development	TD1	3.583	1.066
	TD2	3.543	1.034
	TD3	3.536	0.998
	TD4	3.570	1.004
	TD5	3.577	1.021
	Overall	3.562	0.915
Mentorship	MT1	3.559	1.015
	MT2	3.575	1.019
	MT3	3.588	1.010
	MT4	3.572	1.004
	Overall	3.574	0.894
Talent Assessment	TAS1	3.539	1.032
	TAS2	3.527	1.031
	TAS3	3.538	1.036
	TAS4	3.567	1.034
	TAS5	3.563	1.029
	Overall	3.547	0.918
Talent Retention	TR1	3.446	1.048
	TR2	3.491	1.022
	TR3	3.492	1.028
	TR4	3.478	1.027
	TR5	3.483	1.026
	Overall	3.483	0.920
Employee Engagement	EE1	3.821	1.014
(Dependent Variable)	EE2	3.752	1.026
	EE3	3.823	0.981
	EE4	3.772	1.014
	EE5	3.776	0.995

	EE6	3.817	0.981
	EE7	3.787	1.005
	Overall	3.792	0.892
Transformational	L1	3.530	1.004
Leadership	L2	3.559	0.977
(Moderating Variable)	L3	3.586	0.995
	L4	3.579	0.990
	L5	3.561	1.003
	L6	3.570	0.995
	Overall	3.564	0.886

Source: Data analysis

4.4 KAISER-MEYER-OLKIN (KMO) AND BARTLETT TEST

The Kaiser Meyer Olkin (KMO) test is a statistical measure which determines the extent to which the data suits factor analysis. It is a sample adequacy test for every variable and also the entire model. The KMO values of the Test ranging from 0.80 to 1.00 are considered to be good and also indicate that the sampling is adequate.

Bartlett's Test of sphericity is used to ensure the correlation matrix among variables in the dataset is not the identity matrix and is fit for factor analysis.

Table 4.3: KMO and Bartlett Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		0.951
Bartlett's Test of Sphericity	Sig.	0.000

Source: Data Analysis

Sample adequacy was confirmed with KMO and Bartlett's Test (Table No. 4.3), and the results were all above the required level and were significant. The data was then considered for further analysis.

4.5 RELIABILITY AND VALIDITY MEASURES

4.5.1 Content Validity

Expert opinions from two Human Resource practitioners were obtained from the IT industry for the research instrument, and the instrument was modified accordingly. The expert opinion of an academician in the related area of research and a statistician was also obtained before finalising the research instrument to be implemented.

All the data analysis performed for the reliability and validity test results were above the threshold levels; hence the data is reliable and valid for further analysis of the data.

4.5.2 Reliability and Validity of constructs

Reliability refers to the extent to which the observed variables measure the true value and is also error-free. It ensures consistency in what is intended to measure. Thus, ensuring that the measurement error in multivariate analysis is governed. One of the most commonly utilised methods to analyse internal consistency is Cronbach's Alpha. Cronbach's Alpha is a measure of the reliability of data, and the measurement ranges from 0-1.

Validity refers to the extent to which the data collected measures accurately what was intended to measure. Construct validity is evaluated based on the background theory and measurement instrument. Construct validity is analysed under two divisions convergent validity and discriminant validity. Convergent validity refers to the degree to which the measurement items converge and load under the same factor measuring the construct. The factor loading for the items should be of the value of 0.5 and above for each indicator, indicating that at least 50% of the variance in the observed item is shared by the construct. The preferred factor loading should be greater than 0.7 (Hair et al. 2014).

Reliability and Validity of Employer Branding

The four indicators of the construct of employer branding converged into one factor, and all the factor loadings are above the preferred level of 0.7. One indicator of the construct employer branding was eliminated for the final analysis due to low factor loading. The reliability test and convergent validity were determined in Table No. 4.4. The highest loading (0.893) was observed in the first indicator, BR1. The cross-loadings of the items with constructs were insignificant. The reliability measure of the construct Employer Branding was analysed by Cronbach's Alpha, and the result was 0.911, which is above the accepted limit of 0.7.

Table 4.4: Reliability and Convergent Validity Statistics of Employer Branding

Items	BR	EE	TL	ER	SM	TD	MT	TAS	TR
BR1	0.893	-0.032	0.050	-0.011	0.041	0.011	0.031	0.002	-0.033
BR2	0.874	0.029	-0.036	-0.036	0.049	0.000	0.016	-0.028	-0.003
BR3	0.861	0.001	0.019	0.019	-0.033	0.009	-0.008	0.029	0.018
BR4	0.852	0.058	-0.033	0.042	-0.043	0.006	-0.005	-0.007	0.017

Cronbach's Alpha = 0.911

Note: BR: Employer Branding; EE: Employee Engagement; TL: Transformational Leadership; ER: Employee Referral; SM: Social Media; TD=Training and Development, MT= Mentorship, TAS = Talent Assessment, TR= Talent Retention.

Source: Data analysis

Reliability and Validity of Employee Referral

All the indicators of the construct Employee Referral were considered for the final analysis. All the items loaded on the construct of employee referral validate its convergence as a factor. There were no cross-loadings observed as all items converged into one factor. The results of factor loadings and cross loadings of all the indicators of the construct employee referral have been listed in Table No. 4.5. The factor loading was all above the preferred level of 0.7. The highest loading was observed in the first item, ER1 being 0.904. The Cronbach's Alpha proving the reliability of the construct Employee Referral was 0.913, which is above the accepted limit of 0.7.

Table 4.5: Reliability and Convergent Validity Statistics of Employee Referral

Items	ER	EE	TL	BR	SM	TD	MT	TAS	TR
ER1	0.904	-0.014	0.005	-0.002	-0.016	0.005	-0.001	0.004	0.030
ER2	0.859	0.010	0.004	0.037	0.021	-0.023	-0.020	-0.008	-0.008
ER3	0.867	0.003	-0.024	0.011	0.004	0.059	0.034	0.009	-0.060
ER4	0.884	0.036	0.021	-0.038	0.008	-0.028	0.008	-0.011	0.040

Cronbach's Alpha = 0.913

Note: ER: Employee Referral; EE: Employee Engagement; TL: Transformational Leadership; BR: Employer Branding; SM: Social Media; TD: Training and Development; MT: Mentorship; TAS: Talent Assessment; TR: Talent Retention.

Source: Data Analysis

Reliability and Validity of Social Media

Table 4.6: Reliability and Convergent Validity Statistics of Social Media

Items	SM	EE	TL	BR	ER	TD	MT	TAS	TR
SM1	0.894	-0.059	0.025	-0.019	-0.016	0.038	0.064	0.000	-0.013
SM2	0.829	0.027	0.022	-0.039	-0.043	0.000	0.080	0.000	0.046
SM3	0.911	-0.035	-0.026	0.043	0.053	0.005	-0.57	0.017	-0.031
SM4	0.881	0.086	-0.017	0.023	0.015	-0.045	-0.067	-0.013	0.007

Cronbach's Alpha = 0.911

Note: SM: Social Media; EE: Employee Engagement; TL: Transformational Leadership; ER: Employee Referral; BR: Employer Branding; TD: Training and Development; MT: Mentorship; TAS: Talent Assessment; TR: Talent Retention.

Source: Data Analysis

Four items with accepted loadings converged to the construct of Social Media were considered for analysis. Two items were eliminated from the analysis due to low factor loadings. Table No. 4.6 clearly depicts that there was no cross-loading of items on other constructs. The factor loadings of all four items were above the level of 0.7. The highest factor loading was observed in the SM3. The reliability of the construct of Social Media was found to be acceptable by Cronbach's alpha result of 0.911.

Reliability and Validity of Training and Development

Five indicators of the construct training and development converged as one factor with the preferred loadings of above 0.7. Two items from the construct were removed for analysis due to low loadings. The Table No. 4.7 explains the results of the factor loadings and cross-loadings. There were no cross-loadings of items with other constructs. The Cronbach's alpha results were 0.936 which is above the acceptable limit; hence the construct was considered reliable.

Table 4.7: Reliability and Convergent Validity Statistics of Training and Development

Items	TD	EE	TL	BR	ER	SM	MT	TAS	TR
TD1	0.915	0.040	0.004	-0.002	-0.031	-0.015	-0.002	0.014	0.002
TD2	0.879	0.003	-0.029	0.028	0.007	-0.009	0.028	0.026	-0.011
TD3	0.843	0.025	0.018	0.045	-0.014	-0.033	0.045	-0.022	0.028
TD4	0.901	-0.005	-0.012	-0.079	0.047	0.021	-0.079	0.012	0.005
TD5	0.900	-0.032	0.018	-0.019	0.002	0.035	-0.019	-0.022	0.044

Cronbach's Alpha = 0.936

Note: TD: Training and Development; EE: Employee Engagement; TL: Transformational Leadership; SM: Social Media; ER: Employee Referral; BR: Employer Branding; MT: Mentorship; TAS: Talent Assessment; TR: Talent Retention.

Source: Data Analysis

Reliability and Validity of Mentorship

Four items were considered for analysis as all the factors loaded into one factor of mentorship. There was no evidence of cross-loadings of items to other constructs, and the factor loadings were all above the threshold values (Table No. 4.8). The reliability of the construct Mentorship was confirmed with Cronbach's Alpha result of 0.913, which is above the acceptable limit of 0.7; hence the reliability of the construct was justified

Table 4.8: Reliability and Convergent Validity Statistics of Mentorship

Items	MT	EE	TL	BR	SM	ER	TD	TAS	TR
MT1	0.932	-0.012	0.008	0.047	-0.016	0.005	0.006	0.004	.006
MT2	0.883	-0.014	-0.009	0.059	0.021	-0.023	0.017	-0.008	.017
MT3	0.815	0.054	0.003	-0.076	0.004	0.059	-0.021	0.009	-.021
MT4	0.798	0.070	-0.005	-0.015	0.008	-0.028	0.014	-0.011	.014

Cronbach's Alpha = 0.913

Note: ER: Employee Referral; EE: Employee Engagement; TL: Transformational Leadership; BR: Employer Branding; SM: Social Media; TD: Training and Development; MT: Mentorship; TAS: Talent Assessment; TR: Talent Retention.

Source: Data Analysis

Reliability and Validity of Talent Assessment

Table 4.9: Reliability and Convergent Validity Statistics of Talent Assessment

Items	TAS	EE	TL	BR	ER	SM	MT	TD	TAS
TAS1	0.877	-0.051	0.009	0.021	-0.031	-0.015	-0.002	0.014	0.002
TAS2	0.883	0.011	-0.009	0.038	0.007	-0.009	0.028	0.026	-0.011
TAS3	0.888	0.045	0.018	-0.010	-0.014	-0.033	0.045	-0.022	0.028
TAS4	0.895	-0.002	-0.035	0.003	0.047	0.021	-0.079	0.012	0.005
TAS5	0.899	0.005	0.000	-0.055	0.002	0.035	-0.019	-0.022	0.044

Cronbach's Alpha = 0.934

Note: TAS: Talent Assessment; EE: Employee Engagement; TL: Transformational Leadership; SM: Social Media; ER: Employee Referral; BR: Employer Branding; TD: Training and Development; MT: Mentorship; TAS: Talent Assessment; TR: Talent Retention.

Source: Data Analysis

Five items converged and loaded into the construct of Talent Assessment. All five items have factor loadings above the preferred level of 0.7. Two items from the construct of Talent Assessment were eliminated from the primary analysis as their loadings were low. The factor loadings of all the indicators of Talent Assessment are listed in Table No. 4.9, and there were no cross-loadings found. The highest factor loading was observed in TAS5. The Cronbach's Alpha result was significant, proving that the construct is reliable.

Reliability and Validity of Talent Retention

Five indicators were considered for the construct of Talent Retention as they converged into one factor. The factor loadings of all the five indicators of Talent Retention were listed in Table No. 4.10 and were above 0.7 and acceptable. Two items were rejected from the construct of Talent Retention due to low factor loadings. The reliability of the construct was verified by Cronbach's Alpha, the result of which was significant for further analysis.

Table 4.10: Reliability and Convergent Validity Statistics of Talent Retention

Items	TR	EE	TL	BR	ER	SM	MT	TAS	TD
TR1	0.893	-0.041	0.025	-0.016	-0.035	-0.065	0.072	-0.034	.074
TR2	0.895	-0.001	-0.008	-0.019	0.022	-0.011	0.008	-0.006	.018
TR3	0.874	-0.050	-0.009	0.016	0.072	-0.025	0.030	0.049	-.016
TR4	0.896	0.051	-0.030	0.035	-0.016	0.041	-0.053	-0.011	-.054
TR5	0.907	-0.032	0.007	-0.019	-0.037	0.057	-0.040	0.003	-.011

Cronbach's Alpha = 0.937

Note: TR: Talent Retention; EE: Employee Engagement; TL: Transformational Leadership; TD: Training and Development; SM: Social Media; ER: Employee Referral; BR: Employer Branding; MT: Mentorship; TAS: Talent Assessment;

Source: Data Analysis

Reliability and Validity of Transformational Leadership

Six indicators with factor loadings above 0.7 converged into one factor of Transformational Leadership. Two indicators were deleted due to low factor loadings. The factor loadings of the construct are depicted in Table No. 4.11. The highest factor loading was observed in the indicator TL6. The Cronbach's Alpha test of reliability was significant, stating that the construct is reliable and also has convergent validity.

Table 4.11: Reliability and Convergent Validity Statistics of Transformational Leadership

Items	TL	EE	TR	BR	ER	SM	MT	TAS	TD
TL1	0.893	-0.042	-0.016	-0.035	0.000	0.020	0.033	-0.003	0.043
TL2	0.881	0.026	-0.034	-0.023	0.031	0.039	-0.007	0.006	-0.053
TL3	0.882	-0.027	0.058	-0.028	0.026	-0.006	0.027	0.008	-0.017
TL4	0.887	0.028	-0.006	0.003	-0.010	-0.013	-0.041	-0.018	0.051
TL5	0.892	0.004	0.016	0.033	-0.047	-0.024	-0.005	0.006	0.012
TL6	0.897	0.009	-0.032	0.049	0.008	-0.016	-0.011	0.002	-0.038

Cronbach's Alpha = 0.948

Note: TL: Transformational Leadership; EE: Employee Engagement; TD: Training and Development; SM: Social Media; ER: Employee Referral; BR: Employer Branding; MT: Mentorship; TAS: Talent Assessment; TR: Talent Retention.

Source: Data Analysis

Reliability and Validity of Employee Engagement

The dependent factor, Employee Engagement, was formed by seven indicators converging as one factor. The seven indicators had factor loadings above the preferred level of 0.7. Two indicators with low factor loadings were eliminated for the final analysis. The factor loading of all the seven items of the construct is listed in Table No. 4.12 and the indicator EE4 noted the highest factor loading of 0.955. The lowest factor loading of the dependent construct was EE1, with a factor loading of 0.835. Cronbach's Alpha was above the desired level and proved that the construct of Employee Engagement was reliable. As the factor converged into one factor during the principal component analysis, the convergent validity was also as per the required norms.

Table 4.12: Reliability and Convergent Validity Statistics of Employee Engagement

Items	EE	TL	TR	BR	ER	SM	MT	TAS	TD
EE1	0.835	0.037	0.060	0.060	0.060	0.040	0.040	0.009	0.028
EE2	0.900	0.011	0.031	0.031	0.031	-0.026	-0.026	0.006	0.015
EE3	0.831	0.019	0.032	0.032	0.032	0.024	0.024	-0.002	-0.036
EE4	0.955	-0.044	-0.127	-0.127	-0.127	-0.024	-0.024	0.002	-0.001
EE5	0.902	-0.003	-0.021	-0.021	-0.021	-0.009	-0.009	-0.015	0.005
EE6	0.841	0.008	0.047	0.047	0.047	-0.008	-0.008	-0.020	0.003
EE7	0.864	-0.012	0.006	0.006	0.006	0.013	0.013	0.031	0.019

Cronbach's Alpha = 0.948

Note: TD: Training and Development; SM: Social Media; ER: Employee Referral; BR: Employer Branding; EE: Employee Engagement; TL: Transformational Leadership; MT: Mentorship; TAS: Talent Assessment; TR: Talent Retention.

Source: Data Analysis

4.5.3 Discriminant Validity (Fornell and Larcker Criterion)

The discriminant validity describes how different the constructs are different from each other. It gives a description of how much a construct correlates with other constructs and also how the measured variables distinctly represent one construct (Hair. et al. 2014). The factor loadings converging to one factor and also cross-loadings of one factor on other constructs describe discriminant validity. The discriminant validity of constructs is also measured with the inter-construct correlation matrix. The inter-construct correlation matrix is analysed by examining the square root of the Average Variance Extracted (AVE) for each latent construct. If the square root of AVE of a construct is higher than any of the correlations of the construct with any other variable, then the construct indicates discriminant validity.

Table 4.13: Inter-Construct Correlation Matrix

MSV	CR	AVE		BR	EE	TL	TR	TD	TAS	ER	SM	MT
0.449	0.905	0.705	BR	0.839								
0.453	0.956	0.757	EE	0.670	0.870							
0.118	0.948	0.754	TL	0.286	0.313	0.868						
0.241	0.937	0.748	TR	0.427	0.491	0.221	0.865					
0.328	0.931	0.730	TD	0.464	0.573	0.199	0.422	0.855				
0.120	0.934	0.739	TAS	0.247	0.347	0.188	0.266	0.294	0.859			
0.364	0.913	0.725	ER	0.549	0.603	0.304	0.406	0.403	0.274	0.851		
0.387	0.911	0.719	SM	0.540	0.615	0.312	0.449	0.411	0.247	0.566	0.848	
0.453	0.892	0.677	MT	0.522	0.673	0.343	0.403	0.482	0.282	0.537	0.622	0.823

Note: BR: Employer Branding; EE: Employee Engagement; TL: Transformational Leadership; ER: Employee Referral; SM: Social Media; TD=Training and Development, MT= Mentorship, TAS = Talent Assessment, TR= Talent Retention. AVE: Average Variance Extracted; CR: Composite Reliability; MSV: Maximum Shared Variance
 $p < 0.05 = *$; $p < 0.01 = **$; $p < 0.001 = ***$

Source: Data Analysis

The acceptable value of AVE is 0.5, and Composite Reliability (CR) 0.7. (Hair.et.al. 2015). The diagonal values highlighted in Table No. 4.13 explains the results of the square root of AVE. The diagonal values were above the inter-construct values, proving discriminant validity. The results of AVE clearly explain that the variance captured by all the constructs is above 0.5, and the composite reliability values are also above 0.7. The square root of AVE values is above the inter-construct correlation; hence the discriminant validity is proved.

4.6 NORMAL DISTRIBUTION OF DATA: SKEWNESS AND KURTOSIS

Structural Equation Modelling (SEM) is an appropriate and efficient estimation technique for separate multiple regression equations estimated simultaneously. For applying SEM, the data requires to be normally distributed.

The normality of the data can be assessed with the help of skewness and kurtosis statistics (Hair et al. 2014). The data is said to be normal when the absolute skewness is below two and the absolute kurtosis value is below 7 for a sample size greater than 200 (Curran et al. 1996; Kline 2005). The skewness and kurtosis values for all the items of the constructs were within the desired range (Table 4.14). These values confirm that the data was normally distributed, and hence data were considered for further analysis.

Table 4.14: Skewness and Kurtosis

Sl. No.	Construct	Indicators	Skewness	Kurtosis
1.	Employer Branding	B1	-0.661	-0.206
2.		B2	-0.567	-0.339
3.		B3	-0.619	-0.137
4		B4	-0.540	-0.249
5	Employee Referral	ER1	-0.206	-0.368
6.		ER2	-0.339	-0.416
7.		ER3	-0.137	-0.591
8.		ER4	-0.249	-0.481

9.	Social Media	SM1	-0.537	-0.348
10.		SM2	-0.477	-0.390
11.		SM3	-0.504	-0.387
12.		SM4	-0.465	-0.459
13.	Training and Development	TD1	-0.626	-0.314
14.		TD2	-.0564	-0.219
15.		TD3	-0.455	-0.377
16.		TD4	-0.500	-0.300
17.		TD5	-0.522	-0.335
18.	Mentorship	MT1	-0.479	-0.383
19.		MT2	-0.555	-0.197
20.		MT3	-0.491	-0.351
21.		MT4	-0.441	-0.443
22.	Talent Assessment	TAS1	-0.473	-0.500
23.		TAS2	-0.445	-0.440
24.		TAS3	-0.459	-0.482
25.		TAS4	-0.499	-0.423
26.		TAS5	-0.525	-0.399
27.	Talent Retention	TR1	-0.471	-0.522
28.		TR2	-0.434	-0.495
29.		TR3	-0.416	-0.519
30.		TR4	-0.408	-0.542
31.		TR5	-0.440	-0.526
32.	Employee Engagement	EE1	-0.845	0.146
33.		EE2	-0.697	-0.193
34.		EE3	-0.711	-0.117
35.		EE4	-0.679	-0.257
36.		EE5	-0.665	-0.223
37.		EE6	-0.642	-0.304
38.		EE7	-0.732	-0.056

39.	Transformational Leadership	TL1	-0.450	-0.416
40.		TL2	-0.436	-0.421
41.		TL3	-0.555	-0.254
42.		TL4	-0.468	-0.404
43.		TL5	-0.525	-0.301
44.		TL6	-0.527	-0.287

Note: TD: Training and Development; SM: Social Media; ER: Employee Referral; BR: Employer Branding; EE: Employee Engagement; TL: Transformational Leadership; MT: Mentorship; TAS: Talent Assessment; TR: Talent Retention.

Source: Data Analysis

4.7 COMMON METHOD BIAS

Harman's One Factor test was conducted to identify common method bias. The percentage of variance should be less than 50 per cent for the first construct; then, there is no common method bias. For the data, the total variance extracted for the first construct is 37.543, which is below 50 per cent; hence there is no common method bias.

4.8 MULTICOLLINEARITY

Multicollinearity refers to the extent to which one construct can be explained by other constructs in analysis. If multicollinearity increases, then it is difficult to determine the effect of the variable, and it results in improper interpretation. The threshold values for VIF should be less than 3. The Variance Inflation Factor (VIF) for each of the independent variables was calculated to check for the existence of a multicollinearity problem (O'Brien 2007). The Table No. 4.15 clearly indicates the VIF values for all the constructs. All the independent variables' VIF values were below 3, indicating that the present analysis was free of multicollinearity problems.

Table 4.15: Variance Inflation Factor

Construct	Tolerance Level	VIF
Employer Branding	0.595	1.681
Employee Referral	0.597	1.674
Social Media	0.560	1.786
Training and Development	0.694	1.440
Mentorship	0.549	1.822
Talent Assessment	0.871	1.149
Talent Retention	0.720	1.389
Transformational Leadership	0.858	1.166

Source: Data analysis

4.9 MEASUREMENT MODEL

In SEM there are two main elements, i.e., the Measurement model and the Structural model. The first step is to determine the measurement model through Confirmatory Factor Analysis (CFA). Each construct in the model has to be evaluated and analysed separately through a series of model identification steps. Also, when each construct shows an acceptable fit, then all constructs should be evaluated together to produce the final model.

In this study the 9 constructs were analysed and the measurement model values shows acceptable goodness of fit values.

Table 4.16: Goodness of Fit of Measurement Model

Indices	Threshold Value
Normed chi-square	>1 Normed chi-square <3 (Hair et al. 2014)
GFI	>0.90 (Hair et al. 2014)
AGFI	>0.90 (Hair et al.2014)
TLI	>0.90 (Hair et al.2014)
CFI	>0.95 (Hair et al. 2014)
RMSEA	<0.08 (Hair et al. 2014)

Note: GFI: Goodness of Fit Index; AGFI: Adjusted Goodness Fit of Index; TLI: Tucker Lewis Index; CFI: Comparative Fit Index; RMSEA: Root Mean Square

Source: Hair et al. (2014)

Table No.4.17: Measurement Model Results

Indices	Model Results
Normed chi-square	1.757
GFI	0.889
AGFI	0.873
TLI	0.967
CFI	0.970
RMSEA	0.037

Note: GFI: Goodness of Fit Index; AGFI: Adjusted Goodness Fit of Index; TLI: Tucker Lewis Index; CFI: Comparative Fit Index; RMSEA: Root Mean Square

Source: Data analysis

To improve the measurement model fitness indices, covariation of error terms was performed based on modification indices. The covariation of error terms of TD1 and TD2 were performed and also covariation of error terms of MT1 and MT2 were also done. The model was again tested for model fitness after covariations of the error terms using AMOS software. Table No. 4.17 shows the revised measurement model results, which clearly depicts that all the results met all threshold values and the measurement model fitness indices were accepted.

Table No.4.18: Revised Measurement Model Results

Indices	Model Results
Normed chi-square	1.324
GFI	0.916
AGFI	0.904
TLI	0.986
CFI	0.987
RMSEA	0.024

Note: GFI: Goodness of Fit Index; AGFI: Adjusted Goodness Fit of Index; TLI: Tucker Lewis Index; CFI: Comparative Fit Index; RMSEA: Root Mean Square

Source: Data analysis

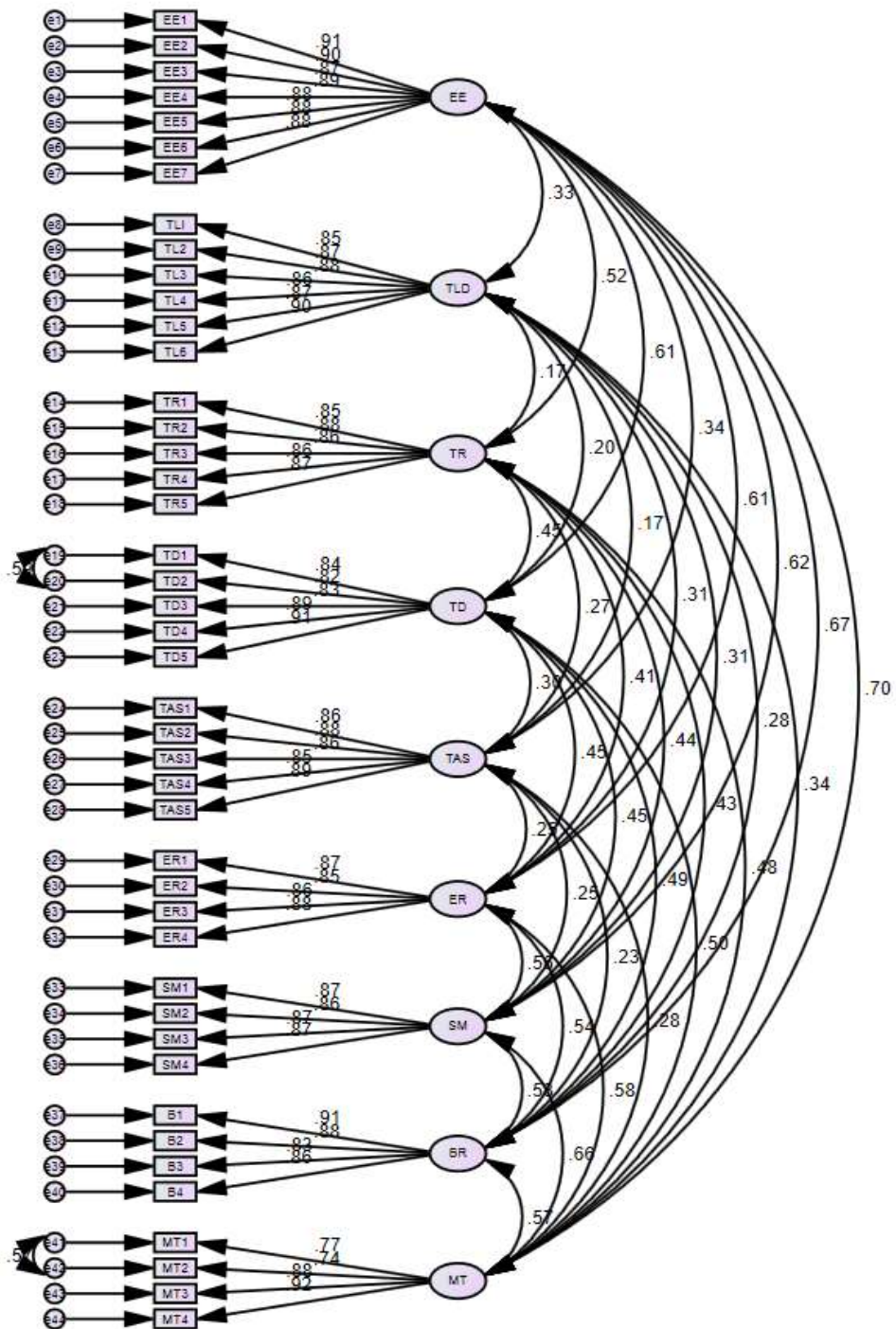


Figure 4.1: Overall Measurement Model of all Constructs

Source: Data Analysis

Table 4.19: Regression Weights of the Measurement model

Items	Direction	Construct	Standardised			
			Regression weights	S. E	CR.	P
EE1	←	EE	0.898			
EE2	←	EE	0.883	0.032	31.569	***
EE3	←	EE	0.851	0.032	29.009	***
EE4	←	EE	0.857	0.032	29.446	***
EE5	←	EE	0.872	0.031	30.652	***
EE6	←	EE	0.863	0.031	29.886	***
EE7	←	EE	0.867	0.032	30.231	***
TL1	←	LD	0.852			
TL2	←	LD	0.859	0.037	26.461	***
TL3	←	LD	0.878	0.037	27.532	***
TL4	←	LD	0.861	0.038	26.565	***
TL5	←	LD	0.869	0.038	27.016	***
TL6	←	LD	0.891	0.037	28.288	***
TR1	←	TR	0.843			
TR2	←	TR	0.872	0.038	26.333	***
TR3	←	TR	0.860	0.039	25.716	***
TR4	←	TR	0.867	0.039	26.073	***
TR5	←	TR	0.882	0.038	26.841	***
TD1	←	TD	0.840			
TD2	←	TD	0.815	0.026	35.561	***
TD3	←	TD	0.825	0.039	23.676	***
TD4	←	TD	0.882	0.038	26.336	***
TD5	←		0.907	0.038	27.515	***
TAS1	←	TAS	0.855			
TAS2	←	TAS	0.865	0.038	26.551	***
TAS3	←	TAS	0.860	0.038	26.293	***
TAS4	←	TAS	0.839	0.039	25.160	***
TAS5	←	TAS	0.878	0.038	27.283	***

SM1	←	SM	0.858			
SM2	←	SM	0.835	0.040	24.488	***
SM3	←	SM	0.848	0.040	25.099	***
SM4	←	SM	0.851	0.039	25.241	***
MT1	←	MT	0.754			
MT2	←	MT	0.721	0.036	26.672	***
MT3	←	MT	0.877	0.054	21.363	***
MT4	←	MT	0.921	0.054	22.206	***
ER1	←	ER	0.863			
ER2	←	ER	0.822	0.039	24.152	***
ER3	←	ER	0.846	0.039	25.329	***
ER4	←	ER	0.873	0.038	26.698	***
B1	←	BR	0.882			
B2	←	BR	0.858	0.034	28.373	***
B3	←	BR	0.818	0.037	22.779	***
B4	←	BR	0.838	0.035	23.925	***

Note: S.E.: Standard Error; C.R: Critical ratio; p: Significance; $p < 0.05 = *$; $p < 0.01 = **$; $p < 0.001 = ***$

Note: TD: Training and Development; SM: Social Media; ER: Employee Referral; BR: Employer Branding; EE: Employee Engagement; TL: Transformational Leadership; MT: Mentorship; TAS: Talent Assessment; TR: Talent Retention.

Source: Data analysis

4.10 STRUCTURAL MODEL

Having satisfied the reliability and validity tests and the measurement model fit, the next step in SEM is analysing the structural model or the path analysis. The path model describes the hypothesised relationships. The direction significance, the strength of the path and the model fitness are analysed.

The overall model has employer branding, employee referral, social media, training and development, mentorship, talent assessment and talent retention, seven constructs as exogenous factors or also known as independent constructs and employee engagement as the endogenous or the dependent variable. The error terms of two items from the training and development construct and also error terms of the mentorship construct were correlated based on modification indices in order to get better model fitness

results. The results depicted in the table below clearly explains that the overall model of talent management strategies and employee engagement has good fitness indices to the data.

Table 4.20: Goodness of fit Indices of the Structural Model

The goodness of Fit Indices							
MODEL	X^2	X^2/df	GFI	AGFI	TLI	CFI	RMSEA
	1278.929	2.008	0.891	0.873	0.962	0.966	0.043

Note: GFI: Goodness of Fit Index; AGFI: Adjusted Goodness Fit of Index; TLI: Tucker Lewis Index; CFI: Comparative Fit Index; RMSEA: Root Mean Square

Source: Data analysis

To improve the structural model fitness indices, covariation of error terms was made based on modification indices. The covariation of error terms of TD1 and TD2 was performed and also covariation of error terms of MT1 and MT2 was also done. The model was again tested for model fitness after covariations of the error terms using AMOS software. Table No. 4.20 shows the revised measurement model results, which clearly depicts that all the results met all threshold values and the measurement model fitness indices were accepted.

Table 4.21: Goodness of fit Indices of the Revised Structural Model

The goodness of Fit Indices							
MODEL	X^2	X^2/df	GFI	AGFI	TLI	CFI	RMSEA
	948.921	1.494	0.918	0.905	0.981	0.983	0.030

Note: GFI: Goodness of Fit Index; AGFI: Adjusted Goodness Fit of Index; TLI: Tucker Lewis Index; CFI: Comparative Fit Index; RMSEA: Root Mean Square

Source: Data analysis

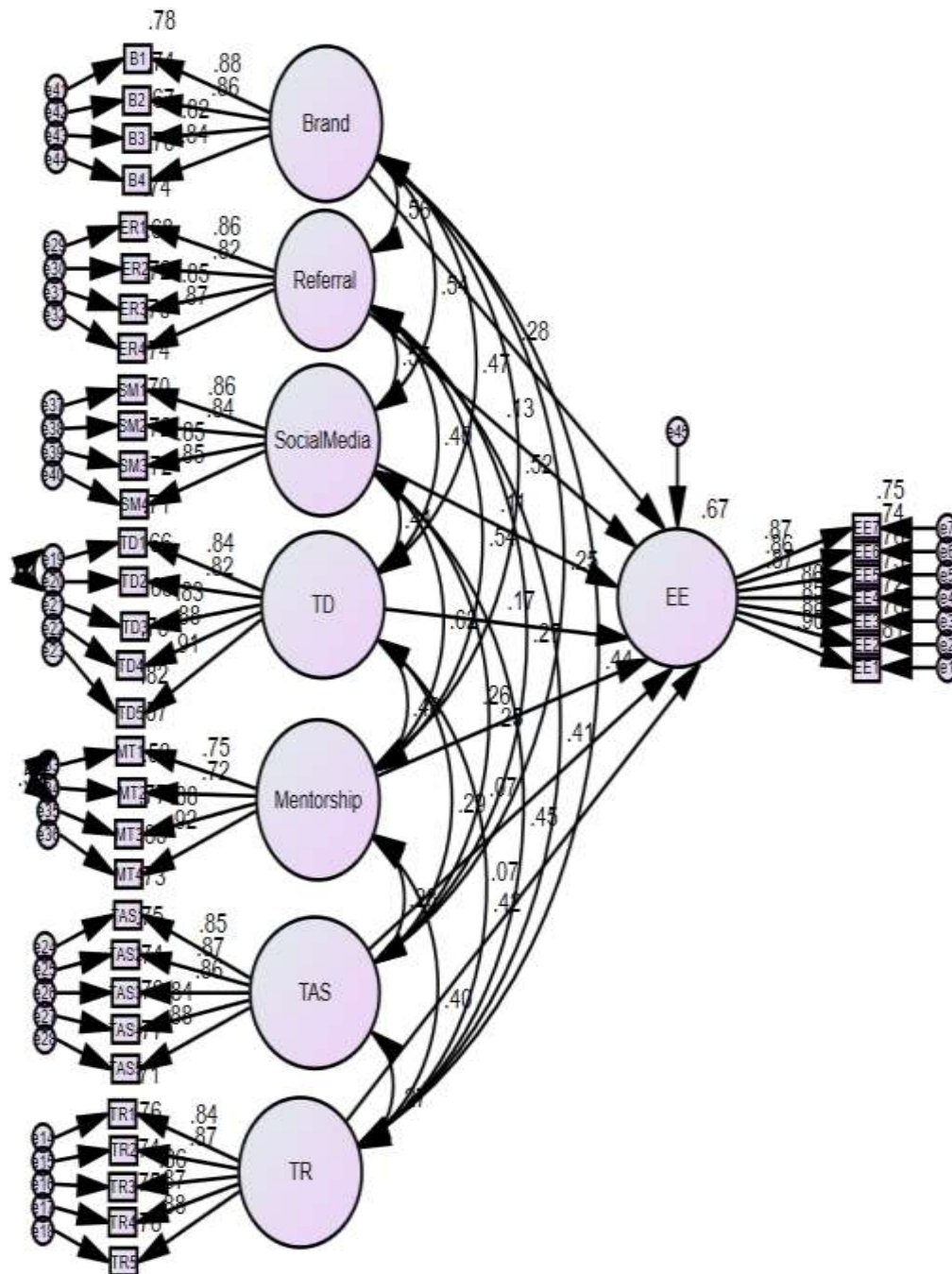


Figure 4.2: Overall Structural Model depicting Talent management strategies and Employee engagement.

Source: Data Analysis

The overall structural model of talent management strategies and employee engagement supported all the requirements of a good model. The model fit indices were all above the required threshold values, which proves that the model analysed using Structural equation modelling with the statistical tool of AMOS, is a statistically well-accepted model.

Table 4.22: Hypotheses Testing

			Standardised				
			Regression				
Direction			Weights	SE.	CR.	P	Results
BR	→	EE	0.285	0.041	7.043	***	Supported
ER	→	EE	0.128	0.041	3.238	***	Supported
SM	→	EE	0.111	0.044	2.612	**	Supported
TD	→	EE	0.167	0.036	4.686	***	Supported
MT	→	EE	0.256	0.051	5.935	***	Supported
TAS	→	EE	0.072	0.031	2.374	***	Supported
TR	→	EE	0.072	0.035	2.121	**	Supported

Note: S.E.: Standard Error; C.R: Critical ratio; P: significance; $p < 0.05 = *$; $p < 0.01 = **$; $p < 0.001 = ***$

Note: TD: Training and Development; SM: Social Media; ER: Employee Referral; BR: Employer Branding; EE: Employee Engagement; TL: Transformational Leadership; MT: Mentorship; TAS: Talent Assessment; TR: Talent Retention

Source: Data analysis

The overall TM model clearly depicts that the strategies of TM, when implemented by organisations, provide for increasing the levels of engagement of employees.

In the path analysis, it is observed that out of the seven variables, all the variables have a positive impact on employee engagement. It is observed that based on regression weights, employer branding has the highest effect on employee engagement, followed by mentorship and training and development.

4.11 MODERATION ANALYSIS

The effect of the third or an additional independent variable causes a change in the relationship between the independent and the dependent variables studied. It is also known as the interactive effect (Hair et al. 2014). In the study, transformational leadership is the moderating variable which consists of 6 scale items. The mean of the six items was analysed for grouping them into two categories namely effective and ineffective. The moderating effect or the interactive effect of transformational leadership on four primary independent constructs, namely, talent development, mentorship, talent assessment and talent retention, and the dependent variable of employee engagement, has been analysed.

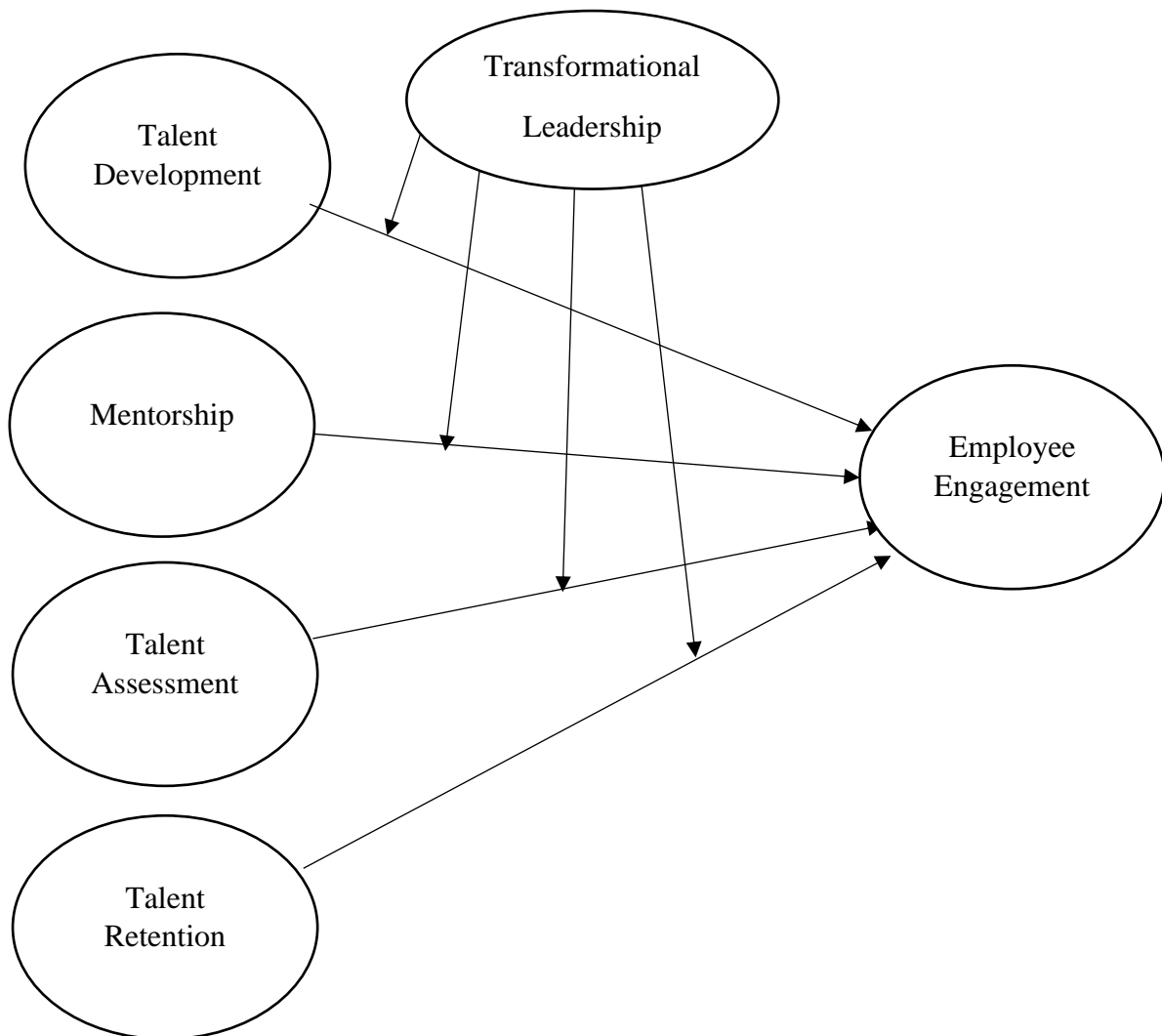


Figure 4.3: Conceptual Model for Moderation

Source: Literature Review

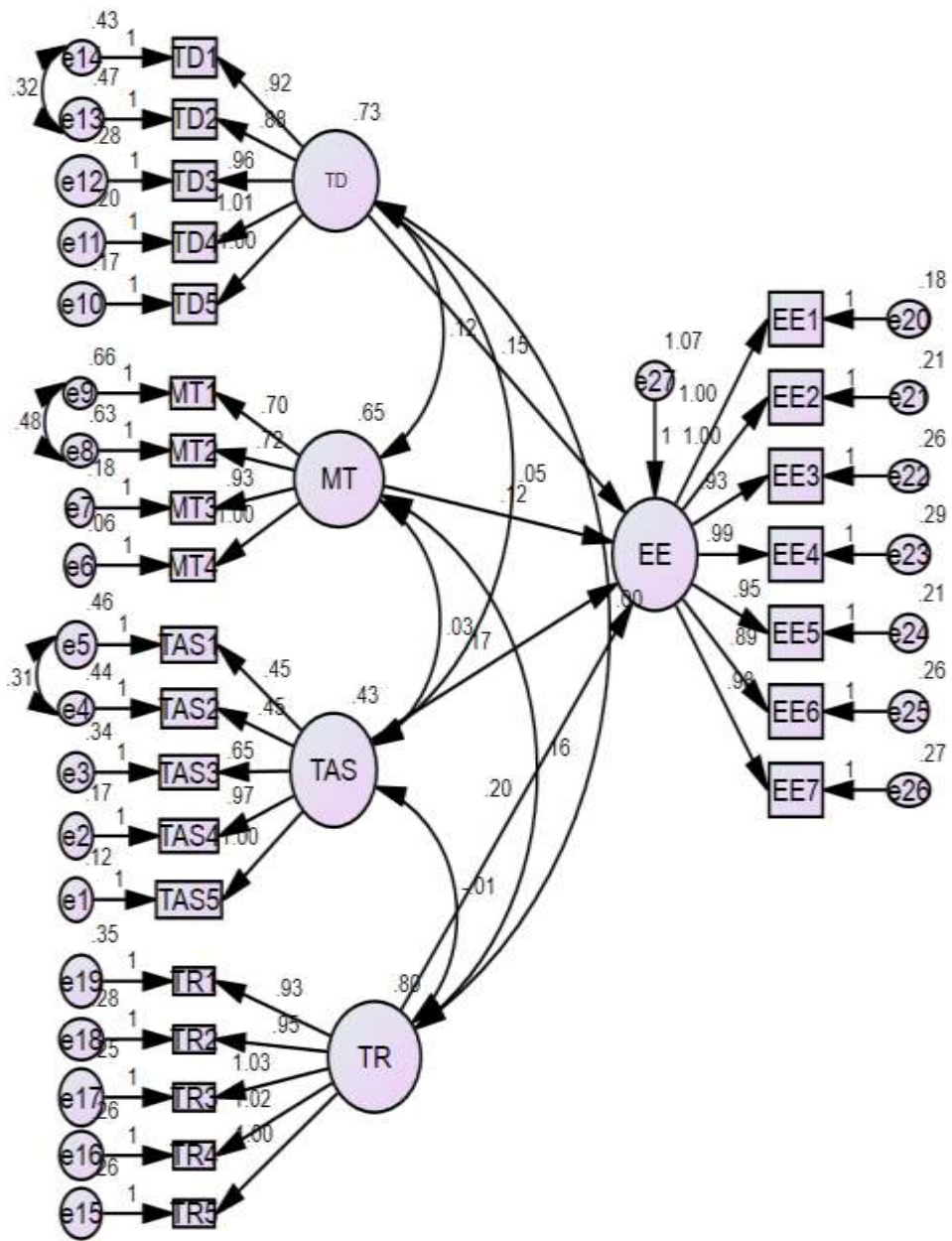


Figure:4.4: Model depicting the moderating effects of Transformational Leadership

Source: Data Analysis

Table 4.23: Goodness of fit Indices of the Moderation Model

The Goodness of Fit Indices						
MODEL	X^2	X^2/df	GFI	TLI	CFI	RMSEA
	1057.080	2.584	0.858	0.848	0.872	0.058

Note: GFI: Goodness of Fit Index; TLI: Tucker Lewis Index; CFI: Comparative Fit Index; RMSEA: Root Mean Square

Source: Data Analysis

The moderator variable of transformational leadership was grouped into groups namely, Effective and Ineffective. Based on the central mean value of the construct, the grouping was done. Respondents having mean value of above 3.54 was considered for the group effective and respondents below the mean value of 3.54 was considered for the group ineffective transformational leadership. To improve the moderation model fitness indices, covariation of error terms was made based on modification indices. The covariation of error terms of TD1 and TD2 and MT1 and MT2 and also TAS1 and TAS2 was performed. The model was again tested for model fitness after covariations of the error terms using AMOS software. The results of the Table No. 4.25 were considered for the moderation model of transformational leadership.

Table 4.24: Goodness of fit Indices of the Revised Moderation Model

The Goodness of Fit Indices						
MODEL	X^2	X^2/df	GFI	TLI	CFI	RMSEA
	872.856	1.526	0.901	0.968	0.972	0.031

Note: GFI: Goodness of Fit Index; TLI: Tucker Lewis Index; CFI: Comparative Fit Index; RMSEA: Root Mean Square

Source: Data Analysis

The moderating effect of transformational leadership was analysed using SEM multi group analysis. The overall structural model of on talent development, mentorship, talent assessment, talent retention strategies and employee engagement supported all the requirements of a good model. The model fit indices were all above the required threshold values, which proves that the model analysed using Structural equation modelling with the statistical tool of AMOS, is a statistically well-accepted model

Table 4.25: Regression Weights of Moderating Effective Transformational Leadership

Direction	Standardised				Result
	Regression Weights	SE.	CR.	P	
TD→EE	0.180	0.046	3.934	0.000	Significant***
MT→EE	0.283	0.051	5.544	0.000	Significant***
TAS→EE	0.029	0.047	0.618	0.050	Significant*
TR→EE	0.164	0.050	3.295	0.000	Significant***

Note: S.E.: Standard Error; C.R: Critical ratio; P: significance; $p < 0.05 = *$; $p < 0.01 = **$; $p < 0.001 = ***$
 Note: TD: Training and Development; MT: Mentorship; TAS: Talent Assessment; TR: Talent Retention; EE: Employee Engagement; TL: Transformational Leadership;

Source: Data Analysis

Table 4.26: Regression Weights of Moderating Ineffective Transformational Leadership

Direction	Standardised				Result
	Regression Weights	SE.	CR.	P	
TD→EE	0.121	0.095	1.612	0.107	Insignificant
MT→EE	0.090	0.103	1.172	0.241	Insignificant
TAS→EE	0.103	0.124	1.350	0.177	Insignificant
TR→EE	0.163	0.091	2.157	0.031	Significant*

Note: S.E.: Standard Error; C.R: Critical ratio; P: significance; $p < 0.05 = *$; $p < 0.01 = **$; $p < 0.001 = ***$
 TD: Training and Development; MT: Mentorship; TAS: Talent Assessment; TR: Talent Retention; EE: Employee Engagement; TL: Transformational Leadership;

Source: Data Analysis

Moderation effect of transformational leadership is evident based on the significance levels. The moderating effect of transformational leadership is maximum on talent development and employee engagement as the significance level changes from being highly significant with effective transformational leadership and insignificant with ineffective transformational leadership. The moderating effect of transformational leadership has a similar impact on mentorship and employee engagement as well. The effect of moderation is less in the case of talent assessment and employee engagement.

The moderating effect of transformational leadership on the relationship between talent retention and employee engagement is also less in talent retention, and employee engagement are still significant with ineffective transformational leadership. Hence, the moderating effect of TL is insignificant on TR on EE.

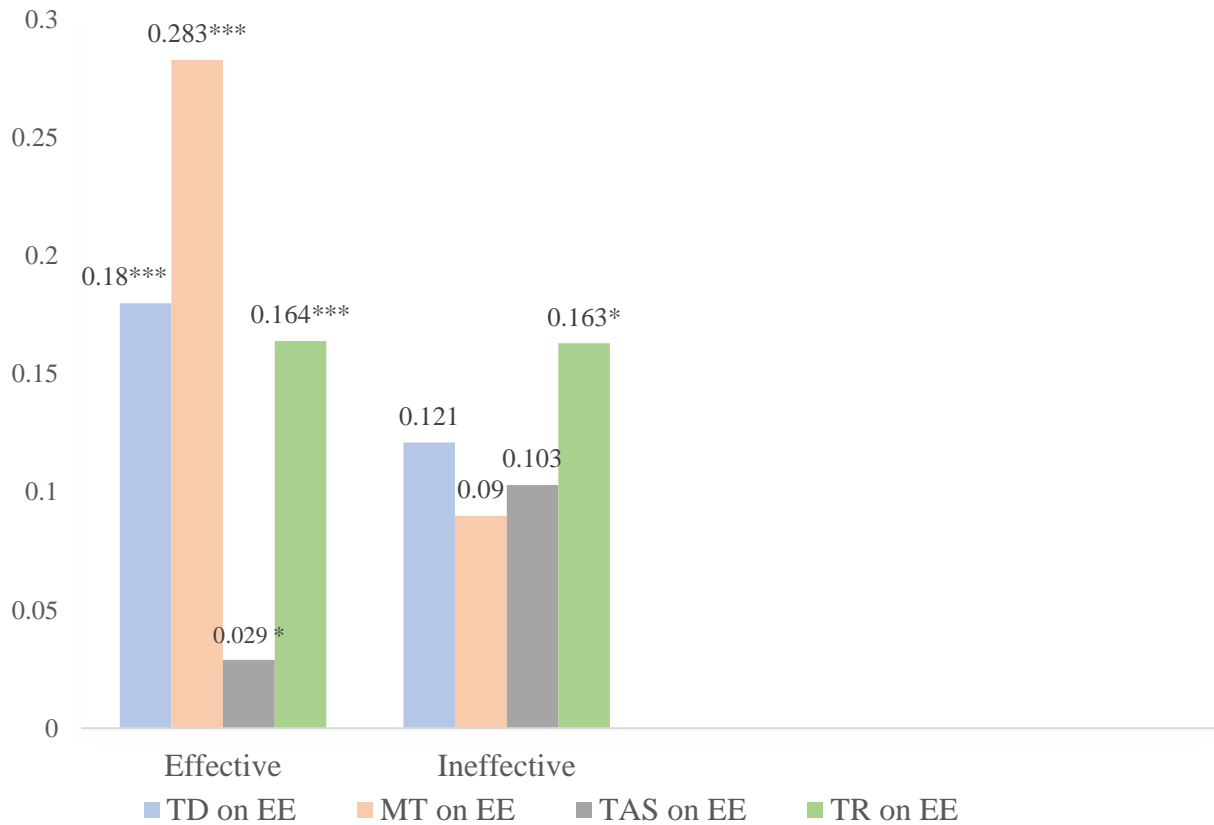


Figure 4.5: Moderating Effect of Transformational Leadership

Source: Data Analysis

In the above figure 4.5 the moderating effect of transformational leadership, is evident. The figure shows the regression estimates of the and the significance is represented with ***. It is depicted that the moderating effective of effective transformational leadership is significantly impacting the first three independent construct namely, training and development, mentorship and talent assessment. The impact of ineffective transformational leadership is insignificant between the three constructs on EE. The impact of talent retention on EE has not changed with the moderating effect of effective of ineffective transformational leadership.

4.12 TALENT MANAGEMENT MODEL

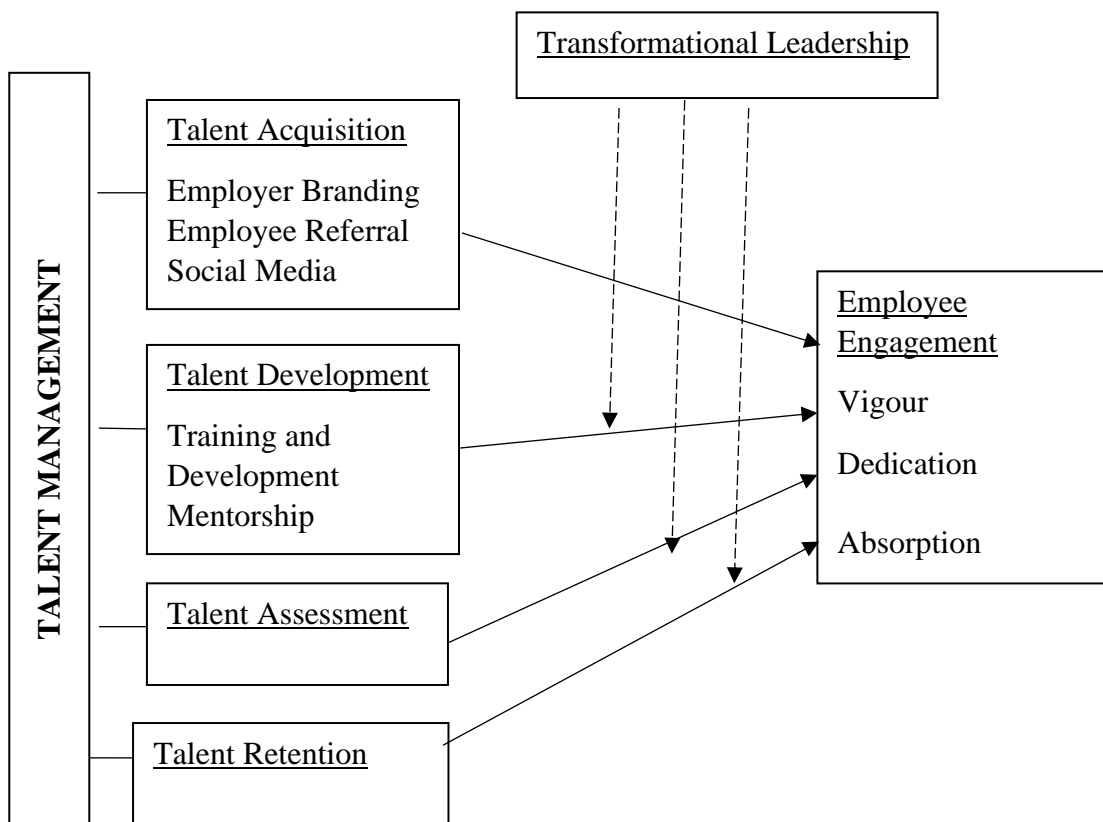


Figure 4.6: Talent Management Model towards Employee Engagement

Source: Literature Review

The overall model of TM developed in the research is an inclusive model of all the elements of talent management strategies. The model was initially constructed based on an in-depth literature review; later on, the model was developed and empirically tested and checked for model fitness with the help of SEM. There are seven independent constructs, namely, employer branding, employee referral, social media, training and development, mentorship, talent assessment and talent retention strategies, considered as the main strategies for managing talents in the IT industry. The dependent construct is employee engagement. The overall model analyses the impact of talent management strategies on employee engagement. The model also includes transformational leadership as moderating variable, which has an impact on the relationship between TM and EE. The model was developed keeping in mind the inclusive approach of talent management, considering all employees employed in the organisation as talented individuals. There is a total of thirty-one scale items measuring

talent management strategies and seven scale items measuring the engagement of employees. Six scale items measure the moderating construct of transformational leadership. The model was examined and analysed for fitness using Structural equation modelling. The findings of the studied model clearly state that all four elements of talent management have a positive and significant impact on employee engagement. The moderating effect of transformational leadership is also significantly impacting the relationship between the elements of TM and employee engagement. The regression values analysed depict that employer branding (0.285) has the highest effect on employee engagement, followed by mentorship (0.256) and then training and development. In the moderating effect, it is evident that mentorship has the highest impact (0.283) of transformational leadership on employee engagement. The overall model fitness is proven, and the developed model is a tested model that will provide practical and academic insights.

4.13 TALENT MANAGEMENT STRATEGIES -FURTHER INSIGHTS

Apart from the scale items, the questionnaire also consisted of several other questions, which provided further insights to the research and also helped understand the opinions and viewpoints of employees working in the information technology industry. The questionnaire had several open-ended, multiple choice questions, ranking questions, dichotomous questions, and also a comments sections. The information gathered through the non-scale items also provides several interesting facts that would aid in the talent management strategy implications. The data of the non-scale items was analysed and represented using pictorial presentations.

4.13.1 Talent Acquisition – The preferred source of recruitment

In talent acquisition activities, recruitment is the first step wherein the employer and the prospective employee come in contact. It is a well-known platform for branding the organisation. The sources of recruitment can be classified into two, i.e., internal and external. There are several sources of recruitment, but only those sources that is prevailing in the IT industry considered for the study. Figure No. 4.5 depicts the preference of 554 respondents for the most effective source of recruitment.

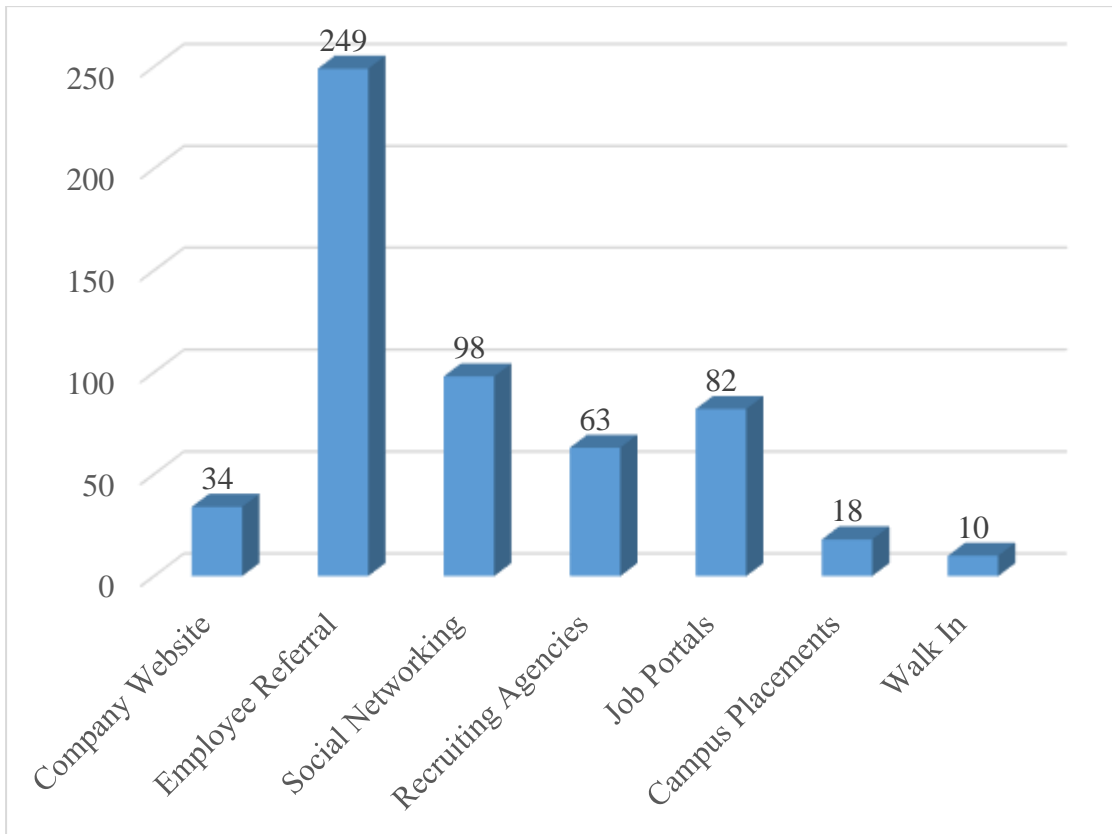


Figure 4.7: Effective sources of recruitment in the IT industry

Source: Data Analysis

From Figure No.4.7, it is evident that according to the respondents of the study, employee referral is the most effective source of recruitment in the IT industry. The next best is recruiting source is social media. Using job boards or job portals is also considered as an effective source of recruitment.

4.13.2 Talent Development Strategies -An analysis of the various policies used to encourage higher education in IT firms

The majority of the firms in the IT industry encourage their employees towards higher certifications and studies. Organisations in the IT industry use various strategies in order to motivate or encourage employees into higher education. The respondents in our study have listed the various policy provided by the firms. The Figure No. 4.8 clearly depicts that fee sponsorship made by firms is mostly adopted strategy by firms. Higher education is also encouraged by organisations through promotions or higher-level assignments. Sabbatical leaves are also provided by firms, and the firms sometimes may insist on having completed a tenure of a minimum of three years to avail such facilities by the organisation.

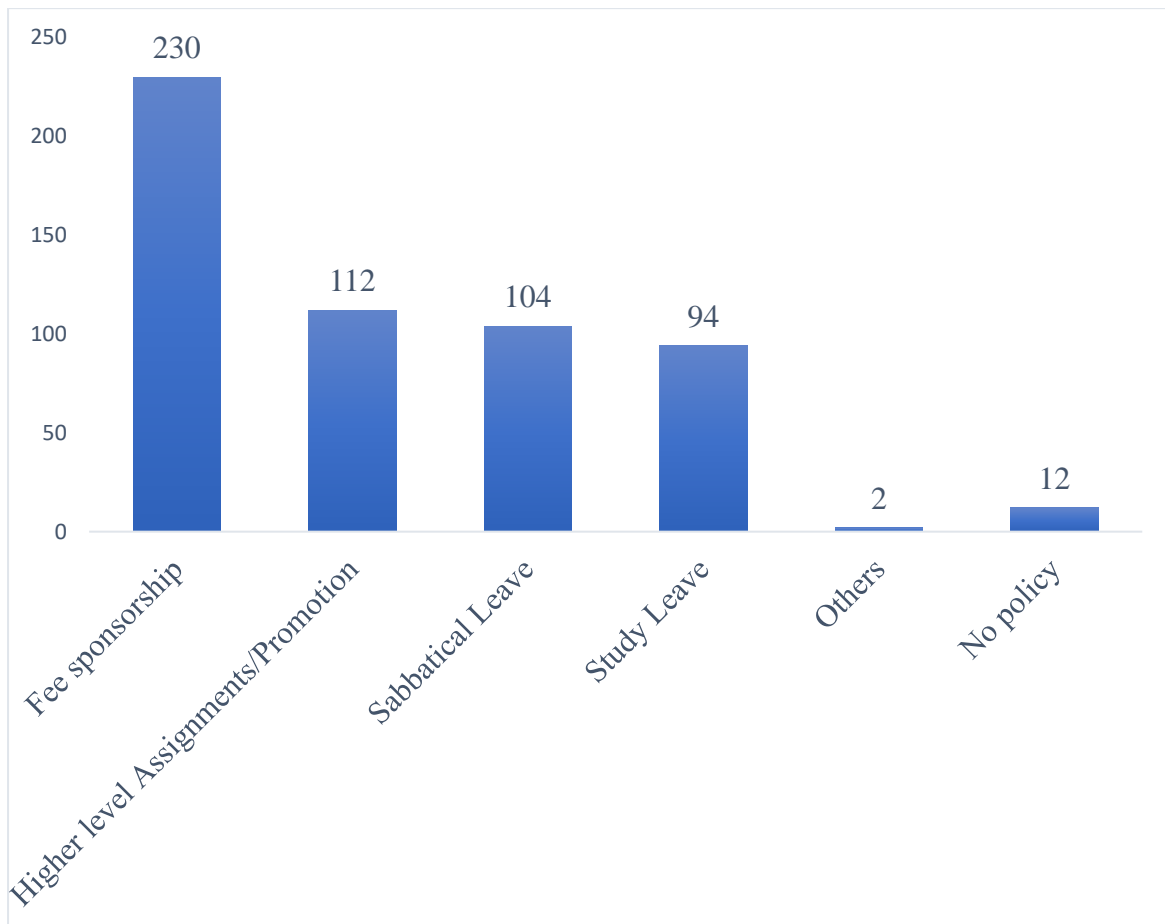


Figure 4.8: Strategies for encouraging higher studies in the IT industry

Source: Data Analysis

4.13.3 Talent Development Opportunities for employees in the IT industry

Talent development strategies are given importance in the IT industry. The IT industry is well known for innovation and creativity. The industry is also dynamic and flexible in nature; hence it gives prominence to the development of its employees. The word cloud in Figure No. 4.9 represents the various words used by respondents to comment on the strategies implemented by organisations in the IT industry to develop their employees. Two hundred sixty-eight employees answered the open comment when asked in the questionnaire, "Kindly give your comments on how your organisation provides opportunities for development". The highlighted words represent that the words have been repeated many times by the respondents. The key strategies or opportunities provided are Learning Portals, Up Skilling, Training, Certifications, Challenging assignments, Workshops, Cross skilling, Knowledge sharing, meetings, Internal Mobility, Internal Learning Programs, Positive feedback, etc.



Figure 4.9: Word Cloud describing the talent development opportunities provided by the IT firms for employees

Source: Data Analysis

4.13.4 Talent Assessment – Respondent's opinion on the timeline of the performance review cycle of the respondents

Performance review analysis or in other words, assessment of talents based on their performance, is a critical aspect of managing talents. The performance review should be strategised by the firms periodically and at the right timelines. Performance reviews should be aligned to training and development and a firm's reward systems. The performance system should be an integrated system for crucial decisions in the organisation. The development of an employee is dependent on the feedback and motivation received through appraisals. The performance management system also gives the overall picture of the growth of every individual employee in the organisation. The below figure 4.10 depicts the preference of employees on the performance review cycle.

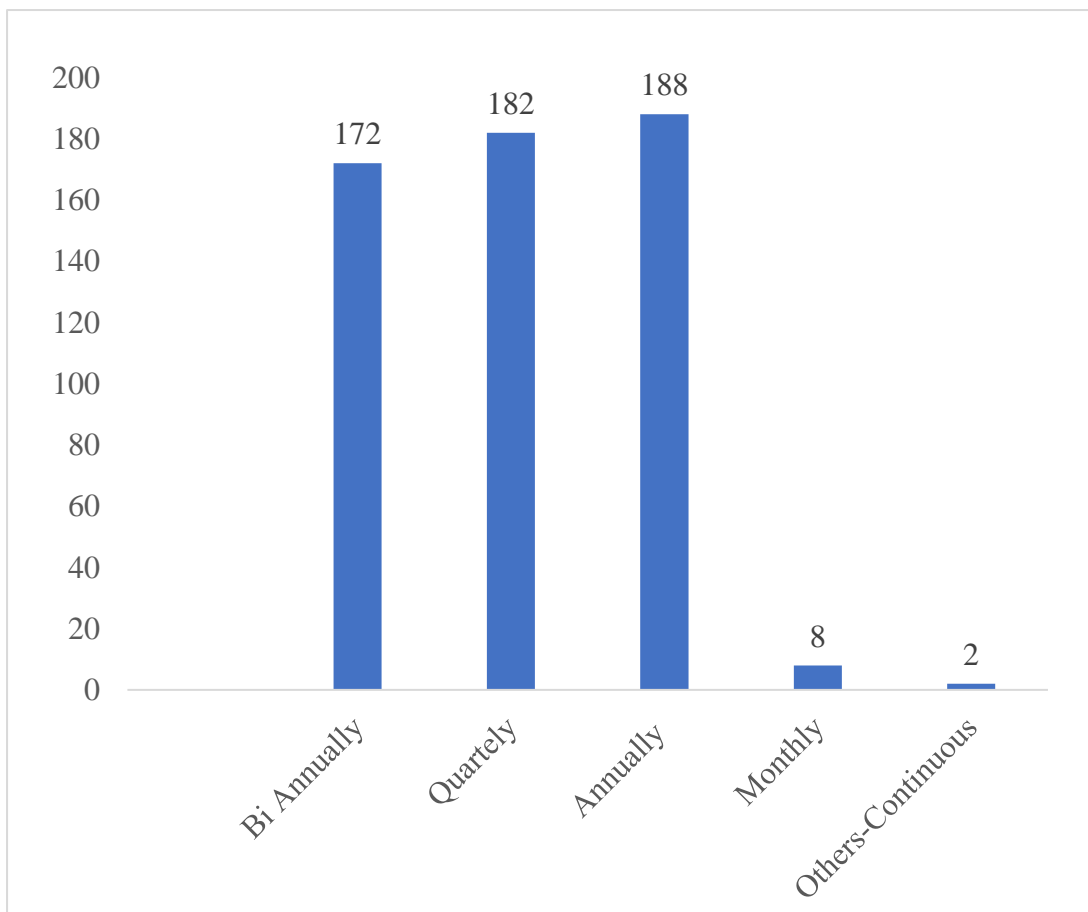


Figure 4.10: Opinion of respondents regarding effective performance review

Source: Data Analysis

The majority of the respondents feel that the performance review cycle should be done annually and that is closely followed by the quarterly timeline review. A bi-annual review is also welcomed by the respondents. The least preferred performance review policy is the continuous review and monthly review policy.

4.13.5 Succession Planning – An Important Talent Management Strategy – Its Existence in the IT Industry

Succession Planning policy is a crucial internal hiring strategy wherein higher-level vacancies of a firm are filled by providing opportunities to employees at a lower level. It is especially required for key decision-making roles and higher levels of hierarchy. This policy is a morale booster and a huge motivation for employees to strive to achieve higher in their career paths. The below figure depicts that 67% of respondents, i.e., 371 employees state that the policy does exist in their organisation, and the remaining employees state that the policy of succession planning does not exist in their organisation. There is scope for all organisations to understand the importance of succession planning policy and implement the same in their respective firms.

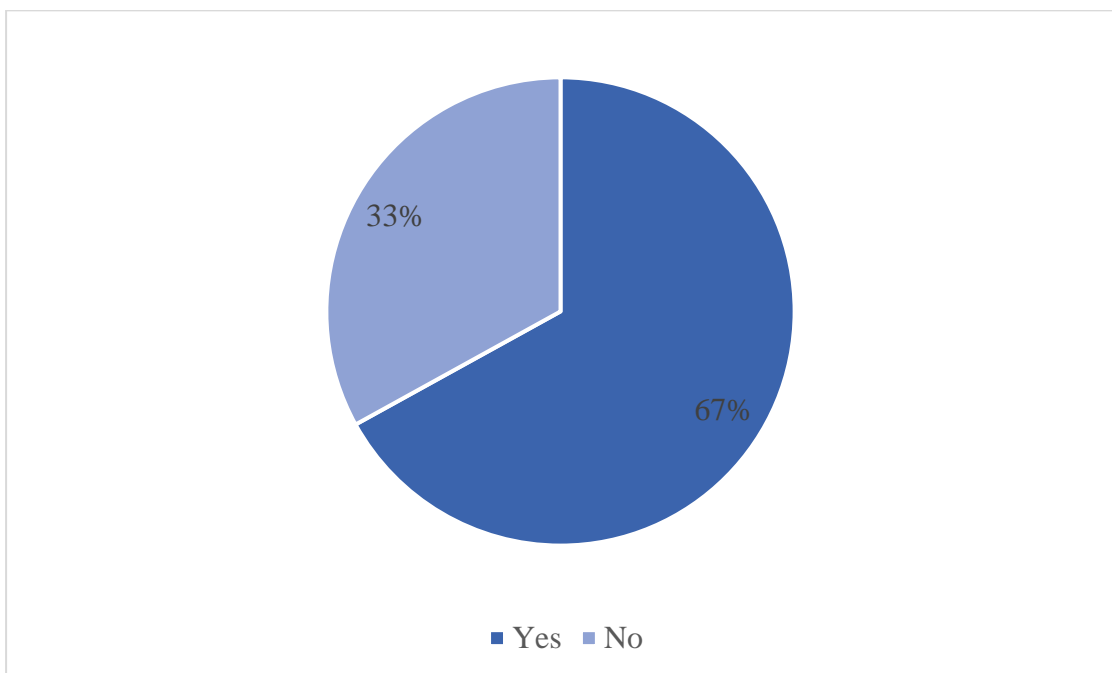


Figure 4.11:Opinion of respondents regarding the existence of Succession Planning policy

Source: Data Analysis

4.13.6 The Succession Planning process in the IT industry

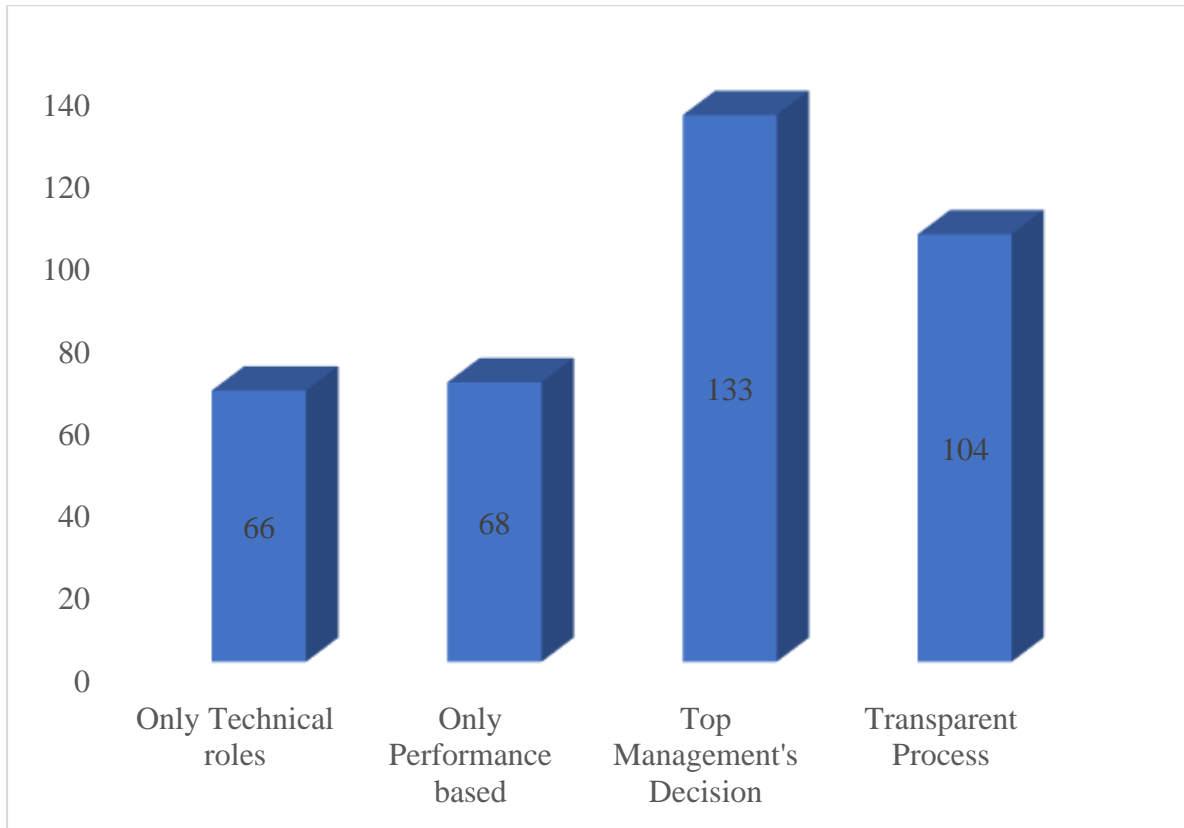


Figure 4.12: Succession Planning Process according to Respondents' Opinion

Source: Data Analysis

The respondents who have the succession planning process present in their organisation, i.e., 371 employees, have opined about the overall system in the organisation. Majority of the respondents, i.e., 133 employees, state that succession planning is based on top management's decisions. The next majority think that the succession planning process is a transparent policy in the organisation. Almost an equal number of respondents were of opinion that succession planning process was performance based and only for technical roles.

4.13.7 Facilities provided to employees by organisations in the IT industry

The IT industry is known for its exuberant facilities provided for employees. Based on discussions with HR professionals in the industry, a list of facilities provided for the employees has been enlisted. The respondents, i.e., the employees, have opted for multiple options for this multiple-choice question. The facilities provided has an impact on the morale, welfare and also retention of the employees working in the IT industry. The work culture is also dependent on the facilities enjoyed by the employees. Table No.4.27 lists details about what facilities are offered to the employees working for firms in the IT industry.

Table No. 4.27 Facilities provided to IT employees by their organisation

Facilities provided by IT firms	YES	NO
Flexible Timings	420	134
Work from home	402	152
Team Outings	308	246
Transportation	306	248
Cafeteria	384	170
Medical Insurance	408	146
Children's Education Fee Reimbursement	152	402
Family Trip	136	418

Source: Data Analysis

4.13.8 Factors which boost energy and dedication at work

To identify the important factors which aid employees' energy levels and their dedication at work, the questionnaire contained a ranking question. The respondents were asked for their opinion to list the factors listed in Table No. 4.27 in ranking order. Wherein. 1 was considered the highest rank, and 10 was considered the least. Around 340 respondents responded to the ranking question, out of which only 292 respondents' opinions on the ranking question were considered and 42 respondents were deleted as similar ranks were given across and due to double ranking for several. The ranks given for various factors by the respondents in total has been depicted in Table No. 4.28.

Table No. 4.28: Rank allotted by respondents for various factors

Elements	Rank by respondents									
	1	2	3	4	5	6	7	8	9	10
Work Culture	56	36	33	38	24	19	15	16	25	30
Team Cooperation	18	28	38	28	18	28	36	34	40	24
Image of the organisation	35	27	28	25	23	25	26	31	36	36
Cordial relations at work	16	22	24	42	28	30	50	34	26	20
Recognition and incentives	14	24	26	26	34	50	28	38	30	22
Supervisor's Support	18	28	22	36	58	36	32	22	26	14
Pay scale	32	38	26	42	38	22	30	26	18	20
Challenging Job Assignments	15	26	44	34	36	34	28	26	27	22
Career prospects	24	60	36	26	24	32	28	28	22	12
Overseas opportunities	18	12	14	18	32	36	40	39	37	46

Source: Data Analysis

Table No. 4.29: Garrett Ranking Value

Sl. No.	100 (Rij- 0.5) Nj	Per cent Position	Garret Value
1	$100*(1-0.5)/10$	5	82
2	$100*(2-0.5)/10$	15	70
3	$100*(3-0.5)/10$	25	63
4	$100*(4-0.5)/10$	35	58
5	$100*(5-0.5)/10$	45	52
6	$100*(6-0.5)/10$	55	48
7	$100*(7-0.5)/10$	65	42
8	$100*(8-0.5)/10$	75	36
9	$100*(9-0.5)/10$	85	29
10	$100*(10-0.5)/10$	95	18

Source: Data Analysis

The ranking questions were analysed using the Henry E Garrett's ranking method. The per position value was calculated for the ranks and based on which Garrett values were derived as per the Garrett Ranking Conversion Table, as shown in Table No. 4.29. The values were then multiplied by each of the factors and their corresponding ranks are given by respondents, and the average score was derived based on the total divided by the respondent's number, i.e.,292. Based on the average score for each of the factors, the final ranking was analysed as per the priority of the respondents. Table No. 4.30 explains all the values analysed and the final ranking. Work Culture is the highest-ranked factor which boosts energy and helps employees to be dedicated at work. In the IT industry, employees are more energetic if the work culture is employee-centric. Flexi timing, work-from-home opportunities, employee recognition programmes, mentorship, and supportive employee-oriented policies encourage them to be more dedicated to the organisation. The second-ranking factor is career growth opportunities or, in other words, career prospects. Employees are engaged in organisations which provide career development and career growth opportunities. Pay scale is the third-ranked factor by the respondents, which is vital in the IT industry. Others factors, such as supportive leaders and challenging job assignments, are also ranked high. The least preferred by the respondents are overseas opportunities provided by organisations and this factor is preceded by team cooperation. The employees generally do not give importance to opportunities for overseas for working abroad based on the projects. There are many roles in the IT industry, such as 'Individual Contributor', wherein an individual employee does not work in a team but contributes to the firm individually and directly reports to higher-level management. The ranking analysis gives clarity on the important factor that has to be given prominence in order to ensure the engagement of the workforce.

Table No. 4.30: Garrett Ranking for Factors

Elements	Ranks as given by respondents										Total Value	Average Score	Rank
	1	2	3	4	5	6	7	8	9	10			
Work Culture	4592	2520	2079	2204	1248	912	630	576	725	540	16026	54.884	1
Team Cooperation	1476	1960	1368	1624	936	1344	1512	1224	1160	432	13036	44.644	9
Image of the organisation	2870	1890	1764	1450	1196	1200	1092	1116	1044	648	14270	48.870	6
Cordial relations at work	1312	1540	1512	2436	1456	1440	2100	1224	754	360	14134	48.404	7
Recognition and incentives	1148	1680	1638	1508	1768	2400	1176	1368	870	396	13952	47.781	8
Supervisor's Support	1476	1960	1386	2088	3016	1728	1344	792	754	252	14796	50.671	4
Pay scale	2624	2660	1638	2436	1976	1056	1260	936	522	360	15468	52.973	3
Challenging Job Assignments	1230	1820	2772	1972	1872	1632	1176	936	783	396	14589	49.962	5
Career prospects	1968	4200	2268	1508	1248	1536	1176	1008	638	96	15646	53.582	2
Overseas opportunities	1476	840	882	1044	1664	1728	1680	1404	1073	828	12619	43.216	10

Source: Data Analysis

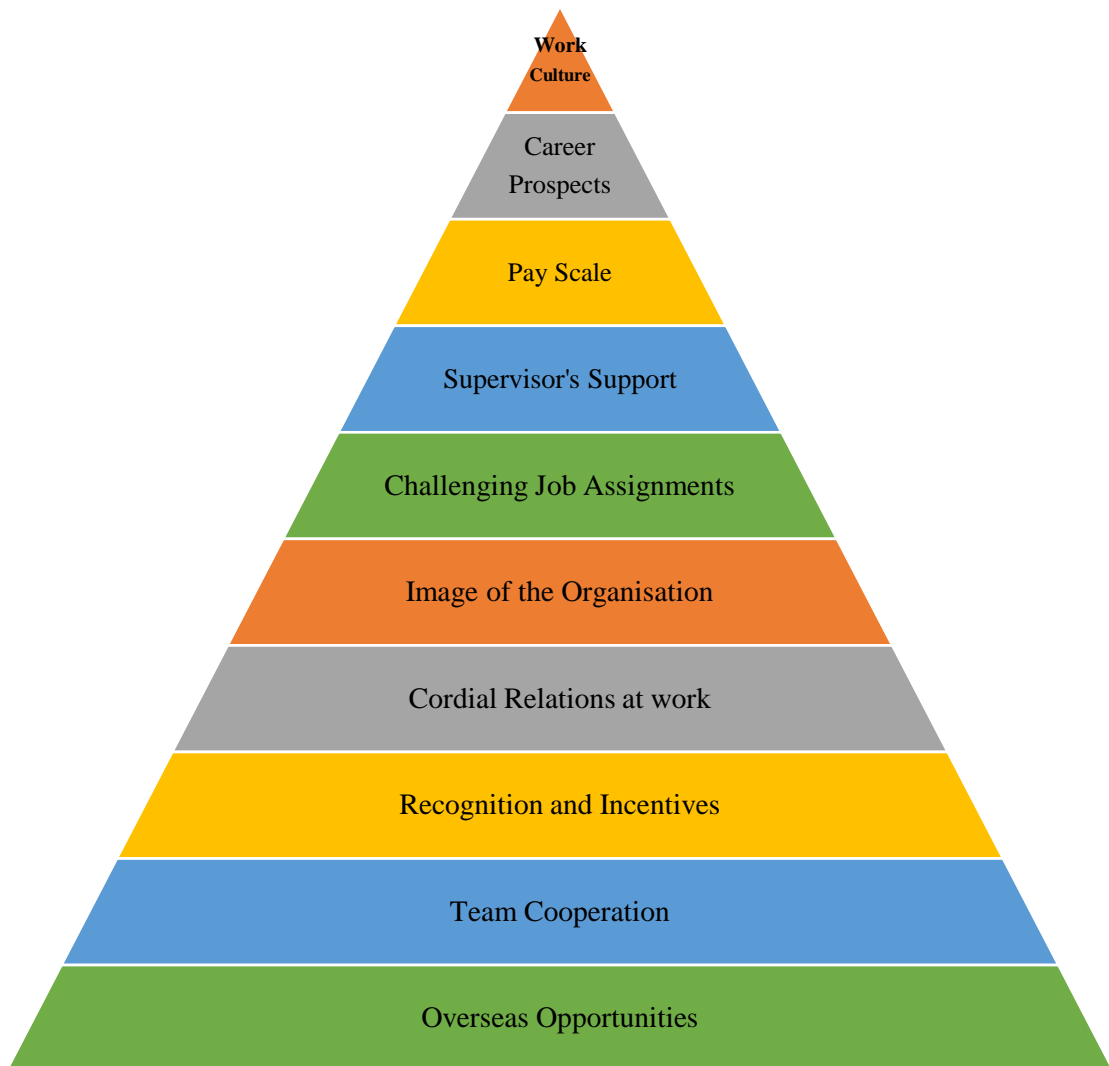


Figure 4.13: Pyramid representation in ranking order of factors boosting energy at work

Source: Data Analysis

The above Pyramid (Figure 4.13) clearly depicts the rank of the factors boosting the energy of employees. The first rank is work culture of the organisation, second rank is career prospects provided in the organisation and the third is pay scale.

4.14 Chapter Summary

The data analysis chapter is vital chapter. This brings out the various findings of the research. The chapter clearly describes the demographics of the respondents. It explains the descriptive statistics, and the Skewness Kurtosis results clearly show the normalisation of data. The sample adequacy was determined by KMO and Bartlett's Test. The reliability and validity of the data were determined, and the results state that the observed variables in the research are consistent. The measurement model results were all accepted and gave an overall view required to construct the SEM. The SEM clearly depicted the relationship between the exogenous and endogenous factors. The model fitness indices were all accepted, and the results of the hypotheses were also determined. The overall model for talent management strategies and employee engagement was derived.

CHAPTER 5

DISCUSSIONS AND CONCLUSION

5.1 CHAPTER OVERVIEW

The chapter summarises the various research findings in line with the research objectives. It gives an overview of all the findings based on the data analysis and explains the relationship between talent management strategies and employee engagement. It also briefs about the important analysis of the non-scale items of the data collected. The chapter also provides for the limitations of the research and its major implications, both theoretically and in practice. The future areas of research related to the concepts studied are also comprehended.

5.2 DISCUSSIONS

The research study is a combination of two theoretical frameworks, resource-based view and social exchange theories. Organisations consider their talents as a resource for competitive advantage and implement several talent management strategies for their employees. In exchange for the benefits earned, the employees show higher levels of vigour and dedication and absorption levels and are engaged in their work. The results found in this research support the theoretical framework by clearly depicting that talent management strategy of employer branding, employee referral, social media, training and development, mentorship, talent assessment and talent retention strategies have a significant and positive impact on engagement levels of employees. The research contributes to the theoretical development of talent management and also provides inputs towards employee engagement. The study is one of its kind as it utilises an inclusive approach of talent management, considering all employees working in the It firms. The study provides empirical evidence of how talent management strategies have implications on the engagement of employees, which is a non-economic benefit to the firms, but in the long run, has several advantages of profitability and sustainability. The research on talent management is undertaken based on the point of employees working in Indian IT firms, which gives it an edge, as most of the literature deals with organisational outcomes.

The first research objective of the study is to determine the various talent management strategies adopted in the IT industry. The different talent management strategies adopted by the IT industry were analysed and selected based on previous literature and the practicality of strategies utilised in the industry. The entire gamut of talent management strategies is reviewed based on four main elements, i.e., talent acquisition strategies, talent development strategies and talent retention strategies in the IT industry. The study considered talent acquisition strategies of employer branding, employee referral, and social media as the main strategies implemented. These strategies are implemented by IT firms to acquire talents immensely with the aid of advanced technology. In terms of talent development strategies, training, career development and mentorship strategies were considered for the study. Based on previous literature and the results it is evident that the employees in the knowledge economy give lot of preference to one's development. Employees of organisations which provide developmental opportunities are more engaged and committed to the firm. Talent assessment strategies, which is integrated into training and development and also rewards and compensation, are critical for the organisations. The assessment of performance in the IT industry brings out hidden potentials and also paves the way for innovation and creativity. Talent assessments also link to succession planning. Succession planning is an essential internal hiring strategy to fill positions with talented employees, usually at higher levels. Based on our study, we identified that some firms do not implement succession planning policies. Organisations that have implemented the same make the policy as top management's decision and transparency of the policy is limited. There is scope for all firms to understand the importance of this strategy and implement the same in their organisations, which will motivate talented employees. Talent retention strategies in terms of compensation, flexible working culture, rewards and recognition were analysed. Overall talent retention still remains a challenge in the IT industry, as attrition is high. The current employees give much prominence to flexible working arrangements and competitive salaries. The research study has determined and studied in depth various talent management strategies prevalent in the IT industry, **thereby fulfilling the first research objective.**

The second partial research objective deals with the impact of talent acquisition strategies on employee engagement. The talent acquisition strategies were analysed based on three core concepts practised in the industry. The implications of talent acquisition strategies on employee engagement were examined in the research, based on Employer Branding, Employee Referral and Social Media. The path analysis results clearly state that the strategies of employer branding, social media and employee referral, i.e., the talent acquisition strategies are all positively impacting employee engagement. The highest impact on employee engagement, according to the study, is employer branding. Employer branding, as a factor in earlier studies, has shown positive impacts on the engagement of employees (Rana and Sharma 2019; Govender and Bussin 2020). **Employer branding** is also a key element in boosting the energy and dedication level of employees at work. The most effective source for hiring talented individuals as per the research findings is **employee referral**. Employee referral policies play a crucial role in hiring in The IT industry. Also, the potential employee will be well-oriented about the work culture and the various policies of the organisation before he attends the interview. The referral bonus offered to the employees is also a motivator to the employees. The sense of belongingness to the organisation ensures employees refer their friends and family to the organisation. Social media presence has been playing a crucial role in hiring talented individuals. The research also proves that the second most preferred source of talent acquisition. The use of professional networking sites such as LinkedIn has helped organisations source talented individuals (Hosain and Lui 2020). Social media usage manages networking between the colleagues especially when physical context is missing. Internal social media used by organisation like WhatsApp, Instagram, Facebook and other personal and professional networking sites play a dominant role in the overall engagement of employees at work.

Talent development strategies analysed in the research are training and development and mentorship. Both talent development strategies, i.e., Training and development and Mentorship, have a positive and highly significant impact on employee engagement. Organisations in the IT industry support development of employees by encouraging them for higher certifications and higher studies by sponsoring the fees. It implies that training and career development efforts provided by the organisation to its

employees' aid in increasing their job engagement levels. Siddiqui and Sahar (2019) also supported the results stating the **prominence of training and development** strategies towards employee engagement. The firms also provide various sources for the development of individuals, such as learning portals, cross-skilling policies, internal learning programmes, hackathons, workshops, challenging assignments, etc. Mentorship programs are provided for employees, and it helps their individual growth. Career development policies are clearly explained, and development opportunities are provided. Firms can increase employees' dedication at work by ensuring that future growth and career prospects are clearly made aware to the employees.

Talent assessment strategies are a significant and also critical element of talent management. Talent assessment ensures that the employee is aware of his performance standards and also provides scope for improvement. It gives direction to the employee in terms of his career path. **Talent assessment strategies** analysed in the research clearly depict that it has positive significance to the engagement of employees at work. This finding is supported by the results of Gruman and Saks (2011), Govender and Bussin (2020). The feedback based on an assessment of performance provided to employees is vital towards his career growth in the organisation. Synchronisation of rewards and recognition, pay scale and promotions to talent assessments is also a crucial strategy by the firms. Fair evaluation and unbiased assessment of performance are vital and promote employee engagement. The organisations in the industry which do not have a **succession planning process** in existence need to strategise the same, as succession planning is a motivator to existing employees and provides for engaging employees at work to achieve greater levels.

Talent retention strategies of recognition for work, a good pay scale, a reward system, a **flexible working environment** and well-defined job roles have a positive and high of an impact on employee engagement levels. The results clearly support findings of the effectiveness of retention strategies Rombaut and Guerry (2020). The **work culture** of organisations plays a very crucial role in engaging the employees. In the present generation, employees are keen on the facilities, work culture, and career prospects in order to be engaged and retained in the organisation. **Thus, the second objective of the research is attained.**

The third objective is to identify the moderating effect of transformational leadership on TM and employee engagement. The research has recognised the importance of the role of leaders who can transform their employees towards growth and better performance. The study explains the role of leaders is vital to every organisation. **Transformational leaders** especially play a key role in talent development and engagement of employees. The study results clearly provide insights into how transformational leaders moderates the relationship between talent management and its impact on the engagement of employees. The role of leadership is key in the area of retaining talents and engaging them at work. Transformational leaders who are oriented to employees focus on their development and provide positive feedback for improvement during talent assessment. Transformational leaders have a huge impact on the transformation of new employees and developing them to ensure their career growth as well as high performance. The significance of transformational leadership in talent management and engaging employees at work is unequalled at the individual level. Hence, **the third objective is realised, and the results of transformational leadership is explained in detail.**

The Talent Management Model was conceptually developed based on validity from practitioners, academicians and an exhaustive review of literature. The model was then developed and analysed empirically tested for model fitness by making use of structural equation modelling. The model developed provides an insight of the practical implications of talent management strategies in the IT industry. It is an empirically tested model using SEM which contributes to the existing literature and also helps practitioners. It is an empirically tested framework of talent management strategies and their individual impact on the engagement of employees at work. The four main elements of talent management namely, talent acquisition, talent development, talent assessment and talent retention were analysed with various strategies related to the same. The models depict the relationship of every strategy and its impact on engagement of employees. It has been evident that out of the seven strategies **employer branding has the highest impact** on talent management. This is **followed by talent development strategies** of mentorship and training and development. The moderating effect of transformational leadership was also significant in impacting the relationship

between TM and employee engagement. Effective transformational leadership towards talent development leads to better employee engagement and ineffective transformational leadership leads to poor engagement of employees. The same result is also identified with talent assessment. The model identified in the study clearly depicts that when talent management strategies are implemented effectively in an organisation, the engagement levels of employees increase. **The fourth objective was fulfilled** with model development of TM and also empirically proving the tested model of TM towards employee engagement.

The second model developed and analysed includes transformational leadership as a moderator between training and development, mentorship, talent assessment and talent retention strategies and their impact on the engagement of employees at work. The impact of transformational leadership as a moderator is empirically proved in the model. The results found prove that the transformational leadership has more positive impact as a moderator between the relationship training and development and employee engagement, mentorship and engagement and also talent retention and employee engagement. Thus, the model gives clear insights on the importance of transformational leadership from the view point of talent management and employee engagement.

5.3 IMPLICATIONS OF THE STUDY

There is a dearth in empirical research studies in the area of Talent Management; hence this study provides a theoretical and empirical contribution by analysing the various talent management strategies and its impact on employee engagement. The study has helped in providing clarity on concepts of talent and also talent management as a construct for research in academics. The study provides for the amalgamation of two theories namely, RBV and SET in TM framework and also the empirically tested results of the impact of TM on employee engagement. In academics, there is sufficient literature on the impact of TM at the organisational level and very little studies are available on individual-level impact. This study contributes to the literature by analysing the impact of TM at individual levels of work engagement of employees. The research has attempted to develop and empirically test a TM model which provides

insights for future research directions on its implementation. TM researchers was mainly focussed more towards a select or elite or exclusive group of talents, but this research has analysed TM as an inclusive approach or in other words treating all employees as talented resources. In the area of employee engagement, this study has also provided towards theoretical and empirical contributions. This research provides that employer branding, mentorship, training and development as the main drivers of employee engagement.

This research study analyses the practical implementation of TM wherein the business leaders can identify effectiveness of talent management strategies and the need to implement them in their respective organisations. The study results provide organisation leaders an input for focussing the on right strategies in order to improve job engagement levels of employees. Management of organisations can give importance to framing innovative strategies to improve their branding of their organisations not only as a talent acquisition strategy but also to engage their present employees. Managers also need to focus on their leadership skills as it impacts the implementation of strategies and the engagement of employees.

5.4 LIMITATIONS OF THE STUDY

- The data collected for the research is prior to COVID-19; hence the impact of post-COVID implications has not been analysed.
- The self-reported measures are used to analyse the constructs of the research study hence there may be a difference between the actual and reported responses.
- The research is a cross-sectional study and not a longitudinal study; hence the findings will be related to specific time periods.
- This study is limited to IT organisations which have implemented talent management strategies in India; hence generalisations of the results will be limited.

5.5 FUTURE RESEARCH DIRECTIONS

Research in the area of Talent Management has immense scope, and there are always changing trends. The changing needs of employees will make talent management always challenging. Engaging employees, especially in the present scenario of virtual organisation, is a huge challenge to the management.

The use of gaming in talent management is an upcoming trend. Gaming engages potential employees and especially IT industry; new talent may be attracted by conducting virtual games and the level of competence could be gauged through several level of games. The use of gaming can also be extended to the existing employees, as it improves morale and boosts up energy levels of employees and also increases team building among employees.

Empirical studies in the area of Artificial intelligence, machine learning, robotics, and big data analytics and their usage in talent management and engagement of employees are exciting areas for future research.

A qualitative study in similar areas of research may definitely provide interesting inputs and also provide for further insights which support the empirical findings.

5.6 CONCLUSION

The research study explains the importance of talent management in organisations and especially towards employee engagement. Talent management strategies have to be evolving in accordance with the changing needs of the employees. In order to attract, engage and retain talent, organisation heads have to focus strategies and align them based on the needs of employees. In a knowledge economy, organisations have to create a work culture of knowledge sharing and continuous development. Learning and the development curve of employees should be the focus to engage them and ensure business sustenance. Inclusive talent management strategies, in other words the strategies should provide opportunities to all employees in the organisation. Talent assessment should provide feedback and focus towards opportunities for the growth of employees. Especially succession planning policies should be transparent and open policy wherein anyone in the organisation, irrespective of their level, can apply for higher-level vacancies. The implementation of strategies pertaining to employer

branding, social media and employee referral is unsurpassed to acquiring new talents in the IT industry. The research study aids in proving the impact of the various talent management strategies on the engagement of employees at work. The business heads need to align employee needs and organisational needs across levels. Attracting new talent is easier if the organisation has a good brand as an employer. In totality, talent management benefits the organisation and also its employees. Engaged employees always are happier at work, perform higher and also spread positive energy to others. Talent management strategies which improve engagement levels are crucial for the organisation's sustainability, ensuring the increasing performance of the firm and also the well-being of employees of the organisation.

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APPENDIX

QUESTIONNAIRE

Dear Respondent,

I am Mrs. Annette S Maben, pursuing my doctoral studies at the National Institute of Technology Karnataka (NITK), Surathkal. As a part of my research, I am conducting a survey to determine the influence of Talent Management Strategies on the Engagement of employees in the IT sector. I request you to kindly spare a few minutes to fill out the below questionnaire. The data collected will be kept confidential and will be used for academic purposes ONLY. Thank you for your valuable time and response.

PART A

Age (years): _____

Gender: Male Female Transgender

Marital Status: Married Unmarried

Experience in the present organisation (years): _____

Total Years of experience: _____

Designation: _____

Department: _____

Level of Education: Diploma Graduate Post Graduate Others If others, please specify _____

Nature of Employment: Permanent Contractual

Do you manage a Team: Yes No

If yes, Number of people managed directly _____ Number of people managed indirectly _____

PART B

Kindly rate the following questions based on the set parameters by selecting the option. The parameters being 5 Strongly Agree, 4 Agree, 3 Neutral, 2 Disagree and 1 Strongly Disagree. If any of the below mentioned questions do not apply to you, then select NA.

1	Talent Acquisition- refers to attracting potential talents, sourcing and hiring the talented workforce required	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
a	I feel proud to be associated with the brand image of my company	1	2	3	4	5
b	My organisation has a good reputation as an employer	1	2	3	4	5
c	My organisation has adopted excellent policies to develop the brand image	1	2	3	4	5
d	My organisation has good future growth prospects	1	2	3	4	5
e	I recommend my organisation to others seeking employment	1	2	3	4	5
f	I say positive things about my organisation to others	1	2	3	4	5
g	I encourage my friends and family to apply for job in my firm					
h	My company's referral policy motivates me to refer individuals	1	2	3	4	5
i	Social networking helps me to identify future career prospects	1	2	3	4	5

j	Managing one's digital identity is important	1	2	3	4	5
k	Social media helps me in building professional networks	1	2	3	4	5
l	Social media helps in building personalised, balanced and transparent relations with the company	1	2	3	4	5
m	<p>According to me the most effective source for hiring talented individuals for the organisation is:(Please select any ONE option)</p> <p>Company website <input type="checkbox"/> Employee Referral <input type="checkbox"/> Social Networking <input type="checkbox"/> Recruiting Agencies <input type="checkbox"/></p> <p>Job Portals <input type="checkbox"/> Campus Placements <input type="checkbox"/> Walk-in <input type="checkbox"/> Others <input type="checkbox"/> If others please specify _____.</p>					
2	Talent Development- refers to the development of employees through training and development programmes and career development.	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
a	There is a process to identify my training needs	1	2	3	4	5
b	Training provided by my company improves my job performance	1	2	3	4	5
c	The training provided is in line with the critical tasks assigned	1	2	3	4	5
d	Skills developed during training and development provided by my organisation boost my career advancement	1	2	3	4	5
e	My career goals are in line with the departmental and organisational goals	1	2	3	4	5
f	Mentorship received in my organisation helps in my development	1	2	3	4	5
g	My mentor gives good advice and feedback	1	2	3	4	5
h	My mentor helps in my career development	1	2	3	4	5
i	The mentor helps me to feel comfortable at my workplace.	1	2	3	4	5
j	Mentorship supports my performance	1	2	3	4	5
k	<p>In my organisation higher education is encouraged through: (Please select the relevant options)</p> <p>Fee Sponsorship <input type="checkbox"/> Higher level assignments/Promotions <input type="checkbox"/> Sabbatical leave <input type="checkbox"/> Study leave <input type="checkbox"/></p> <p>Others <input type="checkbox"/> If others kindly specify: _____</p>					
l	<p>Kindly give your comments on how your organisation provides opportunities for development:</p> <p>_____</p> <p>_____</p>					
3	Talent Assessment: refers to evaluating individuals based on the predetermined work standards	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
a	The standards of performance expected by my superiors are communicated to me at the beginning of the task	1	2	3	4	5
b	My performance review is accurate and unbiased	1	2	3	4	5
c	Feedback given to me after the performance review helps my progress	1	2	3	4	5
d	My performance reviews influence my career development	1	2	3	4	5

e	Awards, bonuses, incentives or promotions you received are based on performance	1	2	3	4	5
f	Equal opportunities are given to internal and external candidates for higher-level positions in my organisation.	1	2	3	4	5
g	Review of performance is effective for my progress when it is performed: (Please select any ONE option) Annually <input type="checkbox"/> Bi-annually <input type="checkbox"/> Quarterly <input type="checkbox"/> If Others Please Specify _____ Kindly state reasons: _____					
h	Succession planning is a policy wherein higher-level positions are replaced with internal promotions. Does this policy exist in your organisation? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA					
i	If Yes, the policy is clearly explained to me. Yes <input type="checkbox"/> No <input type="checkbox"/> NA					
j	The succession planning process in the organisation is: (Please select the relevant) Transparent process <input type="checkbox"/> Top Management's decision <input type="checkbox"/> Only for Selected Technical Roles <input type="checkbox"/> Only Performance-based <input type="checkbox"/>					
4	Talent Retention refers to the strategies adopted to retain talented employees at work	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
a	I receive appropriate recognition for my work	1	2	3	4	5
b	The reward policies motivate me to perform better	1	2	3	4	5
c	My pay is in accordance with the industry standards	1	2	3	4	5
d	My role in the organisation is clear to me	1	2	3	4	5
e	My work environment is flexible	1	2	3	4	5
f	There is scope for making my job more interesting and challenging	1	2	3	4	5
g	There is a fair amount of job security in my organisation	1	2	3	4	5
h	I am looking for better opportunities outside my organisation within six months	1	2	3	4	5
5	Employee Engagement - a positive, fulfilling work-related state of mind					
1	Vigour	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
a	I look forward to going to work when I get up in the morning	1	2	3	4	5
b	I can continue working for long hours at a stretch	1	2	3	4	5
c	When things go wrong, I still persevere to work	1	2	3	4	5
2	Dedication					
a	There is meaning and purpose to the job I do	1	2	3	4	5
b	My job inspires me to achieve greater heights	1	2	3	4	5
c	I am proud of the work I do	1	2	3	4	5
3	Absorption					
a	Time flies when I am at work	1	2	3	4	5
b	I am happy when I am totally absorbed in work	1	2	3	4	5
c	Kindly rank the below items that boost your energy and dedication at work, on a scale of 1-10. 1 being the highest and 10 being the least Rank					
Work Culture		Team Cooperation		Image of the organisation		

Cordial relations at work		Recognition and incentives		Supervisor's		
Pay scale		Challenging Job Assignments		Career prospects		
Flexibility of workplace						
6	My organisation provides for: (Please select the relevant options)					
	Flexible Timing <input type="checkbox"/> Work from home <input type="checkbox"/> Team Outings <input type="checkbox"/> Transportation <input type="checkbox"/> Cafeteria <input type="checkbox"/> Children's Education <input type="checkbox"/> Family Trips <input type="checkbox"/> Any other Please Specify _____					
7	Transformational Leadership	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
a	My manager clearly communicates the future vision	1	2	3	4	5
b	My manager encourages and recognises my efforts	1	2	3	4	5
c	My manager is goal-oriented	1	2	3	4	5
d	My manager fosters creative thinking	1	2	3	4	5
e	My manager supports my career progression	1	2	3	4	5
f	My manager inspires me toward higher performance	1	2	3	4	5
g	Feedback is regularly sought by my leader	1	2	3	4	5
h	There is mutual trust and respect with my manager	1	2	3	4	5

---THANK YOU---

Curriculum Vitae

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Professional Summary

Over ten years of well-blended experience in Academia and Corporate Human Resource Management

Work Experience

- ❖ July 2009 till June 2016 -Senior Lecturer at Srinivas Institute of Management Studies
- ❖ Nov 2008 to March 2009 - HR Executive at Hewlett Packard (HP Inc.)
- ❖ June 2005 to Oct 2008 -HR Executive at Cambridge Solutions

Educational Qualification

- ❖ KSET, 2016
- ❖ M.Com specializing in HR, 2015
- ❖ M.B.A in Human Resource Management, 2005 from the Mangalore University at Srinivas College of P.G. Management Studies.
- ❖ B.Com., 2003 from Mangalore University at St. Aloysius College.

Publications

- Annette Sonia Maben and Rashmi Uchil. (2019), "Talent management strategies and customer delight: A conceptual study." *Indian Journal of Marketing* 49(3) 63-71. (Scopus Indexed)
- Annette Sonia Chetan and Deekshitha. (2016), "Human Resource Management Perspectives towards Global Workplace by 2020". *International Journal of Computational Research and Development* 1(1) 154-160.

Conferences

- Presented a paper titled 'Talent Acquisition Strategies towards Engagement of Knowledge workers: Conceptual Study' at the 3rd Annual Conference in Banking and Finance on 'Fintech and Banking-The Road Ahead for the Indian Banking and

Financial System' held on August 16 and 17, 2019 at International Management Institute (IMI), Bhubaneswar

- Presented a paper titled 'Talent management Strategies for Knowledge economy: A Review', at 2nd International Academic Conference on Entrepreneurship and Innovation in the Knowledge Economy, organised by Xavier Institute of Management and Entrepreneurship, dated 30th -31st March 2017.
- Presented a paper titled 'Talent Acquisition Strategies' for COSMAR 2017 organised by IISC scheduled for November 20th -21st 2017.
- Presented a paper on "Changing trends in HRM" at Manegma, a National Level Seminar in April 2014.
- Presented a paper on "Solving Employee Churn – Employee Retention Strategies" at a National Level seminar conducted at the St. Aloysius College in October 2013.
- Presented paper on 'Employee Retention' at 'Manegma' a National Level Seminar in April 2011.



Workshops

- ❖ Workshop on 'Talent Management for the VUCA world' organised by Justice K.S. Hegde Institute of Management, dated 10th March 2017.
- Workshop on Structural equation model using R studio organised by T.A.Pai Management Institute, dated 16th -17th December 2016.
- Workshop on 'Data Analysis through SPSS' organised by Jain University, dated 5th -7th April 2018.
- Workshop on 'Multivariate Data Analysis using SPSS and AMOS' organised by T.A.Pai Management Institute, dated 20th -21st April 2018.
- Workshop on 'Management Research in the Indian Context: Opportunities and Challenges' organised IIM Ahmedabad – Indian Academy of Management dated January 4 to 6, 2019
- Workshop on 'Case Study Approach on Research Paper Writing Skills' organised by Department of Commerce Manipal Academy of Higher Education (MAHE) dated May 8 to 10, 2019.
- Workshop on 'Structural Equation Modelling (SEM): Basic and Advanced Analysis' organised by NIT Trichy dated December 2 to 6, 2019.

- Online Webinar on ‘Open-Source Tools for Data Analysis in Social Sciences’ Department of Commerce Manipal Academy of Higher Education (MAHE) dated 31st July 2020.
- E-Workshop on 'SEM using AMOS.' Organised by Research Smiths dated October 30th to November 1st, 2020

Personal Information

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