IMPACT OF PERFORMANCE MANAGEMENT SYSTEM PRACTICES ON EMPLOYEE ENGAGEMENT: A STUDY OF SELECT HIGHER EDUCATIONAL INSTITUTES OF HIMACHAL PRADESH

Thesis Submitted for the Award of the Degree of

DOCTOR OF PHILOSOPHY

in

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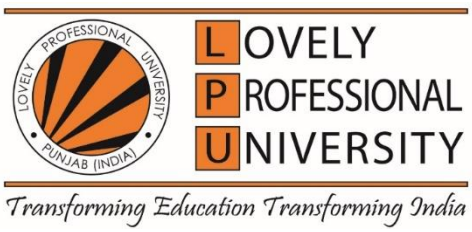

LOVELY PROFESSIONAL UNIVERSITY, PUNJAB

2025

DECLARATION

I, hereby declared that the presented work in the thesis entitled "Impact of Performance Management System practices on Employee Engagement: A Study of select Higher Educational Institutes of Himachal Pradesh" in fulfilment of degree of **Doctor of Philosophy (Ph. D.)** is outcome of research work carried out by me under the supervision of Dr. Shikha Goyal, working as Associated Professor, in the Mittal School of Business, Lovely Professional University, Punjab, India. In keeping with general practice of reporting scientific observations, due acknowledgements have been made whenever work described here has been based on findings of another investigator. This work has not been submitted in part or full to any other University or Institute for the award of any degree.

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CERTIFICATE

This is to certify that the work reported in the Ph. D. thesis entitled "Impact of Performance Management System practices on Employee Engagement: A Study of select Higher Educational Institutes of Himachal Pradesh" submitted in fulfillment of the requirement for theaward of degree of **Doctor of Philosophy (Ph.D.)** in the Mittal School of Business, is a research work carried out by Management 11814467 is bonafide record of his/her original work carriedout under my supervision and that no part of thesis has been submitted for any other degree, diploma or equivalent course.

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Abstract

The present study's aim is to study the Impact of the Performance Management System practices on Employee Engagement in Higher Educational Institutes of Himachal Pradesh. Performance Management System is a continuous interpersonal activity that takes place between an employee and a subordinate throughout the year. Performance assessments combined with continual coaching provide a well-skilled and motivatedteam. Clarifying objectives, setting goals, defining objectives, receiving feedback, and evaluating outcomes are all part of the communication process. The study purposes to explore the current practices of the Performance Management System and Employee Engagement used in Colleges of Himachal Pradesh. The study also aims to know the association of demographic variables such as Age, Gender, Experience, Marital status and Discipline as a Moderator between the Performance Management System and Employee Engagement. The objectives of the study are:

1. To identify the current Employee Engagement practices adopted by the higher educational institutes of Himachal Pradesh.
2. To identify the practices adopted for the Performance Management System in higher educational institutes of Himachal Pradesh
3. To find out the correlation between Performance Management System and Employee Engagement in higher educational institutes of Himachal Pradesh.
4. To analyze the impact of Performance Management System on Employee Engagement in higher educational institutes of Himachal Pradesh.
5. To see the association of demographic variables (Age, Gender, Marital status, Experience, and Discipline) with Employee Engagement in higher educational institutes of Himachal Pradesh.

For the study, the population take is all the Colleges of Himachal Pradesh, whereasthe NAAC Accredited colleges are taken as sample. The Hods, Principals and the faculties of the colleges are taken as the respondents for the study. Simple random sampling has been applied to choose a representative sample from a bigger population. With this approach, there is no bias in the selection process.

Every sample will have equal possibility or likelihood of being selected, which is done at random. Since it yields an impartial and representative sample, it may be utilized to draw inferences about the wider population, simple random sampling is a frequently employed technique in statistical research. The data was collected during COVID 19,at that faculties were not available, due to which simple random sampling was changed into Convenient Sampling. In which the data was collected whoever is available on that time.

To attain the objectives a mixed methods approach was used, with two phases: qualitative and quantitative. The research began with an exploratory, qualitative phase and progressed to a quantitative phase. As the study is divide d in two phases that are Phase I: Qualitative and Phase II: Quantitative, the data collection method isalso based on these divisions. For the first Phase, the data was collected through a structured interview, which was taken from the HoDs and Principals of the colleges.Whereas, for the Phase II, the data was collected from the faculties of the college through an adaptive questionnaire.

After collecting the data, the data has been analyzed. This study uses Structural Equation Modelling (SEM), a multivariate data analysis method, to achieve the study's aims and validate the hypotheses. It does this by using the SmartPLS-4.0 software and SmartPLS-3.0. To ascertain if the hypotheses that were put out in line with the examination of the body of existing literature were accepted or rejected, hypothesis testing has been done. The researcher has found out the impact of Performance Management system practices on Employee Engagement through data analysis. However, descriptive analysis was performed to show frequencies and demographic analysis of each variable to better understand the features of each variable.

In this study, the researcher found that reward and recognition, career development opportunities, health and well-being of employees, effective communication, training, and development programs, effective feedback from superiors, motivational practices, better working environments, employee participation and involvement in decision-making processes, team building, and leadership activities, and pay and benefits, best teacher award, teaching effectiveness, teachers' dedication are the most commonly

used employee engagement practices by the organizations. It was observed that the PMS practices followed by HEIs are, Key Performance Indicators, Performance Appraisal system i.e., 360-degree appraisal, BARS (Behaviorally Anchored Rating Scale), Balanced Scorecard, Entrustable Professional Activities, Confidential Reports, and SMART (Specific, Measurable, Achievable, Relevant, Time-Bound). KPI is the most commonly used practice. It was also observed that "Research paper publication, Seminar & Conferences" is considered to be mandatory for all the faculties. The other practices adopted by the higher institutes are Student feedback, 360-degree performance appraisal method, self-appraisal reports, key indicators, and observing the active participation of faculties in college cultural activities or events. There is a positive significant correlation between Performance Management System (PMS) and Employee Engagement (EE). After analysis of data through SEM, it was observed that the constructs of Performance Management System (PMS) that is PMSA (Performance Management System Accuracy) and PMSE (Performance Management System Fairness) impact the constructs of Employee Engagement (EE) that are ABSO (Absorption), DED (dedication) and VIG (Vigour).

Moderation Analysis represents the demographic variables such as Age, Gender, and Experience as a moderator that significantly affect the association between the Performance Management System and Employee Engagement. Whereas Marital Status and Disciplines have no effect as moderators on the relationship.

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Dated:

Kalpana Kirti

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CHAPTER 1

INTRODUCTION

1.1 BACKGROUND

Retaining people in an organization is a challenge today, and perhaps, what's even more crucial is how well the worker performs for the company. The firm always focuses on training and development for those employees who they expect to put in work and provide an eventual return on investment (Das & Baruah, 2013) In simple terms, performance is an act, a play, or a carried either alone or by a group of people. One way to define Performance is via measuring anorganization's accomplishments in relation to its goals; it consists of results or outcomes contributed by employees or a team of employees to attain or achieve the organization's strategic goals (Edwards, 2014; Short & Palmer, 2003). Our economic and social welfare is connected with and governed by how education creates a framework for growth, and that further drive towards social cohesiveness and economic performance. Moving forward, it is believed that higher education can provide various individual benefits. This develops and shapes the students by giving them the required skills, exposure to many cultures, and employment possibilities (Breton, 2013; Ozturk, 2001).The Greek philosopher Aristotle once stated, "Pleasure in the job puts perfection in the work." It is an important remark since it emphasizes how important having a contented, driven, and dedicated staff is. Beneath that "perfection" lies "pleasure," which is the result of an employee's internal motivation driven by intense devotion, unshakable loyalty, and a genuine care for the success and well-being of the company. In today's global and competitive company world, having steady and content staff is insufficient to deliver the required business results.

The Greek philosopher Aristotle once stated, "Pleasure in the job puts perfection in the work." It is an important remark since it emphasizes how important having a contented, driven, and dedicated staff is. Beneath that "perfection" lies "pleasure," which is the result of an employee's internal motivation driven by intense devotion, unshakable loyalty, and a genuine care for the success and well-being of the company. In today's global and competitive company world, having steady and content staff is

insufficient to deliver the required business results. Employee satisfaction may just allow them to fulfill job requirements, but it won't translate into improvedperformance (Bates, 2004). In addition to creating a positive work environment business should strive to motivate personnel to harness their abilities and bring talent to work; otherwise,

some of the company's invaluable human resources would remain unutilized. Employers must do this to successfully compete. Therefore, in today's workplace, employers want their employees to be engaged, which entails that they should be proactive, adaptable, creative and energetic, take ownership of their development, set high-performance expectations, and be passionate about what they do (Katzenbach, 2000).

1.2 PERFORMANCE MANAGEMENT SYSTEM

To realize the organization's strategic goals, performance management is a continuous interpersonal activity that takes place between an employee and a subordinate throughout the year. Performance assessments combined with continual coaching provide a well-skilled and motivated team. Clarifying objectives, setting goals, defining objectives, receiving feedback, and evaluating outcomes are all part of the communication process. There has never been sucha strong necessity for performance management as there is right now, as the business world undergoes tremendous changes, focusing on companies, employees, and customers. Businesses want their employees to be at the top of their game when it comes to assisting customers. Instead of order management, performance management is founded on the concept of consent or contract management emphasizing synchronization of individual and establishment goals (Buckingham & Goodall, 2015; Mone & London, 2018).

Armstrong (2006) described performance management as "examining the goals achieved and performance done by the job holder; achieving the gaps or shortfalls if any while achieving goals; identifying the reasons behind gaps or shortfalls and how they can be fixed; agreeing to changes for fixing shortfalls and finally implementing those changes."

"Performance Management System is a systematic process of improving organizational performance by developing the performance of individuals and teams of

individuals and teams. It is a means of getting better results from the organization, teams, and individuals by understanding and managing performance within an agreed framework of planned goals, standards, and competence requirements" (Armstrong & Baron, 2004).

The PM system is a standard framework that gives way to Human Resources department to inculcate its employees both as people and group members to improve the efficiency of the organization and of the department in achieving its objectives and goals. It consists of essential HR tasks including real-time evaluations, continual progress analysis and feedback, ongoing communication, employee performance enhancement training, appreciation for good work, goal setting, problem-solving, rewarding improved performance, and so on (Armstrong & Baron, 2005; Aguinis & Kraiger, 2009). A performance management system assists HR administrators in setting realistic testing standards by allowing employees to understand work expectations. This empowers managers to evaluate employee performance and their ability to conform to the responsibility for meeting goals (Noe et al., 2016).

A Performance Management System is an organized process that establishments use to measure and evaluate employees' job performance and provide feedback to help them improve their skills and achieve their goals. It typically includes setting performance expectations, regular monitoring and assessment, and coaching and development opportunities. This will further employee performance that will contribute towards the organization's success (Pulakoset al., 2008).

Although the origins of performance appraisal are unknown, it has been in use since the Wei Dynasty's emperor (222–265 AD) rated the official family members' performances in the third century. (Banner & Cooke (1984)). Organizations were not well defined in the early days, and organizational performance evaluation focused entirely on individuals carrying out responsibilities as part of a group. Robert Owen most likely invented industrial performance appraisals in the early 1800s (George, 1972). Owen used "silent monitors" to track output at his cotton mills in Scotland. The controls were wooden cylinders painted with different colors on every exposed face. These cylinders were then hung on top of the desk of every employee (Banner & Cooke, 1984). Performance assessment is a structured method of evaluating

employees with the activities or tasks they are responsible for and their contribution to the organization. An annual evaluation or performance review is another name for it. Its primary goal is to recognize workers' importance and commitment to the organization (Schraeder et al.,2007). Its critical factors are employee involvement and attitude toward the job, employee performance, job quality, and amount of work. The tangible or quantifiable variables such as performance, amount of work, and productivity can be easily measured using statistics collected by the Human Resource Department Manager. However, intangible factors such as actions, attitude, cordiality, sociability, and so on are difficult to quantify. Nonetheless, subjective and objective variables are evaluated to properly determine the employee's performance (Schuler & Jackson, 2014; Tannenbaum, 1990). Employees can identify areas for improvement through performance evaluation enabling managers to assign the appropriate employee fields for the best possible work.

Performance management systems in India vary across organizations and industries, sometimes companies use a combination of performance appraisals, goal-setting, feedback, and development programs to manage employee performance. The government of India also has its performance management system for civil servants known as the Performance Appraisal Report (PAR) system. Additionally, various performance management software solutions are available in the Indian market that help organizations automate and streamline their performance management processes (Dhar, 2015; Deb, 2018; Sharma & Dhar, 2019). Performance management systems in Himachal Pradesh's higher educational institutes vary depending on the institution. However, many institutes in the state recognize the worth of a robust and effective PMS ensuring that faculty and staff are meeting expectations and contributing to the achievement of institutional goals (Gupta & Gupta, 2020; Sharma & Thakur, 2019; Verma & Thakur, 2021).

Some of the common constituents of performance management systems in Himachal Pradesh'shigher educational institutes include:

1. **Goal setting:** Institutions set clear and measurable goals and expectations for employees, that is at par with the mission of the institute and its strategic plan.

2. **Performance evaluation:** Employees' performance is evaluated based on the agreed- upon goals and expectations using a range of performance metrics, such as teaching effectiveness, research productivity, and service to the institution and community.
3. **Feedback and coaching**: A continuous and consistent feedback is given to employees to assist in improving the performance and achieving the goals. Coaching and support are also provided to help employees address performance gaps and reach their full potential.
4. **Development planning:** Institutions provide opportunities for employee development, such as training and mentoring, to help them build skills and knowledge that align withinstitutional needs.
5. **Rewards and recognition:** Institutions have programs to recognize and reward high- performing employees, such as bonuses, promotions, and awards.

Whereas these elements can improve performance management in Himachal Pradesh's higher educational institutes, there is still a need for institutions to focus on other areas, such as ensuring that performance evaluations are fair and transparent, providing effective leadership, and encouraging a good atmosphere at work that encourages employee engagement and motivation (Kapoor & Verma, 2020; Sharma & Verma, 2021; Sharma & Chauhan, 2021).

Creating a high-performance workplace, getting individuals to perform correctly by achieving goal clarity and competency and involvement within the parameters set by effective leadership, is the main objective of performance management (Berman et al., 2017). PM is concerned with coordinating the objectives of one person with the organizational objectives and making sure that individuals fulfill corporate values and principles. According to Armstrong (2006), standards need to be established and accepted on roles and responsibilities, abilities, and behaviors. There should be clarity on what is expected of each.

1.2.1 Performance Management System Practices

There are various best practices for performance management system methods that may help firms efficiently manage and enhance their employees' performance. Here are a few examplesof critical practices:

1. **Agile Goal Setting and the Application of OKRs:** By establishing clear and quantifiable objectives, agile goal setting and the use of Objectives and Key Results (OKRs) may improve performance management procedures.
2. **Ongoing Development Discussions:** Regular and continuous discussions between managers and employees about their development requirements and career goals mighthelp to improve performance management.
3. **Continuous 360 Feedback:** Implementing feedback mechanisms that allow for constant input from different sources (peers, managers, clients) may help employees better grasp expectations, enhance performance, and develop trust. This comprehensivefeedback technique promotes two-way communication inside the company.
4. **Social Recognition of Performance:** recognizing and acknowledging the successes of staff members formally may improve morale, motivation, and an awareness of value within the organization. Giving employees a place to honor their coworkers may boostteamwork and positive behavior.
5. **Employee Involvement in Design Process:** Involving employees in the performance management system design process ensures their involvement and buy-in. Gathering their comments, ideas, and preferences aids in the development of a more successful and engaging system that in accordance with the company's culture.
6. **Clear and Detailed Performance Expectations:** Defining performance expectations to employees clearly, both verbally and in writing, offers clarity and responsibility. This involves setting goals, establishing performance criteria, and giving the appropriate assistance and resources.

7. **Training & Coaching:** Employees benefit from regular coaching, training, and development opportunities, which help them enhance their skills, knowledge, and performance. Managers should provide workers with direction, support, and resourcesto help them achieve.
8. **Accurate and Fair Evaluation:** It is critical to have a fair and accurate evaluation system. To ensure justice and accuracy, several opinions should be considered. Performance objectives and organizational goals should be linked to evaluation.
9. **Performance and Compensation:** Linking performance management to compensation choices helps drive people to perform to their full potential. Aligning incentives and recognition with achievement aids in the development of a performance-driven culture.
10. **Continuous Learning and Improvement:** An effective performance management system should encourage ongoing learning and development. It should give opportunities for people to develop existing skills, learn new ones, and advance professionally.

Organizations may construct a performance management system that focuses on continual growth, cooperation, recognition, and employee engagement by following these strategies, eventually driving increased performance and success (Zenger, 2017).

In Indian Organizations, performance management tactics vary, although there are numerous typical approaches. The collaborative goal-setting process, in which management and employees collaborate to match individual goals with the broader corporate plan, is an essential strategy. This method assists employees in understanding the way in which their objectives influence the growth and accomplishments of the company. The SMART goal structure, which stands for specified, measurable, attainable, relevant, and timely goals, is frequently used. This framework assists in setting clear expectations and tracking progress toward goals. Another important method is effective goal management. Allowing managers and workers to evaluate, change, and add goals throughout the performance cycle is an

example of this. Goals must be monitored regularly so that teams may alter schedules, seek extra resources, and make appropriate modifications based on feedback and data.

A smooth assessment procedure is also essential. It entails paying attention to employees, offering constructive criticism, and rewarding their efforts. The objective approach to assessments focuses on acquiring the required abilities and formulating an improvement plan for personnel. This guarantees a pool of highly competent employees and aids in strategic succession planning. The need for timely and hierarchical feedback flow throughout the company is underlined. This allows for good communication and encourages constant growth.

Overall, Indian firms' performance management systems strive to establish a transparent and collaborative atmosphere that matches individual and corporate goals, facilitates continuous improvement, and promotes employee growth and recognition.

1.3 EMPLOYEE ENGAGEMENT

Employee Engagement was firstly explained under the title "Psychological conditions of personal engagement and disengagement at work" as the emotional connection that workers have with their employers, coworkers, teams, community or culture, having this connection influences well-being and productivity. According to research, 92% of managers think that motivated workers perform better, which boosts the effectiveness of their teams and the overall performance of their company. The academic literature has explained personnel engagement as "the harnessing of organization 'members' selves to their work roles; in engagement, people employ and express themselves physically, cognitively, and emotionally during role performances". Whereas personnel disengagement refers to "the uncoupling of selves from work roles; in disengagement, people withdraw and defend themselves physically, cognitively, or emotionally during role performances". So, when doing an operational task, engagement entails being mentally present (Kahn, 1990). Maslach, Schaufeli and Leiter, 2001, state that the three burnout qualities of tiredness, cynicism, and inefficiency are the exact opposites of engagement, which is characterized by strength, perseverance, and efficacy.

To excite and engage people, firms cannot use a same strategy for all. Research found that all respondents were between the ages of 20 and 40, with over 90% being Gen X workers or younger than 30. Additionally, it was shown that such workers value job satisfaction, growth prospects, and work culture or environment more than other factors. Additionally, they do notbother quitting since they see so many opportunities for progress. (Pandey & David, 2013). Belief, honesty, dual involvement, and communication between a business and its workers are the cornerstones of employee engagement. It increases the quantity, competitiveness, and well-being of enterprises and individuals while also providing additional commercial prospects (Macey & Schneider, 2008). Businesses that have engaged employees do better than their rivals in terms of output, client satisfaction, and staff attrition. Every management team prioritizes

employee engagement. Organizations set goals at the beginning of the year, and at the end, theyevaluate and adjust them to assess their progress. This prolonged period, in the absence of feedback or check-in, is almost a surefire way to destroy engagement. Indeed "94% of employees would prefer feedback and growth opportunities in real-time from their managers and 81% would prefer to check-ins with their managers, at least quarterly", according to the Growth Divide Survey.

1.3.1 Level of engagement:

The level of engagement is divided in three groupings based on the employees' commitment. These are as follows:

Engaged: Workers have a strong sense of enthusiasm and interest in what they do. They have a lot of energy and drive. They are recognized as the psychological "owners" who drive innovation and commercial expansion. They work with enthusiasm, encourage creativity, andadvance their company (Vazirani, 2007).

Not Engaged: Employees who are not engaged are psychologically detached from both the organization and their work. They spend time into their work but not enough effort or devotionsince their requirements for motivation are not sufficiently satisfied. These workers don't care about the organization's progress or goals; they are only focused on their jobs. Their work is devoid of passion and vigor (Reilly, 2014).

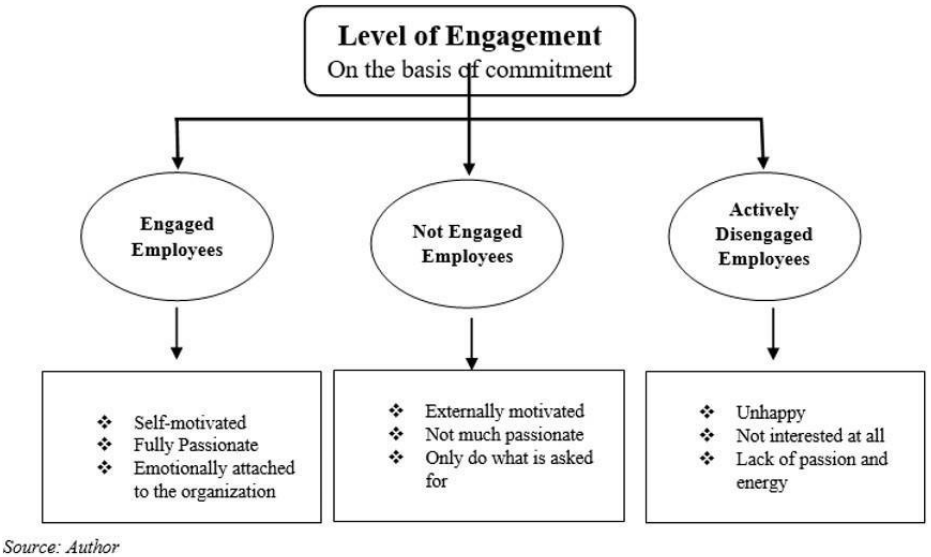
Actively disengaged: In addition to experiencing depression at work, actively disengaged employees also experience dissatisfaction due to unfulfilled aspirations and a lack of pleasure.In actuality, these employees regularly disagree with the actions of their motivated coworkers. Such employees steer the organization in the wrong direction, causing the organization to fall short of its goals and objectives (Vazirani, 2007).

Despite firms using more methods, over 85% of workers worldwide are purposefully or unintentionally disengaged.

According to Gallup (2020), "Nine major key assessments indicate positive outcomes as the Engagement of workers rises. Absenteeism, shrinkage, safety events, Patient safety incidents, quality (defects), and turnover have all been reduced by a minimum of 25% and often by more. The beneficial outcomes are seen by customer service, productivity, and profitability."

The clear links between job satisfaction and morale, employee engagement could be essential to the expansion of a company. Establishing and sustaining employee engagement requires effective communication. Engaged workers show a stronger dedication to the goals and idealsof an organization, putting in efforts to attain quality.

Figure.1.1 Level of Engagement



Source: Author

1.3.2 Why Employee Engagement is important for organizations?

Employee engagement increases the likelihood of consistent productivity, which boosts earnings. Highly committed personnel have enhanced their proficiency by 22%, according to Gallup's research. This tendency is more evident to managers and is more dependent on employee engagement levels.

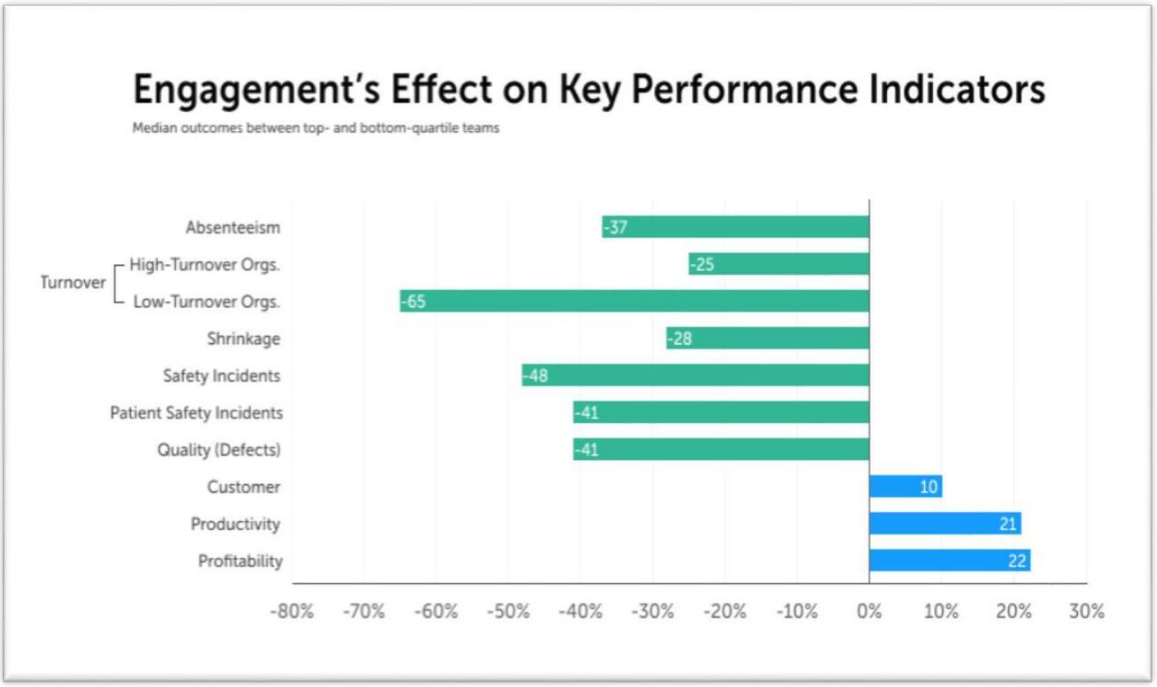


Figure 1.2 Engagement's Effect

Source: Gallup(2020)

Figure 1.3 Gallup's Report on Employee Engagement

According to a Gallup investigation, firms with good HR and employee engagement have the following characteristics:

- In high-turnover organisations, there is a 24% reduction in turnover.
- Low-turnover organisations have 59 percent lower turnover.
- Increases in customer satisfaction of 10%
- Productivity is up 17%, absenteeism is down 41%.

Source: Gallup(2020)

Factors that promote employee engagement at job include satisfaction, involvement, organizational commitment, effective communication, incentives, and recognition. The study offers a variety of employee engagement strategies for new employees, including successful induction programs, intensive training and development programs, accreditation programs, and delivering a genuine job preview (Chandani, Mehta, Mall , & Khokhar, 2016).

Employee involvement differs among Himachal Pradesh's higher education institutes. However, many state institutions have recognized the value of employee engagement in meeting organizational objectives and enhancing student outcomes. Some of the typical practices utilized by institutions in Himachal Pradesh to engage their staff are listed below:

1. **Opportunities for professional development:** Many institutions in the state offer their employees opportunities for professional development, such as attending

conferences, workshops, and training programs, to help them improve their skills and knowledge.

2. **Employee recognition programs:** Numerous companies have initiatives in place to honor and commend staff members for their accomplishments and efforts. Awards, bonuses, and other forms of recognition may be included.
3. **Communication Channels:** Many institutions encourage open communication channels between management and employees, allowing them to share feedback, suggestions, and concerns. This can contribute to a more positive and collaborative workplace environment.
4. **Work-life balance:** A few state-run organizations offer paid time off, flexible work hours, and other advantages to its staff members in an effort to encourage work-life balance.
5. **Involvement in decision-making:** To increase employees' sense of ownership and engagement in the organization, some institutions involve them in decision-making processes such as strategic planning and policy development.

While these practices can improve employee engagement in Himachal Pradesh's higher educational institutions, institutions must also focus on other areas such as fair and transparent performance evaluations, effective leadership, and opportunities for career advancement.

1.3.3 Employee Engagement Practices

Organizational employee engagement practices are guidelines and tactics put in place to improve satisfaction with work, productivity, and commitment. Here are some effective practices for increasing employee engagement that are often recommended:

- **Measurement strategies:** Surveys, Assessments, or other feedback methods should be used regularly to measure the degree of employee engagement in your firm. This allows for the identification of areas for improvement as well as the tracking of progress overtime.
- **Engagement Enhancement Methods:** Create a thorough plan including specific actions to increase employee engagement. This strategy may involve fostering a

healthy work environment, emphasizing work-life balance, offering chances for growth and development, and recognizing and rewarding employee accomplishments.

- **Establish clear expectations:** Employees should be well informed on the organization's goals, objectives, and performance expectations. This helps them comprehend their function and how their work contributes to the company's overall success.
- **Encourage open communication:** Create a culture of open and effective communication by requesting input from employees regularly and actively listening to their ideas, concerns, and suggestions. This generates a sense of belonging and allows employees to contribute to the success of the firm.
- **Opportunities for growth and development**: Provide opportunities for workers to improve their skills and expertise through training programs, workshops, conferences, or mentoring initiatives. This indicates a dedication to their professional development and boosts job happiness.
- **Recognize and reward accomplishments:** Implement a recognition program that recognizes and respects workers' efforts and accomplishments. This can be accomplished through verbal appreciation, employee of the month awards, performance-based incentives, or other means.
- **Work-life Balance**: Encourage a good work-life balance by providing flexibility in work hours, remote work choices, and paid time off. Employee engagement and well- being may be considerably enhanced by assisting them in efficiently balancing their personal and professional life.
- **Good work environment**: Promote a positive and inclusive work culture among employees by encouraging cooperation, collaboration, and mutual respect. Encourage social contacts, team-building events, and programs that emphasize employee well- being and mental health.

Organizations may increase employee motivation, satisfaction, and productivity through implementing these employee engagement techniques.

1.4 MODELS OF EMPLOYEE ENGAGEMENT

There are hundreds of programs that are successfully in place as well as a multitude of thoughts and ideas related to employee engagement. The ideal model will vary depending on an organization's unique circumstances. For example, a small Finance startup could require a different model and approach to employee engagement than a large commercial corporation.

However, the fundamentals of staff involvement are still the same and are based on four pillars:

- The ability to participate: ability to participate in training, education, personal development, teamwork, and management assistance.
- A compelling reason to participate: independence, deference, acknowledgment, gratitude
- Freedom to be involved: pride, creativity and innovation, job satisfaction
- Alignment with the organization: Employee understanding and alignment with the company's vision and goal is referred to as alignment between the individual and the organization.

AON-Hewitt, Maslow, and Kahn are a few of the most often-used models for employeeengagement.

1.4.1 Maslow's Model

The majority of managers are likely familiar with Maslow's hierarchy of requirements. It's as inescapable as the tea break in the majority of business courses and has a significant impact on staff management. Abraham Maslow presented in his paper titled "A Theory of Human Motivation," in 1943 that progress is a 5-tier model of human needs. The idea is that motivation arises from attempting to meet these five basic needs: bodily, safety, social, esteem, and self- actualization (fulfillment).

The idea concludes that an individual cannot be completely satisfied or engaged in their position if these demands are not met. Fundamentally, employees desire stable employment, a livable wage, and a feeling of security at work. Another thing that employees desire is a feeling of camaraderie, or the capacity to feel important and a

part of something greater than themselves. Additionally, workers need to grow, progress, be creative, and possess the capacityto run with ideas. There is no need that is more important than any other in the hierarchy of needs. Employee satisfaction must be attained in order to motivate them to provide their best job.

1.4.2 The Kahn Model

An organizational psychologist who identified employee engagement as a distinction betweenthe emotional, cognitive, and physical components of employee participation. The conditions under which people engage or disengage at work were investigated in the study of employeesof an architecture firm and summer camp counsellors.

Three psychological circumstances, according to Kahn, allow for engagement:

- Meaningfulness: Do workers believe their jobs have a purpose?
- Safety: Are the personnel comfortable in sharing their views at work without worryingabout the costs?
- Availability: Is the employee now feeling at their maximum capacity to use their bodyand mind?

At the time, Kahn questioned the prevalent beliefs in business, which held that employee engagement was determined by their perceptions of their job. He maintained that emotions, not ideas, were the source of involvement. "The engagement concept was developed based on thepremise that individuals can make real choices about how much of their real, personal selves they would reveal and express in their work," Kahn remarked about his hypothesis.

Kahn gave the following illustration of the cost of disengagement: employees who make little mental or emotional effort yet put in little physical effort to maintain their positions. According to Khan's theory, employees only perform more when they feel free to be who they really are at work.

1.4.3 The AON-Hewitt Mode

The model studies factors that are essential for optimal performance and production like feelings, intentions, behaviors, and rational thinking. The approach's main focuses

are on threegoals and six employee engagement drivers, or the areas where employers have the greatest impact.

Drivers of the model are:

- Basics: consists of pay benefits, job security of the employees, employee's workenvironment, employee's work-life balance
- Work: consists of tasks, accomplishments of goals, employee empowerment, a, alliance
- Organizations practices – diversity and inclusion, better communication, talent recognition, recruitment, empowering infrastructure
- Brand: status, corporate social responsibility, employee value intention
- Leadership: approachability and direction
- Performance: career enhancement opportunities, learning and development, performance management, rewards and recognition

The performance of the drivers will determine the following engagement outcomes:
Say: Will brag to clients, coworkers, and potential hires about the business

Stay: You won't be able to leave the company easily since you'll feel like you belong there.Strive: the will to work hard and succeed professionally.

1.4.4 The Gallup Engagement Model

Being a pioneer in the workplace analytics space, Gallup already supplies businesses with a large number of the most extensively disseminated employee engagement data. Gallup conducted surveys of millions of individuals worldwide for more than 50 years to create the Q12 Pyramid, a model that Monkhouse & Company referred to as "the best tool for growth" since it emphasizes productivity in connection to engagement.

The 12-question employee engagement survey and pyramid that go along with it make up the Q12 model. Four "types of needs" that workers possess in accordance with performance, growth, and development are represented by the pyramid. These include basic needs, individual needs, teamwork, and growth (very important), which are listed in decreasing order of significance.

Although this quick poll might appear like a straightforward tactic, Gallup has carefully considered each of the twelve components of employee engagement and has built it to appropriately assess them. Managers and team leaders may accurately identify impediments to employee engagement and areas for growth with the help of the responses to these twelve questions, which provide direction and context.

1.5 HIGHER EDUCATIONAL INSTITUTES

India's higher education system is diverse and complex, with a mix of public and private institutions, varying levels of quality and resources, and various delivery modes. Various statutory bodies, such as the University Grants Commission (UGC) and the All-India Council for Technical Education (AICTE), oversee accreditation, funding, and policy development in the higher education sector. Although India has over 1,000 universities and over 40,000 colleges, access to higher education remains challenging, especially for disadvantaged groups.Education quality also varies greatly, with some institutions providing world-class education while others struggle with inadequate infrastructure, faculty shortages, and outdated curricula.

Higher education has seen an expansion in internationalization and digitization in recent years, with an increasing number of institutions offering online courses and collaborating with foreign universities. The government has also launched some initiatives to increase access to higher education, improve educational quality, and encourage research and innovation. However, many challenges remain, such as increasing faculty quality, improving research infrastructure, and promoting equity and inclusion in higher education.

According to 'India's first Prime Minister Mr. Jawaharlal Nehru, the significance of higher education was illustrated by his words: "A university stands for humanism, for tolerance, for reason, for the adventure of the ideas and the search of the truth. It stands for the onward march of the human race towards even higher objectives. If the universities discharge their duties adequately, then it is well with the nation and the people" and he believed that the goal of education was "to produce a desire to serve the community as a whole and to apply the knowledge gained not only for personal but for public welfare". Educational institutions aim continuously to boost their

performance in terms of numbers and the potential quality availablefor various jobs in different types of organizations. An educational institution's effectiveness depends on the quality of its faculty, staff, and facilities. Institutions must set high-performance targets for university employees to achieve higher levels of performance. While the demand for skilled workers is increasing day by day, so is the need for faculty and staff with the required skills in educational institutions to stimulate the foundation for a workforce. Businesses are desperately seeking new talent that can overcome twenty-first-century challenges through creative, out-of-the-box thinking. Organizations' leaders rely on organizational institutes like schools, colleges, universities, and other training centers to introduce new skills to the industry.

Performance management is the fundamental requirement for any organization's performance since it is directly proportional to its employee's productivity, enthusiasm, and commitment. The more consistency and clarity a company brings to its performance management program, the happier the workers will be. In the higher education system, facultiesand their teaching qualities are the main assets that create a massive difference between institutions and competitors. Hiring quality faculty is easy but it is a much more difficult task to retain those quality faculties. These quality faculties can only be managed or retained by an effective Performance Management System in higher educational institutes (Armstrong, 2006;DeNisi & Pritchard, 2006).

Today the education sector is facing a problem due to Performance evaluation because many 'institution's performance management is only linked to salary or wages and is considered to be an incremental decision, due to these incremental decisions faculties only focus on achieving their target and forget about their teaching quality given by them. This type of behavior affects the students in their studies. Another issue is that sometimes faculties fear biased evaluations fromsuperiors and students. In many institutions, faculty develops a misconception that better relations with students and supervisors will be helpful in positive feedback, and due to this misconception, faculty waste their time by having irrelevant talks with students during lectures(Bell & Gilbert, 1994; Seldin, 2006). The latest qualification certification and degree is another rising challenge faced by higher educational institutes nowadays, due to which many capable and experienced faculties are not getting what they deserve because either

they are underqualified or do not have the concerned certification. So, here the prime goal Performance Management System is to manage and retain those faculties who are capable, honest, and genuine and help to manage the ones who are using their qualification degree but are not performing up to the desired standards or at the appropriate level.

1.6. Higher Education in Himachal Pradesh

Himachal Pradesh was directly under British colonial control from the mid-nineteenth century. Interestingly, during British colonial administration, the state served as India's summer capital. The instructional value offered in the form has now reached an exceptionally high level. The state has numerous well-known higher education institutes. Some of the renowned pioneer educational institutes included the Indian Institute of Technology (IIT, Mandi), Himachal Pradesh University (HPU, Shimla), and the National Institute of Technology (NIT, Hamirpur). NIT Hamirpur is one of the state's top institutions. The University Grant Commission awarded Rs 45 million in its 10th Plan, representing a nearly 70% increase over the 9th Plan.

Himachal Pradesh's higher education sector is small but diverse, with a mix of public and private institutions. There are 13 universities in the state, including central, state, and private universities, as well as several colleges that offer undergraduate and postgraduate courses in various fields such as Indian Institute of Technology (IIT, Mandi), Himachal Pradesh University (HPU, Shimla), and National Institute of Technology (NIT, Hamirpur). Himachal Pradesh's educational quality varies greatly, with some institutions providing excellent education and research opportunities while others struggle with infrastructure and faculty shortages. The Himachal Pradesh State Higher Education Council, which aims to coordinate and promote higher education in the state, is one of several initiatives launched by the state government to expand the quality of higher education (Chauhan, 2013; Kalia, 2018; Rawat & Shah, 2018).

The state has literacy rates as high as 89.8% according to the 2011 census with Men literacy of 89.53%, while women literacy of 75.93%. The education levels of women in the states are very promising. Himachal Pradesh has one central university, four state universities, sixteen private universities, eight medical colleges, 27 engineering

institutes, one media college, sixteen pharmacy colleges, one ayurvedic college, and six other general institutes.

Himachal Pradesh also highly values environmental education, with several institutions offering forestry, wildlife, and ecological science courses. Several other institutions in the state, including Himachal Pradesh University, are also well-known for their research and academic excellence. Despite these advantages, access to higher education remains problematic in some parts of the state, particularly in remote and mountainous areas. The state government has launched some initiatives to increase access to higher education, such as establishing new colleges and the promotion of online learning. However, more investment in infrastructure and faculty is still required.

Faculty in Himachal Pradesh come across a variety of issues in terms of staff engagement. Some of these issues have been emphasized in studies, and the level of job engagement among female faculty members in higher education organizations has been investigated. According to reports, women faculty members in Himachal Pradesh have modest levels of participation. Another significant barrier to obtaining a quality education that students confront is mental stress, which has an indirect impact on teacher engagement. To address these issues, proposals for capacity building, enhancing engagement, and monitoring and evaluation have been offered. It is feasible to boost staff engagement in the Himachal Pradesh education sector and create a more favorable climate for both faculty and students by applying these measures. Overall, the issues faced by faculties in the Himachal Pradesh education sector in terms of staff engagement include moderate levels of involvement, mental stress among students, and the need for capacity building and students' engagement. The school system may develop a more engaged and productive.

CHAPTER 2

REVIEW OF LITERATURE

2 INTRODUCTION

The review is carried out with the intention to examine the historical aspects relevant to the work and at the same time to facilitate the researcher's findings where appropriate to know and elucidate the consequences of the present analysis, and the developments which have taken place in current knowledge related to the topic under study.

2.1 PERFORMANCE MANAGEMENT SYSTEM

Johnson and Kaplan (1987), there is an urgent need for a new management approach capable of managing organizational performance, as traditional methods and norms have lost their significance. As a result, the PM System was designed to manage performance within organizations. It is a cyclical method in which supervisors and employees collaborate on mutually setting potentials, providing feedback and guidance, evaluating outcomes, and rewarding performance all throughout the year.

Armstrong and Baron (1998), a performance management system assists employees in performing their tasks more effectively while also developing their skills, knowledge, skill sets, and potential. Employees should be happy with the feedback provided by PMS. They will be more motivated after feedback sessions if they believe the performance evaluations are fair, continuous, and unbiased. If the evidence obtained through performance assessments is used positive way and efficaciously by the association, employees will become more motivated, which will improve their performance. They also confirmed that this system is only concerned about what specific goals employees must achieve rather than how those goals will be achieved. A good system necessitates that establishments recognize and recompense outstanding performance, whether monetary or non-monetary.

Brown (2005) identified numerous reasons for implementing performance management in an organization. It helps with the following: (1) lowering employee and organizational ineffectiveness; (2) raising employee and organizational effectiveness; (3) disseminating information about employee and organizational efficiency; (4) raising employee and organizational efficiency; and (5) raising employee and organizational motivation. (6) attempting to connect compensation to performance; (7) raising employee accountability; and (8) aligning goals with the company. Performance management is regarded as a systematic method for boosting an organization's overall quality by enhancing employee performance within a developmental framework (Drumm, 2005).

Holland (2006), despite the widespread adoption of performance management systems, numerous studies show that organizations are unable to effectively manage employee performance. Out of 10 participants, just three thought that their organization's performance evaluation system helped them perform better. According to Nankervis and Compton (2006), reevaluating procedures to achieve desired outcomes along with ascertaining whether performance management might be used as a more effective and potent tool in HRM was the main objective. Performance management is viewed as a critical and conclusive Human Resource subsystem that can contribute to organizational growth and effectiveness. Vance (2006), performance management includes two components: a) talent exploitation and preservation) a performance feedback mechanism.

The majority of BPO employees agree the organization has a decent appraisal system. People are also satisfied with the PMS, but they think that their relationship with incentive programs and career advancement should be enhanced. They said that it is continuous evaluation could help companies assess the productivity and job happiness of the personnel. It has been believed that these problems, which directly affect how well BPO workers perform, should be properly and skillfully addressed (Shah & Sharma, 2007).

Armstrong (2009), the PMS helps the management to know how its workers work, identifying those who add more than any other and/or minimum merit to the

establishment. It enables the organization to conduct a comprehensive analysis of its employees' needs for training and growth.

Junejo (2010), discovered that the outdated evaluation method's inefficiency, including the absence of coordination between teacher and performance appraisal parameters, inadequate feedback, a sign of explicit reward, and unorganized improvement plans serve collectively as an opportunity to reduce education standards. The study also provided a fresh perspective on how to better and elevate the characteristics of teachers, including their involvement in education, their ability to introduce novel teaching approaches, and their pursuit of ongoing professional development. Moreover, these elements, either separately or in combination, guide institutions toward development and expansion that is sustainable.

Quantitative research was done by adopting questionnaires. Data were collected from 123 academics across the University of Malaysia and it was analyzed by the Factor analysis methodusing the Principal Component Analysis (PCA) technique, to find out the construct validity factors influencing the Performance Management System. The results indicate that the implementation of PMS has three key influences. The factors that provide substantial output affect a PMS Program which is highly implemented and positively implemented. Moreover, high efficiency should be achieved. However, management dedication is still inadequate as a significant factor. This aspect should be evaluated carefully and rigorously to maximize the performance of PMS (Mansor et al., 2012).

The success of individuals and teams cannot be overlooked by an organization that seeks to improve results. A Performance Management System will take all the challenges that could occur during its implementation into consideration. A strong association and cooperation between all stakeholders, whether individual or team, are likely to lead to the success of the system and thus to the administration's success.

In 2016, research was conducted in educational institutions in Tamil Nadu, India. The research aimed to examine the activities of faculty management that have been developed in Tamil Naduhigher schools. A total of 100 faculty members offered their views on the performance management program. Information was gathered through the submission of the respondents ' standardized questionnaire. The data were

analyzed with a percentage analysis, a rotating matrix part, and a Friedman check. The results showed that faculty members creating a five- headed management system, such as personal characteristics, teaching tools, academic achievement, innovation, and the growth of institutions, improved the institution's success and credibility (Barani & Rajesh, 2016).

When explored the influence of the PM System on Employee Performance in commercial banks in Kitui Town, Kenya, collecting data via a questionnaire and analyzed by using SPSS (Mulwa & Weru 2017). In the study, it was revealed that by raising competency, developing staff, and setting individual goals, the Performance Management System enhances Employee Performance. Staff competency can be enhanced by identifying the skill set required and theseskills are improved by proper training provided to the employees.

Solanki (2017), after reviewing the literature and other relevant knowledge and based on personal observation, observed that in certain higher institutes, Academic departments are compelled to concentrate on numerical outcomes, including the student's average grade, passing %, etc. due to which most of the study is overlooked and leads to tedious education without up-gradation. The majority of the institute's comments came from superiors, and their untrained analysis tainted the faculty's overall rating and evaluation. Professors are not presentin PMS, which lowers faculty morals and feeling of engagement and lowers satisfaction levels.PMS is only based on institutional faculties, but the benefit of faculties is a little overlooked. Institutions must use a method of performance management to enhance teaching personnel's performance, both with individuals and with institutional goals and targets, to increase the institution's overall performance to achieve its targets. The outcomes of performance management are intended to help organizations understand job success with interventions thatwill reward and appreciate employees with reliable and positive input, thereby increasing happiness, motivation, and commitment (Chahar & Hatwal, 2018).

Singh, Vaish and Sengupta (2018), discovered that rather of studying Performance Management holistically, the literature concentrates on the process-oriented parts, particularly performance appraisal (PA). It was suggested that the gaps in the , if

addressed, will aid in the advancement of future HRD practitioners and scholars' comprehension of employee performance management (Brown, et al, 2018). API and PBAS, according to the respondents, several faculties are dissatisfied with the current appraisal system and believe it should be changed. The faculty from Uttar Pradesh were found to be more unsatisfied with the PA systemthan the faculty from Delhi.

Tanveer and Karim (2018), observed that universities need to improve their needs and visions. Higher education institutes need to know the difference between Performance Appraisal and Performance Management Systems. Sometimes these words are used as being the same, but itmust be noted that Performance Appraisal comes under the topic of Performance ManagementSystem. Higher educational institutes need to implement proper Performance Management procedures to attain an individual's or faculty's objectives and to improve their overall performance. In this study, it was mentioned that institutes must adopt advanced PerformanceManagement techniques such as 360-degree appraisal, Balanced scorecard, etc. so that the outcomes should lead to the satisfaction of employees to keep them motivated and committed to their goals and objectives. The availability of qualified personnel and a framework for monitoring their performance has become a key problem with the growing needs of the sector. Tomno, Muya, and Ngacho (2018), concluded that for long-term growth, Employee productivity, and the capability to retain valued employees, staff development is recognized asa vital designing tool. Respondents strongly agreed that Performance management affects Employee Productivity with response rate was 18.9 for strongly agree and 41.7 for agree.

In 2019 study by Mangipudi on Performance Management Systems in India was done, in which six independent factors that are factors that help in improving employee performance, along with the relationship between a dependent factor and four employee competencies— knowledge level competency, personal competency, communicational competency, or job- related competency, and interpersonal competency—were examined. Data were collected by survey method on 924 employees from the IT sector, by using a 5-point Likert-type scale. From the study, improved employee performance variables, communicational competency, and

personal and interpersonal competency were found to be significantly correlated with the Performance Management System.

Aguinis and Burgi-Tian (2020), The Performance Promoter Score (PPS) was designed as a retort to the challenges of evaluating performance during a crisis. Individuals (including supervisors at all organizational levels), workgroups, and other entities like departments and functional units can all gather PPS. In addition to being a practical, usable, realistic, and efficient performance indicator during pandemic, PPS is an innovation that will continue to be utilized long after the outbreak has ended.

Khtere (2020), the study generated a list of Entrustable Professional Activities (EPAs) that can be used to change competency-based teacher evaluation. The recommended events offer a outline for acquiring the essential knowledge and capacities needed to fulfill the faculty profile practice requirements for internal quality control operations. Because of this, putting EPAs into practice calls for a complex evaluation system that has to be used more frequently and continuously. The importance of EPAs as assessment tools for improving the originality, emotional availability, and engagement of internal quality assurance activities. Experts offer proof of operational behavioral formulations' evaluation criteria for teaching, assessment, and advisory roles. These formulations may aid higher education establishments in enhancing the competence and dependability of HRM.

Prasad (2021), the PM system of the twenty-first century and employee performance are no more monotonous tasks completed yearly or so, comparing the employee's work plan with their accomplishments or results. This is due to the fact that the system is now out of date and modern employees do not distinguish between PMS and labor as pay. Internal and external organizational elements, such as work satisfaction, psychological well-being, motivation, and organizational environment will affect the performance. The performance of an employee can be impacted by external factors such as work-life stability, social support, remote work, and occupational stress. Employees believe the current goal of PMS is slightly more encouraging than previous goals; nonetheless, there is a much greater difference between PMS's anticipated future aspirations and current objectives. Setting of the targets and ongoing feedback were rated as the finest characteristics of the present system by employees,

but deadline adherence, transparency, and 3600 feedback were rated as areas that needed development (Tripathi et al.,2021).

Aguinis and Burgi-Tian (2021), performance management serves vital operational, managerial, communication, developmental, organizational maintenance, and verification needs, making it especially well-suited to address the myriad talent management concerns raised by the COVID-19 dilemma. The research provided five empirically supported recommendations to tackle talent management challenges: (1) combine behavior and performance measurements; (2) assess adaptive performance; (3) interview top performers as they leave; (4) establish multisource performance management systems; and (5) collect and apply PPS. By helping them to overcome obstacles, these research-based tactics can help businesses thrive both during andafter a crisis.

Lohman (2021), a survey of contemporary literature identifies major issues in Student Evaluations of Teaching (SET) and peer observation of teaching research, as well as fundamental ideas for performance appraisal and management. These ideas are applied to examine typical faculty assessment policies and methods, as well as the flaws in both old and newly altered teaching evaluation systems. The third portion delves into performance appraisalmethods that may be applied to teacher evaluation. The planned use of outcomes and/or behavior methods for performance assessment, robust evaluation instruments for behavioral performance appraisal, focused data collecting from many stakeholders, and job analysis are among them.

2.2 EMPLOYEE ENGAGEMENT

Siddhanta and Roy (2010), following a thorough analysis of research and survey results from various sources, including Gallup, Right Management, Hay Group, and the IRS survey, it was determined that companies with high employee engagement levels have more committed and involved workers in decision-making processes. This, in turn, creates a motivated workforce that supports workers in accomplishing shared organizational objectives. An organization with highly engaged employees is ultimately more successful in financial and non-financial aspects, which progresses employee performance. The relationship between involvement and job performance

was discovered, supporting the idea that overwork attitudes might be gradually used to predict performance (Christian, Garza, & Slaughter, 2011).

Anitha (2014), the study determined that enhancing an organization's working environment in all spheres—including the psychological and physical ones, fostering positive relationships among staff members, and exercising effective leadership—brings about high employee engagement and boosts worker productivity. It demonstrates how employee engagement directly and favorably affects employee performance. There was an inverse relationship discovered between turnover intent and engagement in HRD activities as well as cognitive, emotional, and behavioral participation. Engagement moderated the link of HRD practices withstaff renewal rate, according to mediated regression research. The results show how important it is to encourage staff involvement in HRD initiatives in order to increase employee engagement and reduce attrition. (Shuck, Twyford, Reio Jr. & Shuck, 2014)

Tanwar (2017), the paper studied how positive Employee Engagement enhances the motivationand enthusiasm of the employee. Not only does employee engagement aid in employee motivation, but it also has a favorable correlation with employee performance, as demonstrated by rising productivity, the organization's profitability, employee happiness, and employee loyalty. It was also determined that a low absence and turnover ratio are caused by highly engaged employees. An employee's performance will be impacted by both internal organizational, monetary and non-monetary rewards and recognition, such as promotions and assignments to increasingly challenging roles, organization stress, well- being of the employee etc. Employees that participate in training programs might improve their skills and abilities. (Veena & Manickam, 2017). Businesses would gain from concentrating more on strategic goalslike (a) employee empowerment, (b) incentives and recognition, and (c) building relationshipsbetween managers and staff (Osborne & Hammoud ,2017).

At an Indian setting, a study found that in employee engagement measurement biggest forecaster of performance is engagement and offers the conceptual underpinning for employee productivity. The goal of the six-article research was to persuade HR managers of the value of employee engagement in maintaining productive and contented workforces. This study indicates that further research is necessary to

ascertain the degree to which advancements in these domains would enhance productivity and influence employee engagement (Gupta, 2018).The results show that happy mood and job satisfaction are directly linked with high- performance work systems, and a strong employee engagement. Moreover, this association is mediated by worker satisfaction and pleasure. The outcomes signify towards empirical evidence for the deployment of HPWS in a global setting and further our knowledge of one mechanism by which it affects employee behavior (Huang, Ma, & Meng, 2018).

According to a study, it was observed that employees are more fascinated by non-monetary rewards like value and respect, they don't prioritize pay and compensational benefits. Organizations having engaged employees have higher productivity and employee performance due to high employee retention, profitability, and reduced turnover ratio. Additionally, it was determined that managers should prioritize interpersonal interaction, ensure that staff members have access to all the tools they need to do their jobs well, and recognize and award top performers within the organization (Gupta & Chowdhury, 2018). Engaged workers are more likely to boost productivity inside the company. Sustaining a higher level of devotion is also beneficial. The level of devotion and dedication and involvement of employees in their firm and their association with organizational values is known as employee engagement. Organizational performance is influenced by employee productivity, which is raised by the worker's dedication to the company (Sarangi & Nayak, 2018).

In terms of achieving higher supremacy and socio-economic growth, the Higher Education sector plays the leading role. The secret to an effective system is high-quality teachers. Volunteer involvement of teachers in their jobs increases the standard of teaching, which improves the entire education system When compared to men, women professors have a high degree of dedication to work. Also, gender has important relationships with the work of teaching professionals across different socio-economic variables. The institutions, therefore, need to take the steps required to enhance the work of teaching members (V.M. Sangeetha, Bhopal, & Ravi, 2018). Azmy (2019), pay increases are given to employees on a regular basis in accordance with their performance. It is important for organizations to have training and development strategies. Organizations should also give the newest equipment and

facilities to support employees' working operations. Employee engagement is therefore essential to raising worker productivity and performance. According to the report, a firm must create and maintain employee engagement in addition to offering a good work environment, training, and growth opportunities, and maintaining a respectable reputation. By including people in decision- making, organizations may help their employees feel vital to the success of the company, and the supervisor-employee connection must be positive.

Nikolic, Peric and Necak (2019), when leaders are open, individuals will assess their advantages and weaknesses much more critically. If leaders are honest, especially at their worst, they will improve their leadership when workers and other stakeholders start trusting them when people and therefore respecting them as leaders. The focus is to enhance and strengthen employee engagement, which is described as a strong emotional relationship, strengthened by rational considerations that encourage employees to make a greater effort and thus achieve an additional milestone. The lower intention to leave, increased efficiency, growth, and customer satisfaction contribute to higher employee engagement by organizationswith dedicated employees. The role of managers is to promote discussion through daily meetings, a culture of feedback, mentoring, and coaching. Engagement has two advantages for people and businesses that is overall performance and well-being (Peccei & Voorde, 2019).

A thorough and systematic exploratory review was carried out on a variety of online repositories to include a complete list of newspaper articles on faculty engagement and its relations with other related structures. The most widely used online databases are studied in the area of management and higher education. The scanned databases were the databases used for study in Delhi, India, and national central and state universities. Additional attention was paid to the incorporation of the latest research into the field of faculty engagement, while attempts were also made to implement research that is part of the definition of engagement. The literature shows that many faculty members quit work due to lower wages, reduced opportunities, and organizational structure. Youth are known as enthusiastic workers, and because of monetary issues, they don't want to be a part of this workforce (Raina & Khatri, 2019).

In a recent study in India, it was observed that factors such as remuneration and compensation, health and safety, performance of employee and organization, communication, training, leadership, grievance procedure, career development, and other benefits considered to affect Employee Engagement, also affect employee performance positively. It was also found that there is a direct association between the factors that are reward recognition and regular compensation to those who perform well, helping the performance appraisal process to achieve organizational goals (Vasani & Pillai, 2019). Employees who are bent on accomplishing establishment's targets and achievements, try to seek more feedback on their performance which builds a positive emotion, which ultimately helps to increase their productivity. Similarly, if an employee hesitates to get engaged in their work towards organizational goals, it tends to focus less on performance feedback and it might create negative emotions which results in high turnover and less productivity in organizations (V.S. & Lucas, 2019).

Chanana and Sangeeta (2020), Organizations are putting in place a range of engagement initiatives in response to the pandemic, such as weekly orientation sessions, virtual learning, online team-building exercises, webinars featuring industry experts, and online faculty engagement activities. Working circumstances, support, career advancement, organizational support, and rewards and recognitions are a few of the engagement factors that are highlighted. Offering opportunities for promotion and offering insight into one's own professional development are two strategies for enhancing employee engagement. These strategies will guarantee employees' contentment and help retain highly skilled staff. (Purushothaman and Kaviya, 2020). Organizations must concentrate on increasing employee engagement rather than only using employee incentive strategies in order to meet their goals. In a time when educational institutions expect their staff to be proactive, creative, and take the initiative to identify solutions to current teaching approaches, having engaged professors has become essential (Beri & Gulati, 2020).

Tiwari and Lenka (2020), discover that innovativeness, ongoing learning, information sharing, and internal business communication, are all correlated with EE. The following aspects of employee engagement significantly impact representative

engagement practices in the private banks in the research area: technology, organizational fairness and policies, pay and benefits, leadership style, training and development, and remuneration. Superiors need to focus on goals including raising employee knowledge and skill levels, offering regular training, and identifying obstacles to help workers concentrate more on their task. Employee engagement is greatly impacted by the work environment, the organization's repute, relations between supervisors and coworkers, and training and growth initiatives (Juliantara, Sihombing, & Sulistyawati, 2020).

In light of the pandemic, many engagement initiatives are being developed by organizations. These include all kinds of e-learning whether related to team building, challenges, exercises,

sessions, courses or webinars for new skill training. Additionally, teams may meet virtually forlunch or over video conferences. Regular engagement activities that allow workers to work from home are very advantageous for both businesses and employees. (Chanana & Sangeeta, 2020). While 12.9 percent disagree, it has been found that organizational welfare for employee development raises individuals' abilities furthering individual and establishment's growth.

The results show that sufficient virtual tools, executive communication, and e-learning all lead to higher levels of employee engagement. Employers have to assist staff members in optimizing virtual resources like computer configurations and internet speed. (Chaudhary et al., 2021). Employees and management can develop trust by receiving encouragement and gratitude from their employers. Employee involvement was enhanced by the support from the establishment in terms of resources and chances to further growth and learning. Effective reward programs and strategies that show a commitment to professional growth are signs of engaged employees. (Sivasubramanian & Rupa, 2021).

Putting into practice efficient HRM procedures in organizations demonstrates to staff members that they are important resources for the organization. Offering suitable career development options fosters a work ethic in employees and enables them to grow in their jobs (MB, Kulenur, Nagesh, & TS, 2022). By implementing tangible security and excellence, a pleasant environment for working, a work atmosphere, and

workplace circumstances, the NBFCs createan extraordinary working life. Leadership is another essential element of employee engagement. The policies and rules, training opportunities, and work environment of their firm were deemed satisfactory by the workforce as well. Workers are dissatisfied with their possibilities for job advancement, their connections with coworkers, and their "compensation and incentives" (A.S.L.N, Marcus, & Gajenderan, 2022).

The most valuable resource for a business is its workforce, which will disconnect when not given adequate time and space to balance work and play. To accomplish their aims and objectives, businesses and their employees must rely on one another. Employee engagement should thus be seen as an essential component of the company's culture rather than as a stand-alone event. It is important to incorporate all facets of learning, growth, and response into employee engagement. Because of this, contemporary organizations have an ongoing obligation to aim toward exceeding the expectations of their workforce, which directly affects worker performance and ultimately the success of the organization (Castelino & Shinde, 2022).

Budiyono and Welly (2022), research has shown that favorable work environments, equitable treatment by supervisors, robust professional connections, and sufficient workspaces significantly contribute to higher levels of teacher engagement. For the most part, the academics at their institutions were happy with their work settings. The administration has acted to ensure that faculty members attend the most recent workshops on research training since a growing number of schools are emphasizing research, including Ph.D. conferences, SEM, and SPSS. Certain universities have started their research initiatives with faculty financial incentives in an effort to boost Ph.D. program enrollment. In an effort to reduce the strain in the classroom and increase faculty research output, universities frequently pay for faculty members to attend national and international conferences. To attain good results, such faculty-friendly policies must be upheld. In the case of a disagreement, managers and employees would talk it over and find a solution, keeping the workplace friendly. This has increased faculty commitment to their job and drive, increasing publications published in prestigious journals (Deepa & Bhojanna, 2022).

Putting into practice efficient HRM procedures in organizations demonstrates to staff members that they are important resources for the organization. Offering suitable career development options fosters a work ethic in employees and enables them to grow in their jobs (MB, Kulenur, Nagesh, & TS, 2022). The most valuable resource for a business is its workforce adequacy to bring equilibrium in work and life. To accomplish their aims and objectives, businesses and their employees must rely on one another. Employee engagement should thus be seen as an essential component of the company's culture rather than as a stand-alone event. It is important to incorporate all facets of learning, growth, and response into employee engagement. Because of this, contemporary organizations have an ongoing obligation to aim toward exceeding the expectations of their workforce, which directly affects worker performance and ultimately the success of the organization (Castelino & Shinde, 2022).

It is possible to conclude that, in an approach that emphasizes satisfaction and engagement, which is reflected in the staff member's interest in continuing their education at the university, it is crucial to create a pleasant work environment that revolves around mutual respect, recognition, and acknowledgment for staff members' abilities and competencies. By creating a link that fosters esprit de corps, trust, and collaboration between employers and employees at academic institutions, the outcome promotes and motivates workers to form an alliance or relate to one another to accomplish notable performance (Abdullahi, Raman, Solarin, & Adeiza, 2023).

2.3 PERFORMANCE MANAGEMENT SYSTEM AND EMPLOYEE ENGAGEMENT

In 2011 a study was done by researchers; the study’s primary goal was to create a model that helps to understand the implementation of the Performance Management process. They gave a model named “The Engagement Management Model”, a model of successful implementation of the PMS process which can promote employee engagement (Gruman & Saks, 2011: Saks, 2011). After that in 2016 a study was conducted with the aim to assess that should the performance management process shift from higher productivity and performance results to include employee engagement to contribute to the profitability of the organizations. It was also noticed

that performance management is highly studied on how high productivity can be accomplished but still far less work is performed concerning the employee engagement goal ofperformance management. Performance management's Employee Engagement goal provides professionals and researchers with an effective way to understand their role within a sustainableorganization (Saratun , 2016).

Kaur and Singla (2019), conducted a review-based study on the interdependence of Performance Management System and Employee Engagement and found that the implementation of PMS in organizations has the potential to enhance the performance and effectiveness of the employees. It was also revealed that organizations should evaluate employees based on contextual performance like employees volunteering for extra hours' duties, helping each other with their goals and assignments, helping in maintaining positive vibes or attitudes in an organization, showing self-motivation towards their work, etc. which ultimately helps to enhance the effectiveness of the organization. In this study, it was suggestedthat managers should listen to employees and include employee input in deciding the performance of the employees.

2.4 DEMOGRAPHIC VARIABLES

Marcus and Gopinath (2017), examined the influence of EE in IT businesses in South Chennai with respect to demographic variables such as age and gender. The study drivers are superior, performance appraisal, recognition, and award. The study was carried out among workers employed in several South Chennai IT companies. Utilizing a structured questionnaire, the data were gathered, and the relevant statistical methods were used for the analysis. The determinantsof employee engagement were found to be influenced by the respondents' age. This also was noted that gender did not influence the preferred drivers of employee engagement. However, the women respondents are more affected by the IT companies in Chennai's workplace participation initiatives.

George and Venkatapathy (2018), conducted a survey to the investigate similarities or differences between the employees who work in the IT and ITES sectors, which professional tenure, marital status, and gender may have. The study was done by staff in Kerala with officesin Trichur, Calicut, Cochin, and Trivandrum, who work for IT and ITES companies. Samples were drawn using the NASSCOM-approved

companies' systematic random sampling. The effects of employee engagement are significantly different in occupational tenures, marital status, and gender; sectors (IT and ITeS) have not differentiated. In terms of marital status, theworkers' engagement rates vary considerably. Unmarried employees have high employee contribution ratings. The level of EE differs from that of the different levels of professional tenure. Employee engagement declines as the respondents gain experience in their professionalcareers from the initial years to 30 years.

Jha and Nair (2019), the research investigated to what extent population variables including age, gender, marital status and tenure related to their levels of engagement. A structured questionnaire and personal interviews with respondents are the methods used to collect primary data. Many research journals, business magazines, and websites collected secondary data. 404completely filled-in answers were obtained out of 426 questionnaires evaluated in a systematicsense. The data have been collected by employees of various IT and ITeS companies in Rajasthan state. The study results show no major effect on the overall engagement level of any of the demographic variables, which means that HR managers can freely select engagement approaches without thinking about the disparity in the population between their workers.

CHAPTER 3

RESEARCH METHODOLOGY

A research technique is a way to arrive at and provide the goal of the investigation. It refers tothe methods or approaches used to locate, pick, handle, and examine the data or information related to the subject. The chapter will allow to discuss the research methods used for the study.Research methodology is the systematic, scientific process of gathering, evaluating, and interpreting data to support or reject the claims (hypotheses) made by the author. It is the framework for the entire research process, from selecting a research topic to presenting findings and conclusions. There are several kinds of research methodologies, each with its own set of advantages and disadvantages. Here are some examples of common research methodologies:

1. **Quantitative research**: To test theories and provide answers to research issues, this involves obtaining and evaluating numerical data. It is frequently employed in the social sciences, psychology, and marketing research.

2. **Qualitative Research**: This method entails gathering and analyzing non-numerical data, including interviews, observations, and case studies, to gain insights into people's experiences, attitudes, and behaviors. It is frequently used in social sciences, anthropology, and education research.

3. **Mixed-Methods Research**: It combines both qualitative and quantitative techniques to acquire a broader knowledge of a research question or problem. It is frequently used in health,education, and social science research.

4. **Experimental research**: It entails manipulating one or more variables to observe the effect on another variable. It is frequently employed in the natural sciences, psychology, and medicalresearch.

5. **Case Study Research**: This methodology entails conducting an in-depth examination of a single case, such as an individual, group, or organization, to gain insight into a specific phenomenon. It is frequently used in social sciences, business, and law research.

6. Observational research: It entails recording and observing behavior or phenomenon without modifying any variables. It is frequently used in natural sciences, psychology, and anthropology research.

7. Survey research: This entails gathering information from a large group of people using standard questionnaires or surveys. It is frequently used in the fields of social sciences, researchon marketing, and polling of public opinion.

Choosing the right research methodology is critical for carrying out valid, reliable, and significant research. The methodology chosen is determined by the research question, the type of data required, and the research context. There are several steps involved in the research methodology, which include:

1. **Defining the research problem:** Determining and defining the topic or question is the first stage in the research approach. This entails figuring out the goal and parameters ofthe study as well as the important ideas and factors that are at play.
2. **Reviewing the literature:** After defining the research problem, the next step is to review the relevant literature to gain an understanding of what has already been studied in the field. This helps to identify gaps in knowledge and potential research opportunities.
3. **Formulating a hypothesis**: Based on the above two, a hypothesis or a set of hypotheses is formulated. This is a tentative clarification of the association of variables that will betested through the research process.
4. **Designing the research:** The general strategy for carrying out the study is known as the research design. This include choosing the proper demographic and sample, data gathering methods, data analysis strategies, and research methodology.
5. **Collecting data:** Once the research design has been finalized, data collection can begin.This involves collecting data from the identified population or sample using the chosendata collection tools.

6. **Analyzing data:** After that, the gathered data is examined using the proper statistical and analytical methods. This helps to identify connection, links, relationships, and trends in the data.
7. **Concluding:** Finally, the outcome of the study based the analysis, conclusions are drawn and recommendations are made for future research or practical applications.

All-in-all, research methodology is a crucial role in each research endeavor and ensures that the data is collected in an organized, impartial and trustworthy way.

3.1 NEED AND SIGNIFICANCE OF THE STUDY

Effective, skilled, and motivated workers are a catalyst for positive changes in an organization,but this is not an easy task to find methods to build a productive group of employees. The performance improvement mechanism provides a framework to facilitate the engagement andretention of valued employees. The management should provide feedback on outcomes, and the employee and manager should discuss the goals on a frequent basis (this ensures the employee achieves the desired outcome) and the employee should be more involved. It is observed that increased dedication and engagement lead to improved job efficiency, reduced employee turnover, and associated costs and management time in replacement retraining. It is the assumption that by integrating and implementing employee engagement in the performance management process, the most successful businesses are those who aim to use employee engagement as a resource of gaining a competing edge. The PMS is repeatedly investigated into how high performance can be accomplished, and far less research is performed on how the Performance Management System enhances organizations' efficiency, productivity, performance, and competitive advantage facilitating employee engagement. According to a Gallup Employee Engagement report, it was found that organizations having highly engaged personnel may not quit their organization. Additionally, it was noted that to ascertain the degree with which changes in certain variables can raise productivity levels and influence employee engagement, it is necessary to inspect the experiences of employee engagement at work, particularly in the Indian setting (Gupta, 2018; Memon, Ghani & Kazi, 2018).

Combining both employee engagement and performance management system would induce enhancing the communication, growth, and development of the employees ultimately helping to decrease the turnover rate in the organization. By recognizing and appreciating employees for their work and giving rewards for new achievements they will become trustworthy and loyal to their organizations. It will help to know how the demographic variable effects the association of the performance management system with employee engagement in higher educational institutes of Himachal Pradesh. The study will benefit to know the current employee engagement practices adopted by higher educational institutes of Himachal Pradesh that would be helpful to increase the performance, and satisfaction of the employee and helps to lower the absenteeism of the employees.

3.2. OBJECTIVES OF THE STUDY

1. To identify the current Employee Engagement practices adopted by the higher educational institutes of Himachal Pradesh.
2. To identify the practices adopted for the Performance Management System in higher educational institutes of Himachal Pradesh.
3. To find out the correlation between Performance Management System and Employee Engagement in higher educational institutes of Himachal Pradesh.
4. To analyze the impact of Performance Management System on Employee Engagement in higher educational institutes of Himachal Pradesh.
5. To see the association of demographic variables (Age, Gender, Marital status, Experience, and Discipline) with Employee Engagement in higher educational institutes of Himachal Pradesh.

3.3 SCOPE OF THE STUDY

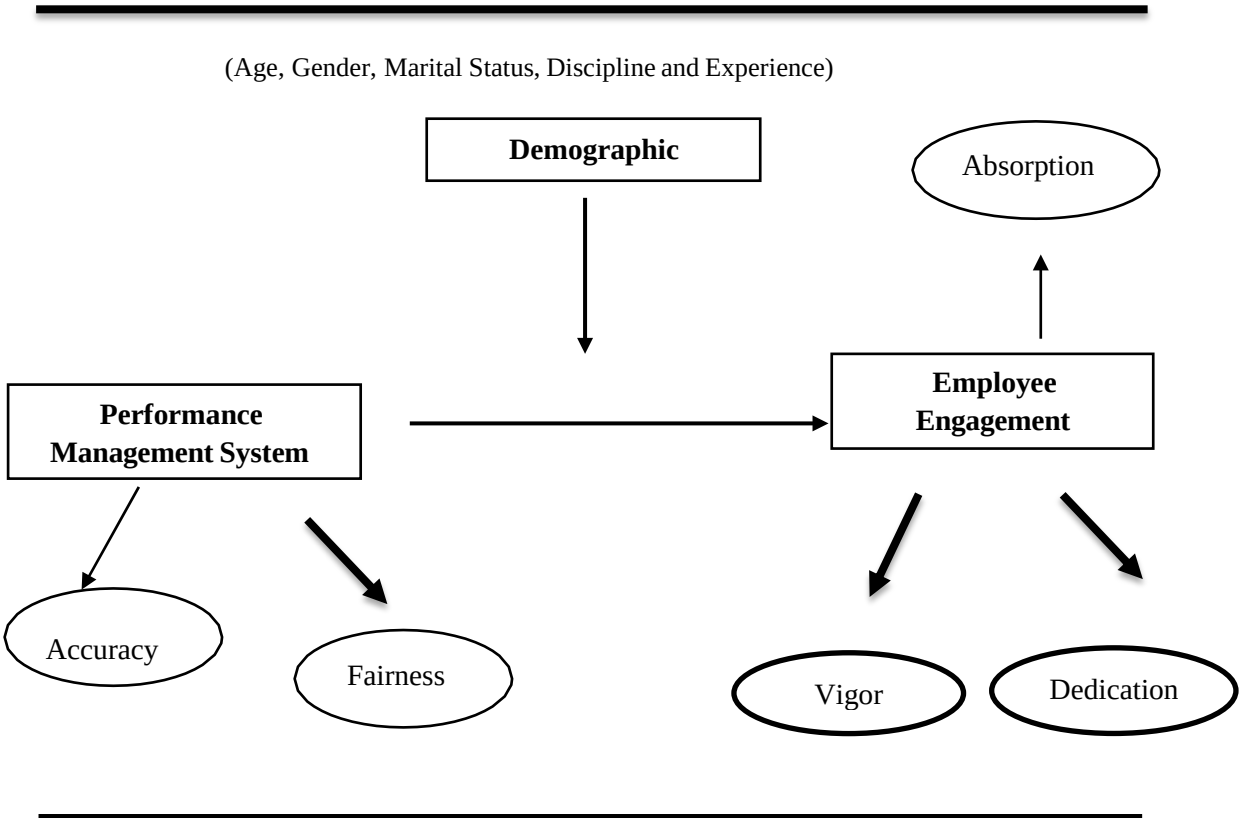
Implementing both employee engagement and performance management systems would improve employee communication, growth, and development, thereby lowering the organization's turnover rate. Employees will become more trustworthy and loyal to their companies if they are recognized and appreciated for their efforts

and rewarded for new accomplishments. It will support to understand the impact of demographic variables on the relationship between the performance management system and employee engagement at Himachal Pradesh's higher educational establishments. The study will assist in learning about the existing employee engagement techniques used by Himachal Pradesh's higher educational establishments in order to improve employee performance and satisfaction while also lowering employee absenteeism.

3.4 CONCEPTUAL FRAMEWORK

Based on the above-mentioned research gap identified, certain constructs are taken into consideration and a research model is proposed to know the relationship between various constructs.

Figure 3.1 Conceptual framework



Source: Review of Literature

3.5 RESEARCH GAP OF THE STUDY

According to the existing literature assessment, there aren't many research that demonstrate the connection between employee engagement in the tutoring sector and performance management system methods. There is a deficiency of research in India that examines the link between employee engagement in the education sector and the practices of performance management systems. Education provides a framework for growth, which leads to the framework for our economic and social well-being, so this research is going to be a step forward. While performance management is thoroughly investigated into how it should be done to achieve high efficiency, there is far less work done on the employee engagement objective of the performance management system.

3.6 SIGNIFICANCE OF THE STUDY

1. By combining both employee engagement and performance management system, this would lead to enhance the communication, growth and development of the employees ultimately helps in decreasing the turnover rate in the organization.
2. By recognizing and appreciating employee for their work and giving rewards for new achievements they will become trustworthy and loyal to their organizations.
3. It will help to know how demographic variables effect the relation between the PMS and EE in higher educational institutes of Himachal Pradesh. The intent of the study is to acquire about the employee engagement approaches that Himachal Pradesh's higher education institutions currently use. These strategies are intended to improve employee performance and satisfaction while reducing absenteeism.

3.7 HYPOTHESIS FORMULATION

Based on the conceptual model and objectives of the study, the following hypotheses have been proposed:

- **H0 1**: There is no correlation between Performance Management System and Employee Engagement in higher educational institutes of Himachal Pradesh.
- **H0 2**: There is no impact of Performance Management System on Employee Engagement in higher educational institutes of Himachal Pradesh.

- **H0 3**: There is no association of Age as a demographic variable Age Gender, Marital status, Experience, and Discipline) with Employee Engagement in higher educational institutes ofHimachal Pradesh.

Age: The age of a person at any given moment is explained by the age principle. It is the timeperiod that elapses between the day of the live birth to a specific date, usually the day of data collection.

- **H0 4:** There is no association of Gender as a demographic variable with Employee Engagement in higher educational institutes of Himachal Pradesh.

Gender: The socially constructed traits that set apart males, and boys with women and girls are referred to as gender. Researchers started focusing on the psychological traits and actions that set males apart from women in a particular community rather than just biological gender (Deaux & Major, 1987). Men and women acquire attitudes, behaviors, emotional responses, interests, and motivations that are culturally regarded as proper for people of their gender throughout the socialization process, which is when they acquire gender roles (Bem, 1974). Although gender roles are assumed fairly constant throughout life, they may not always be evident and may become more or less prominent in specific contexts (Eagly, 1987).

- **H0 5:** There is no association of Marital status as a demographic variable with Employee Engagement in higher educational institutes of Himachal Pradesh.

Marital Status: Married and unmarried people were classified based on self-reporting. The phrase "married" refers to all married persons, even those who are divorced from their wives. "Unmarried" refers to those who have never married, are divorced, or have been widowed.

- **H0 6:** There is no association of Experience as a demographic variable with EmployeeEngagement in higher educational institutes of Himachal Pradesh.

Experience: Job experience refers to an individual's knowledge, abilities, and competence gained via their job history. It covers a person's numerous roles, duties, and tasks.

- H0 7: There is no association of Discipline as a demographic variable with EmployeeEngagement in higher educational institutes of Himachal Pradesh.

Discipline: Discipline in education is a broad, holistic, and distinctive educational method that integrates Science, Technology, Reading, Engineering, Arts, and Mathematics.

3.8 RESEARCH DESIGN

To attain the objectives a mixed methods approach was used, with two phases: qualitative andquantitative. The research began with an exploratory, qualitative phase and progressed to a quantitative phase. According to statisticians, the entire set of objects being studied is referredto as the universe or population. Research would be more helpful if both qualitative and quantitative techniques were utilized, allowing for a more comprehensive review that highlighted both aspects. For this reason, the mixed methods approach was used (Creswell & Clark, 2007). The full set of units that have been taken into consideration for the investigation isrepresented by the universe. Sometimes the cosmos is endless; other times it is finite. The number of objects is known or fixed in a finite universe, whereas it is unknown or undeterminedin an endless universe.

Several critical components that drive the general structure and technique of a research task areoften included in research design. These components are as follows:

- **Research question or objective**: The research topic specifies the precise problem or issue that the study intends to examine, as well as the goal that the study intends to achieve. It establishes the research's direction and objective.
- **Hypotheses or Research Propositions**: Hypotheses are explicit statements that predictthe correlations or differences between variables. They are used to test and evaluate thestudy question.
- **Sampling Method:** The method of sampling describes the method of picking a group of persons or cases from a broader population for investigation. It influences the findings' representativeness and generalizability.

- **Data Collection Technique**: Methods of data collection define how information will be gathered from participants or sources. Surveys, interviews, observations, experiments, case studies, and secondary data analysis are all common methodologies. The methodologies used are determined by the study objectives and the type of data required.
- **Validity and reliability**: Validity is concerned with what a study measures and what it is meant to assess, whereas reliability is focused on the consistency of results across time. Researchers have to verify that their study is both reliable and valid, which includes the use of appropriate measurements and the control of confounding factors.
- **Data Analysis Methods**: Data analysis techniques define how acquired data will be handled, structured, and analyzed to answer research questions or test hypotheses. This might include statistical analysis, qualitative coding, content analysis, or other methodsof analysis.
- **Ethical Consideration**: Ethical concerns guarantee that the study adheres to ethical norms, safeguards participant rights, and preserves anonymity. This involves gaining participants' informed permission, protecting their privacy, and resolving any possibledangers or conflicts of interest.

3.9 SAMPLING METHOD

Population: A population is a well-defined collection of humans or things that have comparable features in the field of study. The researcher wishes to make conclusions about theentire group. The universe of the study has been taken here in all the higher educational institutions of Himachal Pradesh.

Sample: A sample is defined by statisticians as a subset of a universe or population. The samplesize should not be exceedingly large or exceedingly small. It should be ideal (Kothari, 2012). Because the population is typically very large, recording all of the attributes of the population is extremely difficult. In a broad sense, a sample is a bearable subset from which a conclusion or assumption is drawn for the entire population (en.wikipedia.org). The population of the studyhas been categorized as total faculty members under the NAAC accreditation colleges of Himachal Pradesh.

Table 3.1 List of colleges accredited by NAAC (2019)

S.No.	Name of the college	Institutional CGPA	Grade	Faculty members
1	DAV Centenary College,Kotkhai, Shimla – 171202	1.79	C	13
2	Department of Teacher Education K.L.B.D.A.V. College for Girls, Dist. Kangra, 176061	2.58	B	17
3	G. B. Pant Memorial Government College,Shimla – 172001	2.56	B	45
4	Government College of Teacher Education,Dharamshala, Dist. Kangra, 176215	2.65	B	9
5	Government College, Bangana, Una – 174307	2.29	B	15
6	Government College, Bhoranj (Tarkwari) Via Kanjian, Hamirpur – 174025	2.11	B	27
7	Government College, Chaura Maidan, Kotshera,Shimla – 171004	2.01	B	41
8	Government College, Daulatpur Chowk, Una, Himachal Pradesh	2.07	B	49
9	Government College, Dehri, Nurpur, Kangra –176022	2.12	B	32
10	Government College, Dharamshala, Dist. Kangra, 176215	3.06	A	69

11	Government P. G. College, Una – 174303	2.61	B	20
12	Netaji Subhash Chandra Bose Memorial Government College, Hamirpur, 177005	2.83	B	15
13	Shaheed Captain Vikram Batra Government College, Palampur, Dist. Kangra, 176061 Himachal Pradesh	2.5	B	40
14	Sidharth Government College Nadaun Dist.Hamirpur 177033 Himachal Pradesh	2.45	B	30
15	Swami Vivekanand Government College Ghumarwin Dist. Bilaspur 174021 Himachal Pradesh	2.22	B	44
16	Thakur Sen Negi Government College,Kinnaur – 172107	2.31	B	23
17	Vallabh Government College, Mandi, 175001 Himachal Pradesh	3.03	A	73
18	Abhilashi College of Education, Ner-Chowk, Mandi – 175008	3.08	A	30
19	Bhojia Dental College and Hospital, Bhud,Baddi, Solan – 173205	2.38	B	41
20	Government College, Centre of Excellence, Sanjauli, Shimla – 171006	2.63	B+	54
21	Government College, Dhalpur, Kullu – 175101	2.76	B++	50
22	Government College, Nalagarh, Solan – 174101	2.82	B++	35

23	Government College, Rajgarh Road, Solan – 173212	2.76	B++	8
24	Government College, Seema (Rohru), Shimla	2.8	B++	27
25	Government Degree College, Banjar, Kullu – 175123	2.26	B	20
26	Government Degree College, Sultanpur, Chamba – 176314	2.62	B+	48
27	Jawahar Lal Nehru Government College, Haripur, Manali, Kullu – 175136	2.44	B	18
28	Lal Bahadur Shastri Government Degree College, Hatkoti, Jubbal, Saraswati Nagar,Shimla – 171206	2.56	B+	23
29	Maharana Pratap Government Degree College, Una – 177203	2.4	B	24
30	SDWG Government College, VPO Beetan, Haroli, Una – 176601	2.11	B	11
31	Shree Guru Gobind Singh Ji Government College, Paonta Sahib, Sirmaur – 173025	2.79	B++	31
32	St. Bede's College, Shimla – 171002	3.54	A+	62
33	Vijay Memorial College of Education, Ner Chowk, Bhanrotu, Balh, Mandi – 175021	2.53	B+	13
34	Government College Karsog, Himachal Pradesh	2.1	B	23
35	Droncharya College of Education, Rait,	2.32	B	28

	Kangra, H.P.			
36	Trisha College of Education, Thain, Jolsappar (Rangas) P.O. Distt. Hamirpur	2.18	B	15
37	Krishma Educational Centre, Dadour P.O. Dhaban Tal Sadar Distt. Mandi	2.81	B+	13
38	Shimla College of Education, Shimla , Sheetal Kunj Estate Kamlanagar Sanjauli	1.61	C	17
39	Shiva College of Education, Ghumarwin Distt.Bilaspur	2.24	B	24
40	Shri Sai College of Education, Kohla (Nadaun) Tal Nadaun Distt. Hamirpur	2.34	B	15
41	L.L.R. Institute of Education, Jabli Kyar, Solan	2.27	B	06
42	Kanta College of Education, Chalwara Teh.Jawali Distt. Kangra	2.36	B	30
43	Thakur College of Education, Dhaliara Distt.Kangra	1.87	C	13
44	Kashatriya College of Education, Indora, Kathgarh Road, Indora Distt. Kangra	1.63	C	09
45	Indian Institute of Education, Hari Devi, Ghanahatti Shimla	2.54	B+	09
46	Laureate Instiutte of Education and Training,Brance Peeth, Bharari, Shimla	2.33	B	31
47	DDM Sai College of Education , Kallar (Nadaun)	2.28	B	12

Sample Unit: The sample unit for the study has been taken here is the faculties of the selectedinstitutes according to NAAC accreditation.

Table 3.2 District-wise distribution of NAAC-accredited colleges

District	College
Hamirpur	Government College, Bhoranj (Tarkwari) Via Kanjian, Hamirpur
	Netaji Subhash Chandra Bose Memorial Government College, Hamirpur
	Sidharth Government College Nadaun Dist. Hamirpur
	Trisha College of Education, Thain, Jolsappar (Rangas) Distt. Hamirpur
	Shri Sai College of Education, Kohla (Nadaun) Tal Nadaun Distt. Hamirpur
	DDM Sai College of Education, Kallar (Nadaun)
Kangra	Department of Teacher Education K.L.B.D.A.V. College for Girls, Dist. Kangra
	Government College of Teacher Education, Dharamshala, Dist. Kangra
	Government College, Dehri, Nurpur, Kangra
	Government College, Dharamshala, Dist. Kangra
	Shaheed Captain Vikram Batra Government College, Palampur, Dist. Kangra
	Droncharya College of Education, Rait, Kangra
	Kanta College of Education, Chalwara Teh. Jawali Distt. Kangra

	Thakur College of Education, Dhaliara Distt. Kangra
	Kashatriya College of Education, Indora, Kathgarh Road, Indora Distt. Kangra
Bilaspur	Swami Vivekanand Government College Ghumarwin Dist. Bilaspur
	Shiva College of Education, Ghumarwin Distt. Bilaspur
Mandi	Vallabh Government College, Mandi
	Vijay Memorial College of Education, Ner Chowk, Bhanrotu, Balh, Mandi
	Government College Karsog, Mandi
	Krishma Educational Centre, Dadour P.O. Dhaban Tal Sadar Distt. Mandi
Chamba	Government Degree College, Sultanpur, Chamba
Una	Government College, Bangana, Una
	Government College, Daulatpur Chowk, Una
	Government P. G. College, Una
	Maharana Pratap Government Degree College, Una
	SDWG Government College, VPO Beetan, Haroli, Una
Sirmaur	Shree Guru Gobind Singh Ji Government College, Paonta Sahib, Sirmaur
Kullu	Government College, Dhalpur, Kullu
	Government Degree College, Banjar, Kullu
	Jawahar Lal Nehru Government College, Haripur, Manali, Kullu

Kinnaur	Thakur Sen Negi Government College, Kinnaur
Shimla	DAV Centenary College, Kotkhai, Shimla
	G. B. Pant Memorial Government College, Shimla
	Government College, Chaura Maidan, Kotshera, Shimla
	Government College, Centre of Excellence, Sanjauli, Shimla
	Government College, Seema (Rohru), Shimla
	LalBahadur Shastri Govt Degree College, Hatkoti, Jubbal, Saraswati Nagar
	St. Bede's College, Shimla
	Shimla College of Education, Shimla, Sheetal Kunj Estate Kamlanagar Sanjauli
	Indian Institute of Education, Hari Devi, Ghanahatti Shimla
	Laureate Institute of Education and Training, Brance Peeth, Bharari, Shimla
Solan	Bhojia Dental College and Hospital, Bhud, Baddi, Solan
	Government College, Nalagarh, Solan
	Government College, Rajgarh Road, Solan
	L.L.R. Institute of Education, Jabli Kyar, Solan
Lahul & Spiti	----------

Sample Design:

Simple random sampling has been applied to choose a representative sample from a bigger population. With this approach, there is no bias in the selection process. Every sample will have equal possibility or likelihood of being selected, which is done at random. Since it yields an impartial and representative sample, it may be utilized to draw inferences about the wider population, simple random sampling is a frequently employed technique in statistical research. The data was collected during COVID 19, at that faculties were not available, due to which simple random sampling was changed into Convenient Sampling. In which the data was collected whoever is available on that time.

Sample Size: The sample size is computed below

Sampling Formula

n = N*X/(X+N-1)

where X = Z2*p*(1-p)/ e2

N = Population of the study (1302)

Z = 5% level of significance (1.96) p = Proportionate population (0.5) e = Margin Error (5%)

According to the above formula, the sample size would be 297.

For the research, the sample size should be large so it would be taken 400.

The data have been analyzed by using the NVIVO, SPSS, SEM or any other statistical tool.

In research technique, qualitative and quantitative research are two separate methods. Quantitative research is concerned with numbers and statistics, to gather and analyze quantifiable data to discover patterns, correlations, and cause-and-effect relationships among variables. It draws findings and tests hypotheses based on statistical and analytical observations. This research method is frequently employed for examining huge populations since it produces generalizable conclusions that can be quantified and repeated. Qualitative research, on the other hand, emphasizes words, interpretations, and meanings rather than data. It entails gathering and evaluating non-numerical data, such as interviews, conversations, observations, and analysis of text, to get a far-reaching knowledge of a particular occurrence or social environment. The

intent of qualitative research is to reveal people's or group's subjective experiences, perceptions, and motives. Rather than generalizable discoveries, it delivers rich, descriptive insights. To summarize, quantitative research focuses on numerical data and analysis using statistics, whereas qualitative research stresses subjective interpretations and comprehension. The technique used relies on the study intent , the context of the research issue, and the data required to answer it. A mixture of these methodologies may frequently produce afull and well-rounded grasp of a study topic.

The study consists of both qualitative and quantitative studies which is why the study is divided into two phases that is Phase I: Qualitative study and Phase II quantitative study. Both Phasesare discussed below

Phase I: Qualitative Study

In this phase, the data has been gathered and analyzed through qualitative methods. The first stage of this phase is Sampling. The sampling technique used by researchers is simple random sampling. In the second step, data has been collected through the HODs and principals of the colleges by taking personal interviews. For taking the interview, an Interview guide was made after going through a lot of review of literature. In this step third, the collected data ah been analyzed by using thematic analysis in NVivo 11 software. In the fourth step, the results have been discussed briefly and these results are applied to the questionnaire of the study. The scalefor the study has been adapted by the researchers.

Phase II: Quantitative study

In step fifth, the adapted scale has been used for the questionnaire and circulated in the facultiesof the colleges, and data has been collected in step sixth. Collected data has been analyzed through software that is SPSS and SEM in step seventh of the study. In the last step, the resultshave been discussed.

3.10 MEASUREMENT AND INSTRUMENTS

Data has been gathered through a questionnaire. An adapted UWES-17 measurement scale has been used for measuring Employee Engagement. The Utrecht Work Engagement Scale (UWES) is the tool used to measure workplace engagement by evaluating an independent construction-labeled work engagement made up of the

three interrelated factors mentioned as Vigor, Dedication, and Absorption (Schaufeli & Bakker, 2002).

Vigor is characterized by a strong work ethic, mental toughness, a readiness to put effort intoone's task, and tenacity even in the face of difficulty.

Dedication is characterized as having a strong sense of purpose, enthusiasm, inspiration, pride,challenge, and great interest in one's work.

Absorption is described as being abundantly and well engrossed in one's effort, making time fly by and making it difficult to step away from the task at hand**.**

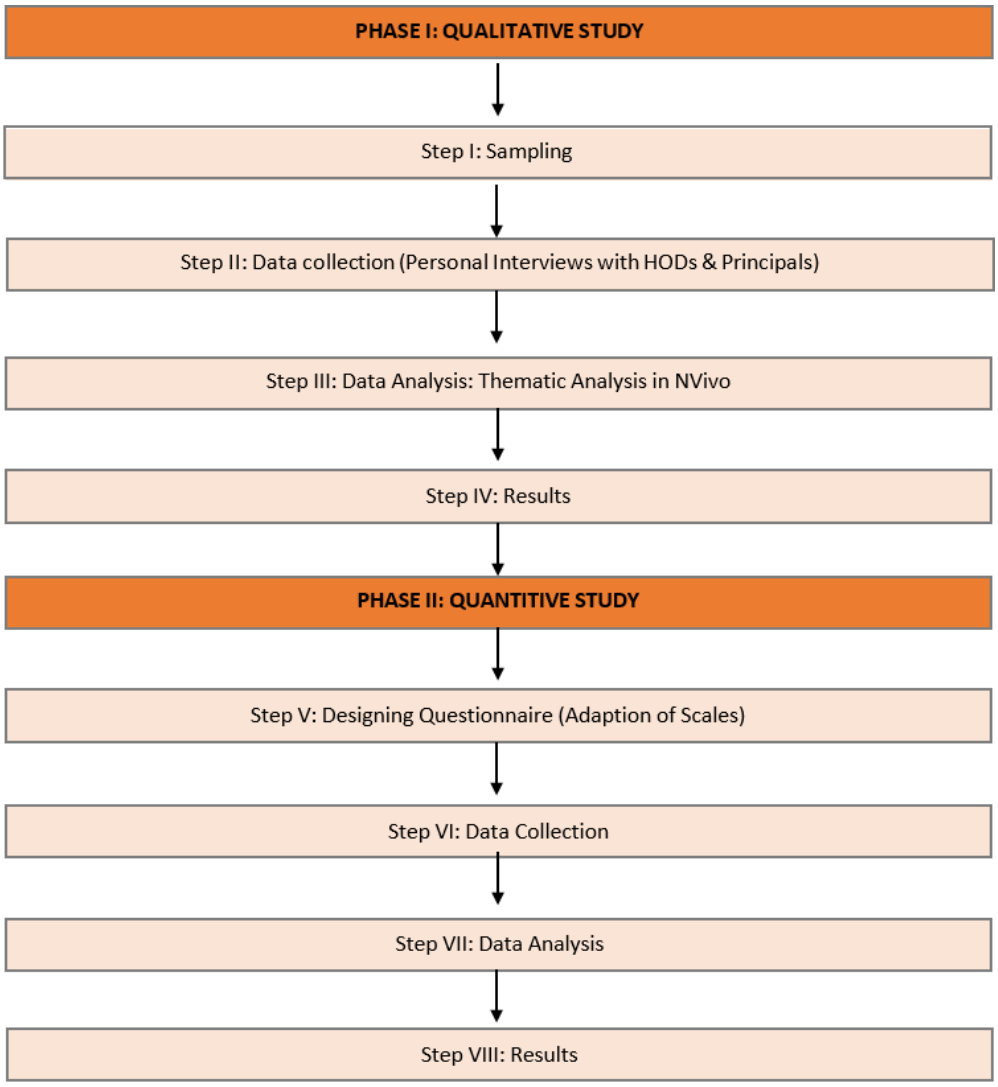


Figure 3.2: Hierarchical flow chart of the Research Design

The UWES-17 is a 17-item self-reporting questionnaire that includes three subscales: vigor (sixitems, e.g. ‘I am bursting with energy in my work’), dedication (five items, e.g. ‘My job inspires me’), and absorption (six items, e.g. ‘I feel happy when I’m engrossed in my work’). After analyzing the first two objectives and getting their outcomes, five more items were added to theconstruct Vigor Each item on the scale is rated on a 7-point Likert scale, ranging from 0(never) to 6 (always), providing a comprehensive assessment of an individual's engagement. The scaleis widely used in organizational research to help identify areas for improvement and to develop strategies for enhancing employee engagement (Sharma, Sharma, & Agarwal, 2016) has beenused. This scale consists of two constructs: Performance Management System Accuracy (PMSA) and Performance Management System Fairness (PMSF).

PMS Accuracy: to assess if there exist any harmony between workers and the establishment's goals, the degree of clarity regarding targets, performance ideals, and the skills and behaviors necessary at various levels are indicators of the appropriateness of PMS as seen by the employees. goals that are clearly linked to company demands (such as market potential for sales); performance review based on predetermined criteria, accurate assessment of an employee's skills, frequent performance feedback, and assistance with an employee's growth; and the "PMS accuracy" components are conceived as follows. Performance planning Accuracy (PPA) how well the performance planning phase of the Performance Management System aligns the worker's performance goals (via related behaviors) with the company agendas. Feedback and Coaching accuracy (FCA) are the worker's view that the teaching phaseof the PMS guarantees that the employee's distributed performance is aligned with the prearranged performance through consistent feedback and coaching throughout the year. Performance Review Accuracy (PRA) is the employee's perception that the annual performance review phase of the PMS analyzes the employee's yearly performance versus intended performance. Outcome Accuracy (OUA) is the employee's perception that the PM system outcomes phase guarantees that rating, remuneration, incentive, and/or recognition linked to the employee's yearly performance review.

PMS fairness: This represents the employee perspective of PMS fairness in all elements of PMS through justice/righteousness. Respondents stated that PMS fairness is an important aspect of its effectiveness: The Performance Management System fairness construct is made up of 18 items divided into four categories: procedural (PRF), distributive (DIF), interpersonal(IPF), and informational (INF).

3.11 PILOT TESTING

Pilot testing's primary benefit is its capacity to detect issues prior to the publication of the entire survey. Pilot testing is used to assess the validity of each question. What counts is if the inquiry is able to collect the information meant to calculate. A pilot study with 40 participants yieldeda Cronbach's Alpha value of 0.962.

Result:

Table 3.3 Pilot Testing result

Case Processing Summary

		N	%
Cases	Valid	40	100.0
	Excluded[a]	0	.0
	Total	40	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.862	.964	55

Here Cronbach's Alpha's = 0.862 (is **above 0.7,** considered reliable)

Table 3.4 Cronbach Alpha Criteria

Cronbach Alpha Criteria	Classification
$a \geq 0.9$	Very good
$0.8 \leq a < 0.9$	Good
$0.7 \leq a < 0.8$	Be accepted
$0.6 \leq a < 0.7$	Doubtful
$0.5 \leq a < 0.6$	Bad
$a < 0.5$	Not acceptable

Source: W Siswaningsih et. Al. (2017) and Mustika Wati (2019)

3.12 SOURCE OF DATA

The existing study is descriptive in character, and data collection was conducted using an adapted questionnaire. The data was then examined to ascertain if the hypothesis was accepted or rejected. To meet the research question, data were gathered using defined research procedures and primary and secondary data collection approaches. The primary data utilized in the study are first-hand observations and approximations that were obtained via the use of a sampling procedure from the intended audience. Before deciding on the final data-gathering technique, pilot testing has been done. In contrast, secondary data has been gathered from related journals, papers, books and online publications.

3.13 DATA ANALYSIS TECHNIQUE

Data analysis attempts to generate the sort of information that will assist the researcher in resolving the current problem; it is not merely the final stage in the research process. The collected data was examined to make sure the study's objectives were met. Using the relevant statistical methods, the data have been examined and the conclusions have been explained. This study uses Structural Equation Modelling (SEM), a multivariate data analysis approach, to achieve the study's aims and validate the hypotheses. It does this by using the SmartPLS-4.0 software and SmartPLS-3.0. To ascertain if the hypotheses that were put out in line with the examination of the body of existing literature were accepted or rejected, hypothesis testing hasbeen done.

The researcher has found out the impact of Performance Management system practices on Employee Engagement through data analysis. However, descriptive analysis was performed to show frequencies and demographic analysis of each variable to better understandthe features of each variable.

CHAPTER-4

DATA ANALYSIS AND INTERPRETATION

This chapter addresses the data analysis as well as the findings' clarification. Smart PLS 4.0 and SPSS software, as well as the relevant statistical procedures, are used to examine the data.The data is analyzed to evaluate whether or not the objectives of the research were met. Relevant statistical procedures are used to assure that all hypotheses are well-supported and have a meaningful relationship to one another variable. The primary focus of this chapter, however, is on verifying the model using increasingly complex statistical methods and instruments. This chapter begins with an examination of the first half of the schedule that is theexamination of the demographic profile, namely the age, gender, marital status, discipline and experience of respondents of Higher Educational Institutes of Himachal Pradesh. The SmartPLS-4 software is then used to elaborate the measurement model's validity, such as Construct validation analysis (reliability and validity measurements) and structural model analysis. Along with this, various summary tables and figures that describe and support the research findings have been presented. The conclusions of the planned hypothesis testing are also reported at the end.

Table 4.1 Demographic profile of the respondents

Demographic Variables	Indicators	Frequency	Percentage
Age	0-40	190	57.9
	Above 40	138	42.1
Gender	Male	158	48.2
	Female	170	51.8

Marital status	Unmarried	39	11.9
	Married	275	83.8
	Divorced	7	2.1
	Widow	7	2.1
Experience	0-10	199	60.7
	Above 10	129	39.3
Discipline	Applied Science	107	32.62
	Others	221	67.38

Source: Authors Calculation

Interpretation

Age:

Table 4.1 represents that 57.9 % of respondents are aged between 25 and 40. And 42.1% ofrespondents are older than 40.

Gender:

According to table 4.1, the majority of respondents (51.8 percent) are “males” that is 170, while158 (.6 percent) are “females”. It shows that male faculties are contributing slightly more to the educational sector.

Marital Status:

In Table 4.1, it represents that the bulk of the respondents are “married” (275, 83.8 percent) and “unmarried” respondents are 11.89 percent. Only 2.1% of respondents are “divorced” and2.1% of respondents are “widows”.

Experience:

According to Table 4.1, 60.7 % of respondents have 0 to 10 years of teaching experience andonly 39.3% have teaching experience above 10 years.

Discipline:

Table 4.1 shows that the bulk of respondents i.e., 67.38 % are from different disciplines like, Hindi, English, Education, history, geography, Sanskrit, Commerce, Music, Economics, Sociology, etc. while the rest 32.62 % are of Applied Sciences.

Objective 1: To identify the current Employee Engagement practices adopted by the higher educational institutes of Himachal Pradesh.

Data Collection tool: Secondary data was gathered from earlier research, while primary datawas obtained by interviewing the college principals and heads of departments.

Statistical tool: Primary and secondary data have been gathered and analyzed by NVivoSoftware using thematic analysis.

Result of the analysis

Table 4.2 Employee Engagement practice's theme based on ROL

Employee Engagement Practices	Sources	References
Better work environment	3	3
Career development opportunities	5	9
During Emergency situations	1	1
Digital Learning	3	7
Virtual Communication	1	3
Work From Home (WFH)	2	4
Effective Communication	6	13
Effective Feedback	2	3
Employee participation & involvement	7	8
Extra Activities (fun, birthdays, Sport, Awards, etc.)	1	2
Family Friendliness schemes	2	2
Health & Well-being	7	9
Motivational Practices	3	5
Pay & Benefits	5	8
Rewards & Recognition	10	20
Team Building & Leadership activities	5	10
Training & Development Programs	9	18

Source: NVivo analysis

Interpretation

The ROL indicates that mostly Employee Engagement practices used by the establishments were reward and recognition, career development opportunities, employee health and well- being, effective communication, training and development programs, effective feedback from superiors, motivational practices, better working environments, employee participation and involvement in decision-making processes, team building and leadership activities, and pay andbenefits. During the COVID-19 era, online initiatives such as work from home, digital learning, and virtual communication were considered and implemented.

Discussion

The above analysis represents that various Employee Engagement practices used by the colleges are reward and recognition, career development opportunities, active participation in decision making process, better working environment, effective feedback from the superiors, training and development programs, employee health and well-being, effective communication, pay and other benefits etc. these practices make faculties motivated and loyal

Table 4. 3 Employee Engagement practice's theme based on Interviews

Employee Engagement Practices	Sources	References
Best Teacher Award	3	3
By observing overall academic performance	4	4
By observing the Change in attrition rate	1	1
By observing a fall in absenteeism	5	5
By observing the growth & productivity of faculty	5	5
By observing the quality of content delivery and dedication	5	5
By providing Reward & Recognition	6	7
By observing Teaching Effectiveness	3	3
By using SAP	1	1

Source: NVivo analysis

Interpretation

The above Table In higher education institutions, reward & recognition was found to be the employee engagement technique most commonly used to measure teacher engagement having highest number of sources. The second approach is "by observing the quality of content delivery and dedication" of the teachers, according to the data analysis. By observing the quality of content delivery and dedication of the faculty in classrooms, by observing growth & productivity of faculty and by observing fall in absenteeism, by observing overall academic performance, Best Teacher Award, Teaching Effectiveness, by observing the Change in attrition rate" and "SAP" software is the least used practices that are used for measuring the engagement of the faculty

Discussion

After analyzing the data, it was observed that "reward & recognition" is the employee engagement strategy most frequently employed to gauge teacher engagement. This approach is closely related to the employee's level of engagement. An employee demonstrates a high levelof engagement when their supervisors recognize and reward their performance. The results states that the second method is "by observing the quality of content delivery and dedication" of the instructors. Five sources of comments indicate the level of enthusiasm an educator has fortheir vocation. In addition to being passionate about their profession and having fun in the classroom, a devoted teacher puts in a great deal of effort to improve the learning environment for all students. An alternative approach is "by observing growth & productivity of faculty and by observing fall in absenteeism," which argues that when faculty members are happy in theirjobs, they will work more effectively and efficiently, which would eventually lower the absence rate. The remaining techniques are "By observing overall academic performance," which means that an instructor's overall effectiveness is assessed by looking at how they connect with their pupils, how they behave, and how they communicate with them. Another procedure is the "Best Teacher Award," when the principal or the institute's HOD recognizes a teacher for them

Table 4.4 Performance Management Practices practice's theme based on

Practices Name	Sources	References
Frameworks to Measure Employee Performance Concerning Covid19 Era	2	2
A New Age Integrated Performance Management Framework	1	4
Performance Promotor Score (PPS)	1	6
Performance Management System Practices		
Entrustable Professional Activities (EPAs)	1	3
Key Performance Indicators (KPI)	5	8
PBAS (Performance Based Appraisal System)	3	3
Performance Appraisal	1	1
360- degree Appraisal	1	1
BARS (Behaviourally Anchored Rating Scale)	2	4
SMART (Specific, Measurable, Achievable, Relevant, Time-Bound)	1	1
Balanced Scorecard	1	1
Confidential Reports	1	1

Source: NVivo analysis

Interpretation

In the above Table 4.4, it can be seen that mostly common practice used by the colleges is Key Performance Indicators, having maximum number of sources and references. After that, Performance based appraisal system is used by the colleges, having BARs,360-degree appraisal method, SMART, Balanced Scorecard and Confidential reports.

Discussion

According to the Review of Literature, organizations' PMS practices include Entrustable Professional Activities. Entrustable Professional Activities (EPAs) are tasks that break down competencies so that trainees can become secure, independent practitioners. EPAs are a method used in competency-based education, which aims to guarantee that every trainee leaves with an appropriate level of proficiency. Other practice is Key Performance Indicators. It is a quantifiable measure of progress made over time toward a certain objective. KPIs provide benchmarks to evaluate progress, objectives for teams to aim for, and viewpoints to help everyone in the company make better decisions. Other that these practices, here are some more practices whichare included in colleges to measure the Performance Management System of the faculties Performance Based Appraisal System, 360-degree appraisal, BARS (Behaviorally Anchored Rating Scale), Balanced Scorecard, Confidential Reports, and SMART (Specific, Measurable, Achievable, Relevant, Time- Bound). KPI is the most widely used practice.

Table 4.5 Performance Management Practices practice's theme based on Interviews

Performance management practices	Sources	References
360 Degree performance appraisal method	2	2
Academic Performance Indicator Score (API)	5	5
Annual Confidential Reports (ACR)	1	1
By Observing the active participation of faculties in college cultural activities or events	1	1
Key Indicators	1	1
Research paper publication, Seminar & Conferences	4	4
Self-appraisal report	1	1
Student's Feedback	2	2

Source: NVivo analysis

Interpretation

Table 4.5 represents that Academic Performance Indicator Score (API) is used more as compareto the other practices. Second highly used practice according to the interviews is Research paper publication, Seminar and conferences attend or presented by the faculty. Other than these two practices there are soke more practices are used by the colleges these are as follows, Self- appraisal reports, 360-degree performance appraisal method, student's feedback , Annual confidential reports, by observing the active participation of faculties in college cultural activities or events and Key Indicators.

Discussion

The results indicates that the Academic Performance Indicator score (API) is the most commonly used measure for monitoring faculty performance in higher education. It was also discovered that "Research paper publication, Seminar & Conferences" is regarded necessary for all faculties. Other approaches used by higher education institutions include student feedback, the 360-degree performance appraisal method, self-appraisal reports, key indicators, and evaluating faculty members' active participation in college cultural activities or events.

Objective 3: To find out the correlation between Performance Management System and Employee Engagement in higher educational institutes of Himachal Pradesh.

Table 4.6. Correlations

		EE	PMS
EE	Pearson Correlation	1	.744**
	Sig. (2-tailed)		.000
	N	328	328
PMS	Pearson Correlation	.744**	1
	Sig. (2-tailed)	.000	
	N	328	328

**. Correlation is significant at the 0.01 level (2-tailed).

Interpretation

The range of the coefficient of correlation (r) is between –1 to 1. A p-value denotes statisticalsignificance. The linearity becomes weak as r approaches 0. As per the result given in the above Table 4.6 the coefficient of correlation between Employee Engagement and Performance Management System is .744, depicting a positive significant correlation between the said variables. Total number of respondents here are 328 (N).

Discussion

The generalization drawn from the above analysis, that there is a positive significant correlation between the independent variable Performance Management System and the dependent variable Employee Engagement. It simply describes that if there is change in one variable than there would be significant change in the other one.

Objective 4: To analyse the impact of the Performance Management System onEmployee Engagement in higher educational institutes of Himachal Pradesh

4.2. Structure Equation Modeling – Partial Least Square (SEM-PLS)

SEM is a statistical practice used to evaluate and validate a hypothetical model that hypothesizes the link between several variables. PLS is a prominent method in SEM for estimating and validating the association between latent constructs (unobserved variables) andobserved variables. The observed variables, also known as an indicator variable, are used to estimate the latent components in PLS-SEM. By maximizing the variance that can be explained in the observed variables, the approach attempts to discover the linear connection between the latent constructs and the observed variables. Partial least squares structural equation modeling (PLS-SEM) a statistical method used to examine intricate relationships between measured andhidden variables. It utilizes a variance-based method, an approach which is more advantageous for analyzing models with smaller sample sizes and numerous indicators and latent variables. When dealing with intricate inter-relationships between observable and latent variables in a model, PLS-SEM is very beneficial. It enables the analysis and comprehension of the connections between factors and their influence on hidden constructs.

PLS-SEM does not rely on the assumption of multivariate normality, making it flexible and appropriate for small sample sizes. It also enables the use of both formative and reflective measuring approaches. Formative models consider indicators to be predictors of a construct, whereas reflective models consider indicators to be consequences of a construct. PLS-SEM is a two-step modeling procedure. First, it evaluates the measurement model to ascertain the indicators' dependability and validity. Second, it looks at the structural model to see how the latent constructs are related to one another. PLS-SEM findings can give insight into the importance and strength of the correlations, as well as the model's prediction capacity ((Sarstedt, et al., 2022), (Henseler, Ringle, & Sarstedt, 2012), & (Lohmöller, 1989)). SEM maybe used to assess a wide range of hypotheses and research topics, including causal models, mediation models, and moderation models. It is commonly used in areas such as psychology, sociology, and economics to assess big data sets (Ghane, 2011; Martins, 2017).

The PLS-SEM method generally consists of two steps:

- **Measurement Model:** This model is created by establishing a relationship between the latent constructs and the observed variables. To evaluate the measurement model, first ensure indicator reliability, then, assess internal consistency reliability. Convergent validity should be verified and discriminant validity should also be assessed.
- **Structural Model:** This phase explains how to estimate the relationship between latent constructs. This is accomplished through determining path estimates, coefficients of determination, and predictive relevance.

Measurement Model:

4.3 Measurement Model I Assessment:

The measurement model refers to a component of the overall model that specifies latent variables and establishes construct validity (Cavana et al., 2001; Churchill, 1979). Construct validity, on the other hand, refers to "the evaluation of the extent to which it accurately

measures what it is intended to measure" ((Chen and Raj, 2004) and (Hair, Ringle, & Sarstedt, 2011)). Evaluating the measurement model in SmartPLS-4.0 requires examining the measurement items' validity (convergent & discriminant) and reliability.

- **Reliability** refers to the stability and steadiness of the measurement items. Smart-PLS includes numerous reliability measurements, such as factor loadings, Cronbach's alpha, and composite reliability (CR). If the CR value is at least 0.7, it indicates a high level of dependability. Furthermore, each indication item's outer loading must be greater than 0.7.
- **Validity:** This refers to how successfully measuring items measure what they are supposed to measure. SmartPLS-4 offers validity measurements for both (convergent and discriminant)

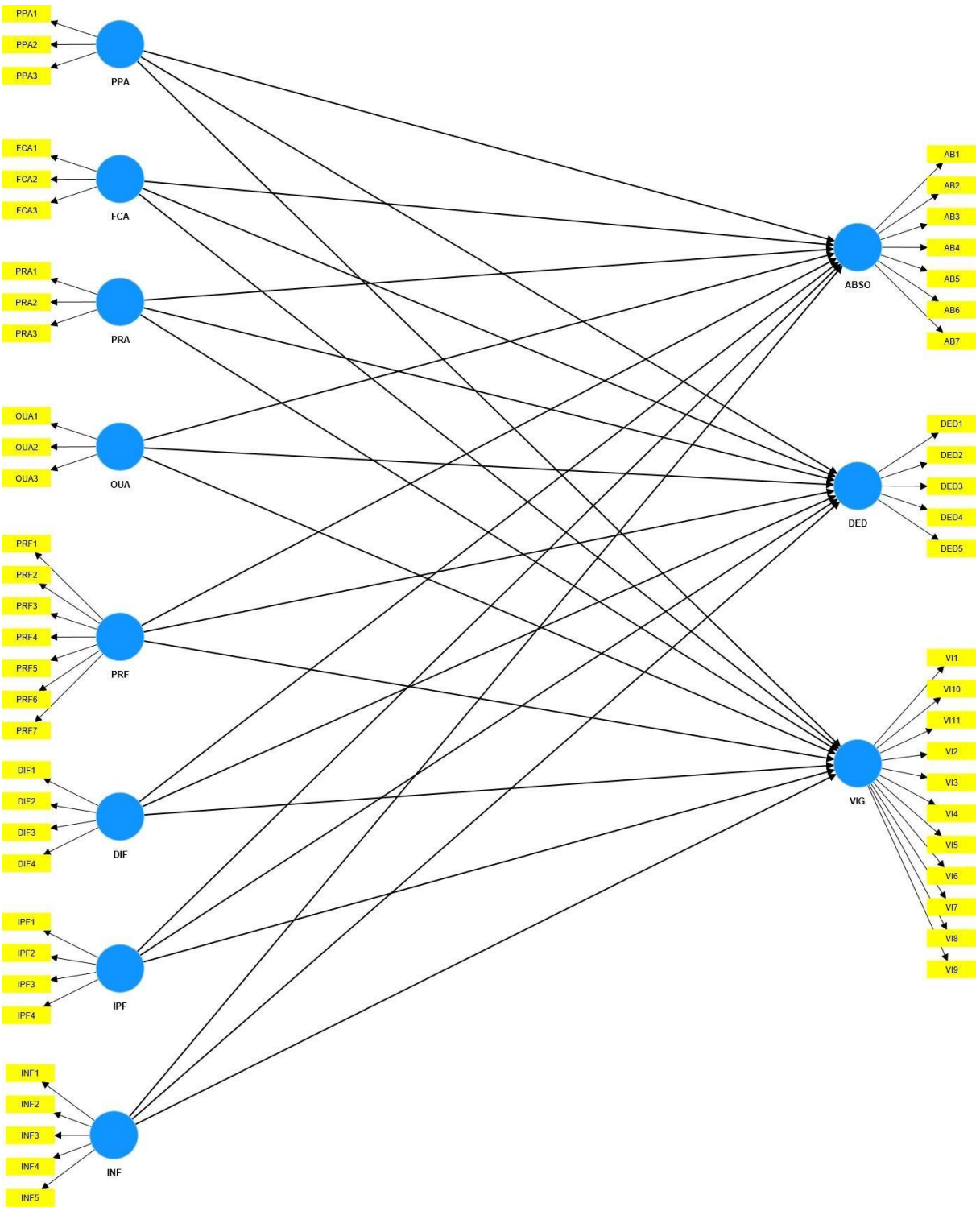


Figure 4.1: Measurement model 1(without outer loading)

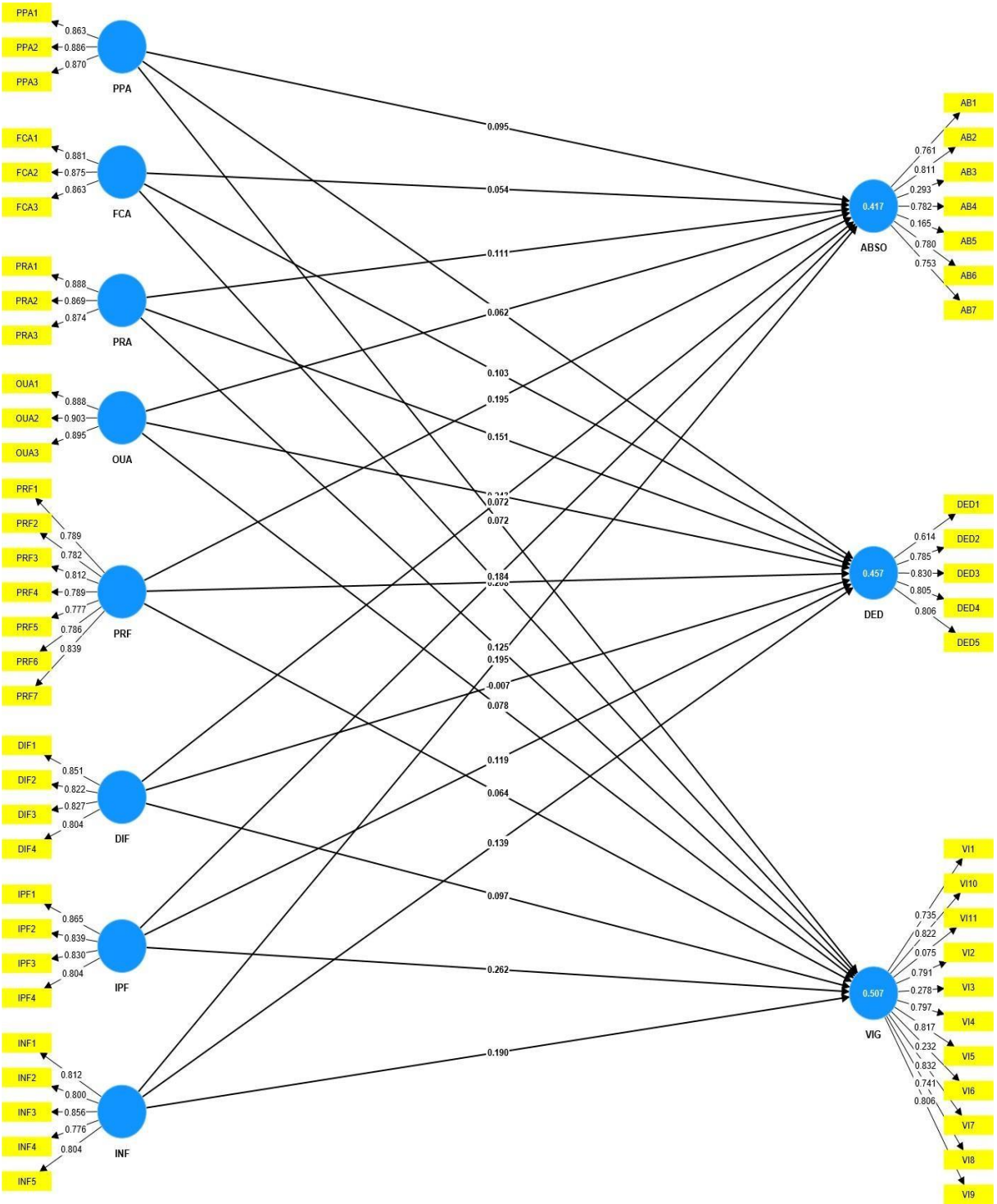


Figure 4.2: Measurement model I (with outer loadings)

4.3.1 Outer Loadings

In a measurement model, outer loadings, sometimes called factor loadings, are coefficients that show the link between the latent variables that correspond to the observable variables (indicators). Equipped connections, or arrows linking the latent variable to its indicators, are "outer loadings". They establish the absolute value of an item's contribution to the construct to which it is assigned. The potential values fall between 0 and 1. The outer loadings value should be more than 0.70. If the value is between 0.40 and 0.70 , it suggests that the indicator poorly represents the latent variable and may need to be reconsidered or excluded from the model. It should be deleted given the fact that its removal contributes to an improvement in composite reliability and average variance extracted.

Table: 4.7 Outer loadings of Measurement Model I

	ABSO	DED	DIF	FCA	INF	IPF	OUA	PPA	PRA	PRF	VIG
AB1	0.761										
AB2	0.811										
AB3	0.293										
AB4	0.782										
AB5	0.165										
AB6	0.78										
AB7	0.753										
DED1		0.614									
DED2		0.785									
DED3		0.83									
DED4		0.805									
DED5		0.806									
DIF1			0.851								
DIF2			0.822								

DIF3			0.827							
DIF4			0.804							
FCA1				0.881						
FCA2				0.875						
FCA3				0.863						
INF1					0.812					
INF2					0.8					
INF3					0.856					
INF4					0.776					
INF5					0.804					
IPF1						0.865				
IPF2						0.839				
IPF3						0.83				
IPF4						0.804				
OUA1							0.888			
OUA2							0.903			
OUA3							0.895			
PPA1								0.863		
PPA2								0.886		
PPA3								0.87		
PRA1									0.888	
PRA2									0.869	
PRA3									0.874	
PRF1										0.789
PRF2										0.782
PRF3										0.812

PRF4										0.789	
PRF5										0.777	
PRF6										0.786	
PRF7										0.839	
VI1											0.735
VI10											0.822
VI11											0.075
VI2											0.791
VI3											0.278
VI4											0.797
VI5											0.817
VI6											0.232
VI7											0.832
VI8											0.741
VI9											0.806

Source: Author's Calculation

Interpretation

In the above table 4.7, certain elements of various structures have outer loadings that are less than.7, and some loadings are negative. According to Christian M. Ringle (2017), objects withexterior loadings less than 0.4 must be deleted. The outer loading of construct AB3 (0.293), AB5(0.165), DED1 (0.615), VI 11 (0.075), VI3 (0.278), VI6 (0.232) have values less than 0.70.

So, these values should be deleted one by one and run the model again to check is there any significant change in the values or not by deleing them.

Discussion

In SPSS, outer loadings give indicators of the relationship between latent constructs and observable variables. When evaluating the validity and reliability of constructs in structural equation modelling, they are fundamental. If the loadings are less than 0.7, eliminate them only if it is required to raise the AVE over 0.4 and the composite reliability above 0.7. All these values above 0.70 indicates that all these constructs are reliable for the further study. The value show there is a reliable relationship between the latent constructs and the observable variables.

The deleted items in the next run are AB3, DED1, and VI 3.

4.3.2 Internal Consistency

Initially the model must look at its internal consistency. The degree to which the different items or questions that form a scale or questionnaire are connected to one another is referred to as internal consistency. It refers to how closely the scale's elements assess the same concept or construct. It is common practice to analyze reliability using statistical methodologies such as Cronbach's alpha, which provides a reliability rating based on the correlation between markers (Shanmugpriya, 2016). Despite this, it has one flaw: it assumes that all markers are equally reliable, which is not the case. Cronbach alpha is less accurate since the items are not weighted, which might affect dependability (Yahaya et al., 2019; Raykov, 2007). As a result, another measure of dependability known as CR (Composite dependability) is utilized. It is used to testthe dependability. Cronbach's alpha is a prominent measure for calculating dependability and is regularly used in this process. Composite reliability, on the other hand, is seen to be a more accurate and robust measure of internal consistency than Cronbach's alpha, especially when the items or measures have varying degrees of difficulty or discriminating.

Composite dependability is defined explicitly by Larker and Fornell (1981) as "the internal consistency of indicators that measure the underlying constituents." Nonetheless, the gold standard for composite dependability is a number larger than.70, indicating a higher CR. In light of the aforementioned, the CR can be

determined automatically using software called Smart-PLS, or manually using the method described below:

$$CR = \frac{(\sum \lambda_i)^2}{(\sum \lambda_i)^2 + (\sum \epsilon_i)}$$

Where:

L= Standardized Factor Loading

i= Number of corresponding items

E= Error Variance term for an Item(Hair et al., 2020)

4.3.3 Convergent Validity and Discriminant Validity

Convergent validity indicates that distinct parts of the measurement agree or correlate with one another. The Smart-PLS program includes two convergent validity measurements. Construct validity may be assessed using both discriminant and convergent validity. In the meanwhile, convergent validity (CV) is defined as "the extent to which the instrument designed

to measure the same construct and is related to each other." CV is shown when items in a givenmeasure converge to represent the underlying notion. The AVE is calculated as the mean of the squared loadings of each indicator associated with a construct. These metrics also contain the AVE (Average Variance Extracted) and factor loadings. According to 2014 study, AVE values of 0.5 or more will indicate a high level of convergent validity in prior studies (Hair, Ringle, & Sarstedt, 2011). The AVE must be determined to determine convergent validity by incorporating the required indicators related to the respective constructs. Furthermore, for each build, the Smart-PLS 4 data analysis program computes the Average Variance Extracted value (AVE). The AVE , on the other hand, can be determined manually using the formula, which is shown below

$$AVE = \frac{\sum_{i=1}^{n} Li^2}{n}$$

Where:

L= Standardized Factor Loading

i = Number of corresponding Items

Table 4.8 Construct Validity and Reliability of Model I

	Cronbach's alpha	Composite reliability(rho_a)	Composite reliability(rho_c)	Average variance extracted (AVE)
ABSO	0.761	0.84	0.83	0.448
DED	0.83	0.852	0.88	0.596
DIF	0.845	0.851	0.896	0.682
FCA	0.844	0.851	0.906	0.762
INF	0.869	0.875	0.905	0.656
IPF	0.855	0.859	0.902	0.697
OUA	0.876	0.878	0.924	0.801
PPA	0.844	0.846	0.906	0.762
PRA	0.85	0.852	0.909	0.769
PRF	0.904	0.905	0.924	0.634
VIG	0.861	0.919	0.892	0.470

(Source- Author’s Calculation)

Interpretation

In the above Table 4.8, it can be seen that the AVE values of ABSO (Absorption) and VIG (Vigor) are 0.448 and 0.470 respectively (less than 0.5). According to (Hair, Ringle, & Sarstedt,2011) study, AVE values of 0.5 or more will indicate a high level of convergent validity in prior studies.

Discussion

It was observed that the value of two constructs that is ABSO and VIG having less AVE value that is 0.448 and 0.470 respectively, these values indicate low level of convergent validity of the constructs. The AVE value should be >0.5. Hence, the model should be run after deleting some items from the measurement model and run it again.

Discriminant Validity: The distinction between the constructs in a model is referred to as discriminant validity. When the constructs are different from one another, discriminant validityis established. Using the WarpPLS 7.0 program, this short study examined various criteria forestablishing discriminant validity (Kock, 2020). It simply specifies the requisite degrees of dissimilarity between the measured parts. The Fornell-Larcker criteria and the Heterotrait Monotrait ratio (HTMT) are two discriminant validity metrics provided by SmartPLS-4. The first stage of the Fornell-Larcker criteria involves comparing the sq. root of each construct's AVE to the inter-construct correlations. The correlations between constructs are then compared to the correlations between their corresponding indicators via HTMT. To demonstrate good discriminant validity, both measurements must be smaller than 0.9.

Table 4.9 (a) Discriminant Validity- HTMT Matrix of Model I

	ABSO	DED	DIF	FCA	INF	IPF	OUA	PPA	PRA	PRF	VIG
ABSO											
DED	0.616										
DIF	0.534	0.359									
FCA	0.366	0.562	0.166								
INF	0.561	0.401	0.627	0.15							
IPF	0.581	0.35	0.64	0.056	0.743						
OUA	0.374	0.613	0.211	0.694	0.181	0.101					
PPA	0.396	0.581	0.248	0.714	0.132	0.096	0.634				
PRA	0.413	0.588	0.213	0.695	0.139	0.124	0.673	0.756			
PRF	0.556	0.402	0.673	0.25	0.615	0.603	0.211	0.2	0.171		
VIG	0.849	0.701	0.517	0.492	0.568	0.57	0.449	0.442	0.477	0.5	

Source- Author's Calculation

Interpretation

The average correlations between constructs are computed using the HTMT criterion. If all the values are smaller than 0.90, then it reaches the acceptable level of discriminant validity (Henseler et al. (2015)). It is advised to take caution when taking 0.85 or 0.90 when determining the uniqueness of constructions. Since every number in Table 4.9 (a), is less than 0.90, the table 4.9 (a) meets the HTMT requirement.

Discussion

This helps to measure the degree of variation between the constructs in the model. The Heterotrait – Monotrait (HTMT) ratio should be lower than 0.85 for constructs that are conceptually different and >=0.9 for conceptual similar constructs.

Table 4.9 (b) Discriminant Validity - Fornell Lacker Criterion Ratio Model I

	ABSO	DED	DIF	FCA	INF	IPF	OUA	PPA	PRA	PRF	VIG
ABSO	0.669										
DED	0.511	0.772									
DIF	0.451	0.309	0.826								
FCA	0.301	0.482	0.143	0.873							
INF	0.501	0.353	0.539	0.133	0.81						
IPF	0.481	0.311	0.547	0.047	0.648	0.835					
OUA	0.306	0.533	0.18	0.596	0.155	0.088	0.895				
PPA	0.318	0.5	0.208	0.604	0.113	0.082	0.546	0.873			
PRA	0.325	0.503	0.179	0.588	0.122	0.107	0.582	0.64	0.877		
PRF	0.499	0.351	0.59	0.222	0.548	0.531	0.188	0.176	0.152	0.797	
VIG	0.668	0.606	0.462	0.437	0.511	0.509	0.396	0.394	0.417	0.457	0.686

Source- Author's Calculation

Fornell-Larcker criterion states that a construct's square root of the average variance it retrieves must be greater than the correlation it has with any other construct. The diagonal value should be greater than all values in the same row and column. Table 4.9(b), all the diagonal values are higher than the values in the same row and column, hence the model fulfills the Fornell-Larcker's criterion of discriminant validity.

4.3.4 Measurement Model II

Table: 4.10 Outer loadings of Measurement Model II

	ABSO	DED	DIF	FCA	INF	IPF	OUA	PPA	PRA	PRF	VIG
AB1	0.767										
AB2	0.811										
AB4	0.789										
AB5	0.15										
AB6	0.78										
AB7	0.756										
DED2		0.787									
DED3		0.837									
DED4		0.824									
DED5		0.811									
DIF1			0.85								
DIF2			0.824								
DIF3			0.827								
DIF4			0.804								
FCA1				0.88							
FCA2				0.875							
FCA3				0.864							
INF1					0.811						

INF2					0.799						
INF3					0.856						
INF4					0.777						
INF5					0.804						
IPF1						0.866					
IPF2						0.839					
IPF3						0.83					
IPF4						0.804					
OUA1							0.886				
OUA2							0.904				
OUA3							0.895				
PPA1								0.863			
PPA2								0.885			
PPA3								0.871			
PRA1									0.888		
PRA2									0.868		

(Source-Author's Calculation)

The outer loadings of AB5 and VI6 are below 0.7, hence these items have been deleted.

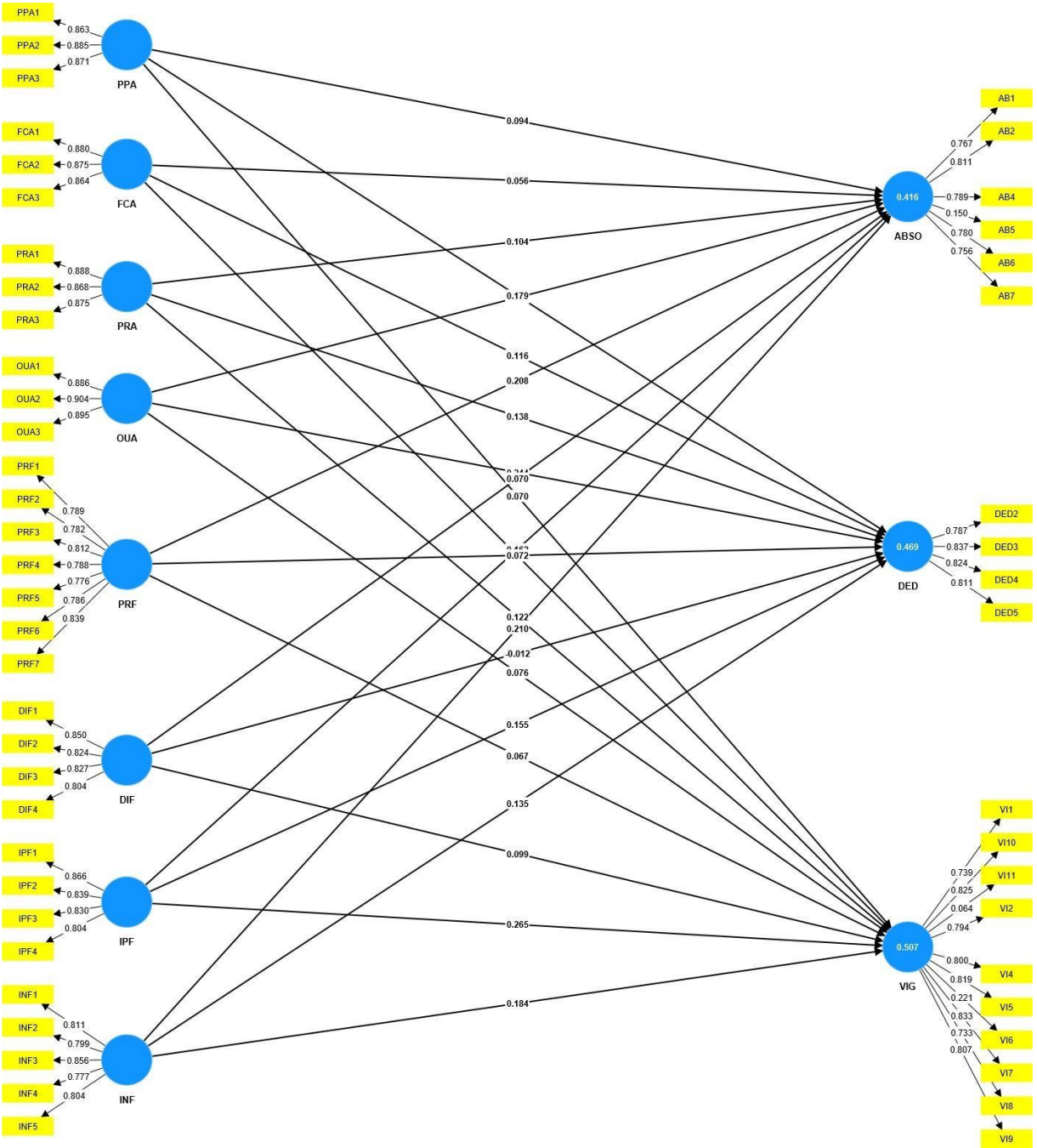


Figure 4.3: Measurement Model II

4.3.5 Convergent Validity and Discriminant Validity Model II Table 4.11 Construct Validity and Reliability Model II

	Cronbach's alpha	Composite reliability (rho_a)	Composite reliability (rho_c)	Average variance extracted (AVE)
ABSO	0.781	0.842	0.849	0.512
DED	0.832	0.837	0.888	0.664
DIF	0.845	0.851	0.896	0.683
FCA	0.844	0.85	0.906	0.762
INF	0.869	0.875	0.905	0.656
IPF	0.855	0.859	0.902	0.697
OUA	0.876	0.879	0.924	0.801
PPA	0.844	0.846	0.906	0.762
PRA	0.85	0.852	0.909	0.769
PRF	0.904	0.905	0.924	0.634
VIG	0.868	0.919	0.9	0.51

Source-Author’s Calculation

Table 4.12 (a) Discriminant Validity- HTMT Matrix Model II

	ABSO	DED	DIF	FCA	INF	IPF	OUA	PPA	PRA	PRF	VIG
ABSO											
DED	0.609										
DIF	0.537	0.365									
FCA	0.365	0.581	0.166								
INF	0.581	0.416	0.627	0.15							
IPF	0.56	0.389	0.64	0.056	0.743						
OUA	0.361	0.625	0.211	0.694	0.181	0.101					
PPA	0.385	0.602	0.248	0.714	0.132	0.096	0.634				
PRA	0.394	0.594	0.213	0.695	0.139	0.124	0.673	0.756			
PRF	0.577	0.395	0.673	0.25	0.615	0.603	0.211	0.2	0.171		
VIG	0.808	0.723	0.526	0.504	0.565	0.578	0.451	0.444	0.478	0.512	

Source-Author's Calculation

Table 4.12 (b)Discriminant Validity - Fornell Lacker Criterion Ratio Model II

	ABSO	DED	DIF	FCA	INF	IPF	OUA	PPA	PRA	PRF	VIG
ABSO	0.715										
DED	0.507	0.815									
DIF	0.451	0.311	0.826								
FCA	0.3	0.49	0.143	0.873							
INF	0.506	0.359	0.539	0.133	0.81						
IPF	0.473	0.331	0.547	0.047	0.647	0.835					
OUA	0.301	0.537	0.18	0.596	0.155	0.088	0.895				
PPA	0.314	0.509	0.208	0.604	0.113	0.082	0.546	0.873			
PRA	0.318	0.504	0.179	0.587	0.122	0.107	0.582	0.64	0.877		
PRF	0.506	0.345	0.59	0.222	0.548	0.531	0.188	0.176	0.152	0.797	
VIG	0.659	0.612	0.463	0.439	0.508	0.509	0.395	0.394	0.416	0.459	0.714

Source-Author’s Calculation

4.3.6 Measurement Model III

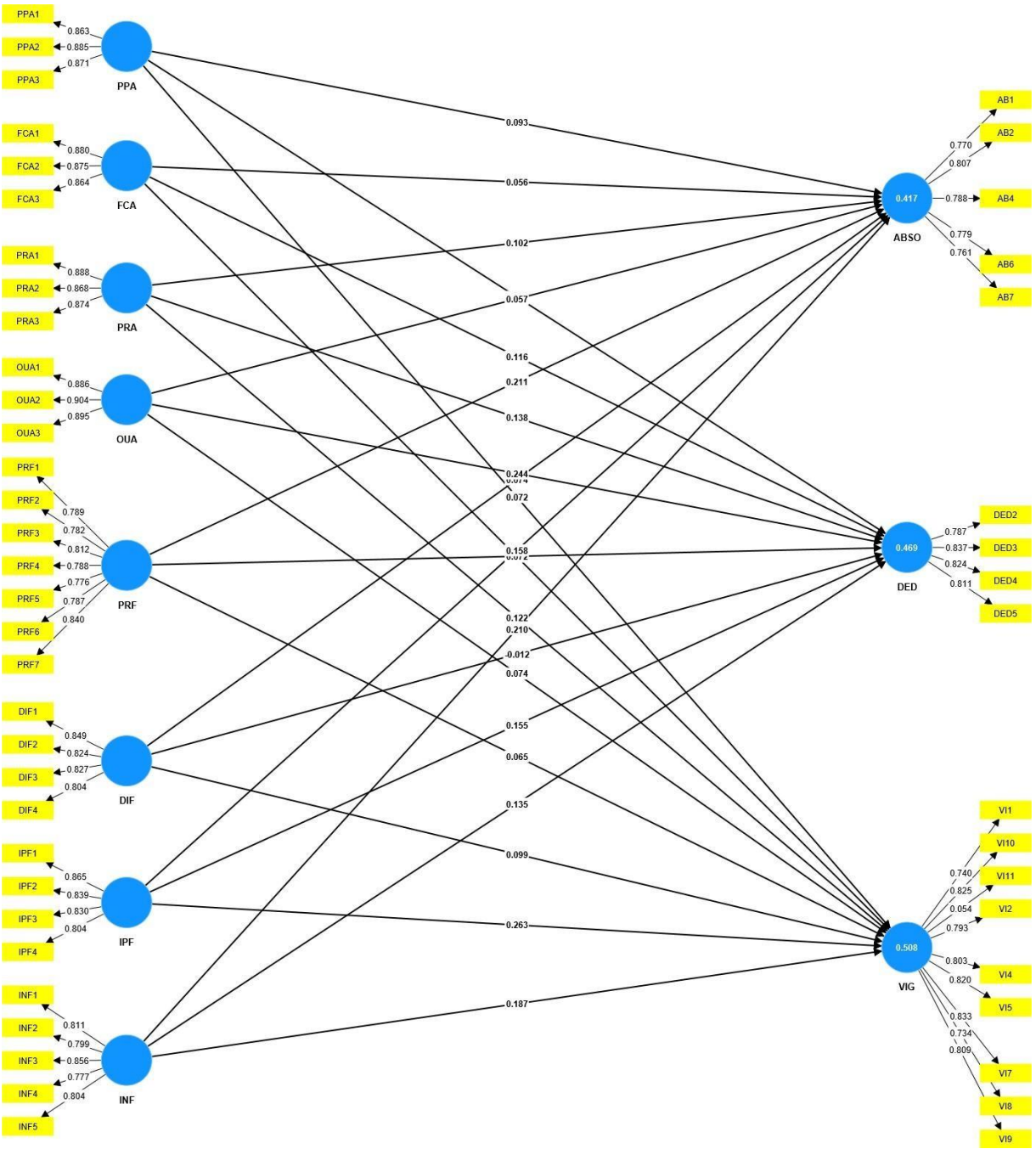


Figure:4.4 Measurement model III

Table: 4.13 Outer loadings of Measurement Model III

	ABSO	DED	DIF	FCA	INF	IPF	OUA	PPA	PRA	PRF	VIG
AB1	0.77										
AB2	0.807										
AB4	0.788										
AB6	0.779										
AB7	0.761										
DED2		0.787									
DED3		0.837									
DED4		0.824									
DED5		0.811									
DIF1			0.849								
DIF2			0.824								
DIF3			0.827								
DIF4			0.804								
FCA1				0.88							
FCA2				0.875							
FCA3				0.864							
INF1					0.811						
INF2					0.799						
INF3					0.856						

INF4					0.777						
INF5					0.804						
IPF1						0.865					
IPF2						0.839					
IPF3						0.83					
IPF4						0.804					
OUA1							0.886				
OUA2							0.904				
OUA3							0.895				
PPA1								0.863			
PPA2								0.885			
PPA3								0.871			
PRA1									0.888		
PRA2									0.868		
PRA3									0.874		
PRF1										0.789	
PRF2										0.782	
PRF3										0.812	
PRF4										0.788	
PRF5										0.776	
PRF6										0.787	

PRF7										0.84	
VI1											0.74
VI10											0.825
VI11											0.054
VI2											0.793
VI4											0.803
VI5											0.82
VI7											0.833
VI8											0.734
VI9											0.809

Source-Author's Calculation

4.3.7 Convergent Validity and Discriminant Validity Model III

Table 4.14 Construct Validity and Reliability Model III

	Cronbach's alpha	Composite reliability (rho_a)	Composite reliability (rho_c)	Average variance extracted(AVE)
ABSO	0.84	0.841	0.887	0.61
DED	0.832	0.837	0.888	0.664
DIF	0.845	0.85	0.896	0.683
FCA	0.844	0.85	0.906	0.762
INF	0.869	0.875	0.905	0.656
IPF	0.855	0.86	0.902	0.697
OUA	0.876	0.879	0.924	0.801
PPA	0.844	0.846	0.906	0.762
PRA	0.85	0.852	0.909	0.769
PRF	0.904	0.905	0.924	0.634
VIG	0.883	0.919	0.913	0.563

Source-Author’s Calculation

Table 4.15 (a) Discriminant Validity- HTMT Matrix Model III

	ABSO	DED	DIF	FCA	INF	IPF	OUA	PPA	PRA	PRF	VIG
ABSO											
DED	0.607										
DIF	0.535	0.365									
FCA	0.349	0.581	0.166								
INF	0.588	0.416	0.627	0.15							
IPF	0.553	0.389	0.64	0.056	0.743						
OUA	0.348	0.625	0.211	0.694	0.181	0.101					
PPA	0.37	0.602	0.248	0.714	0.132	0.096	0.634				
PRA	0.371	0.594	0.213	0.695	0.139	0.124	0.673	0.756			
PRF	0.582	0.395	0.673	0.25	0.615	0.603	0.211	0.2	0.171		
VIG	0.76	0.727	0.53	0.51	0.574	0.577	0.45	0.452	0.483	0.511	

Source-Author's Calculation

Table 4.15 (b) Discriminant Validity - Fornell Lacker Criterion Ratio Model III

	ABSO	DED	DIF	FCA	INF	IPF	OUA	PPA	PRA	PRF	VIG
ABSO	0.781										
DED	0.508	0.815									
DIF	0.454	0.31	0.826								
FCA	0.298	0.49	0.143	0.873							
INF	0.507	0.359	0.539	0.133	0.81						
IPF	0.473	0.331	0.547	0.047	0.647	0.835					
OUA	0.3	0.537	0.18	0.596	0.155	0.088	0.895				
PPA	0.312	0.509	0.208	0.604	0.113	0.082	0.546	0.873			
PRA	0.315	0.504	0.179	0.588	0.122	0.107	0.582	0.64	0.877		
PRF	0.509	0.345	0.59	0.222	0.548	0.531	0.188	0.176	0.152	0.797	
VIG	0.654	0.612	0.463	0.44	0.51	0.508	0.395	0.395	0.416	0.459	0.75

Source-Author's Calculation

4.3.8 Measurement Model IV

After deleting item VI11

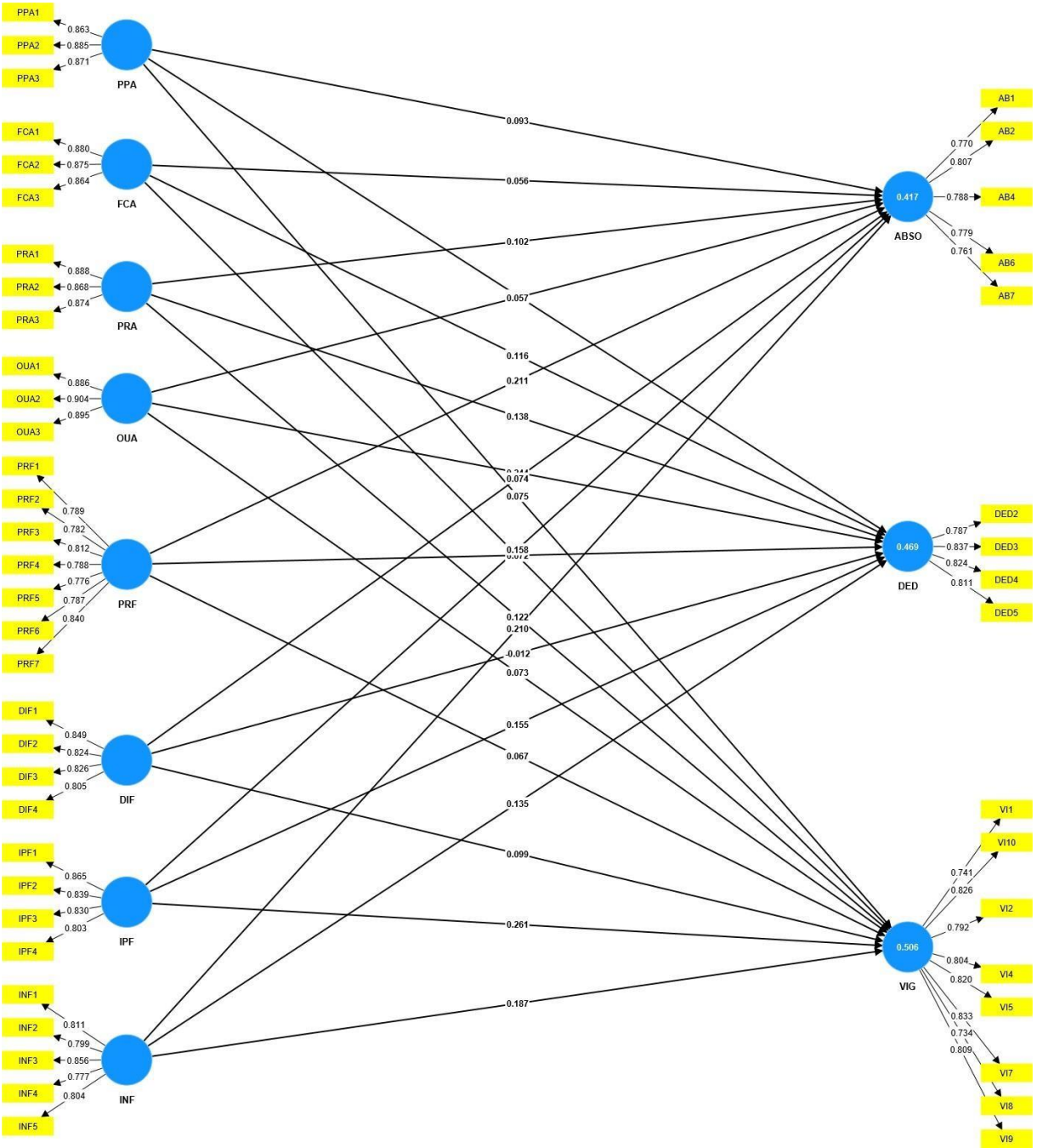


Figure 4.4: Measurement Model IV

Table: 4.16 Outer loadings of Measurement Model IV

	ABSO	DED	DIF	FCA	INF	IPF	OUA	PPA	PRA	PRF	VIG
AB1	0.77										
AB2	0.807										
AB4	0.788										
AB6	0.779										
AB7	0.761										
DED2		0.787									
DED3		0.837									
DED4		0.824									
DED5		0.811									
DIF1			0.849								
DIF2			0.824								
DIF3			0.826								
DIF4			0.805								
FCA1				0.88							
FCA2				0.875							
FCA3				0.864							
INF1					0.811						
INF2					0.799						

INF3					0.856						
INF4					0.777						
INF5					0.804						
IPF1						0.865					
IPF2						0.839					
IPF3						0.83					
IPF4						0.803					
OUA1							0.886				
OUA2							0.904				
OUA3							0.895				
PPA1								0.863			
PPA2								0.885			
PPA3								0.871			
PRA1									0.888		
PRA2									0.868		
PRA3									0.874		
PRF1										0.789	
PRF2										0.782	
PRF3										0.812	
PRF4										0.788	
PRF5										0.776	

PRF6										0.787	
PRF7										0.84	
VI1											0.741
VI10											0.826
VI2											0.792
VI4											0.804
VI5											0.82
VI7											0.833
VI8											0.734
VI9											0.809

Source-Author's Calculation

4.3.9 Convergent Validity and Discriminant Validity Model IV

Table 4.17 Construct Validity and Reliability of Model IV

	Cronbach's alpha	Composite reliability (rho_a)	Composite reliability (rho_c)	Average variance extracted (AVE)
ABSO	0.84	0.841	0.887	0.61
DED	0.832	0.837	0.888	0.664
DIF	0.845	0.85	0.896	0.683
FCA	0.844	0.85	0.906	0.762
INF	0.869	0.875	0.905	0.656
IPF	0.855	0.859	0.902	0.697
OUA	0.876	0.879	0.924	0.801
PPA	0.844	0.846	0.906	0.762
PRA	0.85	0.852	0.909	0.769
PRF	0.904	0.905	0.924	0.634
VIG	0.917	0.92	0.932	0.633

Source-Author's Calculation

(Note: ABSO= Absorption, DED= Dedication, Vig= Vigor, PPA= Performance Planning Accuracy, FCA= Feedback and Coaching Accuracy, PRA= Performance Review Accuracy, OUA= Outcome Accuracy, PRF= Procedural Justice Fairness, DIF= Distributive Justice, IPF= Interpersonal Justice Fairness, INF= Informational Justice Fairness)

Interpretation

Table 4.17 displays the convergent validity and internal consistency of measurement model IV. The threshold values are met which are greater than 0.7 for Composite Reliability, 0.5 for AVE and 0.6 for Cronbach's Alpha. It indicates that measurement model IV has a well- established convergent validity and is internally consistent.

Discussion

Reliability of the construct is determined to ensure consistency among the variables. To establish internal consistency reliability of constructs, composite reliability, rho_a, and Cronbach's alpha were used Cronbach Alpha is the measure of reliability. Composite reliability is preferred in some literature to check internal consistency. Average Variance Extracted (AVE) measures the convergent validity. The Cronbach alpha value of every item exceeds 0.6, which satisfies the criteria of the Measurement model. The AVE value of all constructs is more than 0.5, so the criteria of AVE is also fulfilled. The threshold values are met which are greater than 0.7 for Composite Reliability, 0.5 for AVE and 0.6 for Cronbach's Alpha. It indicates that measurement model IV has a well-established convergent validity and is internally consistent.

Discriminant Validity: Discriminant validity is the ability of a model to distinguish between its constructs. Discriminant validity is proven when the constructs differ from one another. This brief research looked at many factors for determining discriminant validity using the WarpPLS 7.0 tool (Kock, 2020). All it does is provide the necessary levels of dissimilarity between the tested segments. As explained in the previous section, the correlations between the constructs and their relevant indicators (HTMT and Fornell-Larcker Criterion) are compared. Both measures need to be less than 0.9 in order to show strong discriminant validity.

Table 4.18 (a) Discriminant Validity and Reliability – Heterotrait-Monotrait Ratio (HTMT)

	ABSO	DED	DIF	FCA	INF	IPF	OUA	PPA	PRA	PRF	VIG
ABSO											
DED	0.607										
DIF	0.535	0.365									
FCA	0.349	0.581	0.166								
INF	0.588	0.416	0.627	0.15							
IPF	0.553	0.389	0.64	0.056	0.743						
OUA	0.348	0.625	0.211	0.694	0.181	0.101					
PPA	0.37	0.602	0.248	0.714	0.132	0.096	0.634				
PRA	0.371	0.594	0.213	0.695	0.139	0.124	0.673	0.756			
PRF	0.582	0.395	0.673	0.25	0.615	0.603	0.211	0.2	0.171		
VIG	0.742	0.691	0.522	0.491	0.565	0.567	0.437	0.447	0.47	0.502	

Source-Author's Calculation

Interpretation

The HTMT criteria calculates the average correlations between constructs. All the values should of discriminant validity should be smaller than 0.90 (Henseler et al. (2015)). It is suggested for determining the uniqueness of constructs but should be used with caution when taking 0.85 or 0.90. In the above Table 4.19(a), all the values are smaller than 0.90, hence it satisfies the HTMT criterion.

Discussion

Discriminant validity helps to measure the degree of variation between the constructs in the model. The Heterotrait – Monotrait (HTMT) ratio should be lower than 0.85 for constructs thatare conceptually different and >=0.9 for conceptual similar constructs. All the values of the constructs are less than 0.9, hence it fulfils the criteria of Discriminant Validation

Table 4.19(b) Discriminant Validity and Reliability- Fornell Larcker Ratio

	ABSO	DED	DIF	FCA	INF	IPF	OUA	PPA	PRA	PRF	VIG
ABSO	0.781										
DED	0.508	0.815									
DIF	0.454	0.31	0.826								
FCA	0.298	0.49	0.143	0.873							
INF	0.507	0.359	0.539	0.133	0.81						
IPF	0.473	0.331	0.547	0.047	0.647	0.835					

Source-Author's Calculation

Interpretation

According to the Fornell-Larcker criteria, a construct's correlation with any other construct must be bigger than the square root of the average variance it returns. Every value in the samerow and column should be less than the diagonal value. So, in the Table 4.21 all the diagonal values are higher than the values in the same row and column, hence the model fulfills the Fornell-Larcker's criterion of discriminant validity.

Discussion

According to the Fornell-Larcker criterion, each latent variable's square root of its average variance extracted (AVE) must be higher than its positive correlation with every other latent variable in the model. In the analysis the results indicate that the

value s o -f each construct is significant and satisfythe Fornell- Larcker's criteria also. It represents that the model satisfies the criterion for the discriminant validity.

4.4 The Structural Model

To achieve this goal, the current study took a two-step approach. The initial stage is to estimate and validate the measurement model (outer model). The measuring model's results have shown that it has an acceptable level of reliability, convergent validity, and discriminant validity. As a result, the proposed conceptual model is expected to be adopted. The next stage is to analyzethe outcomes of the inner model. The structural model is useful for understanding the relationship between the components as well as accounting for the indirect and direct impacts that one structure has on the others (Hair, Ringle, & Sarstedt, 2011).

4.4.1Multicollinearity

Finding the individual impacts of each independent variable on the dependent variable can be difficult when there is strong correlation between two or more independent variables in a regression model. We refer to this as multicollinearity. Yahaya et al. (2019) called for the study of Multicollinearity in order to thoroughly examine the model. It should be noted in the inner structural model that each set of independent variables is validated using the SmartPlS-4 program. The Variance Inflation factor (VIF) should be smaller than 5 (Hair et al. (2013)).

Table 4.20 Collinearity Statistics- VIF

	VIF
AB1	1.675
AB2	1.872
AB4	1.797
AB6	1.738
AB7	1.57
DED2	1.74
DED3	1.883
DED4	1.783
DED5	1.806
DIF1	1.999
DIF2	1.896
DIF3	1.783
DIF4	1.841
FCA1	1.975
FCA2	2.016
FCA3	2.065
INF1	1.902
INF2	1.939
INF3	2.302

INF4	1.801
INF5	1.954
IPF1	2.153
IPF2	1.979
IPF3	1.934
IPF4	1.802
OUA1	2.333
OUA2	2.432
OUA3	2.371

Source-Author's Calculation

The VIF values of various items in the following Table 4.20 are less than 5. The threshold limitis reached, implying that there is no Collinearity concern.

Discussion

The Variance Inflation Factor (VIF) measures the extent of multi-collinearity in regression analysis by evaluating the increase in the variance of an estimated regression coefficient when predictors are interrelated. Greater VIF implies pronounced correlations and possible causes of concern. Here the Expected VIF is <=5. The VIF values of various items in the following table are less than 5. The threshold limit is reached, implying that there is no Collinearity concern.

4.4.2 Coefficient of Determination (R^2)

The predictive capacity of the model is validated by looking at the coefficient of determination, or R-square. It is the combination of the impacts of exogenous constructions on endogenous constructs. The prediction ability of a structural model is shown by R2 (Narula, 2020). As a result, 0.19, 0.33, and 0.67 are regarded as feeble, modest, and significant power, respectively (Shanmugapriya, 2016; Narula, 2020; Tenenhaus et al., 2005). If there are just one or two exogenous variables, a moderate

value of R2 is sufficient; however, if there are more than two variables, R2 must be large (Henseler et al., 2009; Shanmugapriya, 2019). Furthermore, low R2 values indicate that the model is incapable of describing the endogenous or dependent variables.

Table 4.21 Coefficient of Determination

	R-square	**R-square adjusted**
ABSO	0.417	0.402
DED	0.469	0.456
VIG	0.506	0.493

Source-Author's Calculation

In Table 4.21, the R2 value of ABSO, DED and VIG are 0.417,0.469 and 0.506 respectively. It shows the model's capacity in describing the endogenous or dependent variables.

4.4.3 Model Fit:

Table 4.22 Model Fit

	Saturated model	**Estimated model**
SRMR	0.043	0.053
d_ULS	2.289	3.408
d_G	0.964	1.024
Chi-square	1817.724	1894.077
NFI	0.824	0.816

Source-Author's Calculation

Standardized Root Mean Square Residual (SRMR)

The difference between the model's proposed correlation matrices and observations is known as the SRMR. Thus, an absolute measure of the (model) fit requirement may be determined by calculating the mean size of the deviations between the actual and predicted connections.

The projected and sample covariance matrices are transformed into correlation matrices to getthe SRMR; on the other hand, the RMSR represents the mean absolute value of the covarianceresiduals. Where and how the covariance matrix is generated in PLS-SEM should be made clearer in the literature on the technique. (since, unlike CB-SEM, PLS-SEM is not a completeinformation technique).

Interpretation:

Name of the Test	**Acceptable Limit**	**Result**	**Interpretation**
Standardized Root Mean Square Residual (SRMR)	A number less than 0.10, or 0.08 (in a more conservativeform), is considered a satisfactory match. In order to prevent model misspecification, the SRMRacts as a goodness of fit statistic for PLS-SEM (Henseler, Ringle, & Sarstedt, 2012).	In Table 4.22, the SRMR value is less than 0.10 or 0.08, that is 0.043 (Saturated model) and 0.053 (Expected Model	It signifies thatit's a good fit model.

Discussion

In order to determine if the overall model fit is accurate, the bootstrap-based test examines the statistical inference of the difference between the covariance matrix that is really observed and the one that is proposed by the composite factor model. This difference may also be calculated using the squared Euclidean distance (d_ULS) and the geodesic distance (d_G).

The Bollen-Stine (1992) bootstrap procedure is used to give the confidence ranges for these discrepancy values. PLS-SEM eigenvalue computations serve as the foundation for the d_G criterion. It is unclear, therefore, how these eigenvalues differ from CB-SEM.

Stated otherwise, the model fits well if the sample error alone can explain the little discrepancybetween the correlation matrix predicted by your model and the observed correlation matrix.

Because of this, there shouldn't be a statistically significant ($p > 0.05$) difference between the empirical correlation matrix and the inferred correlation matrix for your model. If the difference is significant ($p < 0.05$), then there is no evidence of a match for the model.

Normed Fit Index (NFI) or Bentler and Bonett Index

A goodness-of-fit metric called the Normed Fit metric (NFI) is used to assess how well a structural equation model fits a given data set. It evaluates how well the suggested model matches the observed data, offering perceptions into the model's general suitability. However, the literature does not explain why the PLS-SEM Chi2 value is different from the CB-SEM one.

Interpretation:

Name of theTest	Acceptable Limit	Result	Interpretation
Normed Fit Index, using Chi2 (Chi2 value of the recommended model dividedby the Chi2 value of the null model)	The NFI yields values between 0 and 1. More than 0.9 NFI scores often signify a strong match	Table 4.22 shows that NFI (saturated model) is(0.824) and NFI (expected model) is(0.186).	There is a strong match between the NFI values

4.4 Higher Order Construct (HOC)

Hierarchical component models (HCMs), which assist in reducing the amount of structural model linkages and produce a more parsimonious path model are referred to as higher-order constructs in SmartPLS. Because they enable researchers to define connections between higher-order latent variables and other first-order constructs in the model, these constructs are essential to PLS-SEM. Version 4 of SmartPLS offers instruments to effectively manage higher-order constructs, enhancing the examination of intricate interactions in the model. Measured at a higher level of abstraction, HCM refers to a more general construct that evaluates several sub-components (dimensions) at the same time. Therefore, HCM address specific attributes of a more general conceptual variable of interest by defining lower-order components (Hair, Ringle, & Sarstedt, 2011). Model parsimony is achieved by the use of higher-order structures to limit the amount of path model linkages, as opposed to expressing interactions between several independent and dependent ideas in a path model. The relationships between the lower-order components and the dependent constructs in the model become outdated as researchers compress the independent constructs into a higher-order construct.

Table 4.23 Higher Order Constructs

Higher-order Construct	Formative Construct	Outer Weights	VIF	t-value	Outer loadings	p-value
PMSA	PPA	0.292	2.066	12.867	0.711	0.00
	FCA	0.296	2.035	15.663	0.826	0.00
	PRA	0.305	2.031	14.19	0.856	0.00
	OUA	0.301	1.851	13.961	0.777	0.00
PMFA	PRF	0.313	1.850	14.79	0.804	0.00
	DIF	0.297	1.808	13.662	0.734	0.00
	IPF	0.291	1.895	15.08	0.772	0.00
	INF	0.316	1.899	14.131	0.721	0.00

Source: Authors Calculations

Validation of Higher Order Constructs

Performance Management System Accuracy (PMSA) was the higher-order construct of PPA, FCA, PRA, and OUA. To establish the higher-order construct validity outer weights, t-value, p-value, and VIF are needed. The outer loadings should be greater than 0.7 for each of the lower-order constructs (Sarstedt, Hair, Jun-Hwa, Becker, & Ringle , 2019). The VIF values were assessed to check the collinearity, and all the VIF values were less than 5. The HOC validity was proved since every requirement was satisfied.

4.5 Path Coefficient

Hypothesis testing is based on path coefficient values and is the second most important aspect of evaluating structural models after R2. Path coefficients represent the relationships among independent (exogenous) and dependent (endogenous) variables. Hypothesis framed are accepted or rejected based on R2 and t-statistics

values. The researcher has already calculated and approved R2 values. To find out t-statistics values, the bootstrapping process was run in SmartPLS-4.

Under PLS-SEM, the bootstrap procedure is performed, assuming that the data are not normally distributed, the bootstrap procedure—which is defined as "repeated random sampling (with replacement) from original sample to create a bootstrap sample"—is used. The standard error is then computed so that it can be applied when assessing the provided hypothesis. Similar to how the bootstrapping process works, it is assumed that the sample distribution accurately represents the population's predicted distribution (Hair, Ringle, & Sarstedt, 2011). (Henseler & Fassott, 2010) concluded in their study that using a bootstrap sample in this way allows one to analyze the importance of estimated coefficients (Hair, Ringle, & Sarstedt, 2011).

Interpretation:

Name of the Test	**Acceptable Limit**
Bootstrapping using SmartPLS-4 software. Sample size of 5000 "cases", bootstrap samples	To confirm a significant relationship between the constructs, thet-values must be greater than 1.96 at the 5% level of significance (Tenenhaus, Vinzi, Chatelin, & Lauro, 2005), (Yahaya, Murtala, & Onukwube, 2019) and (Shah & Goldstein, 2006).

Source: Authors Calculations

Hypothesis testing

H2 Performance Management system Accuracy impacts Vigor

Determining factors	**Values**	**Result**
The p-value (significance as 5%) and t-value are used	The t-value in the relationship between the Performance Management system and Vigor is 8.575.	As this value is more than 1.96, hence H2 is **accepted.**

H3 Performance Management system Accuracy impacts Absorption

Determining factors	**Values**	**Result**
The p-value (significance as 5%) and t-value are used	The t-value in the relationship between the Performance Management system and absorption is 5.193	As this value is more than 1.96, hence H3 is **accepted.**

H4 Performance Management system Accuracy impacts Dedication

Determining factors	**Values**	**Result**
The p-value (significance as 5%) and t-value are used	The t-value in the relationship between the Performance Management system and Dedication is 11.385.	As this value is more than 1.96, hence H4 is **accepted.**

H5 Performance Management system Fairness impacts Vigor

Determining factors	**Values**	**Result**
The p-value (significance as 5%) and t-value are used	The t-value in the relationship between the Performance Management Fairness and Vigor is 12.205.	As this value is more than 1.96, hence H5 is **accepted.**

H6 Performance Management system Fairness impacts Absorption

Determining factors	**Values**	**Result**
The p-value (significance as 5%) and t-value are used	The t-value in the relationship between the Performance Management Fairness and absorption is 11.816.	As this value is more than 1.96, hence H6 is **accepted.**

H7 Performance Management system Fairness impacts Dedication

Determining factors	**Values**	**Result**
The p-value (significance as 5%) and t-value are used	The t-value in the relationship between the Performance Management Fairness and Dedication is 5.965.	As this value is more than 1.96, hence H7 is **accepted.**

Hypotheses testing has been done by performing bootstrapping. The following hypotheses havebeen framed for testing:

Table 4.24 Path Analysis

Hypotheses		Beta	T Stat.	P-Value	Empirical Calculations
H2	PMSA-> Vig	0.402	8.575	0.000	Accepted
H3	PMSA-> Abso	0.276	5.193	0.002	Accepted
H4	PMSA-> Dedi	0.51	11.485	0.001	Accepted
H5	PMFA ->Vig	0.517	12.205	0.001	Accepted
H6	PMFA-> Abso	0.555	11.816	0.000	Accepted
H7	PMFA-> Dedi	0.291	5.965	0.001	Accepted

Source: Authors Calculations

Objective 5: To see the moderation effect of demographic variables (age, Gender, Marital status, Experience, and discipline) with employee engagement in higher educational institutes of Himachal Pradesh.

4.6 Moderation

The purpose of moderation is to determine if a variable (Z) influences the intensity and/or direction of the relationship between a DV (Y) and an IV (X). Stated differently, moderation looks for interactions impacting when correlations between variables happen. A statistical method called moderation analysis is applied in research to determine how a third variable, referred to as the moderator variable, affects the connection between two variables. The moderator variable may be continuous (age, income) or categorical (gender, treatment group, etc.). Finding the circumstances or settings in which the link between the independent and dependent variables is greater or weaker is the aim of moderation analysis. Let's take an example where we want to investigate the connection between exercise and weight loss. We may also surmise that an individual's age influences how effective exercise is at helping them lose weight. Age would be the moderator variable in this scenario.

Regression analysis is commonly used by researchers to examine moderation. They examine the relationship between the moderator variable (age) and the predictor variable (exercise), as well as how those two variables affect the outcome variable (weight loss). “The effect of an independent variable X on a dependent variable Y is moderated by the variable M if its size, sign or strength depends on or can be predicted by M. In that case, M is said to be a moderator of X's effect on Y or that X and M interact in their influence on Y” (Hayes, 2017).

4.6.1Moderation Analysis of Age

Table 4.25 Moderation Analysis of Age

	Original sample (O)	**Sample mean(M)**	**Standard deviation (STDEV)**	**T statistics (|O/STDEV|)**	**P values**
Age x PMSA -> ABSO	0.257	0.255	0.055	4.706	0.002
Age x PMSA -> DED	0.551	0.55	0.045	12.24	0.000
Age x PMSA -> VIG	0.386	0.386	0.049	7.941	0.002
Age x PMSF -> ABSO	0.54	0.543	0.047	11.563	0.004
Age x PMSF ->VIG	0.296	0.296	0.048	6.204	0.000
Age x PMSF -> DED	0.513	0.513	0.044	11.712	0.000

Source: Authors Calculations

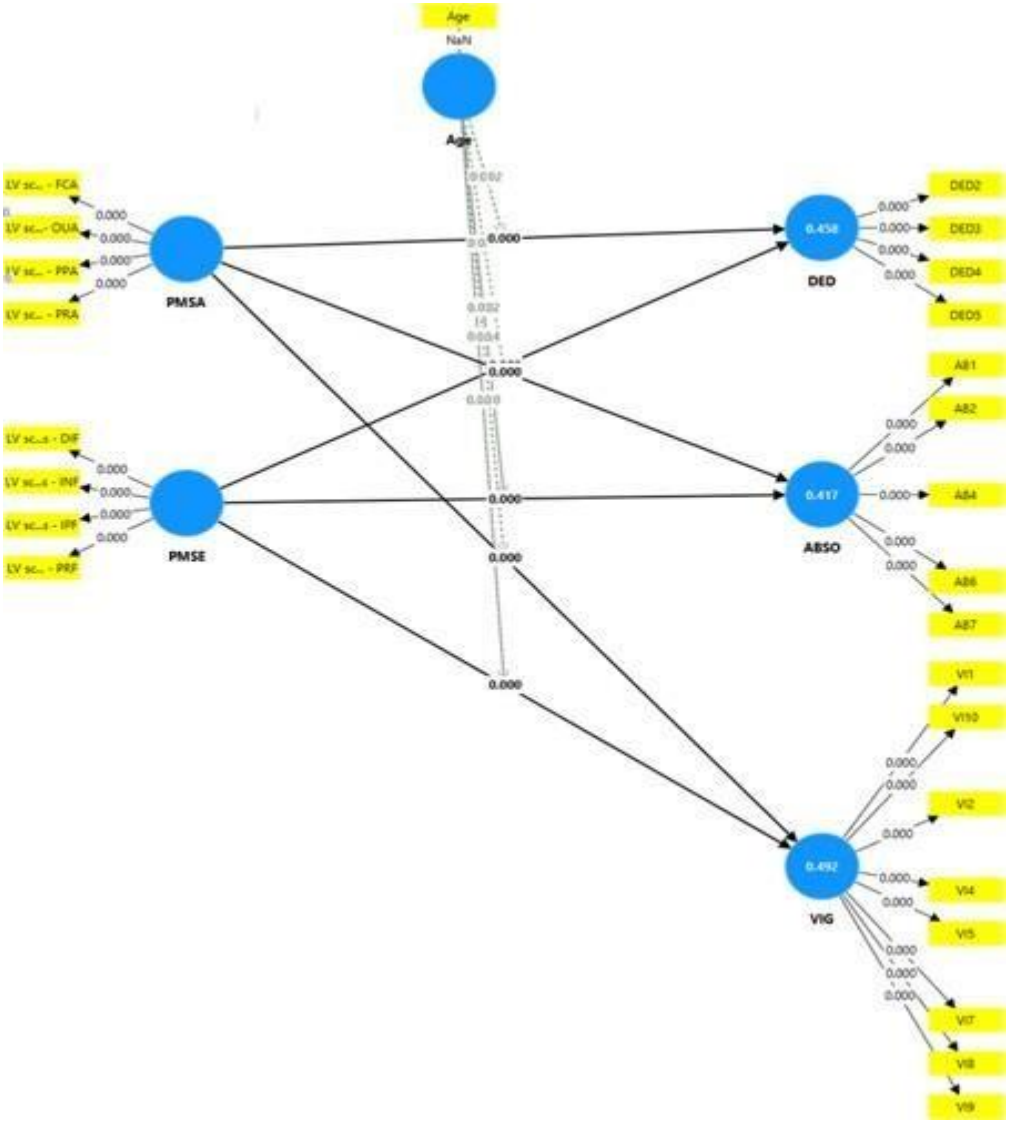


Figure 4.6: Moderation analysis of Age between PMS and EE

The study's purpose is to check how age as a moderator is associated with the PMS & EE. Is moderator age altering the impact the above stated variables or not. The above table represents the findings of the moderation effect. Here the hypothesis is represented below.

H8 There is a significant impact of age as a moderator between Performance Management System and Employee Engagement.

Determining factors	**Values**	**Result**
The p-value (significance as 5%) and t-value are used	The t-value is more than 1.96 shows that the moderator has a considerable positive impact on the relationship between Performance Management System and Employee Engagement. (Table 4.25)	As this value is more than 1.96, hence H8 is **accepted.**

4.7.2 Moderation Analysis of Gender

Table 4.26 Moderation Analysis of Gender

	Original sample (O)	**Sample mean (M)**	**Standard deviation (STDEV)**	**T statistics (O/STDEV)**	**P values**
Gender x PMSA ->ABSO	0.256	0.256	0.056	4.57	0.000
Gender x PMSA ->DED	0.554	0.552	0.046	12.093	0.004
Gender x PMSA ->VIG	0.397	0.396	0.048	8.306	0.001
Gender x PMSF ->ABSO	0.537	0.541	0.049	11.068	0.004
Gender x PMSF ->DED	0.299	0.3	0.049	6.142	0.001
Gender x PMSF -> VIG	0.513	0.512	0.044	11.546	0.003

Source: Authors Calculations

H9 There is a significant impact of Gender as a moderator between Performance Management System and Employee Engagement.

Determining factors	Values	Result
The p-value (significance as 5%) and t-value are used	The t-value is more than 1.96 shows that the moderator has a considerable positive impact on the relationship between PM System and Employee Engagement. (Table 4.24)	As this value is more than 1.96, hence H9 is **accepted.**

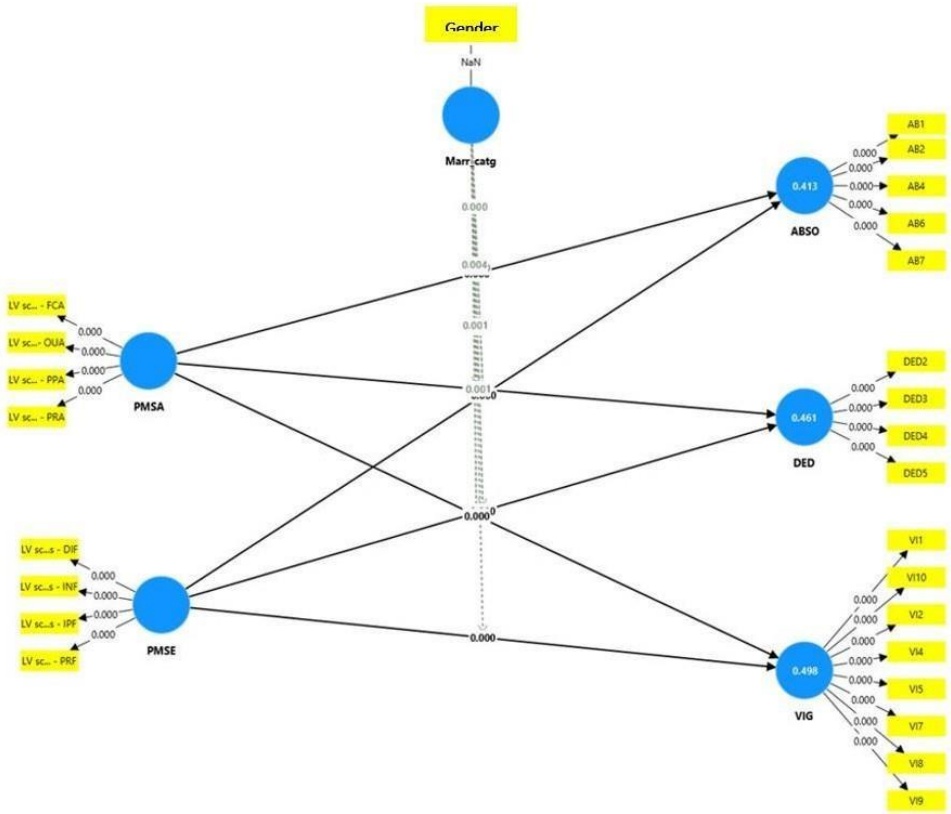


Figure 4.7: Moderation analysis of Gender between PMS and EE

4.7.3. Moderation Analysis of Marital Status

Table4.27 Moderation Analysis of Marital Status

	original sample (O)	Sample mean(M)	Standard deviation (STDEV)	T statistics (|O/STDEV|)	P values
Marr_catg x PMSA -> ABSO	0.022	0.02	0.061	0.365	0.715
Marr_catg x PMSA -> DED	0.01	0.011	0.052	0.197	0.844
Marr_catg x PMSA -> VIG	0.005	0.005	0.05	0.099	0.921
Marr_catg x PMSF -> ABSO	-0.004	-0.007	0.056	0.075	0.94
Marr_catg x PMSF -> DED	-0.049	-0.054	0.06	0.828	0.408
Marr_catg x PMSF -> VIG	-0.064	-0.064	0.048	1.346	0.178

Source: Authors Calculations

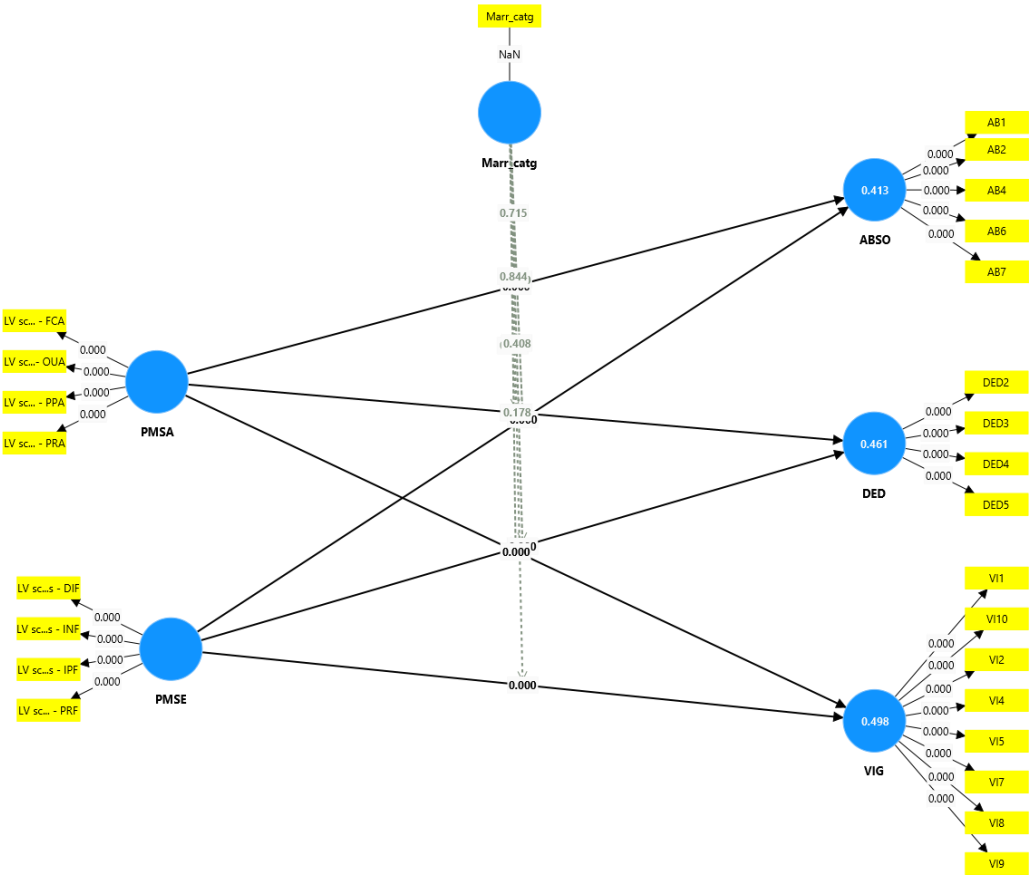


Figure 4.8: Moderation analysis of Marital status between PMS and EE

H10 There is a significant impact of Marital status as a moderator between Performance Management System and Employee Engagement.

Determining factors	**Values**	**Result**
The p-value (significance as 5%) and t-value are used	The t-value is more than 1.96 shows that the moderator has a considerable positive impact on the relationship between PM System and Employee Engagement. (Table 4.26)	As this value is more than1.96,hence H10 is **rejected.**

4.7.4 Moderation An

4.7.5 alysis of Experience

Table 4.28 Moderation Analysis of Experience

	Original sample (O)	Sample mean (M)	Standard deviation (STDEV)	T statistics (|O/STDEV|)	P values
Experience x PMSA -> ABSO	0.255	0.254	0.054	4.691	0.001
Experience x PMSA -> DED	0.551	0.549	0.046	12.027	0.004
Experience x PMSA -> VIG	0.387	0.386	0.048	8.014	0.000
Experience x PMSF -> ABSO	0.54	0.543	0.047	11.453	0.001
Experience x PMSF -> DED	0.294	0.295	0.049	6.03	0.000
Experience x PMSF -> VIG	0.507	0.508	0.044	11.543	0.000

H11 There is a significant impact of Experience as a moderator between Performance Management System and Employee Engagement.

Determining factors	**Values**	**Result**
The p-value (significance as 5%) and t-value are used	The t-value is more than 1.96 shows that the moderator has a considerable positive impact on the relationship between Performance Management System and Employee Engagement. (Table 4.27)	As this value is more than 1.96, hence H11 is **accepted.**

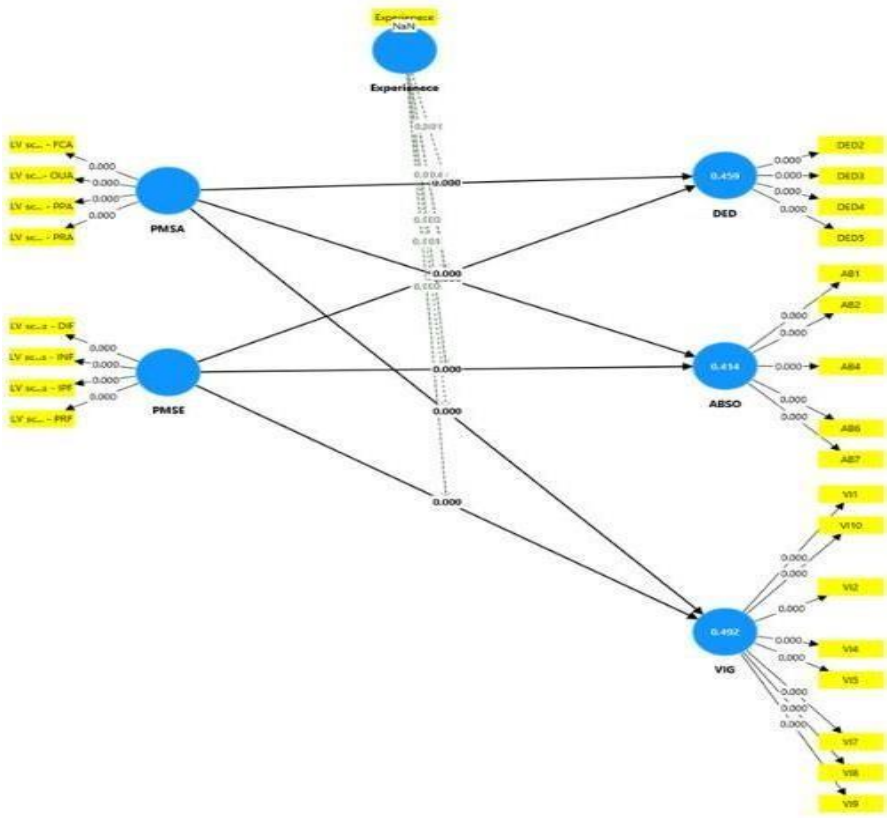


Figure 4.9: Moderation analysis of Experience between PMS and EE

4.7.6 Moderation Analysis of Discipline

Table 4.29 Moderation Analysis of Discipline

	Original sample (O)	Sample mean (M)	Standard deviation (STDEV)	T statistics (|O/STDEV|)	P values
Discipline x PMSA -> ABSO	0.005	0.006	0.063	0.074	0.941
Discipline x PMSA -> DED	0.016	0.018	0.064	0.252	0.801
Discipline x PMSA -> VIG	-0.042	-0.041	0.065	0.647	0.518
Discipline x PMSF -> ABSO	-0.04	-0.038	0.053	0.748	0.455
Discipline x PMSF -> DED	0.031	0.029	0.054	0.581	0.561
Discipline x PMSF -> VIG	0.029	0.03	0.05	0.574	0.566

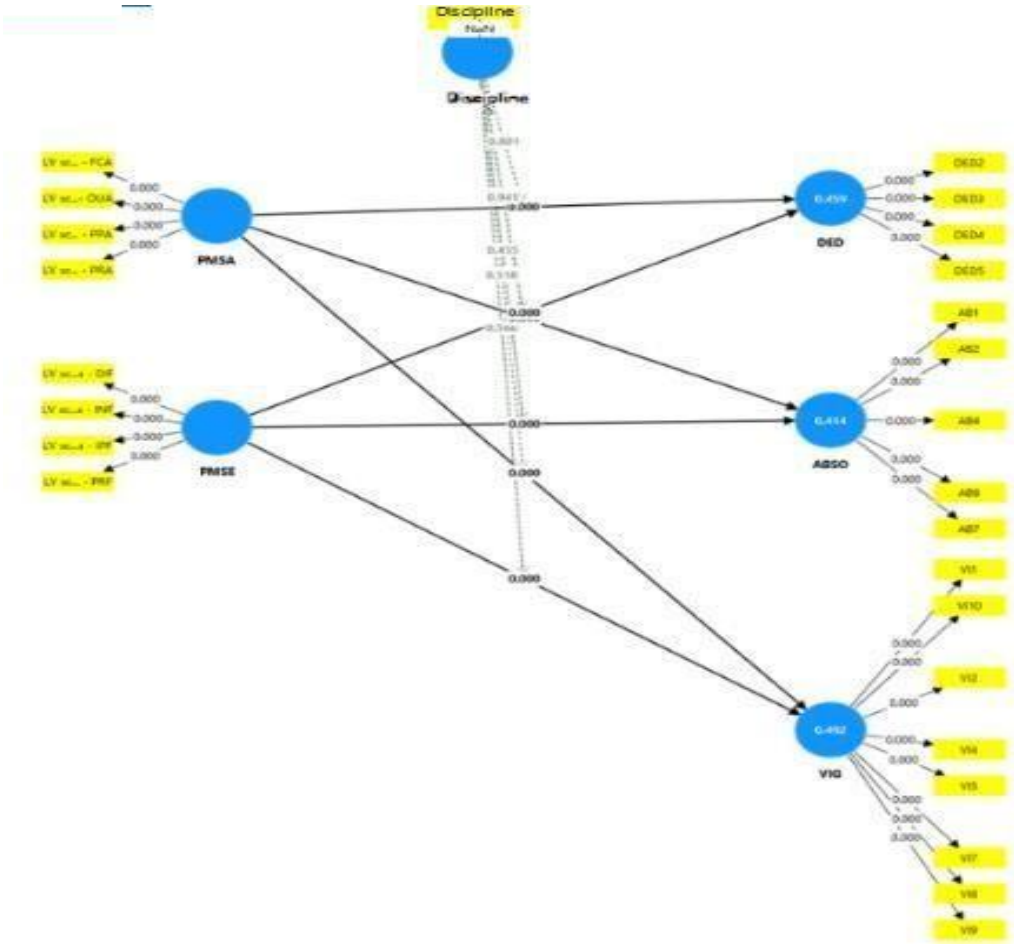


Figure 4.10: Moderation analysis of Discipline between PMS and EE

H12 There is a significant impact of Discipline as a moderator between Performance Management System and Employee Engagement.

Determining factors	**Values**	**Result**
The p-value (significance as 5%) and t-value are used	A considerable positive impacton the relationship between Performance Management System and Employee Engagement. (Table 4.28)	As this value is more than 1.96, hence H12 is **rejected.**

Discussion

The demographic factors, such as age, gender, and experience, that significantly impact the linkbetween the Performance Management System and employee engagement are shown by moderation analysis. There are differences between the various degrees of professional tenure and the amount of employee engagement. Employee engagement declines as the respondents gain experience in their professional careers from the initial years to 30 years (George and Venkatapathy, 2018). The study's results oppose the previous study which concluded that gender did not influence the preferred drivers of employee engagement. However, the women respondents are more affected by the IT companies in Chennai's workplace participation initiatives (Marcus and Gopinath, 2017).

Whereas Marital Status and Disciplines have no effect as moderators on the relationship. The results match the pervious study done by George and Venkatapathy (2018), that observed that in terms of marital status, the workers' engagement rates vary considerably. Unmarried employees have high employee contribution ratings.

CHAPTER 5

FINDINGS, CONCLUSION, THEORETICAL IMPLICATIONS, ANDLIMITATIONS

In this Chapter, the Theoretical Implications, and Limitations have been represented on the topic " Impact of Performance Management System on Employee Engagement: A study of select higher educational institutes of Himachal Pradesh". This chapter of the thesis recapitulates the conclusions drawn and limits found in the journey.

5.1 Findings of the study

The researcher aimed to study the impact of the PM system on Employee engagement in the higher educational sector in Himachal Pradesh. The study also includes the moderation analysis of demographic variables (Age, Gender, Marital status, Experience, and discipline) to know the effect on independent and dependent variables. The data was collected from the HODs and principals and also through a rigorous review of literature for the first and second objectives. Personal interviews were taken through a questionnaire which was developed after going through a review of literature. The data was then analyzed by NVivo software. Thematic analysis was carried out with the help of NVivo software. For the rest of the objectives SEM and SmartPLS 4.0 were used to analyse the data which was collected from the respondents (faculties of the colleges).

Objective I: To identify the current Employee Engagement practices adopted by the higher educational institutes of Himachal Pradesh.

According to the ROL, the most popular employee engagement strategies implemented by the companies include opportunities for career development, reward and recognition, and employee health and well-being. Good supervisor feedback, training and development initiatives, motivating techniques, improved working conditions, effective communication, employee participation and involvement in decision-making processes, Team Building & Leadership activities and Pay &

Benefits. Online strategies like e learning, and working from home were taken into account and put into effect throughout the COVID-19 period.

It was noted that the most popular methods for gauging employee engagement the engagementof the faculty in higher educational institutes are “reward & recognition”. The employee's involvement is closely tied to this practice. When an employee's work is acknowledged and rewarded by their superiors, they exhibit a high degree of engagement. Then “by observing the quality of content delivery and dedication” of the faculty as per the investigation, basically the amount of enthusiasm a teacher has for their profession is taken into consideration. In additionto being passionate about their profession and having fun in the classroom, a devoted teacher puts in a great deal of effort to improve the learning environment for all students. Also, “by observing growth & productivity of faculty and by observing fall in absenteeism”, it can be justified that Faculty members do a good job when they cherish what they do, which eventually lowers the absence rate. Remaining practices are, “By observing overall academic performance” that is the relationship between students and teachers, the teacher's demeanor, and student-teacher exchanges are all used to assess a teacher's overall effectiveness. The “BestTeacher Award” is an additional tradition in which the principal or head of the institution recognizes a teacher for exceptional dedication and hard work. “Teaching effectiveness”, “Byobserving the Change in attrition rate” and “SAP” software is the least used.

Objective II: To identify the practices adopted for the Performance Management System in higher educational institutes of Himachal Pradesh.

According to the ROL, it was observed that the PMS practices followed by organizations are Entrustable Professional Activities, Key Performance Indicators, Performance Based Appraisal system, 360-degree appraisal, BARS (Behaviorally Anchored Rating Scale), Balanced Scorecard, and Confidential Reports. KPI is the most commonly used practice

The results of the interview show that the Academic Performance Indicator score (API) is the widely used method for measuring the Performance of the faculty in higher education, it was also observed that “Research paper publication, Seminar & Conferences” is considered to be mandatory for all the faculties. The other practices

adopted by the higher institutes are Student feedback, 360-degree performance appraisal method, self-appraisal reports, key indicators, and observing the active participation of faculties in college cultural activities or events.

Objective III: To find out the correlation between Performance Management System and Employee Engagement in higher educational institutes of Himachal Pradesh.

H1 Correlation between the Performance Management system and Employee Engagement.

Determining factors	**Values**	**Result**
Correlation Coefficient (r value and p value)	The correlation between the Performance Management system and Employee Engagement is 0.744.	H1 hypothesis is **accepted** and there is a **significant positive correlation** betweenthe two variables.

Sharma, Sharma, & Agarwal (2016), employed a slightly different technique to use these characteristics to assess the effectiveness of the performance management system. The impacts of perceived fairness (PMSF) and accuracy (PMSA) in the performance management system are combined to provide the effectiveness of the system, according to the authors. Their definition of PMSA included effective goal-setting, feedback and control, measurement and assessment, and incentive systems. According to (Becker & Gerhart, 1966), (Marr, Schiuma, & Neely, 2004), and (Stokes, 2000), PMSF measured how fair and reasonable employees felt all of these methods were.

Work engagement and PMS have been positively correlated in research (Saratun, 2016), and (Mone & London, 2018).

Objective IV: To analyze the impact of the Performance Management System on Employee Engagement in higher educational institutes of Himachal Pradesh

Hypothesis testing

To test the hypothesis the p-value with significance as 5% and t-value are used to accept or reject the hypothesis and all the results are in congruity with the said significance level.

H2 Performance Management system Accuracy (PMSA) impacts Vigor

The t-value in the relationship between the PM system and Vigor is 8.575. As this value ismore than 1.96, hence H2 is **accepted.**

H3 Performance Management system Accuracy (PMSA) impacts Absorption

The t-value in the relationship between the PM system and absorption is 5.193. As this valueis more than 1.96, hence H3 is **accepted.**

H4 Performance Management system Accuracy (PMSA) impacts Dedication

The t-value in the relationship between the PM system and Dedication is 11.385. As this valueis more than 1.96, hence H4 is **accepted.**

H5 Performance Management system Fairness (PMSF) impacts Vigor

The t-value in the relationship between Performance Management Fairness and Vigor is

12.205. As this value is more than 1.96, hence H5 is **accepted.**

H6 Performance Management system Fairness impacts Absorption

The t-value in the relationship between Performance Management Fairness and absorption is11.816. As this value is more than 1.96, hence H6 is **accepted.**

H7 Performance Management system Fairness impacts Dedication

The t-value in the relationship between Performance Management Fairness and Dedication is5.965. As this value is more than 1.96, hence H7 is **accepted.**

Hypotheses testing has been done by performing bootstrapping. The following hypotheses havebeen framed for testing:

Hypotheses		Beta	T Stat.	P-Value	Empirical Calculations
H1	PMSA-> Vig	0.402	8.575	0.000	Accepted
H2	PMSA-> Abso	0.276	5.193	0.002	Accepted
H3	PMSA-> Dedi	0.51	11.485	0.001	Accepted
H4	PMFA ->Vig	0.517	12.205	0.001	Accepted
H5	PMFA-> Abso	0.555	11.816	0.000	Accepted
H6	PMFA-> Dedi	0.291	5.965	0.001	Accepted

Objective V: To see the moderation effect of demographic variables (age, Gender, Marital status, Experience, and discipline) with employee engagement in higher educational institutes of Himachal Pradesh.

The study's purpose is to check how age as a moderator is associated with the Performance Management system (PMS) and Employee Engagement (EE). Whether the moderator is

altering the impact of the variables or not? The above table represents the findings of themoderation effect. Here the hypothesis is represented below

H8 Age as a moderator

The SmarPLS-4 software uses the bootstrapping approach to test the hypothesis. The results indicate that the t-value is more than 1.96. Therefore, H8 is **accepted** because the data shows that the moderator has a considerable **positive impact** on the relationship between PMS and EE

H9 Gender as a moderator

The results show that the t-value in the above relationship is more than 1.96. Hence H9 is **accepted**, because the data shows that the moderator Gender has a considerable **positive impact** on the relationship between the Performance Management System and Employee Engagement.

H10 Marital status as a moderator

The results represent that the t-value in the above relationship is less than 1.96. Hence H10 is **rejected** because the data shows that the moderator Marital Status has **no impact** on the relationship between the Performance Management System and Employee Engagement.

H11 Experience as a moderator

The t-value in the above relationship is more than 1.96. Hence H11 is **accepted**, because the data shows that the moderator Experience has a considerable **positive impact** on the relationship between the Performance Management System and Employee Engagement.

H12 Discipline as a moderator

The results represent that the t-value in the above relationship is less than 1.96. Hence H12 is **rejected** because the data shows that the moderator Discipline has **no impact** on the relationship between the Performance Management System and Employee Engagement.

5.2 Conclusion of the Study

5.2.1 Employee Engagement practices adopted by the Higher Educational Institutes (HEIs).

Rewards and recognition, chances for professional growth, workers' health and well-being, efficient communication, training and development initiatives, supervisors' insightful comments, inspiring techniques, improved work surroundings, employee participation and

involvement in decision-making processes, team building and leadership activities, and pay and benefits are some examples of EE practices by the organizations,

according to the ROL. Online strategies including e learning, and working from home were taken into account and put into effect throughout the COVID-19 period.

It was found that "reward & recognition" is the employee engagement strategy most frequently employed to gauge teacher engagement in higher education institutions. The employee's involvement is directly tied to this practice. When an employee's work gets recognized and rewarded by their superiors, they exhibit a high degree of engagement. The second way that the study gauges a teacher's level of passion for their work is "by observing the quality of content delivery and dedication" of the staff. In addition to being passionate about their work and having fun in the classroom, a dedicated teacher puts in a great deal of effort to improve the learning environment for all students. An alternative approach is "by observing growth & productivity of faculty and by observing fall in absenteeism," which argues that when faculty members are happy in their jobs, they will work more effectively and efficiently, which will eventually lower the absenteeism rate.

The remaining techniques are "By observing overall academic performance," which means thata teacher's overall effectiveness is assessed by looking at how they connect with their students,how they behave, and how they communicate with them. Another procedure is the "Best Teacher Award," wherein the principal or the institute's HOD recognizes a teacher for their exceptional dedication and hard work. "Teaching Effectiveness," "By observing the Change inattrition rate," and "SAP" software are the methods that are least frequently employed to gaugefaculty engagement.

5.2.2 Practices adopted for Performance Management System (PMS) by the Higher Educational Institutes (HEIs).

The interview's findings demonstrate that the Academic Performance Indicator score (API) is a commonly used tool for evaluating faculty performance in higher education. It also revealedthat "Research paper publication, Seminar & Conferences" are thought to be required for all faculty members. Among the other approaches that higher education institutions have implemented are student feedback, the 360-degree performance appraisal method, self- appraisal reports, key indicators, and watching faculty members' active engagement in collegecultural events and activities.

Employee Engagement (EE) and the Performance Management System (PMS) have a correlation of 0.744, which supports the H1 hypothesis and shows a strong positive relationshipbetween the two variables.

The impacts of perceived fairness (PMSF) and accuracy (PMSA) in the performance management system are combined to provide the effectiveness of the system, according to the authors. Their definition of PMSA included effective goal-setting, feedback and control, measurement and assessment, and incentive systems.

The demographic factors, such as age, gender, and experience, that significantly impact the link between the Performance Management System and employee engagement are shown by moderation analysis. There are differences between the various degrees of professional tenure and the amount of employee engagement. Employee engagement declines as the respondents gain experience in their professional careers from the initial years to 30 years (George and Venkatapathy, 2018). The study's results oppose the previous study which concluded that gender did not influence the preferred drivers of employee engagement. However, the women respondents are more affected by the IT companies in Chennai's workplace participation initiatives (Marcus and Gopinath, 2017).

Whereas Marital Status and Disciplines have no effect as moderators on the relationship. The results match the pervious study done by George and Venkatapathy (2018), that observed that in terms of marital status, the workers' engagement rates vary considerably. Unmarried employees have high employee contribution ratings.

5.3 Limitations and future directions of the study

The constraints of the research must be brought into light when interpreting the findings. The findings must be considered in light of the research flaws. The current study is cross-sectional. The level of the relationship between the variables might have been studied because the survey responses were collected concurrently. In future investigations, a longitudinal design could beused.

It's possible that some respondents didn't provide accurate answers. Bias could result from a lack of interest, a failure to comprehend the questions, etc. Although the researcher does not influence it, this could have an impact on the study's findings.

Extreme response bias is one way this might appear, where people give replies that accentuate a point of view even when it contradicts their actual beliefs. As demonstrated by patient satisfaction surveys, where they

may cause an overestimation of satisfaction levels, such biases can have a major effect. Researchers can use strategies including comfortable survey environments, clear questions, and randomized response approaches to reduce respondent bias. The research responses werereceived from only one state and its colleges. The downside is that responses may differ fromstate to state and among workers in various industries.

In research, generalizability refers to how well a study's findings and conclusions may apply to a larger environment or population. Researchers must evaluate generalizability to guaranteethat their findings are practical and applicable beyond the unique study group. Research findings are deemed generalizable when they can be applied to different circumstances or groups, offering useful insights that may be used to improve practice and policy decisions. The ability to generalize findings is dependent on the researcher's ability to discriminate between significant and irrelevant aspects of the study results.

The research responses were gathered from only one state and its colleges, which is HimachalPradesh. The disadvantage is that responses can vary from state to state and across workers indifferent sectors. It will not be viable if the findings of this study are also applicable in other states. This study is consistent with the findings of other researchers, and comparable results can be interpreted in different locations and sectors, as academics can validate with their prospective findings.

Since the study only looked at Higher Educational Institutes and the population of Himachal Pradesh State, its findings cannot be applied to the entire universe. The present study considers only the population of Himachal Pradesh. The study only aimed to see the impact of the Performance Management System (PMS) and Employee Engagement (EE). The present study is done in the educational sector, further studies could be done in other sectors as well, such asBanks, Hospitals, MNCs, etc.

For future study, researchers can do comparative study between the Government and private colleges under the same topic. Impact of Performance management system on Employee Engagement in Government colleges and impact of the Performance Management System on Employee Engagement in private colleges should be compared , and it should be observed how these two are different from each other.

The study aimed to find how Performance Management System impacts employee engagement in educational Institutes, and also how demography as factors acts as moderators in the said relationship (such as age, gender, marital status, experience, and discipline). Other important variables to study include work-life balance, establishment's targets, human relations in the organization, leadership, organizational level, Organizational Citizenship Behavior (OCB), and so on.

5.4 Recommendations and Suggestions

The present study focuses of the Impact of performance Management System and Employee Engagement in Higher Educational Institutes. The recommendations of the research are discussed below

- The Performance Management System Fairness (PMSF) have great impact on the Employee Engagement construct Vigor (VI), this recommends the Supervisors must focuson providing fairness during the evaluation of their performance.
- The supervisors should motivate them to express their emotions and view during their performance evaluation an also when some tasks have been given to them to perform.
- All the information provided during the evaluation of the employee should be based on accurate information and should be biased. This evaluation must follow ethical or moral standards.
- From the study it was found that the supervisors should learn, that during performance evaluation the faculties should treated in polite manner, with respect and also refrain improper remarks and comments.
- Is has been also observed that when the managers communicate the details of the tasks properly, explain the duties thoroughly, provide explanations of the

procedure reasonableand tailored the communication according to the needs of the individual, the faculties trusttheir supervisors and perform well in the given tasks.

- It has been also observed that when the supervisors communicate properly with their employees, the employee feels vigorous and they stay motivated and show great energy tocomplete the tasks.
- It was observed that if the faculty feel enthusiastic in the working environment of theorganization, then they tend to do more work as compare to less motivated employees.

5.5 Implications

Other than the faculties of the colleges, Managers and supervisors can derive the practical implications from the study, providing the base for the relationship between the employee andthe employer.

Implications for the researchers: Firstly, various theories were discussed in the previous chapters which are useful for understanding employee engagement. There are many more theories from the ones mentioned in the study, that help understand and form the concept of engagement. Managers and supervisors must go through these theories. Future studies must investigate the impact of emerging technologies such as AI and data analytics on performance feedback, explore the intersection of diversity, inclusion, and employee engagement, prioritize employee well-being within performance management frameworks, and research the effectiveness of continuous feedback mechanisms in different organizational contexts.

Researchers should focus on the ethical issues of employing AI in performance management. As AI becomes more incorporated into performance management procedures, it is critical to investigate possible biases and privacy concerns.

Furthermore, future research should focus on identifying the major drivers of employee engagement in 2024 and beyond. Trends such as the increased relevance of technology, empathy, and agility in the workplace are likely to have a big impact.

Implications for the Governments: The Government should prepare some policies to make employee motivated always. Lowering the organization's turnover rate would be possible through implementing performance management and employee engagement systems in every organization, which would enhance staff growth, development, and communication.

If employees receive praise and recognition for their work as well as rewards for new achievements, they will grow more dependable and devoted to their employers.

Implications for HEIs: Comprehending how demographic factors affect the relationship between employee engagement and the performance management system at higher education institutions in other states would be helpful. The study would also help to understand the current employee engagement strategies used to increase employee satisfaction and performance while reducing absenteeism.

Implications for the MNC's: Employee engagement and performance management are frequently viewed as two completely distinct HR functions. It makes sense since they seem to be such complete opposites, especially to someone with a more typical perspective. However, highly engaged workers routinely beat their less engaged coworkers in every way, including productivity. It is worthwhile to know the relationship between worker engagement and performance.

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