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**MEDIATING ROLES of JOB SATISFACTION AND MODERATING
EFFECTS of DEMOGRAPHIC VARIABLES IN THE RELATIONSHIP
BETWEEN WORK ENVIRONMENT AND EMPLOYEE
PERFORMANCE: THE CASE OF SELECTED SOFT DRINKS, WINE,
AND BEER COMPANIES IN ADDIS ABABA**

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Addis Ababa, Ethiopia

December, 2021

**Mediating Roles of Job Satisfaction and Moderating Effects of Demographic Variables
in the relationship between Work Environment and Employee Performance: the case of
selected soft drinks, wine, and beer companies in Addis Ababa**

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**A thesis submitted to Addis Ababa University College of Business and Economics, school of
graduate studies, in partial fulfillment of the requirements for the degree of Masters of Science in
Management specialization in Quality Management Organizational Excellence.**

Addis Ababa University

College of Business and Economics

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Addis Ababa, Ethiopia

December, 2021

Declaration

I, Demelash Abiy, hereby declare that this thesis entitled “ **Mediating Roles of Job Satisfaction and Moderating Effects of Demographic Variables in the relationship between Work Environment and Employee Performance: the case of selected soft drinks, wine, and beer companies in Addis Ababa**” submitted by me, for the award of the degree of Masters of science in Management; with specialization in Quality management and Organizational excellence; in my original work it has never been presented in any other university. All sources and materials used in this thesis have been appropriately acknowledged.

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DEDICATION

I dedicate this thesis manuscript to my sister TIRUSET ABIY for nursing me with affection and for her dedicated partnership in the success of my life.

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I am grateful to many people who have assisted me in doing this research. But, it is nearly impossible to give the full account of all individuals and organizations because of space limitation. The following ones, however, deserve special considerations in the learning process I have passed through.

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ACRONYMS AND ABBREVIATIONS

AG	Age
DC	Demographic Characteristics
EL	Education Level
EP	Employee Performance
GN	Gender
MS	Marital Status
JS	Job Satisfaction
JSS	Job Safety and Security
PLC	Private Limited Company
PWE	Physical Working Environment
RCW	Relationship with Co-Workers
SAS	Self-Administered Schedules
S.C.	Share Company
SD	Standard Deviation
SSS	Supervisors Support
WEE	Work Environment
WO	Working Hour

ABSTRACT

The major goal of this research was to look into the mediating roles of job satisfaction and the moderating impacts of demographics in the correlation between employee performance and work environment in Addis Ababa's soft drinks, wine, and beer companies. The researcher collected data by using questionnaires and examined primary data using a combination of quantitative and qualitative research approach in this study, which followed a descriptive and explanatory research strategy. A total of 344 questionnaires were delivered to top-level, middle-level, functional managers, and other workers of the selected soft drinks, wine, and beer enterprises in Addis Ababa using stratified sampling procedures and Only 312 questionnaires were completed and returned and were taken as a valid sample. The collected data was analyzed by using SPSS Version 23 software through descriptive as well as inferential statistics. At a 95% confidence level, the result of the study indicated that work environment variables (i.e., job safety and security, physical working environment, coworker relationships, supervisor support, and working hours) have a significant and substantial impact on employee performance and job satisfaction. However, at the 95 percent confidence level, demographic characteristics dimensions (i.e., gender, age, marital status, educational level, and work experience) have no effect on employee performance and job satisfaction. At a 95% confidence level, job satisfaction has a significant mediating effect in the relationship between work environment and employee performance. But demographic characteristics insignificantly moderate the relationship between work environment dimensions and employee performance at 95% confidence level. The study suggested that companies should assess their employee pay and wage structures on a regular basis to verify that they are compatible with their talents and skill, which they are almost like other companies within the market. Employees will feel safer on their work, which is able to improve their job satisfaction and in turn results better performance from them.

Key Words: Demographic Characteristics, Employee Performance, Job Satisfaction and Work Environment

CHAPTER ONE

INTRODUCTION

1.1. Background of the Study

Employee performance, according to Baldwin (2008), is defined as the ability of employees to carry out actions efficiently and effectively in order to meet an organization's set goals. Employee performance, according to Armstrong and Baron (2004), is the development of individual and team capabilities in order to maximize their potential contributions to the attainment of the organization's goals. The interaction between the employee and the organization is highlighted in these definitions, therefore employee performance may be thought of as the articulator relationship between the corporate strategy and employee input toward accomplishing an organization's objectives.

Demographic factors are commonly considered to have a significant impact on employee performance. Demographic traits, according to George (2010), are human qualities that include information such as ethnicity, race, and family size. Demographic characteristics are defined by Bell (2008) as personal statistics on gender, age, sex, education level, income level, marital status, occupation, religion, birth rate, mortality rate, average family size, and average age at marriage. When it comes to age, for example, one is expected to be energetic and eager from the start of their career. Their performance is supposed to improve as they mature inside the business, up until a particular age when their energy levels decline and performance declines, necessitating the development of a retirement age (Adio, 2010).

Satisfaction is a highly complicated and subjective psychological phenomenon. Employment satisfaction refers to a person's happiness with their job or assignment. Employment satisfaction was defined by Spector (1997) as the "like or dislike" of one's job, while Locke (1996) defined it as the pleasurable and good emotion resulting from one's general attitude toward one's job. Job satisfaction is shown by a positive and favorable attitude toward the job, whereas job discontent is indicated by a negative and unfavorable attitude toward the job (Armstrong, 2003). It's important to emphasize that job satisfaction has nothing to do with how well the work is done or how much effort individuals put in, but rather how much they like their employment (Hughes et al., 2006). Employees that are happy in their jobs are more

productive, imaginative, and committed to providing high-quality services. It may also result in a high rate of turnover (Lim, 2007).

The goal of a work environment is to create conditions in which an employee can comfortably accomplish his or her tasks. Ergonomics can help workers find a balance between their tasks and responsibilities. This will improve operator productivity, worker safety, physical and mental health, and job satisfaction, resulting in improved organizational performance (Garbie, 2014).

When employees have a negative perception of job safety and security, their performance suffers. As a result of their disobedience of the regulations, their attitudes alter, resulting in an increase in workplace accidents. Supervisory support, relationships with coworkers, workplace safety and security, working hours, and the esteem required are all aspects that affect job pleasure (Raziq & Maulabakhsh, 2015). One of the most essential work environment components is job safety and security, which should be carefully enforced at the workplace in order to provide a comfortable working environment and flexible working conditions for employees.

Physical working environment, social working environment, and mental working environment are three components of the working environment, according to Jain and Kaur (2014). The effectiveness of a company that cares about its employees' well-being and the company would provide a nice working environment for its employees so that they could focus on their tasks and become more productive.

The physical working environment, which includes lighting, temperature, noise, office layout, and fresh air, can have an impact on employee performance. All of these disruptions can lead to employee health issues, which can contribute to lower employee performance. According to Temessek (2009) the practical décor and design of the office environment aided in improving employee experience and necessitating greater performance.

According to Haynes (2008), the physical working environment was a tangible factor that determined employees' abilities to connect with their jobs. Employee behavior, job performance, and mental, physical, and emotional states were all influenced by the physical working environment (Seghal, 2012; Oyetunji, 2014). According to previous studies, individuals' capacities to connect with their work responsibilities and affect how they behave

were influenced by their physical working environment (Haynes, 2008; Seghal, 2012; Oyetunji, 2014).

The majority of the research is done in more developed nations, with the combination of two of the variables in this study or simply mixing work environment with job satisfaction, or work environment with employee performance and soon. But there was no study conducted by combining all the four variables (i.e., work environment, job satisfaction, demographic characteristics and employee performance) at the same time. Furthermore, none of the prior researchers, to the best of the researcher's knowledge, have looked into the job satisfaction mediating roles and the demographics moderating impacts in the correlation between work environment and employee performance.

Therefore, the goal of this study was to investigate the mediating roles of job satisfaction and the moderating effects of demographics in the link between employee performance and work environment in Addis Ababa's soft drinks, wine, and beer firms.

1.2.Problem Statement

Employee performance in an organization is critical to maintaining the company's productivity. Unfortunately, the majority of industries and organizations have unsafe and unhealthy working environments. Employee performance was influenced by elements in the workplace environment, according to Borman (2004).

More attention should be made to identifying and coping with the working environment, according to Khan et al. (2011), since when employees have a poor opinion of their surroundings, they can suffer from chronic stress. Working environment, according to Opperman (2002), refers to the procedures, systems, structures, instruments, or situations in the workplace that have a positive or negative impact on an individual's productivity. Policies, rules, culture, resources, working relationships, work location, and internal and external environmental elements are all part of the working environment, and they all influence how employees do their job functions.

Pay and promotion, employee empowerment, psychological empowerment, remuneration, health facilities, work burden, and working environment were all examined in previous studies as one direct association with one general component that influenced job satisfaction

(Nyanchoka, 2017; Sun, 2016; Raziq & Maulabakhsh, 2015; Rizwan & Mukhtar, 2014; Breau & Rhéaume, 2014).

Furthermore, some earlier studies looked into the relationship between the physical and mental working environments, as well as job satisfaction (Jain and Kaur, 2014; Bojadjiev, Petkovska, Misoska & Stojanovska, 2015; Dawal & Taha, 2006; Kinzl et al., 2005). Employee performance in an organization is critical to maintaining the company's productivity. Unfortunately, the majority of industries and organizations believe their working environment to be hazardous and harmful.

Workplace environment characteristics, according to Borman (2004), have a significant impact on job satisfaction and employee performance. A pleasant physical working environment can help employees perform better and reduce absenteeism (Chandrasekar, 2011; Hamed and Amjad, 2009). As a result, the physical working environment has to be improved in order to retain staff performance. According to Charles, Reardon, and Magee (2005), a comfortable workplace temperature motivates employees to work at their best. As a result, the company required to upgrade the physical working environment in accordance with the nature and needs of the jobs.

In their study, Awan and Tahir (2015) discovered that coworker relationships were at the same hierarchical level and had no authority over one another. It was noted that in order to create a pleasant working atmosphere, solid relationships with coworkers are required. They reviewed their findings and discovered that coworker relationships had a significant favorable impact on employee performance.

Employees will be motivated to execute duties that are not part of their job description and to feel at ease in the organization if they have good relationships with their coworkers and have the support of their peers. According to Oswald (2012), supervisor assistance is critical for employees to complete their jobs. Supervisory support is someone who is skilled and experienced with the employees and can help them perform better in their current duties as well as evolve into future roles. A skilled and experienced supervisor assists employees in fulfilling their work tasks and in establishing more effective roles.

Physical, biological, and chemical risk in the workplace, communication networks, working hours, employee empowerment, and work pace are all key factors in determining an

organization's work environment, according to Pailhe (2002). Employee-driven initiatives, rules, and practices for scheduling work hours and modifying the amount of work time to fit their preferences are referred to as working hours (Brown & McNamara, 2011; Golden, 2012; Henly & Lambert, 2010).

Dimitrios and Athanasios (2013) conducted a study on the impact of demographic variables on employee performance and job satisfaction among Greek bank employees, and found that highly educated individuals have higher expectations of their work as whole and higher ambitions.

To the best of the researcher's knowledge, no one has looked at the job satisfaction mediating and demographics moderating impacts in the correlation between work environment and employee performance. Also, by considering this focus and the expected faster growth rate of industries like East African Bottling S.C., MOHA Soft Drinks Industry S.C., Awash Wine S.C. and BGI-Ethiopia PLC in developing countries like Ethiopia, it appears that the sector has been given relatively less research attention than it merits. Therefore, this study was done to partially address this gap in the industry human resource management literature by investigating the interrelationships among work environment, job satisfaction, demographic characteristics and employee performance in East African Bottling S.C., MOHA Soft Drinks Industry S.C., Awash Wine S.C. and BGI-Ethiopia PLC which are the leading soft drinks, wine and beer industries in Ethiopia. This study focused on the following specific questions: (1) what is the relationship between work environment and job satisfaction in the selected soft drinks, wine and beer companies in Addis Ababa? (2) Is there a correlation between work environment and employee performance in the selected soft drinks, wine, and beer companies in Addis Ababa? (3) Does job satisfaction and employee performance have a significant correlation in the selected soft drinks, wine, and beer companies in Addis Ababa? (4) Can employee's job satisfaction mediate the relationships between work environment and employee performance in the selected soft drinks, wine and beer companies in Addis Ababa? and (5) can demographic characteristics have a moderating effects on the relationship between work environment and employee performance in the selected soft drinks, wine and beer companies in Addis Ababa?

1.3.Objectives

General Objective

The overall goal of this research was to determine the job satisfaction mediating roles and demographics moderating impacts in the link between work environment and employee performance in a sample of soft drinks, wine, and beer enterprises in Addis Ababa.

Specific Objectives

The following were the specific objectives of the study:

- (1) To examine if there is a correlation between work environment and job satisfaction in selected soft drinks, wine, and beer companies in Addis Ababa.
- (2) To see if there is a link between the work environment and employee performance in Addis Ababa's selected soft drinks, wine, and beer industries.
- (3) To determine the relationship between job satisfaction and employee performance in the selected soft drinks, wine and beer companies in Addis Ababa.
- (4) To determine if employee's job satisfaction mediate the relationships between work environment and employees performance in the selected soft drinks, wine and beer companies in Addis Ababa.
- (5) To see if demographic features in the selected soft drinks, wine, and beer companies in Addis Ababa have a moderating effect on the link between work environment and employee performance.

1.4.Hypotheses

For this study, the following hypotheses were proposed:

H_{a1}: Work Environment (WE) dimensions comprising of five sub-dimensions (job safety and security, physical working environment, relationship with co-workers, supervisor support and working hour) is positively and significantly related to job satisfaction in the selected soft drinks, wine and beer companies in Addis Ababa.

H_{a2}: Work Environment (WE) dimensions comprising five sub-dimensions (job safety and security, physical working environment, relationship with coworkers, supervisor support, and working hour) have a significant impact on Employee Performance (EP) in the selected soft drinks, wine, and beer companies in Addis Ababa.

H_{a3}: In the selected soft drinks, wine, and beer companies in Addis Ababa, Employee Performance (EP) was significantly affected by Job Satisfaction (JS).

H_{a4}: In the selected soft drinks, wine, and beer companies in Addis Ababa, the correlation between Work Environment (WE) and Employee Performance (EP) was significantly mediated by Job Satisfaction (JS).

H_{a5}: Demographic Characteristics will positively and significantly moderates the relationship between Work Environment (WE) and Employee Performance (EP) in the selected soft drinks, wine and beer companies in Addis Ababa.

1.5. Significance

The importance of this research is first and foremost for the researcher to acquire an MBA in Management. It would also help managers at East African Bottling S.C., MOHA Soft Drinks Industry S.C., Awash Wine S.C., and BGI-Ethiopia PLC for better understanding of the needs, wants, and preferences of their employees so that they can provide a satisfactory service that can attract new customers to their business, and it would place a greater emphasis on the fundamental dimensions of the study variables. Apart from that, the study aids East African Bottling S.C., MOHA Soft Drinks Industry S.C., Awash Wine S.C., and BGI-Ethiopia PLC management in determining and correcting if there is no link between the study variables in their company.

Beside the above mentioned benefits the study's findings would benefits:

- In terms of job satisfaction and demographic factors, it can be utilized as a reference tool for the soft drinks, wine, and beer industries, allowing them to see their employees in diverse work environment domains and measure their total employee performance.
- It can also be used as a reference material for other researchers who want to do more research on the subject matter in the future.
- It would help the selected soft drinks, wine and beer companies managers to know the most important work environment, which are used to keep employees performance high.

1.6.Scope and Limitations

1.6.1. Scope

From June 2021 to December 2021, this study was conducted on one soft drink, one wine, and one beer companies in Addis Ababa (East African Bottling S.C., MOHA Soft Drinks Industry S.C., Awash Wine S.C., and BGI-Ethiopia PLC). There are a number of soft drinks, wine and beer companies, but the reason behind the selection of such the four sample was that, (1) employees having more than 10 years of job experience in the soft drinks, wine and beer companies, (2) accessibility criteria; infrastructure and data, and (3) due to variability criteria; the composition of soft drinks, wine and beer industries were found together at very close distance in the central area of Addis Ababa, Ethiopia. The study looked at the job satisfaction mediating roles and the demographics moderating impacts in the correlation between work environment and employee performance, using data from selected soft drinks, wine, and beer companies in Addis Ababa.

By using questionnaires the researcher collected primary data from employees of the selected organizations. The sample response employees were chosen at random using a stratified sampling process. The survey results were presented using descriptive and inferential statistics, and the data acquired using structured questionnaires was statistically analyzed using SPSS software. Furthermore, this research was limited to East African Bottling S.C., MOHA Soft Drinks Industry S.C., Awash Wine S.C. and BGI-Ethiopia PLC and do not include other private or public soft drinks, wine and beer companies.

1.6.2. Limitations

For this study all the major data was gathered from respondents via a cross-sectional study using questionnaires; hence, responses were based on the respondents' perceptions, which may have skewed the research conclusions. The study's flaws, on the other hand, open the door to future analysis and research on the subject using longitudinal research. Next, the ability to generalize the findings of the overall population was limited because the population sampled in this study was only from employees or top-level managers, middle-level managers, functional managers, and other staffs in Addis Ababa from two soft drinks, one wine, and one beer companies (i.e., East African Bottling S.C., MOHA Soft Drinks Industry S.C., Awash Wine S.C., and BGI-Ethiopia PLC). Therefore the study scope was limited to

the companies that produced soft drinks, wine, and beer in Addis Ababa. But it should include other companies and also get responses from other employees to test the job satisfaction mediating role and the demographics moderating impact in the correlation between work environment and employee performance that can be examined from a variety of perspectives. The researcher attempted to estimate a representative sample size despite the study's vast target audience in order to maximize the study's credibility. Furthermore, the survey's findings and recommendations would only apply to the soft drink, wine, and beer companies that participated in the study.

1.7. Organization of the Paper

The rest part of this paper is organized in to four chapters: Chapter Two: incorporated the theoretical and empirical review of the study variables. Chapter Three: incorporated the methodology used for sampling, data collection and analysis procedures. The fourth chapter included result and discussions of the findings of this study in relation to previous studies. The last chapter or chapter five incorporated the findings conclusions and the recommendations proposed by the researcher and also the recommendations proposed by the researcher for further studies.

CHAPTER TWO

LITERATURE REVIEW

2.1. Theoretical Review of the Study

Theories are categorized according to their scope, function, structure, and levels, according to Evenett and Hoekman (2008). A theory is a well-accepted fact that attempts to explain the cause-and-effect (causal) link between groups of observed phenomena in a plausible or rational manner (Kothari, 2004). The research is based on a number of hypotheses that have strong ties to the workplace, worker satisfaction, demographics, and organizational effectiveness. Some of the relevant theories discussed include; Theory of Work Adjustment, Herzberg's Two-Factor Theory; Achievement Theory (McClelland, 1961) and Existence, Relatedness, and Growth (Alderfer, 1969), Equity Theory (Adams, 1963), Expectancy Theory (Vroom, 1964), and Goal Setting Theory (Lock and Latham, 2002) among others.

2.1.1. Theory of Work Adjustment

This theory is known as the Person–Environment Correspondence Theory. It was created in 1964 by University of Minnesota professors René Dawis, George England, and Lloyd Lofquist. The more closely a person's talents (skills, knowledge, experience, attitude, habits, and so on) match the job's or organization's needs, the more likely they are to do a good job and be considered adequate by the employer. Similarly, the more closely the role or organization's reinforcers (rewards) match the values that a person strives to satisfy through their work, the more likely the individual will find the job rewarding. Achievement circumstances that encourage accomplishment and advancement, comfort conditions that encourage a reduction of stress, and status conditions that provide recognition and prestige are the six fundamental values that persons want to satisfy. Altruism refers to the settings that promote harmony and service to others, as well as safety and stability. Autonomy refers to the situations that encourage personal control and initiative.

The degree to which a person or an environment can tolerate a lack of correlation between abilities and requirements and value reinforcers is determined by their flexibility. Flexibility differs from one person to the next and from one setting to the next. Internal elements such as

personality or corporate culture, as well as external factors such as the availability of other options, will influence the level of flexibility. René et al. (1964) found that when the lack of correspondence is so significant that flexibility is no longer an option, some type of modification is often made.

The individual's active adjustment entails attempting to alter their working environment. They may try to adjust the job's content and, as a result, the behavior expectations to better match their strengths. Alternatively, individuals may strive to change the job's reinforcing by pursuing new rewards, such as better working conditions, more variety, or more responsibility. René et al. (1964) defined active adjustment as "seeking to change the person's abilities by training or changing their values or expectations in some way." The aforesaid theory is related to the variable of working environment in this study.

2.1.2. Herzberg's Two-Factor Theory

According to Herzberg's theory, there are two elements that cause people to be satisfied or dissatisfied with their jobs. According to Herzberg et al. (1959), the elements that cause contentment are not the same as those that create discontent. Employee satisfaction is determined by two factors: "hygiene" concerns and motivators. Company policies, supervision, remuneration, security, status, interpersonal ties, and working circumstances are all hygiene factors. Employees may not be motivated by hygiene issues, but they may be dissatisfied. Achievement, recognition, the work itself, responsibility, and advancement are all motivators. Motivators provide satisfaction through meeting people's desires for purpose and personal development. Motivators will increase job happiness and encourage production when hygiene issues are addressed. Unhappiness among workers and poor job performance can be avoided if cleanliness requirements are met. High levels of enjoyment and job performance, on the other hand, will never be obtained without the use of motivators. Workers who have the motivators, on the other hand, will show excellent performance and job satisfaction even if their hygiene demands are not met (Worrell, 2004).

2.1.3. Equity Theory

Employees measure what they put into a job against the outcome, according to equity theory. Employees see equity when they believe their pay for effort is comparable or similar to that of others in similar jobs. Employees will perceive inequity if they believe the effort-to-

reward ratio is unbalanced. Salary, recognition, promotion, and responsibility are some of the aspects of rewards (Spector, 2007). Employee happiness is increased only when rewards are recognized and viewed as equitable by the employees, according to several studies (Perry et al., 2006). Employees react to injustice by putting in less effort at work and/or requesting for a raise or promotion (Adams, 1963). Organizational leadership and management should strive to maintain equity through tying work to rewards, according to the assumption of equity theory. Employee motivation could be influenced by a fairness-based effort-reward ratio, which could have an indirect/direct impact on satisfaction and performance.

2.1.4. Expectancy Theory

According to expectation theory, people are motivated to strive and accomplish if they believe the expected outcomes are worthwhile (Fang, 2008; Redmond, 2010). Individual motivation is determined by three factors: anticipation, instrumentality, and valence, according to the theory (Vroom, 1964). Expectancy refers to a person's belief that their efforts and results are linked. Instrumentality refers to the belief that good performance will lead to a desirable reward, whereas valence refers to the belief that the reward will meet a critical need. Several authors (Lawler et al, 2009; Wehrich and Koontz, 1999) have claimed that people will engage in specific behaviors if the desire to meet the need is great enough to justify the effort and aid them in accomplishing their objectives. According to this notion, performance is influenced by meeting employees' needs by attempting to align their desires with the organization's goals.

2.1.5. Goal Setting Theory

According to goal setting theory, goals are the most essential elements influencing employee motivation and behavior, especially when presented with specific hard goals (Locke and Latham, 2002). Goals have four methods that influence performance (Locke, 1996). First, goals focus attention and effort toward goal-relevant activities and away from goal-irrelevant activities. Goals, on the other hand, have an invigorating effect. Ones that are set high require more effort than goals that are set low. Third, persistence is influenced by goals. Fourth, by triggering arousal, discovery, and/or application of task-relevant knowledge and methods, goals have an indirect effect on action. When people are dedicated to their goals, the goal-

performance relationship is at its best. People require summary feedback that displays progress toward their goals in order for goals to be effective (Locke, 1996).

Both the organization's aim and the individual manager's goal are sometimes at odds in an organizational context. When a person's specific goals are matched with the group's aim, the group's performance improves (Seijts and Latham, 2000). Personal goals that are not aligned have a negative impact on a group's performance. If it drives contradictory action tendencies, goal conflict degrades performance. Employees perceive themselves as successful in the workplace if they regard themselves as able to grow and meet employment challenges (Locke and Latham, 2002). The emphasis on cognitive processes impacting employee happiness and motivation is a common feature of all process theories.

2.2. Measures of Employee Performance

Employee performance encompasses all factors that affect and are related to an employee's work, whether directly or indirectly. According to Armstrong (2009), performance measures are agreed upon when the objectives are determined. Performance measures must demonstrate that the desired outcome was attained and that the employee performed as expected. This serves as the foundation for establishing feedback that will be used by both management and employees to track performance. Griffin, Neal, and Parker (2007) identify three fundamental performance measure dimensions: proficiency, adaptability, and pro-activeness, which they divide into three categories (individual, team and organization).

Mulwa (2009) defines performance as a set of indicators that provide managers with a quick and comprehensive perspective of the firm. Measurements should be objective and observable, data should be available for measurement, and current measures should be used or adapted as much as possible. Performance measurement has long been thought of as a part of the planning and control cycle that collects performance data and provides control feedback. Workplace behavior is influenced, and strategy implementation is monitored (Harrison, 1995). Customer happiness, assessing consistency, and understanding value drivers are just a few examples of sensitive areas where performance assessment has moved beyond input and processes (Politt & Bouckaert, 2004).

2.3.Factors Affecting Employee Performance

2.3.1. Work Environment

Job happiness is dependent on a pleasant and supportive work environment. Workplaces contain a variety of characteristics that might affect both physical and mental health. A good work environment is essential for employees to stay focused on their numerous jobs and work efficiently. Competitive salaries, a trusting connection between employees and management, equity and fairness for all, and a reasonable work load with ambitious but attainable goals are all indicators of a good workplace. All of these factors combine to create the workstation the greatest possible environment for employees to work in and achieve high levels of satisfaction. As a profit-driven company, building an environment that encourages contented employees leads to the necessary bottom lines.

Workplaces can be divided into three types, each of which is separate but linked. Physical work environment, psychological work environment, and social work environment are the three types of work environments.

According to Leshabari (2008), supportive work environments enable employees to do routine tasks more efficiently by maximizing the use of their knowledge, skills, and competencies, as well as available resources, to provide high-quality services.

2.3.1.1. Physical Work Environment

This is the working environment in which the physical or tangibles at the location where the task is conducted are dealt with. Machinery, office layout, temperature, ventilation, and lighting are all part of it. It also takes into account the amount of noise and the amount of space available. Workplace factors like heat, noise, and illumination have been demonstrated to have a direct and indirect impact on a variety of psychological processes. Noise, for example, can make it difficult to do some tasks cognitively (Banbury & Berry, 1998).

The level and nature of social interaction between coworkers can be influenced by the physical work environment. For example, the design of open plan workplaces and other characteristics of the physical layout may influence the kind of interactions that can occur (Sundstrom & Sundstrom, 1986). Physical safety may vary depending on the physical surroundings. According to a study by Barry (2008), every time the physical architecture of an office building is improved, productivity through staff performance increases by roughly

5-10%. Similarly, Chandrasekar (2011) found that the type and quality of illumination in the workplace improves employees' working experience, which leads to higher productivity.

Employee productivity is affected by illumination, noise, color, and air quality, according to Sarode and Shirsath (2014). Accident or injury fears are also likely to have an impact on psychological well-being.

2.3.1.2. Psychological Work Environment

The psychological work environment encompasses all components of the workplace that influence employee behavior. The three sorts of psychological phenomena examined by behavior scientists are affect (e.g. Emotions, mood, psychological symptoms, and affective disorders), and cognitions (e.g. attitudes, perception, decision-making), and behaviors (e.g. effectiveness, absence, motivation). The psychological work environment is thus the collection of work environment factors that influence how a worker feels.

The psychological work environment describes the mental activity that a worker engages in during working hours or while on the job. Good descriptions and references to various sources of information on stress, bullying, working needs, collaboration and conflict, and other topics are included in the psychological work environment. Within the psychological workplace, stress and well-being are common concerns. Workers consider a variety of factors, including the nature of job, expected income, and opportunities for advancement. These elements have an impact on an employee's level of satisfaction, which in turn has an impact on his or her performance. Mohamed (2005) discovered that when there is a big shift in salary, promotions, or perks, workers are more satisfied, which leads to increased productivity.

2.3.1.3. Social Work Environment

The social work environment is concerned with interpersonal relationships in the workplace. It involves communication techniques as well as superior-subordinate relationships. It also includes workplace relationships, others' willingness to help, and teamwork. Personal respect for employees at all levels of an organization is essential in order to build a progressive work environment. Discrimination and segregation based on age, gender, or racial origin, sexual harassment, and the significance of personal politics in building working relationships are all examples of personal respect in the workplace. According to Amible and Kramer (2011),

managers must act as facilitators in order to help employees overcome work barriers and increase productivity.

2.3.2. Job Satisfaction

Many researchers have defined job happiness in different ways based on their findings from literature reviews. Job satisfaction is defined by Kreitner and Kinicki (2004) as "an affective and emotional response to numerous facets of one's job." It is "an emotional response that comes from the employee's perceived fulfillment of their demands and what the firm has supplied," according to Locke (1976). Despite recent attempts by scholars to replicate present theoretical foundations of job satisfaction, Hoppock's (1935) definition, which was one of the earliest, is still the most frequently used. "Any combination of psychological and environmental variables that causes a person to honestly state, I am content with my job," he defined job satisfaction as (Hoppock, 1935).

Most definitions, in general, encompass an employee's emotional reaction to their work. This could refer to their overall attitude about their job or specific components of it, such as their coworkers, salary, or working circumstances (Lu et al., 2005). In addition, job satisfaction may be determined by how well work outputs meet or surpass expectations. As a result, it indicates that the most important situational effect on job happiness is the job itself, and that personality type may be the most relevant predictor of core self-assessment job satisfaction. Extraversion and scrupulousness, for example, are obvious personality traits that can affect job satisfaction (Judge, 2002).

2.3.2.1. Antecedents of Job Satisfaction

Factors that contribute to job satisfaction are referred to as antecedents. These elements are divided into two groups by Spector (1997). One group is concerned with the environment, while the other is concerned with individual elements. Individual elements include psychological traits like personality, attitude, and conduct, as well as demographic traits like age, gender, and educational attainment (Rauf, 2012; Ramanaidu, 2011). Other researchers divided the variables into cognitive and emotive categories (Organ & Near, 1985). Personal judgments and opinions are cognitive variables, and sentiments and emotions about the job are affective factors.

Herzberg et al. (1959) divided antecedent elements into those that cause satisfaction and those that cause dissatisfaction, as previously stated. Achievement, recognition, work itself, responsibility, and promotion are regarded to enhance job satisfaction, whereas policy and administration, supervision, salary, interpersonal interactions, and working conditions are thought to be causes of job discontent. Other employee qualities or dispositional factors may also influence job satisfaction. As a result, job satisfaction is a complex concept influenced by both inner and external factors (Marzukia et al., 2012).

Job satisfaction has also been divided into two categories: facets satisfaction and overall satisfaction (Suma & Lesha, 2013). The term "overall satisfaction" refers to a person's general level of satisfaction or unhappiness. The tendency of an employee to be satisfied with elements of their employment is referred to as facets satisfaction (Parvin & Kabir, 2011; Spector, 2007). When employees are diverted from their essential responsibilities, job satisfaction may suffer (Wright, 2003). This could be due to a lack of understanding or a sense of not contributing to the primary purpose. The following are some of the most important antecedent factors of job satisfaction:

Pay or Salaries: Pay satisfaction refers to an employee's perception of remuneration for services done, and it can cover any and all financial rewards received during the course of employment. Employees who are fairly compensated feel obligated to return the favor (Meyer & Allen, 1997). Working hours and wages may drive employees to be unsatisfied (Zembylas & Papanastasiou, 2006).

Promotion: Employees expect to be rewarded or given more authority as they gain experience through promotions. According to Eslami and Gharakhani (2012), job satisfaction (promotions, personal relationships, and pleasant working conditions) and organizational commitment are positively related.

Coworkers: Employees want support, respect, and acknowledgment from their coworkers. Collegiality and relationships among coworkers lead to satisfaction with coworkers. Administrative support and networking among teachers in instructional leadership may improve job satisfaction in a school setting.

Supervision: For all employees, supervision and leadership are critical. When there is a better relationship with the supervisor, there is satisfaction with supervision. Employees with

more experience and those who are older prefer less supervision than those with less experience.

Work itself: People enjoy tasks that are both fascinating and hard. Job satisfaction will rise as a result of jobs that are intriguing and demanding.

Working conditions/environment: Working conditions refers to the working environment of a person in an organization. Working circumstances such as clean classrooms motivate employees to do a better job and may lead to an increase in organizational commitment.

2.3.3. Demographic Characteristics

Demographic factors are commonly considered to have a significant impact on employee performance. Demographic traits, according to George (2010), are human qualities that include information such as ethnicity, race, and family size. Demographic characteristics are defined by Bell (2008) as personal statistics on gender, age, sex, education level, income level, marital status, occupation, religion, birth rate, mortality rate, average family size, and average age at marriage. When it comes to age, for example, one is expected to be energetic and eager from the start of their career. Their performance is supposed to improve as they mature inside the business, up until a particular age when their energy levels decline and performance declines, necessitating the development of a retirement age (Adio, 2010).

According to Fletchl (2010), demographic variables have an impact on whether or not employees are devoted to their jobs. He observes that how well an employee performs, how many years they are willing to devote to the firm's objectives, and how well they act in the best interests of the firm's objectives is heavily influenced by how well organizations address the needs associated with their demographic characteristics. He, on the other hand, fails to show how the same may be put into effect. Managing demography, according to Morrison (1992), entails exploiting and employing cultural variations in people's abilities, ideas, and creativity to contribute to a common purpose in a way that gives the firm a competitive advantage.

According to Hayles and Mendez (1997), variety fosters greater creativity, a broader spectrum of viewpoints, better problem definition, more options, and better solutions. Demographic features are defined by Jackson et al. (1995) as the presence of differences among members of a social unit. As Rosen and Lovelace (1991) point out, the workforce is

more diverse in terms of gender, color, ethnicity, and national origin, and it includes people with a variety of attitudes, wants, goals, values, and work habits. Workplace demographic features, according to Greenberg (2004), refer to a number of distinctions among people in an organization, such as race, gender, ethnic group, age, personality, cognitive style, tenure, organizational role, and educational background.

2.3.4. Demographic Characteristics that Influence Employee Performance

According to Fletchl (2010), demographic considerations have an impact on whether or not employees are devoted to their jobs. He observes that how well an employee performs, how many years they are willing to devote to the firm's objectives, and how well they act in the best interests of the firm's objectives is heavily influenced by how well organizations address the needs associated with their demographic characteristics. He, on the other hand, fails to show how the same may be put into effect. Diverse populations are influenced by a variety of demographic factors. Age, gender, marital status, and education are the most well-known. Among the demographic characteristics influencing performance are discussed below.

2.3.4.1. Influence of Age on Employee Performance

Many academics have identified age as a critical factor in deciding whether an employee would be able to perform above or below expectations. According to Andoh, Biako, and Afranie (2011), the relationship between age and performance is a concern for the future. Adler (2005) discovered that demographic characteristics can boost performance and that recruiting from a wider variety of age and ethnicity gives the organization a greater talent pool.

Andoh et al., (2011) also point out that various people look at the concept of age from different perspectives. Some people consider old age to be an accumulation of experience and wisdom, and thus a role in their capacity to perform better. On the other hand, some people associate old age with exhaustion, fatigue, increasing family and other social responsibilities, and disease vulnerability, all of which are factors in low productivity. Hedge and Borman (2012) propose that age should not be considered a determinant of performance. They claim that age is a poor indicator of performance, and that individuals who hire people based on their age are default decision makers who don't believe in any logical kind of truth.

Employee performance tends to decrease down as employees get older, according to Hedge and Borman (2012). Employers, according to Hedge and Borman (2009), can benefit from the aging workforce by attending to their needs linked to aging and leveraging on their strengths, such as experience and ingenuity, as a result, when it comes to employee performance, the topic of age demands a lot of attention. Burlacu (2012) points out that, as a result of the fast changing work environment, employers in emerging countries are seeing an increasing diversity in their employee age structure, and hence variance in performance.

2.3.4.2. Influence of Education on Employee Performance

In today's world, education is becoming increasingly important in the workplace. Before considering someone for a job, most businesses demand that they meet certain educational requirements. Due to recent high unemployment rates in several nations, graduates are being forced to accept positions for which they are either under-qualified or overqualified (Silva, 2009). According to Easterlin (2007), education-based skills are a measure of an employee's ability to execute at a high level. Different fields of expertise, on the other hand, are required to suit the labor needs of universities.

Individuals can be used efficiently in a flexible manner in current times, according to Cushway (2003), regardless of their previous qualifications when they were employed. It's possible that this isn't represented in the job descriptions. In line with this, employers are more interested in abilities, or what may be positively established as potential contributions to the firm if hired, than in the workforce's academic qualifications.

Griffin and Moore (2011) claimed that this has a two-fold impact, notably in terms of performance. For starters, non-specialized workers are more likely to make mistakes, which can manifest in their job as poor performance standards due to a lack of basic conceptual grounding in what they are doing. As a result, their productivity level may be low. Second, motivation can be poor, especially for individuals who are obliged to work in departments that they do not want to work in but are compelled to do so due to circumstances (Griffin, 2011). Low motivation and poor performance can emerge as a result of this.

2.3.4.3. Influence of Gender on Employee Performance

Gender has an impact on an individual's performance, and as a result, human resource management should take this into account when allocating tasks and evaluating employee

performance. According to Jackson (2009), various preconceptions exist in many organizations regarding the differences in talents between men and women. As a result, they raise the probability of stereotypically driven performance results at the time of evaluation. Andoh et al., (2011) emphasize the necessity of knowing that only a few gender-related variables will affect men and women's performance. Men, on the other hand, are more aggressive and want to see results quickly, while women are good at respecting regulations and following directions. However, the variations are modest, and they may not be accepted as a universal explanation for why men and women achieve differing performance standards (Murray, 2002).

Murray (2002) went on to say that there are a variety of probable explanations for this. To begin with, women are given a longer maternity leave than males, who are just given a few days and are occasionally rejected depending on the policies of the businesses they work for. Women are more accountable for direct family problems, such as child care, than their male counterparts in a cultural setting.

Andoh et al. (2011) claimed that in today's world, women as primary or secondary breadwinners add immensely to their responsibilities. At the end of the day, this can have an impact on their performance. Despite the fact that people all over the world are battling for women's equality, it has yet to be accomplished, and women are still denied leadership positions that are full of challenges that may be used to test their capacity to surpass males. Giddens (2010), on the other hand, looks at gender from a physiological standpoint. He points out that, as much as there are battles for equality, men and women's physical disparities might have a direct impact on their performance.

2.3.4.4. Influence of Work Experience on Employee Performance

The amount of years one has worked for a company can influence whether or not they perform better. Many years of work within an organization suggest that the employer-employee relationship is sustainable in terms of attaining the organization's goals, in addition to accumulating work experience (Yeatts & Hyten, 1998). Work experience, according to Yeatts and Hyten (1998), is a description of the direct employer-employee relationship, a backdrop that might influence how an employee performs. Employees who stay in an organization for a long time report that they are content with their jobs and their time there,

but those who leave are dissatisfied and hopeful of finding better jobs that will meet their needs.

2.3.4.5. Influence of Marital Status on Employee Performance

The situation of being married or unmarried is referred to as male/female marital status. The state of one's marriage has been found to be a reliable predictor of organizational commitment. People who are married are more committed to their organization than those who are not. Married folks have more responsibilities to their families and require greater employment stability and security. As a result, they are expected to devote more time and effort to their current employer than their single colleagues. The findings and their implications led to the conclusion that marital status is favorably associated with organizational commitment (Ishfaq et al., 2010).

In addition to his or her household obligations, an individual spends more in his or her organization in every way possible, including potential skills, time, overtime, and so on. In terms of job offers from other organizations, he/she undoubtedly demonstrates more commitment to their job and the concerned organization. As a result, both the employee and the employer will have higher expectations of each other. In brief, marital status has a significant impact on corporate dedication and, as a result, employee performance (Saifuddin & Nawaz, 2012). Becker (1981) shown that marriage is economically advantageous since it allows for more specialization. He claims that married workers can focus on labor market activity while their spouses focus on family production. According to Crawly (2005), married employees have a higher intention to perform than unmarried employees due to family commitment.

2.4. Review of Empirical Study

Chirchir (2016) investigated work satisfaction among primary school teachers in public primary schools in Bomet County, Kenya, in connection to various demographic characteristics. The research was carried out utilizing a self-administered questionnaire in the form of a survey. The study enlisted the help of 848 teachers from 129 primary schools. In this study, descriptive and inferential statistics were used to examine the data. According to the findings, there were substantial variations in satisfaction levels between male and female teachers when it came to administrative chores and teaching. Male instructors are also more

satisfied with administrative work than female teachers, according to the survey. Male instructors are also more satisfied with their jobs than female teachers. Overall, there was no substantial difference in job satisfaction levels between male and female teachers, according to the survey. Job satisfaction, on the other hand, was found to be positively connected with the respondent's age and teaching experience.

Hassan and Ogunkoya (2017) investigated the impact of insurance salesmen's socioeconomic backgrounds on job performance in the Nigerian insurance business. Age, marital status, educational qualifications, work duration, and gender are among the demographic parameters investigated. A total of 113 respondents were investigated using a descriptive approach, and primary data was acquired via a questionnaire. The study's results, which were evaluated using both regression and correlation, revealed a moderate positive link between the variable studied and work performance. They account for 13% of the parameters that explain the respondents' work performance when taken together. According to the findings, marital status and employment tenure were determined to be the most important predictors of insurance salesmen's job performance.

With reference to Brandex Intimate-Awissawella, Lankeshwara (2016) investigated the impact of the office environment on employee performance. The study used primary data, and a sample of 85 employees was chosen using a proportionate sampling technique with questionnaires that had already been produced. Finally, the findings revealed that the workplace has a considerable impact on employee performance.

In a case study of a foreign private bank in Turkey, Leblebici (2012) investigated the impact of workplace quality on employee productivity. Employees feel motivated when working in a modernized workplace that is well-decorated, well-organized, and has adequate storage facilities, according to the findings of the study.

Khan et al. (2011) investigated the effects of the workplace environment and infrastructure on employee performance in Pakistani schooling. Finally, the findings revealed that workplace incentives improve employee performance. According to a study by Ranjan and Mishra (2017), the Impact of Rewards on Employee Performance: A Case of Indian Oil Corporation, Patna Region, workplace reward has a positive and statistically significant impact on employee performance. Aslam (2018) published a study on the impact of work-life

balance on employee performance in the education industry. Work-life balance has a favorable and significant impact on employee performance, in Pakistan.

In Quetta, Pakistan, Raziq and Maulabakhsh (2015) investigated the impact of working environment on job satisfaction in the banking, educational, and telecommunication industries. The study used a quantitative methodology, with educational institutes, the financial sector, and the telecommunications industry in Quetta, Pakistan, as the target population. Data from 210 employees is collected using simple random sampling. Finally, the study's findings revealed that there is a link between the working environment and job satisfaction. Al-Omari et al., (2017) used a case study of a Jordanian engineering firm to evaluate the impact of work environment on job performance. The study employed a cross-sectional survey with a sample size of 85 employees using quantitative technique. Noise, temperature, air, light and color, space, and the happiness of employees were all investigated in relation to work environment issues. Finally, the findings demonstrated that noise, workplace furniture, ventilation, and light all had an adverse effect on job performance.

In Ghana National Petroleum Corporation, Asante (2012) performed study on the impact of office ergonomics (GNPC). According to the findings of the study, if office ergonomics are incomplete, employee performance suffers by 20 to 80 percent.

Nduku et al., (2015) investigated the impact of working conditions on employee performance at Kenya's commercial bank headquarters. Stratified random sampling was used to choose 172 employees. Questionnaires were used to collect primary data. Finally, the findings revealed that working conditions have a favorable impact on employee productivity. According to the study, the bank should make an effort to ensure that working conditions are favorable, with a particular focus on physical factors, which have the biggest impact on staff performance.

Nzewi et al., (2018) investigated the physical work environment and employee performance at a number of brewing companies in Nigeria's Anambra State. The sample size was calculated using the Yemane calculation, and questionnaires were distributed using the Boley proportion allocation algorithm. Finally, the study's findings demonstrated that there is a significant and favorable association between employee performance and the physical work environment. Employees should be informed before equipment is mounted, and adjustments

should be included into the design and layout if possible to adjust positioning to suit different groups of workers, according to the study.

In Cross River State, Nigeria, Ushie et al. (2015) investigated the impact of work environment on employee engagement in agro-based sectors. Participants in the study were from the state's two major agriculture industries. One thousand one hundred and ninety-four (1194) people were chosen for the study on purpose. A four-point Likert scale questionnaire was used to get information from participants. Pearson Product Moment Correlation was used to examine the data (r). Employee commitment and, as a result, performance are positively connected with work environment factors such as constant communication flow, reasonable workload, electricity availability, and a work environment devoid of known hazards, according to the findings. Management of agro-based sectors in Cross River State should build and support positive work environments in their organizations, according to the study, in order to increase employee commitment, wellness, and overall performance and productivity.

Teklehaimanot et al. (2007) investigated the working conditions of Ethiopian health extension workers. The study's overarching goal was to analyze health extension workers' working conditions and their impact on job satisfaction. They used an in-depth field investigation in 50 health posts throughout six regions, 23 zones, and 27 Woreda with a group of 60 health extension workers. Finally, the findings suggested that maintaining staffing patterns is difficult, and providing attractive working conditions is crucial to increasing employee happiness.

In Ghana, Omoh et al. (2015) investigated workplace discrimination and its impact on employee performance. Questionnaires were collected from 159 employees from five different firms in five different industries to see if workplace prejudice had an impact on employee performance. Finally, the study's findings show that workplace discrimination has a considerable detrimental influence on employee performance. Khan and Jabbar (2013) investigated the factors that influence employee performance in the corporate sector: a case study of an emerging economy, Pakistan. Three different eight companies provided data for the study using a questionnaire. A convenience sampling technique was utilized to pick 240

respondents for the study. According to the findings, there is a favorable and statistically significant association between leadership and employee performance.

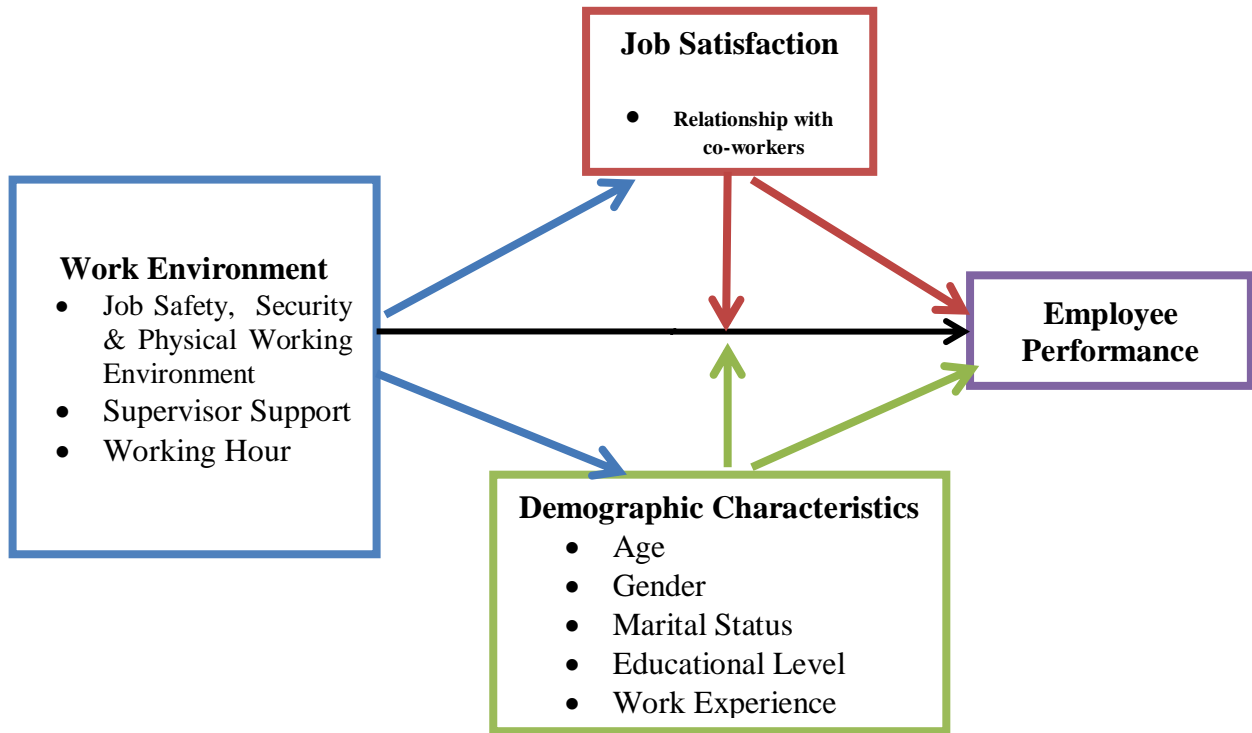
2.5. Summary and Study Gap

To summarize, the research looked at different literatures and studies conducted in different parts of the world and discussed both the theoretical and empirical literatures from a variety of sources. As indicated in the literature reviews, the majority of the research is done in more developed nations, with the combination of two or more of the variables in this study. Or simply mixing work environment with job satisfaction, or work environment with employee performance and soon. But there was no study conducted by combining all the four variables (i.e., work environment, job satisfaction, demographic characteristics and employee performance) at the time. Furthermore, none of the prior researchers, to the best of the researcher's knowledge, have looked into the job satisfaction mediating roles and the demographics moderating impacts in the correlation between work environment and employee performance. Therefore, this study was done to partially address this gap in the industry human resource management literature by investigating the interrelationships among work environment, job satisfaction, demographic characteristics and employee performance in East African Bottling S.C., MOHA Soft Drinks Industry S.C., Awash Wine S.C. and BGI-Ethiopia PLC found in Addis Ababa branches, which were the leading soft drink, wine and beer industries in Ethiopia.

2.6. Conceptual Framework

After summarizing and collecting the literature, Creswell (2009) recommends thematically arranging the review or organizing it by essential topics to conclude the study. The following conceptual framework was developed to provide a justification for the study as a result based on theoretical and empirical understanding discussed in the preceding section; the conceptual framework was as follows in Figure 2.1 below:

Figure 2.1: Conceptual Framework



Source: From Literature Review and Badrianto and Ekhsan (2020)

CHAPTER THREE

METHODOLOGY

The research design, sample and sampling technique, data source, data collection instruments, and data analysis procedures were all described in depth in this chapter.

3.1. Study Area Description

These four companies were selected for this study because they were found concentrated at one sub-city in the near distance. Ethiopian Bottling Share Company was the first to bottle Coca-Cola in Ethiopia's capital, Addis Ababa, in 1959. The company has grown significantly over the years as a result of its leadership's collaboration with employees. Currently there are 460 permanent employees in Addis Ababa (East African Bottling S.C., 2020).

MOHA Soft Drinks Industry S.C. was established on May 15, 1996, in the Tekle Haimanot Plant. Currently, there are 720 permanent employees in Addis Ababa (MOHA Soft Drinks Industry S.C, 2020).

Awash Wine S.C is the first winery in Ethiopia was established by a Greek family in Lideta, Addis Ababa, in 1936. Currently, the wine farm employs 750 permanent employees in Addis Ababa and around 400 seasonal workers on an equivalent full-time basis (Awash Wine S.C., 2020).

B.G.I Ethiopia PLC is an Ethiopian firm based in Addis Ababa. BGI has been producing and distributing beer, wine, and beverage goods in Ethiopia since 1998. The historic St. George Brewery in Addis Ababa, Currently, there are 524 permanent employees in Addis Ababa (BGI-Ethiopia PLC, 2020).

3.2. Design of the Study

This study employed both descriptive and explanatory research designs. According to Saunders et al. (2009), description is crucial in management and business research. In the study area, descriptive research was utilized to assess the work environment, job satisfaction, demographic characteristics, and employee performance, as well as provide a basic summary of the sample data and present quantitative descriptions in a manageable format. The relationship between the study variables and their impact on each other were tested by using an explanatory research designs. A qualitative and quantitative research approaches were

adopted for this study. The qualitative research approach was used to analyze phenomena linked to or affecting the study variables. And also the quantitative research approach was used to see how work environment influences employee performance, as well as how job satisfaction and demographic parameters mediated and moderated the correlation between work environment and employee performance. Beside this the researcher also employed a cross-sectional research design. A cross sectional design concentrates on a single phenomenon at a certain time (Saunders et al., 2009). This was because most of academic researchers were conducted in a cross-sectional research designs.

3.3.Data Source and Type

Structured questionnaire through Self-Administered Schedules(SAS) were used in this study for collecting primary data from employees of East African Bottling S.C., MOHA Soft Drinks Industry S.C., Awash Wine S.C., and BGI-Ethiopia PLC in Addis Ababa branches. Secondary data was gathered from existing studies, journals, websites, manuals, internal publications, and books to help the researcher obtain theories and concepts related to the research topic.

3.4.Targeted Population

All permanent employees of East African Bottling S.C., MOHA Soft Drinks Industry S.C., Awash Wine S.C. and BGI-Ethiopia PLC found in Addis Ababa branches were considered as a target population for this study. Currently there are 2454 permanent employees in the companies working and these 2454 were considered as the target population of the study and shown in Table 3.1 below:

Table 3.1: The Target Population of the Study

No	Name of Company	Number of Permanent Employees in Addis Ababa Branch
1	East African Bottling S.C.	460
2	MOHA Soft Drinks Industry S.C.	720
3	Awash Wine S.C.	750
4	BGI-Ethiopia PLC	524
Total		2454

Source: Survey Data (2021)

3.5.Sampling Procedures

3.5.1. Sampling Technique

For this study the researcher was used the probability sampling technique, which uses randomization to make sure that every element of the population gets an equal chance to be part of the selected sample. Stratified sampling were applied due to heterogeneity of the target population in the study area. This technique divides the elements of the population into small subgroups (strata) based on the similarity in such a way that the elements within the group are heterogeneous among the other subgroups formed. And then the elements are randomly selected from each of these strata. Therefore, based on the nature of their employment and work in the organization, the study's population was divided into four key target categories. Top-level managers, middle-level managers, functional managers, and other employees fall under this category.

The existing employees list was obtained from the head office of East African Bottling S.C., MOHA Soft Drinks Industry S.C., Awash Wine S.C., and BGI-Ethiopia PLC found in Addis Ababa branches, and shows that out of the total 2454 employees, the respondents from each stratum were chosen at random (40 of them were Top-level managers, 120 of them were Middle-level managers, 320 of them were functional managers and 1974 of them are other staffs).

3.5.2. Sample Size Determination

Because the target population of the study was finite a formula of Yamane (1973) was selected to establish the sample size for the study. The formula is as follows:

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

Where

n sample size,

N population, which is 2454, and

e error term, or 5% (i.e. at 95 percent CI)

The study's simple size was calculated using the procedure above as follows:

$$n = \frac{2454}{1 + 2454(0.05)^2} \approx 344$$

As a result, there were 344 employees would be included for this study as a sample.

In order to get a proportional sample from each stratum the researcher employed Kothari (2004)proportional allocation as follows:

$$N_a = \frac{nN_b}{N}$$

Where:

N_a denotes a strata’s proportional sample.

n refers to sample size

N_b refers to the total population of each stratum.

N is the number of people in the target group.

Table 3.2: Types of Position and Sample Appropriation

Types of Position	Total No. of Population	Proportional Size
Top-Level Managers	40	$\frac{344 \times 40}{2454} = 5$
Middle-Level Managers	120	$\frac{344 \times 120}{2454} = 17$
Functional Managers	320	$\frac{344 \times 320}{2454} = 45$
Other Staffs	1974	$\frac{344 \times 1974}{2454} = 277$
Total	2454	344

Source: Researcher Own Work, (2021)

3.6.Data Collection Procedures

The primary data collection tool used in this study was self-administered questionnaires. The contents of the questionnaires were derived from a survey of related literature to verify the validity of the questionnaires. 344 employees from East African Bottling S.C., MOHA Soft Drinks Industry S.C., Awash Wine S.C., and BGI-Ethiopia PLC branches in Addis Ababa were randomly selected and given the questionnaires. In order to make the primary data collection procedures easy close-ended questions were used in the questionnaires with a five-

point Likert scale ranging from (1 = strongly disagree to 5 = strongly agree), which were translated into Amharic to obtain the required primary data from respondents.

3.7.Data Analysis Procedures

The questionnaires were coded and modified for completeness and consistency when they were received. To ensure accuracy throughout analysis, the questionnaires were coded according to each study variable to ensure ease of analysis. The Statistical Package for Social Science (SPSS) version 21 was used to examine quantitative data using descriptive statistics and inferential analysis.

3.7.1. Descriptive Statistics Analysis

By using frequency tables, percentage and measure of central tendency(mean and standard deviation), descriptive statistics analysis was used to give simple summaries about the sample data and present quantitative descriptions in a manageable form in the study variables such as the background of the respondents, work environment, job satisfaction and employee performance dimensions in to a summary format. Also, descriptive statistics analysis was used to compare the various variables included in this study.

3.7.2. Reliability and Validity Test

Cronbach's Alpha, which assesses internal consistency by establishing that certain items on a scale measure the same construct, was used to conduct the reliability investigation. Hair et al. (2010) defined a 0.7 and above Alpha value criterion as the most dependable, which served as the study's benchmark.

Unfortunately, there is no single unambiguous indicator of a scale's validity, and validating a scale means gathering empirical evidence concerning its use (Hair et al., 2010). There are many methods of validity were used to check the content validity. The accuracy with which a measure or scale sampled from the goal universe or realm of content is referred to as content validity. The questionnaire's content validity was confirmed by a thorough review of previous literature on the mediating effects of job satisfaction and the moderating effects of demographics in the relationship between work environment and employee performance.

3.7.3. Pearson and Partial Correlation

To determine the relationships between work environment dimensions (job safety and security, physical working environment, relationship with coworkers, supervisor support, and working hour) and job satisfaction, as well as the relationship between demographic characteristics, job satisfaction, and employee performance, Pearson's correlation coefficient or measure of associations was used in this study. The correlation coefficient was used to determine the strength and magnitude of the linear link between two variables, which is always between -1 and +1. A correlation coefficient of +1 indicates that two variables have a strong and positive linear relationship. A correlation value of -1, on the other hand, implies a strong and negative linear relationship between two series. A correlation value of 0 indicates that two variables do not have a linear relationship(Hair et al., 2010).

In order to find out the job satisfaction mediating and the demographics moderating effects in the correlation between work environment and employee performance in this study area, a partial correlation matrix was first used to explore the relationship between the two variables while controlling for job satisfaction and demographics.

3.7.4. Multiple Regression Analysis

Multiple regression analysis was used to investigate the effect of work environment dimensions (i.e., job safety and security, physical working environment, relationship with coworkers, supervisor support and working hour) have on job satisfaction and on demographic characteristics it also was used to investigate the effect of job satisfaction and demographic characteristics have on employee performance.

Regression Functions

The equation of multiple regressions on this study was generally built around four sets of variable, namely dependent, the mediating and moderating variables and independent variables. The basic objective of using regression equation is in order to make the researcher more effective at describing, understanding, predicting, and controlling the stated variables.

As described in Saidi et al. (2019), the job satisfaction was regressed against five independent variables of work environment dimensions. The equation was expressed as follows:

$$Y = \beta_0 + \beta_1X_1 + \beta_2X_2 + \beta_3X_3 + \beta_4X_4 + \beta_5X_5 + \epsilon \dots \dots \dots (1)$$

Where:

Y = is the dependent variable (job satisfaction),

β_0 = is the constant

X₁ = Job Safety and Security

X₂ = Physical Working Environment

X₃ = Relationship with Co-Workers

X₄ = Supervisor Support and

X₅ = Working Hour are the explanatory variables.

β_1 is the intercept term which gives the mean or average effect on Y if all the variables excluded from the equation. Its mechanical interpretation is the average value of JS when the stated independent variables are set equal to zero.

β_2 , β_3 , β_4 , and β_5 refer to the coefficient of their respective independent variable, which measures the change in the mean value of Y, per unit change in their respective independent variables.

ϵ = is the total forecast error (residual)

As described in Saidi et al. (2019), the employee performance was regressed against five independent variables of work environment dimensions. The equation was expressed as follows:

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + \epsilon \dots \dots \dots (2)$$

Where:

Y = is the dependent variable (employee performance),

β_0 = is the constant

X₁ = Job Safety and Security

X₂ = Physical Working Environment

X₃ = Relationship with Co-Workers

X₄ = Supervisor Support and

X₅ = Working Hour are the explanatory variables.

β_1 is the intercept term which gives the mean or average effect on Y if all the variables excluded from the equation. Its mechanical interpretation is the average value of JS when the stated independent variables are set equal to zero.

$\beta_2, \beta_3, \beta_4,$ and β_5 refer to the coefficient of their respective independent variable, which measures the change in the mean value of Y, per unit change in their respective independent variables.

ε = is the total forecast error (residual)

As described in Saidi et al. (2019), the employee performance was regressed against one independent variable of job satisfaction. The equation was expressed as follows:

$$Y = \beta_0 + \beta_1 X_1 + \varepsilon \dots \dots \dots \dots \dots \dots \dots \dots \dots (3)$$

Where:

Y = is the dependent variable (employee performance)

X_1 = is the overall Job satisfaction

β_0 = is constant

β_1 = is coefficient of the overall job satisfaction

ε = is the total forecast error (residual)

As described in Hassan and Ogunkoya(2014), job satisfaction was regressed against five independent variables of demographic characteristics dimensions. The equation was expressed as follows:

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + \varepsilon \dots \dots \dots \dots \dots \dots \dots (4)$$

Where:

Y = is the dependent variable (job satisfaction),

β_0 = is the constant (value of Y when the value of all independent variables are 0)

X_1 = Gender

X_2 = Age

X_3 = Marital Status

X_4 = Education Level and

X_5 = Work Experience are the explanatory variables.

$\beta_1, \beta_2, \beta_3, \beta_4,$ and β_5 refer to the coefficient of their respective independent variable, which measures the change in the mean value of Y, per unit change in their respective independent variables.

ε = is the total forecast error (residual)

The following assumptions of multiple linear regressions were tested before running the models and described in chapter four briefly. These were sample size adequacy and independent observation, keeping an eye out for outliers, test for Homoscedasticity, test for normality and linearity and test for Multicollinearity. The regression analysis was used to test the proposed hypotheses and was performed by using the standard and hierarchical multiple regression methods.

3.8. Variables Definition and Operationalization

There are four kinds of variables in this study; these are Employee Performance as dependent variable, Job Satisfaction as mediating variable, Demographic Characteristics as moderating variable, and Work Environment as independent/explanatory variables.

3.8.1. Independent Variable

3.8.1.1. Work Environment

Work environment is somewhat that is in the workers setting and that impact their finishing tasks assigned. The work environment is the entire tool kit, the close environment in which methods, works, and arrangements of a person both as individuals and as a group (Jain & Kaur, 2014). The work environment is also defined by noise, tools, materials, space, physical layout, and co-worker relationships as well as the quality of all of those that have essential impacts on the quality of work (Raziq & Maulabakhsh, 2015). The questionnaires of work environment are developed and adapted from previous studies of Jain & Kaur (2014) and Saidi et al., (2019). It was operationalized using twenty three items. Top-level managers, middle-level managers, functional managers, and other employees from East African Bottling S.C., MOHA Soft Drinks Industry S.C., Awash Wine S.C., and BGI-Ethiopia PLC branches in Addis Ababa were asked to rate the variable on a five-point Likert scale ranging from (1) strongly disagree to (5) strongly agree.

3.8.2. The Mediating and Moderating Variables

3.8.2.1. Job Satisfaction

According to Owusu (2014) job satisfaction is a feeling of preference or satisfaction with one's work or experience at work and this condition can lead employees to a condition where they can improve their performance level. Meanwhile, in different conditions, emotionally dissatisfied with work, can cause low performance of employees and on the other hand, high

performance is very important for organizations to achieve what has been the goal. The questionnaires of job satisfaction are developed and adapted from previous studies of Mabaso & Dlamini (2017) and Uzun & Özdem, (2017). It was operationalized using four items. Top-level managers, middle-level managers, functional managers, and other employees from East African Bottling S.C., MOHA Soft Drinks Industry S.C., Awash Wine S.C., and BGI-Ethiopia PLC branches in Addis Ababa were asked to rate the variable on a five-point Likert scale ranging from (1) strongly disagree to (5) strongly agree.

3.8.2.2. Demographic Characteristics

Demographic characteristics are personal statistics on gender, age, education level, income level, marital status, occupation, religion, birth rate, mortality rate, average family size, and average age at marriage (Bell, 2008). According to George (2010) from these demographic characteristics the most to have a significant impact on employee performance are gender, age, marital status, education level and service year. Therefore, these five personal statistics items were used as indicators of demographic characteristics and adapted from Ishfaq et al., (2010) and Andoh et al., (2011). It was operationalized using nominal scale items.

3.8.3. Dependent Variable

3.8.3.1. Employee Performance

Employee performance is defined as the quantity and quality of work, collaboration, commitment, lateness and absenteeism, as well as employees' adherence to organizational principles. Employee performance refers to the measurable accomplishments and contributions of individual employees. It's a complicated concept that's influenced by a variety of elements like demographic characteristics (such as age, gender, marital status, education level, work experience) other variables like work environment, and job satisfaction (Hambali & Idris, 2020; Idris et al., 2020). Six items were used to operationalize employee performances which were adapted from Jamil and Rajas(2011). Top-level executives, middle-level executives, functional managers, and other employees in Addis Ababa branches of East African Bottling S.C., MOHA Soft Drinks Industry S.C., Awash Wine S.C., and BGI-Ethiopia PLC were asked to rate the variable on a five-point Likert scale ranging from (1) strongly disagree to (5) strongly agree.

The summary of operational and measures of the study variables were presented in Table 3.3 below:

Table 3.3: Operational Variables of the Study

Variables	Indicators	Scale	Source
Demographic Characteristics	Gender	Nominal Scale	Ishfaq et al., (2010); Andoh et al., (2011),
	Age		
	Marital Status		
	Educational Level		
	Work Experience		
Work Environment	Physical	5 Point Likert Scale	Jain and Kaur (2014); Saidi et al., (2019)
	Non-Physical		
Job Satisfaction	Work itself	5 Point Likert Scale	Mabaso and Dlamini (2017); Uzun and Özdem, (2017)
	Cooperation		
	Promotion		
	Supervision		
Employee Performance	Work quantity	5 Point Likert Scale	Jamil and Raja (2011)
	Work quality		

Source: Survey Result (2021)

3.9. Deliberations in Ethics for the Study

According to Mugenda and Mugenda(2003), a researcher must observe the principle of voluntary consent, which requires respondents to actively accept to participate in study. Informed permission should include the goal of the scientific study, the researcher's identity, and any potential benefits. Research involvement is fully voluntary, and participants are free to leave at any time. The responders were told of this prior to the study's start. Helpers were directed by the researcher to make sure that each respondent understood all of the study's important points. No one was forced to take the survey; instead, it was done willingly.

Plagiarism, according to Creswell (2009), is when you claim credit for something that was done by someone else and pass it off as your own. It happens when you pass off someone else's ideas as your own. Each work acquired from other scholars was double-checked for accuracy.

CHAPTER FOUR

RESULT AND DISCUSSIONS

In this chapter, the result and discussions of the study were analyzed; detailed analysis is done in accordance with the research objectives of identifying the interrelationships among work environment, job satisfaction, demographic characteristics and employee performance in East African Bottling S.C., MOHA Soft Drinks Industry S.C., Awash Wine S.C. and BGI-Ethiopia PLC found in Addis Ababa branches. Data was summarized and presented in the form of tables, figures, proportions, and percentage.

4.1. Response Rate of the Questionnaires

The study targeted a sample size of 344 respondents from which 312 filled in and returned the questionnaires making a response rate of 90.7%. This response rate was very good to make conclusions for the study as it acted as a representative (Mugenda & Mugenda, 2003).

4.2. Background of the Respondents

Gender, age, marital status, educational status, and service year are among the background of the respondents. The frequency and proportion of respondents in Addis Ababa soft drinks, wine, and beer companies are shown below.

The gender distribution of the selected soft drinks, wine, and beer companies' respondents is displayed in Table 4.1 below, with 214 (68.6%) male respondents and 89 (31.4%) female respondents. This revealed that the majority of the respondents included in this study were males.

As shown in Table 4.1 below on respondent's age distribution, the study found out that; most of the respondents or 174(55.8%) were aged between 31 to 40 years, 84(26.9%) of the respondents aged between 41 to 50 years, 44 (14.1%) of the respondents were aged between 20 to 30 years, whereas 10(3.2%) of the respondents were aged 51 years and above respectively. This implies participants were well distributed in terms of their age.

Concerning the marital status of the respondents as shown in Table 4.1 below, most of the respondents or 168(53.8%) were married, followed by 86(27.6%) of respondents being single,

38(12.2%) being divorced, and 20(6.4%)being widowed respectively. As a result, married people made up the largest group of responders from the selected soft drinks, wine, and beer industries, followed by singles, divorced people, and widowed people.

Table 4.1: Background of the Respondents

No	Variables	Group	Frequency	Percent
1	Gender	Male	214	68.6%
		Female	98	31.4%
Grand Total			312	100.0%
2	Age	20 - 30 years	44	14.1%
		31 - 40 years	174	55.8%
		41 - 50 years	84	26.9%
		51 years and above	10	3.2%
Grand Total			312	100.0%
3	Marital Status	Single	86	27.6%
		Married	168	53.8%
		Divorced	38	12.2%
		Widowed	20	6.4%
Grand Total			312	100.0%
4	Educational Level	Certificate and below	35	11.2%
		Diploma	63	20.2%
		First degree	166	53.2%
		Master's degree and above	48	15.4%
Grand Total			312	100.0%
5	Service Year	1-5 Years	183	58.7%
		6-10 Years	99	31.7%
		11-15 Years	22	7.1%
		16-20 Years	5	1.6%
		Above 20 Years	3	1.0%
Grand Total			312	100.0%

Source: Own Survey (2022)

As shown in Table 4.1 above the educational status of the selected soft drinks, wine and beer companies' respondents constituted, 35(11.2%) of the respondents achieved Certificate and below, 63(20.2%) of the respondents were college diploma holders, 166(53.2%) of the respondents were first degree holders and finally, the rest 48(15.4%) of the respondents were master's degree holders and above. Therefore, from the survey it can be said that the majority of the respondents of the selected soft drinks, wine and beer companies' were first degree holders. This shows that this level of education is sufficient to offer the core idea and processes of work environment, job satisfaction, demographics and employee performance. Finally this is an opportunity for the selected soft drinks, wine and beer companies' to create necessary awareness about the impact of work environment, job satisfaction, demographic characteristics have on employee performance in the companies.

As shown above in Table 4.1 on period of service, the study revealed that most of the respondents or 183(58.7%) had worked with the selected soft drinks, wine, and beer industries for duration of 1 to 5 years, followed by 99(31.7%) who had worked 6 to 10 years, 22(7.1%) had worked 11 to 15 years, 5(1.6%) had worked for 16 to 20 years and the rest 3(1.0%) had worked for over 20 years, respectively. This implies that majority of the respondents had worked with the selected soft drinks, wine, and beer industries for a considerable period of time and thus they were in a position to give credible information relating to this study.

4.3. Reliability and Validity Assessment Results

To ensure rigor and generalization of the research findings, both validity and reliability were assessed. Cronbach's alpha was computed to assess reliability, while content validity was examined for validity. The researcher followed Cooper and Schindler's (2011) suggestions for gaining content validity, which indicated that in order to gain content validity the researcher located existing scales in the relevant literature conducted previously which were related to this study. The Cronbach's alpha results are presented in Table 4.2 below, this was found to be above the minimum of 0.7 (Hair et al., 2010), for all variables involved.

Table 4.2: Results of the Reliability Analysis

Variables	No. of Items	Cronbach Alpha
Job Safety and Security	5	0.845
Physical Working Environment	5	0.866
Relationship with Co-Workers	4	0.858
Supervisor Support	5	0.887
Working Hour	4	0.826
Job Satisfaction	4	0.848
Employee Performance	6	0.885

Source: Own Survey (2022)

4.4. Descriptive Statistics Analysis

This section of the analysis is used to describe the descriptive statistics analysis of the study variables which was based on a 5-point Likert's scale poll of 312 workers of the selected soft drinks, wine, and beer companies. Job Safety and Security, Physical Working Environment, Relationship with Coworkers, Supervisor Support, and Working Hour are the five independent variables in the study, with Job Satisfaction as a mediating variable and Demographics as a moderating variable and also as a dependent variable Employee Performance was considered. In order to ensure the consistency of the descriptive analysis interpretation the following 5-point Likert's scale criterion, in Table 4.3 below was used.

Table 4.3: Likert's Criterion on a 5-Point Scale

Mean Range	Response Options
Mean value between 1.00 and 1.80	Strongly Disagree
Mean value between 1.80 and 2.60	Disagree
Mean value between 2.60 and 3.40	Neutral
Mean value between 3.40 and 4.20	Agree
Mean value between 4.20 and 5.00	Strongly Agree

Source: Al-Sayaad et al. (2006)

4.4.1. Descriptive Statistics of Work Environment Dimensions

The researcher used statements to evaluate the extent of the four sub-dimensions of work environment constructs (i.e., Job Safety and Security, Physical Working Environment, Supervisor Support, and Working Hour) in the selected soft drinks, wine, and beer companies in this section of the study, which aimed to identify the factors that can affect the overall

work environment dimensions. The respondents were asked to rate how much they agreed with the statements described in each variable. The replies were graded on a Likert scale of 1-5, with 1 indicating Strongly Disagree, 2 indicating Disagree, 3 indicating Neutral, 4 indicating Agree, and 5 indicating Strongly Agree.

4.4.1.1. Job Safety and Security

The responses were averaged for the first variable (i.e., job safety and security), and mean and standard deviation were computed to determine the level of job safety and security in the selected soft drinks, wine, and beer companies in Addis Ababa, as shown in Table 4.4 below. According to the selected employees of soft drinks, wine, and beer industries in Addis Ababa, the total job safety and security items scored an aggregate score mean value of 3.85 and standard deviation value of 0.63, as shown in Table 4.4 below. This indicated that the respondents of the selected employees of soft drinks, wine, and beer companies in Addis Ababa agreed on the overall items of job safety and security dimensions, as described by Al-Sayaad et al. (2006) in Table 4.3 above.

Table 4.4: Job Safety and Security

Code	Statements on Job Safety and Security	Mean	SD
JSS1	The job has a low risk of accident.	3.88	0.66
JSS2	The job takes place in an environment free from health hazards (e.g., chemicals, fumes, etc.).	3.93	0.64
JSS3	There are abundantly available working tools and safety equipment's in my work place	3.76	0.61
JSS4	My job provides me a steady employment	3.84	0.65
JSS5	The organization has a good promotions, compensation and benefits plans	3.81	0.59
Aggregate Score		3.85	0.63

Source: Own Survey (2022)

As shown in Table 4.4 above the result indicated that the employees of the selected soft drinks, wine, and beer industries in Addis Ababa have jobs which has a minimal risk of accident, takes place in an environment free from health hazards (e.g., chemicals, fumes, etc.) and there are abundantly available working tools and safety equipment's in their work place.

The employees also indicated that their job provides them a steady employment and also the selected soft drinks, wine and beer companies in Addis Ababa have a good promotions, compensation and benefits plans.

4.4.1.2. Physical Working Environment

As shown in Table 4.5 below according to the respondents of the selected soft drinks, wine, and beer enterprises in Addis Ababa, the physical working environment items scored an aggregate score mean and standard deviation value of 3.84 and 0.65 respectively. This showed that the employees of the selected soft drinks, wine, and beer companies in Addis Ababa agreed on the five physical working environment items as described by Al-Sayaad et al. (2006) in Table 4.3 above. This result implied that the employees of the selected soft drinks, wine, and beer industries in Addis Ababa, agreed that their working environment has fresh and pollution-free air, a comfortable room temperature, and is free of sound factors such as noise. The employees also agreed that the light and color variables at their workplace, such as sunlight, brightness, windows, and views, are comfortable for them to conduct their jobs, as well as the space or arrangements of their workstations. Therefore, the study revealed that the employees of the selected soft drinks, wine, and beer companies in Addis Ababa have a good physical working environment, which includes air, room temperature, sound, light, color, and space, for them to do their job.

Table 4.5: Physical Working Environment

Code	Statements on Physical Working Environment	Mean	SD
PWE1	My working environment is air pollution free and there is fresh air	3.83	0.60
PWE2	My working place has a good room temperature	3.89	0.65
PWE3	My working place is free from sound factor like noise	3.80	0.69
PWE4	My working place light and color factors like sunlight, brightness, windows and views are comfortable to do my job.	3.88	0.68
PWE5	Space or arrangements of my work stations are comfortable to do my job.	3.81	0.62
Aggregate Score		3.84	0.65

Source: Own Survey (2022)

4.4.1.3. Supervisor Support

According to the employees of the selected soft drinks, wine, and beer enterprises in Addis Ababa, the supervisor support items scored an aggregate score mean and standard deviation value of 3.87 and 0.71 respectively, as shown in Table 4.7 below. This result suggested that the employees of the selected soft drinks, wine, and beer companies in Addis Ababa agreed on the five supervisor support items as described by Al-Sayaad et al. (2006) in Table 4.3 above. This result indicated that the employees of the selected soft drinks, wine, and beer industries in Addis Ababa, agreed that they have received high level of support from their supervisor when performing their work, they have also agreed that they have received high level of feedback from their supervisor about their work and also they have agreed that they are well informed in advance concerning important decisions, changes or future plans of the organization by their supervisor. The employees also agreed that they have received a formal and informal support from their supervisor on conflict resolution enabling them to have closer relations with their supervisor and finally the employees agreed that their supervisor gave them promotion, recognition and rewards and also provided them training concerning their work.

Table 4.6: Supervisor Support

Code	Statements on Supervisor Support	Mean	SD
SS1	I have received high level of support from my supervisor when performing my work	3.88	0.70
SS2	I have received high level of feedback from my supervisor about my work	3.82	0.72
SS3	I am well informed in advance concerning important decisions, changes or future plans of the organization by my supervisor	3.90	0.76
SS4	There is a formal and informal support from my supervisor on conflict resolution enabling me to have a closer relations with my supervisor	3.84	0.67
SS5	My supervisor gave me promotion, recognition and rewards and also provided me training on my work.	3.90	0.71
Aggregate Score		3.87	0.71

Source: Own Survey (2022)

4.4.1.4. Working Hour

According to the employees of the selected soft drinks, wine, and beer enterprises in Addis Ababa, the working hour items scored an aggregate score mean and standard deviation value of 3.91 and 0.67 respectively, as shown in Table 4.8 below. This result suggested that the employees of the selected soft drinks, wine, and beer companies in Addis Ababa agreed on the four working hour items as described by Al-Sayaad et al. (2006) in Table 4.3 above. This result showed that the employees of the selected soft drinks, wine, and beer industries in Addis Ababa, agreed that they are comfortable with the working hours of the organization and there is flexible working hours in the organization. The employees also agreed that the organization has extra hour pay for the extra hours of work done by the employees and also they have agreed that there is an adequate work load for the employees in the organization.

Table 4.7: Working Hour

Code	Statements on Working Hour	Mean	SD
WH1	I am comfortable with the working hours of the organization	3.90	0.66
WH2	There is flexible working hours in the organization	3.88	0.65
WH3	The organization has extra hour pay for the extra hours of work done	3.94	0.72
WH4	There is an adequate work load for the individuals in the organization	3.93	0.63
Aggregate Score		3.91	0.67

Source: Own Survey (2022)

4.4.1.5. Descriptive Statistics Summary of Work Environment Dimensions

As shown in Table 4.9 below, working hour items scored the highest aggregate score mean value of 3.91 (SD=0.67) from the aggregate score results of the overall work environment dimensions. This means that the people who took part in the survey of the selected soft drinks, wine and beer companies in Addis Ababa have agreed that there is a comfortable, flexible working hours in the organization, which have extra hour pay for the extra hours of work done and also there is an adequate work load for the employees in the company. This was followed by supervisor support with aggregate score mean value of 3.87 (SD=0.71), job

safety and security with aggregate score mean value of 3.85 (SD=0.63) and a physical working environment with aggregate score mean of 3.84 (SD=0.65), respectively.

Table 4.8: Overall Dimensions of Work Environment

Summary Work Environment Dimensions	Mean	Std. Deviation
Job Safety and Security	3.85	0.63
Physical Working Environment	3.84	0.65
Supervisor Support	3.87	0.71
Working Hour	3.91	0.67
Aggregate Score	3.87	0.67

Source: Own Survey (2022)

Therefore as shown in Table 4.9 above, this result indicated that although the four sub-dimensions of work environment variable have a significant impact on job satisfaction and employee performance in the employees of Addis Ababa-based soft drinks, wine, and beer companies, Supervisor Support had the second highest impact next to working hour, thirdly job safety and security, the last and fourth one was physical working environment.

4.4.2. Descriptive Statistics Analysis of Job Satisfaction

The respondents were asked to rate their level of agreement with the statements on Job Satisfaction aspects on a scale of 1 to 5, with 1 indicating strong disagreement, 2 indicating disagreement, 3 indicating neutrality, 4 indicating agreement, and 5 indicating strong agreement. According to the employees of the selected soft drinks, wine, and beer enterprises in Addis Ababa, the job satisfaction dimension items scored an aggregate score mean and standard deviation value of 3.86 and 0.69 respectively, as shown in Table 4.10 below. This result suggested that the employees of the selected soft drinks, wine, and beer companies in Addis Ababa agreed on the four job satisfaction dimension items as described by Al-Sayaad et al. (2006) in Table 4.3 above. This result showed that the employees of the selected soft drinks, wine, and beer industries in Addis Ababa, agreed that they like doing the things that they do at their workplace, and they are satisfied with the earning they got from their current job. The employees also agreed that they are extremely glad that they choose this institution to work for, over other institutions and also overall they agreed that they are satisfied with their current job.

Table 4.9: Job Satisfaction

Code	Statements on Job Satisfaction	Mean	SD
JS1	I like doing the things that I do at my workplace	3.92	0.67
JS2	I am satisfied with my earning from my current job	3.81	0.69
JS3	I am extremely glad that I chose this institution to work for, over other institutions	3.82	0.73
JS4	Overall, I am satisfied with my current job	3.89	0.66
Aggregate Score		3.86	0.69

Source: Own Survey (2022)

4.4.3. Descriptive Statistics Analysis of Employee Performance

The respondents were asked to rate their level of agreement with the statements on employee performance dimensions on a scale of 1 to 5, with 1 indicating strong disagreement, 2 indicating disagreement, 3 indicating neutrality, 4 indicating agreement, and 5 indicating strong agreement. According to the employees of the selected soft drinks, wine, and beer enterprises in Addis Ababa, the employee performance dimension items scored an aggregate score mean and standard deviation value of 3.87 and 0.69 respectively, as shown in Table 4.11 below. This result suggested that the employees of the selected soft drinks, wine, and beer companies in Addis Ababa agreed on the six employee performance dimension items as described by Al-Sayaad et al. (2006) in Table 4.3 above. This result showed that the employees of the selected soft drinks, wine, and beer industries in Addis Ababa, agreed that they have put a high level and quality of effort to their job; they are working cooperatively with their co-workers to achieve the organizations objective and also agreed that they are committed to their obligations and loyal to their organization. The employees also agreed that they have a high interest and ability to do their job, they have the ability to accept and explain the delegations of their task and they also agreed that they are motivated by their job role and level of work provided to them.

Table 4.10: Employee Performance

Code	Statements on Employee Performance	Mean	SD
EP1	I have put a high level and quality of effort to my job	3.94	0.71
EP2	I am working cooperatively with my co-workers to achieve the organizations objective	3.92	0.66
EP3	I am committed to my obligations and loyal to my organization	3.80	0.69
EP4	I have a high interest and ability to do my job	3.82	0.70
EP5	I have the ability to accept and explain the delegations of my task	3.89	0.65
EP6	I am motivated by my job role and level of work provided to me	3.86	0.70
Aggregate Score		3.87	0.69

Source: Own Survey (2022)

4.5. Inferential Statistics Results

The results of inferential statistics were reported in this part. Pearson's and partial correlation coefficient was used to test the relationship between the study variables and multiple regression analyses were used test the impact of the study variables had on each other and also a hierarchical regression analysis was used to test the mediating and moderating effects of the study variables.

4.5.1. Correlation Analysis

To determine the relationships between work environment dimensions (job safety and security, physical working environment, relationship with coworkers, supervisor support, and working hour) and job satisfaction, as well as the relationship between demographic characteristics, job satisfaction, and employee performance, Pearson's correlation coefficient or measure of associations was used in this study. The correlation coefficient was used to determine the strength and magnitude of the linear link between two variables, which is always between -1 and +1. A correlation coefficient of +1 indicates that two variables have a strong and positive linear relationship. A correlation value of -1, on the other hand, implies a strong and negative linear relationship between two series. A correlation value of 0 indicates that two variables do not have a linear relationship(Hair et al., 2010).

According to Bhattacharjee (2012) as rule of thumb for estimating the strength of correlation of coefficients, if r is in between 0.81 and 1.00 there is Very Strong correlation, if r is in

between 0.61 and 0.80 there is Strong correlation, if r is in between 0.41 and 0.60 there is Moderate correlation, if r is in between 0.21 and 0.40 there is Weak correlation and finally if r is in between 0.00 and .20 there is No/None correlation. Therefore the researcher adopted this rule of thumb for consistency purposes.

4.5.1.1. Correlation between Work Environment Dimensions and Job Satisfaction

The strongest connection (i.e. $r = 0.809$) between job safety and security (JSS) and job satisfaction (JS) is clearly illustrated in Table 4.12 below, which is significant at the 0.01 level ($P < 0.01$). Job safety and security (JSS) and job satisfaction (JS) have a substantial and positive link, according to Bhattacharjee (2012). The second largest correlation ($r = 0.795$) is found between physical working environment (PWE) and job satisfaction (JS), which is significant at the 0.01 level ($P < 0.01$) and has a strong and positive relationship. Then it is followed by supervisor support (SS) ($r = 0.761$) and working hour (WH) ($r = 0.697$). Both show strong and positive associations, which are statistically significant at the 99 percent confidence level, according to Bhattacharjee (2012). This means that job safety and security (JSS), physical working environment (PWE), relationship with coworkers (RCW), supervisor support (SS), and working hour (WH) have a substantial and positive association with job satisfaction (JS) in the research region at a 1% level of significance. This discovery was similar to Jain and Kaur (2014) and Badrianto and Ekhsan (2020) findings.

Table 4.11: The Relationship b/n Work Environment Dimensions & Job Satisfaction

	JS	JSS	PWE	RCW	SS	WH
JS	1					
JSS	.809**	1				
PWE	.795**	.766**	1			
RCW	.786**	.657**	.663**	1		
SS	.761**	.657**	.698**	.757**	1	
WH	.697**	.567**	.618**	.623**	.544**	1
**. Correlation is significant at the 0.01 level (2-tailed).						

Source: Own Survey (2022)

4.5.1.2. Correlation between Work Environment Dimension & Employee Performance

The highest correlation (i.e. $r = 0.827$) existed between relationship with coworkers (RCW) and employee performance (EP) and is clearly illustrated in Table 4.13 below from the correlation between work environment dimensions and employee performance, which is significant at the 0.01 level. Relationship with coworkers (RCW) and employee performance (EP) have a very significant and positive link, according to Bhattacharjee (2012). The next largest correlation ($r = 0.821$) is between physical working environment (PWE) and employee performance (EP), which is significant at the 0.01 level and has a very strong and positive association (Bhattacharjee, 2012). The third strongest correlation ($r = 0.814$) is between work safety and security (JSS) and employee performance (EP), which is significant at 99% level. They have a very high and positive association, according to Bhattacharjee (2012). Supervisor support (SS) ($r = 0.787$) and working hour (WH) ($r = 0.717$) are the next two variables. Both show strong and positive associations, which are statistically significant at the 99 percent confidence level, according to Bhattacharjee (2012). This means that the relationship with coworkers (RCW), physical working environment (PWE), job safety and security (JSS), supervisor support (SS), and working hour (WH) have a substantial and favorable link with employee performance in the study area, at a 1% level of significance. This finding was in line the findings of Aslam (2018).

Table 4.12: Correlation b/n Work Environment Dimensions & Employee Performance

	EP	JSS	PWE	RCW	SS	WH
EP	1					
JSS	.814**	1				
PWE	.821**	.766**	1			
RCW	.827**	.657**	.663**	1		
SS	.787**	.657**	.698**	.757**	1	
WH	.717**	.567**	.618**	.623**	.544**	1
**. Correlation is significant at the 0.01 level (2-tailed).						

Source: Own Survey (2022)

4.5.1.3. Correlation b/n Work Environment Dimensions, Job Satisfaction & Employee Performance

The inter-correlation between work environment (WE) and job satisfaction (JS) was ($r = 0.904$); between job satisfaction (JS) and employee performance (EP) ($r = 0.949$); and between work environment (WE) and employee performance (EP) ($r = 0.931$), as indicated in Table 4.14 below. According to Bhattacharjee(2012), all three variables have very strong and positive associations that are statistically significant at the 99 percent confidence level. This suggests that, at a 1% level of significance, the work environment (WE) and job satisfaction (JS) have a significant and positive relationship with employee performance (EP) in the research region. Because of the significant positive correlation discovered in this study, if the quality of the work environment (WE) is enhanced, so will job satisfaction (JS) and employee performance (EP), and vice versa. Uzun and Zdem (2017), as well as Badrianto and Ekhsan (2020), have published similar findings.

Despite the significant relationship between work environment (WE), job satisfaction (JS) and employee performance, as Raziq and Maulabakhsh (2015) point out, the three variables are distinct from the perspective of the employee, and hence cannot be taken to infer the existence of an absolute causal relationship. As a result, regression analysis was used in the following investigations to predict the direction and extent of correlations between the three variables (work environment, job satisfaction, and employee performance).

Table 4.13: Correlation Matrix – Relationship among Work Environment, Job Satisfaction and Employee Performance

	WE	JS	EP
WE	1		
JS	.904**	1	
EP	.931**	.949**	1
**. Correlation is significant at the 0.01 level (2-tailed).			

Source: Own Survey (2022)

4.5.2. Multiple Regression Analysis

The study adopted a multiple regression analysis so as to establish the relationship of independent variables and dependent variable that is employee performance in the employees

of the selected soft drinks, wine, and beer industries in Addis Ababa. The study applied SPSS version 23 to code, enter and compute the measurements of the multiple regression. Multiple regression analysis explains or predicts variation in a dependent variable because of the independent variables and this is assessed using the coefficient of determination known as R square and the larger the coefficient, the larger the effect of the independent variable upon the dependent variable. The R Square can range from 0.000 to 1.000, with 1.000 showing a perfect fit that indicates that each point is on the line (Hair et al., 2010). The coefficients or beta weights for each variable allows the researcher to compare the relative importance of each independent variable. In this study the unstandardized coefficients and standardized coefficients are given for the multiple regression equations. However, discussions are based on the standardized coefficients for studying each variable. As a result, employee performance was the only dependent variable in this study. Work environment components (job safety and security, physical working environment, coworker relationships, supervisor support, and working hour) were the independent variables, while job satisfaction was the mediating variable and demographic characteristics were the moderating variable.

4.5.2.1. Tests of Multiple Regressions Assumptions

Prior to executing the regression model, the following assumptions were verified:

Sample Size Adequacy and Independent Observation

The minimal sample size for multiple regression was determined as $50 + 8 * 5 = 50 + 40 = 90$, with $m = 5$ because there were 5 independent variables, according to a method provided by Tabachanick and Fidell (2007), $N > 50 + 8 * m$ (where $m =$ number of independent variables). As a result, with 312 respondents, the sample size for regression analysis to test the hypotheses was declared appropriate in this study. The researcher established that the observations were independent by having multiple respondents complete the questionnaires in order to obtain tolerable variances in responses.

Keeping an Eye Out For Outliers

Because multiple regression is highly sensitive to outliers (i.e., very high or very low scores). Throughout the initial data screening step, the researcher used Skewness and Kurtosis to look for extreme scores. The Skewness and Kurtosis of the 12 constructions are well behaved in terms of normalcy. The values of Skewness and Kurtosis as shown in Table 4.18 below are

between 2 and +2, indicating that there are no outliers or extreme values that could jeopardize the validity of the analysis.

Table 4.14: The Study Variables Skewness and Kurtosis Values

Summary of the Study Variables	Skewness	Kurtosis
Job Safety and Security	-0.276	0.047
Physical Working Environment	0.035	-0.452
Supervisor Support	-0.041	-0.913
Working Hour	-0.283	-0.540
Gender	0.805	-1.361
Age	0.250	-0.028
Marital Status	0.779	0.454
Educational Level	-0.529	-0.243
Work Experience	1.697	1.547
Job Satisfaction	0.084	-0.436
Employee Performance	0.044	-0.582

Source: Own Survey (2022)

Test for Homoscedasticity

The researcher determined that the residuals have equal variances since the small circles in Appendix B of Figure 1 follow no pattern and are dispersed randomly on the scatterplot.

Tests of Normality and Linearity

The histogram in Appendix B of Figure 2 indicated acceptable normality of data since the mean value was approximately close to zero (0) and also the standard deviation value was approximately close to one (1). Linearity means that the predictor variables in the regression have a straight-line relationship with the outcome variable or the little circles in the normal Predicted Probability (P-P) plot close to the diagonal line. The little circles in the P-P plot in Appendix B of Figure 3 showed that they were close to or follow the normality or the diagonal line, indicating the linearity of the data.

Test for Multicollinearity

Multicollinearity exists when the study predictor variables are highly correlated with each other. Multicollinearity can be checked in two ways: first the correlation coefficients must be less than 0.90 and second, the tolerance and variance inflation factor (VIF) values should be greater than 0.1 and less than 10 respectively (Hair et al., 2010). As shown in Tables 4.12 and 4.13 the correlation coefficients for each predictor variables was less than 0.90. Furthermore, as shown in Tables 4.19, 22 and 25 shows that all of the model's results had a tolerance value greater than 0.1 and a VIF less than 10, indicating that the survey data showed no significant multicollinearity or the study predictor variables were not highly correlated with each other.

4.5.2.2. Regression Analysis of Work Environment and Job Satisfaction

To find out the best set of predictors of Job Satisfaction (JS), five predictors of multiple linear regression models was proposed. The five predictor variables were Job Safety and Security (X_1), Physical Working Environment (X_2), Relationship with Co-Workers (X_3), Supervisor Support (X_4) and Working Hour (X_5). The equation of the proposed multiple linear regression model was as follows:

$$Y(EP) = \beta_0 + \beta_1(X_1) + \beta_2(X_2) + \beta_3(X_3) + \beta_4(X_4) + \beta_5(X_5) + \varepsilon$$

Where: β_0 = Constant, ε = Error

To determine the best set of predictor variable in predicting Job Satisfaction (JS), a standard multiple regression method was used. As indicated in Table 4.19 below based on the standard multiple regression method used, all of the five independent or predictor variables were found to be significance in explaining Job Satisfaction (JS). Or all the independent variables did contribute significantly to the variation of the dependent variable Job Satisfaction (JS).

From the 4.19 below, the regression coefficients were interpreted at 95% level of significance thus the Alpha value 5%. Therefore from the regression result of unstandardized beta coefficients of job safety and security, physical working environment, relationship with co-workers, supervisor support and working hour were 0.288, 0.161, 0.217, 0.121 and 0.187 respectively.

As depicted in Table 4.19 below, the estimated model was as below:

$$Y(JS) = -1.836 + 0.288X_1 + 0.161X_2 + 0.217X_3 + 0.121X_4 + 0.187X_5$$

In addition to this, Table 4.19 below shows the largest positive and significant beta coefficient (0.288) for job safety and security (JSS). This means that this variable makes the strongest unique contribution to explaining the dependent variable Job Satisfaction (JS), when the variance explained by all other predictor variables in the model is controlled for. It suggests that one standard deviation increase in job safety and security (JSS) is followed by 0.288 standard deviation increases in Job Satisfaction (JS) or simply, a unit increase in job safety and security (JSS) triggers 28.8% increase in the level of Job Satisfaction (JS).

Table 4.15: Regression Coefficients of Work Environment and Job Satisfaction

Coefficients ^a								
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	-1.836	.473		-3.884	.000		
	JSS	.288	.036	.314	7.913	.000	.366	2.734
	PWE	.161	.037	.185	4.362	.000	.321	3.112
	RCW	.217	.039	.228	5.558	.000	.344	2.906
	SS	.121	.031	.157	3.888	.000	.354	2.828
	WH	.187	.035	.177	5.373	.000	.533	1.875

a. Dependent Variable: Job Satisfaction (JS)

Source: Own Survey (2022)

The Unstandardized Beta Coefficients value for relationship with co-workers (RCW) was 0.217 as shown in Table 4.19 above and was the second highest positive and significant value. This implies that one standard deviation increase in relationship with co-workers was followed by 0.217 standard deviation increases in Job Satisfaction (JS) or a unit increase in relationship with co-workers triggers 21.7% increase in the level of Job Satisfaction (JS). In the third place was working hour (WH) (0.187) was the third highest positive and significant value. It means that one standard deviation increase in working hour (WH) was followed by 0.187 standard deviation increases in Job Satisfaction (JS) or a unit increase in working hour (WH) triggers 18.7% increase in the level of Job Satisfaction (JS). The Unstandardized Coefficients Beta value for physical working environment (PWE) was the fourth highest

positive and significant value (0.161). This implies that one standard deviation increase in physical working environment (PWE) was followed by 0.161 standard deviation increases in Job Satisfaction (JS) or a unit increase in physical working environment (PWE) triggers 16.1% increase in the level of Job Satisfaction (JS). The Unstandardized Coefficients Beta value for supervisor support (SS) was the fifth and last highest positive and significant value (0.121). This implies that one standard deviation increase in supervisor support (SS) is followed by 0.121 standard deviation increases in Job Satisfaction (JS) or a unit increase in supervisor support (SS) triggers 12.1% increase in the level of Job Satisfaction (JS).

From the ANOVA statistics Table 4.20 below, the established regression model had a significance level of 0.000 which is an indication that the data was ideal for making a conclusion on the population parameters as the value of significance (p-value) was less than 5%. The calculated value of the F-statistics 285.138 is large, which is an indication that all the five predictor variables (i.e., job safety and security, physical working environment, coworker relationships, supervisor support, and working hour) influence Job Satisfaction (JS) in the selected soft drinks, wine, and beer enterprises in Addis Ababa. The significance value was less than 0.05 indicating that the model was significant.

Table 4.16: Results of the Analysis of Variance of WE and JS

ANOVA ^a						
Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	1332.881	5	266.576	285.138	.000 ^b
	Residual	286.081	306	.935		
	Total	1618.962	311			
a. Dependent Variable: Job Satisfaction (JS)						
b. Predictors: (Constant), WH, SS, JSS, RCW, PWE						

Source: Own Survey (2022)

According to the model summary of Table 4.21 below, R is the correlation coefficient which shows the relationship between the independent variables (i.e., job safety and security, physical working environment, relationship with co-workers, supervisor support and working hour) and dependent variable (i.e., Job Satisfaction). It is notable that there exist strong

positive relationship between the independent variables and dependent variable as shown by R value (0.907). The coefficient of determination (R^2) explains the extent to which changes in the dependent variable can be explained by the change in the independent variables or the percentage of variation in the dependent variable and the five independent variables that were studied explain 82.3% of the Job Satisfaction in the selected soft drinks, wine, and beer enterprises in Addis Ababa as represented by the R^2 . This therefore means that other factors not studied in this research contribute 17.7% of the Job Satisfaction in the selected soft drinks, wine, and beer enterprises in Addis Ababa. This implies that these variables are very significant therefore need to be considered in any effort to boost the Job Satisfaction in the selected soft drinks, wine, and beer enterprises in Addis Ababa.

Table 4.17: Regression Model Summary of WE and JS

Model Summary ^b				
Model	R	R ²	Adjusted R ²	Std. Error
1	.907 ^a	.823	.820	.96690
a. Predictors: (Constant), WH, SS, JSS, RCW, PWE				
b. Dependent Variable: Job Satisfaction (JS)				

Source: Own Survey (2022)

4.5.2.3. Regression Analysis of Work Environment and Employee Performance

To find out the best set of predictors of Employee Performance (EP), five predictors of multiple linear regression models was proposed. The five predictor variables were Job Safety and Security (X_1), Physical Working Environment (X_2), Relationship with Co-Workers (X_3), Supervisor Support (X_4) and Working Hour (X_5). The equation of the proposed multiple linear regression model was as follows:

$$Y(EP) = \beta_0 + \beta_1(X_1) + \beta_2(X_2) + \beta_3(X_3) + \beta_4(X_4) + \beta_5(X_5) + \varepsilon$$

Where: β_0 = Constant, ε = Error

To determine the best set of predictor variable in predicting Employee Performance (EP), a standard multiple regression method was used. As indicated in Table 4.22 below based on the standard multiple regression method used, all of the five independent or predictor variables were found to be significant in explaining Employee Performance (EP). Or all the

independent variables did contribute significantly to the variation of the dependent variable Employee Performance (EP).

From the 4.22 below, the regression coefficients were interpreted at 95% level of significance thus the Alpha value 5%. Therefore from the regression result of unstandardized beta coefficients of job safety and security, physical working environment, relationship with co-workers, supervisor support and working hour were 0.339, 0.270, 0.394, 0.168 and 0.260 respectively.

As depicted in Table 4.22 below, the estimated model was as below:

$$Y(EP) = -1.923 + 0.339X_1 + 0.270X_2 + 0.394X_3 + 0.168X_4 + 0.260X_5$$

In addition to this, Table 4.22 below shows the largest positive and significant beta coefficient (0.394) for relationship with co-workers (RCW). This means that this variable makes the strongest unique contribution to explaining the dependent variable Employee Performance (EP), when the variance explained by all other predictor variables in the model is controlled for. It suggests that one standard deviation increase in relationship with co-workers (RCW) is followed by 0.394 standard deviation increases in Employee Performance (EP) or simply, a unit increase in relationship with co-workers (RCW) triggers 39.4% increase in the level of Employee Performance (EP).

Table 4.18: Employee Performance and Work Environment Regression Coefficients

Coefficients ^a								
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	-1.923	.573		-3.354	.001		
	JSS	.339	.044	.259	7.681	.000	.366	2.734
	PWE	.270	.045	.217	6.029	.000	.321	3.112
	RCW	.394	.047	.289	8.305	.000	.344	2.906
	SS	.168	.038	.153	4.452	.000	.354	2.828
	WH	.260	.042	.172	6.161	.000	.533	1.875

a. Dependent Variable: Employee Performance (EP)

Source: Own Survey (2022)

The Un standardized Beta Coefficients value for job safety and security (JSS) was 0.339 as shown in Table 4.22 above and was the second highest positive and significant value. This implies that one standard deviation increase in job safety and security (JSS) was followed by 0.339 standard deviation increases in Employee Performance (EP) or a unit increase in job safety and security (JSS) triggers 33.9% increase in the level of Employee Performance (EP). In the third place was physical working environment (PWE) (0.270) was the third highest positive and significant value. It means that one standard deviation increase in physical working environment (PWE) was followed by 0.270 standard deviation increases in Employee Performance (EP) or a unit increase in physical working environment (PWE) triggers 27.0% increase in the level of Employee Performance (EP). The Unstandardized Coefficients Beta value for working hour (WH) was the fourth highest positive and significant value (0.260). This implies that one standard deviation increase in working hour (WH) was followed by 0.260 standard deviation increases in Employee Performance (EP) or a unit increase in working hour (WH) triggers 26.0% increase in the level of Employee Performance (EP). The Unstandardized Coefficients Beta value for supervisor support (SS) was the fifth and last highest positive and significant value (0.168). This implies that one standard deviation increase in supervisor support (SS) is followed by 0.168 standard deviation increases in Employee Performance (EP) or a unit increase in supervisor support (SS) triggers 16.8% increase in the level of Employee Performance (EP).

As shown from the ANOVA statics Table 4.23 below, the established regression model had a significance level of 0.000 which is an indication that the data was ideal for making a conclusion on the population parameters as the value of significance (p-value) was less than 5%. The calculated value of the F-statistics 418.320 is large, which is an indication that all the five predictor variables (i.e., job safety and security, physical working environment, coworker relationships, supervisor support, and working hour) influence employee performance (EP) in the selected soft drinks, wine, and beer enterprises in Addis Ababa. The significance value was less than 0.05 indicating that the model was significant.

Table 4.19: Results of the Analysis of Variance of WE and EP

ANOVA ^a						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	2876.547	5	575.309	418.320	.000 ^b
	Residual	420.837	306	1.375		
	Total	3297.385	311			
a. Dependent Variable: Employee Performance (EP)						
b. Predictors: (Constant), WH, SS, JSS, RCW, PWE						

Source: Own Survey (2022)

According to the model summary of Table 4.24 below, R is the correlation coefficient which shows the relationship between the independent variables (i.e., job safety and security, physical working environment, supervisor support and working hour) and dependent variable (i.e., Employee Performance). It is notable that there exist strong positive relationship between the independent variables and dependent variable as shown by R value (0.934). The coefficient of determination (R^2) explains the extent to which changes in the dependent variable can be explained by the change in the independent variables or the percentage of variation in the dependent variable and the four independent variables that were studied explain 87.2% of the Employee Performance of the study area represented by the R^2 . This implies that these variables are very significant therefore need to be considered in any effort to boost the Employee Performance in the selected soft drinks, wine, and beer enterprises in Addis Ababa.

Table 4.20: Regression Model Summary of WE and EP

Model Summary ^b				
Model	R	R^2	Adjusted R^2	Std. Error
1	.934 ^a	.872	.870	1.17273
a. Predictors: (Constant), WH, SS, JSS, RCW, PWE				
b. Dependent Variable: Employee Performance (EP)				

Source: Own Survey (2022)

4.5.2.4. Regression Analysis of Job Satisfaction with Employee Performance

To find out the best set of predictors between Job Satisfaction (JS) and Employee Performance (EP), two predictors of multiple linear regression models was proposed. The equation of the proposed multiple linear regression models were as follows:

$$Y(EP) = \beta_0 + \beta_1(X_1) + \varepsilon$$

Where: β_0 = Constant, X_1 = Job Satisfaction (JS), ε = Error

As indicated in Table 4.25 below, based on the standard multiple regression method used, the independent or predictor variable Job Satisfaction (JS) were found to be significance in explaining Employee Performance (EP). The independent variable did contribute significantly to the variation of the dependent variable Employee Performance (EP).

As depicted in the Table 4.25 below, the estimated model is as follows:

$$Y(EP) = 2.321 + 1.354X_1$$

In addition to this, Table 4.25 below shows a positive and significant beta coefficient (1.354) for Job Satisfaction (JS). It suggests that one standard deviation increase in Job Satisfaction (JS) is followed by 1.354 standard deviation increase in Employee Performance (EP).

Table 4.21: Job Satisfaction and Employee Performance Regression Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	2.321	.400		5.807	.000		
	JS	1.354	.026	.949	52.877	.000	1.000	1.000

Source: Own Survey (2022)

As shown from the ANOVA statics Table 4.26 below, the established regression model had a significance level of 0.000 which is an indication that the data was ideal for making a conclusion on the population parameters as the value of significance (p-value) was less than 5%. The calculated value of the F-statistics 2796.013 is large, which is an indication that the predictor variable (i.e., Job Satisfaction) influence employee performance (EP) in the selected soft drinks, wine, and beer enterprises in Addis Ababa. The significance value was less than 0.05 indicating that the model was significant.

Table 4.22: Results of the Analysis of Variance for JS and EP

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	2968.285	1	2968.285	2796.013	.000 ^b
	Residual	329.100	310	1.062		
	Total	3297.385	311			

Source: Own Survey (2022)

From the Table 4.27 below of the regression model one, the coefficient of determination (R^2) was 0.900 demonstrated that 90.0 percent of total Employee Performance (EP) could be explained by Job Satisfaction (JS) dimensions while the rest (10.0%) of the variations could be accounted for the other factors, which could be beyond the scope of the study. It also represents that the model was reasonable fit and there was statistically significant relationship between Job Satisfaction (JS) and Employee Performance (EP).

Table 4.23: Regression Model Summary for JS and EP

Model	R	R^2	Adjusted R^2	Std. Error
1	.949 ^a	.900	.900	1.03035

Source: Own Survey (2022)

4.5.2.5. Mediating the Effect of Job Satisfaction on the Relationship between Work Environment and Employee Performance

To investigate the mediating effect of Job Satisfaction (JS) on the relationship between Work Environment (WE) and Employee Performance (EP), a correlation matrix was first used to explore the relationship between the two variables while controlling Job Satisfaction (JS). The output generated from this procedure is shown in Table 4.28 below. As shown in Table 4.28 below, the top half of the table is the normal Pearson correlation matrix between Work Environment (WE) and Employee Performance (EP), without controlling for Job Satisfaction (JS) (as indicated by “none” in the left-hand column). In this case, the correlation is ($r = 0.931$, $p < 0.000$). The bottom half of Table 4.28 indicates the output of the correlation analysis when Job Satisfaction (JS) is controlled. In this case, the new partial correlation is ($r = 0.546$, $p < 0.000$). Comparing the two sets of correlation coefficients indicates that controlling Job Satisfaction (JS) has a significant influence on the relationship between Work Environment (WE) and Employee Performance (EP). After examining the pattern of

correlation, a hierarchical linear regression analysis was further run to determine the extent and direction in which Job Satisfaction (JS) mediates the relationship between the variables, as explained by change in R² value.

Table 4.24: Controlling Mediating Variable Correlation Matrix

Control Variables			WE	EP	JS
-none^a	WE	Correlation	1.000	.931	.904
		Significance (2-tailed)	.	.000	.000
		Df	0	310	310
	EP	Correlation	.931	1.000	.949
		Significance (2-tailed)	.000	.	.000
		Df	310	0	310
	JS	Correlation	.904	.949	1.000
		Significance (2-tailed)	.000	.000	.
		Df	310	310	0
JS	WE	Correlation	1.000	.546	
		Significance (2-tailed)	.	.000	
		Df	0	309	
	EP	Correlation	.546	1.000	
		Significance (2-tailed)	.000	.	
		Df	309	0	
a. Cells contain zero-order (Pearson) correlations.					

Source: Own Survey (2022)

To test the mediating effect of Job Satisfaction (JS) in the relationship between Work Environment (WE) and Employee Performance (EP), first the R² value for the first model or model 1 was 0.867 without including job satisfaction in the regression model, which suggests that Work Environment (WE) characteristics explained 86.7% of the variation in Employee Performance, as shown in Table 4.29 below, the model summary result of the hierarchical regression analysis. When Job Satisfaction (JS) was included as mediator variable in model 2, the R² value climbed to 0.930, accounting for 93.0% of the variance in Employee Performance (EP). Therefore, as shown in Table 4.29 below, in the regression model 1 and

model 2, the change in R^2 value was 6.3 percent. As a result, using Job Satisfaction (JS) as a predictor or mediator enhanced the amount of variation in Employee Performance (EP) that could be explained.

Table 4.25: Regression Model Summary for the Mediating Effect of JS in the Relationship b/n WE and EP

Model	R	R^2	Adjusted R^2	Std. Error	Change Statistics				
					ΔR^2	ΔF	df1	df2	$\Delta Sig.$
1	.931 ^a	.867	.867	1.18723	.867	2029.373	1	310	.000
2	.964 ^b	.930	.930	.86453	.062	275.612	1	309	.000

Source: Own Survey (2022)

As shown from the ANOVA statics Table 4.30 below, the established regression model had a significance level of 0.000 which is an indication that the data was ideal for making a conclusion on the population parameters as the value of significance (p-value) was less than 5%. The calculated value of the F-statistics is large, which increased from 2029.373 to 2051.346 from model 1 to model 2, which is an indication that the mediator variable (i.e., Job Satisfaction) has a significant influence in the relationship Work Environment (WE) and Employee Performance (EP) in the selected soft drinks, wine, and beer enterprises in Addis Ababa. The significance value was less than 0.05 indicating that the model was significant.

Table 4.26: Results of the Analysis of Variance for the Mediating Effect of JS in the Relationship between WE and EP

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	2860.435	1	2860.435	2029.373	.000 ^b
	Residual	436.950	310	1.410		
	Total	3297.385	311			
2	Regression	3066.432	2	1533.216	2051.346	.000 ^c
	Residual	230.953	309	.747		
	Total	3297.385	311			

Source: Own Survey (2022)

As shown in Table 4.31 below the unstandardized beta coefficients value of Work Environment (WE) and Employee Performance (EP) in model 1 was 0.282, but when Job Satisfaction (JS) was introduced as a mediator variable in model 2 the unstandardized beta

coefficients decreased to 0.122. This result indicated that the strength of the relationship between Work Environment (WE) and Employee Performance (EP) becomes weaker when Job Satisfaction (JS) is taken into account in model 2. Therefore, at $p < 0.05$, Job Satisfaction (JS) is found to significantly influence the link between all Work Environment (WE) characteristics and Employee Performance (EP).

**Table 4.27: The Mediating Effect of JS in the Relationship between WE and EP:
Regression Coefficients**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	-1.821	.560		-3.251	.001		
	Work Environment	.282	.006	.931	45.049	.000	1.000	1.000
2	(Constant)	-.493	.416		-1.185	.237		
	Work Environment	.122	.011	.403	11.459	.000	.183	5.464
	Job Satisfaction	.834	.050	.584	16.602	.000	.183	5.464

Sources: Own Survey (2022)

4.5.2.6. The Moderating Effects of Demographics in the Relationship between Work Environment and Employee Performance

To investigate the moderating effect of demographic characteristics on the relationship between Work Environment (WE) and Employee Performance (EP), a correlation matrix was first used to explore the relationship between the two variables while controlling demographic characteristics. The output generated from this procedure is shown in Table 4.41 below. The top half of the table is the normal Pearson correlation matrix between Work Environment (WE) and Employee Performance (EP), without controlling for demographic characteristics (as indicated by “none” in the left-hand column). In this case, the correlation is ($r = 0.931$, $p < 0.000$). The bottom half of Table 4.41 indicates the output of the correlation analysis when demographic characteristics are controlled. In this case, the new partial correlation is ($r = 0.930$, $p < 0.000$). Comparing the two sets of correlation coefficients indicates that controlling demographic characteristics have insignificant influence on the relationship between Work Environment (WE) and Employee Performance (EP) because the value of r is changed by only 0.001 which is very small. A hierarchical linear regression

analysis was further run to determine the extent and direction in which demographic characteristics moderates the relationship between the variables, as explained by change in R² value.

Table 4.28: Controlling Moderating Variable Correlation Matrix

Control Variables		WE	EP	
-none-^a	WE	Correlation	1.000	.931
		Significance (2-tailed)	.	.000
		Df	0	310
	EP	Correlation	.931	1.000
		Significance (2-tailed)	.000	.
		Df	310	0
	Gender	Correlation	.044	.043
		Significance (2-tailed)	.437	.446
		Df	310	310
	Age	Correlation	.082	.092
		Significance (2-tailed)	.147	.104
		Df	310	310
	Marital status	Correlation	.067	.050
		Significance (2-tailed)	.240	.380
		Df	310	310
	Educational Level	Correlation	-.004	.017
		Significance (2-tailed)	.950	.767
		Df	310	310
	Work Experience	Correlation	.094	.108
		Significance (2-tailed)	.099	.057
		Df	310	310
Gender & Age & Marital status & Educational Level & Work Experience	WE	Correlation	1.000	.930
		Significance (2-tailed)	.	.000
		Df	0	305
	EP	Correlation	.930	1.000
		Significance (2-tailed)	.000	.
		Df	305	0

Source: Own Survey (2022)

To test the moderating effect of Demographic Characteristics (DC) in the relationship between Work Environment (WE) and Employee Performance (EP), first the R² value for the first model or model 1 was 0.867 without including demographic characteristics in the

regression model, which suggests that Work Environment (WE) characteristics explained 86.7% of the variation in Employee Performance, as shown in Table 4.42 below of the model summary result of the hierarchical regression analysis. When Demographic Characteristics(DC) was included as moderator variable in model 2, the R² value only climbed to 0.869, accounting for 86.9% of the variance in Employee Performance (EP). Therefore, as shown in Table 4.42 below, in the regression model 1 and model 2, the change in R² value was 0.2 percent, which was small or inconsequential. As a result, using Demographic Characteristics (DC) as a predictor or moderator did not enhanced the amount of variation in Employee Performance (EP) that could be explained.

Table 4.29: Regression Model Summary for the Moderating Effect of DC in the Relationship b/n WE and EP

Model	R	R ²	Adjusted R ²	Std. Error	Change Statistics				
					ΔR ²	ΔF	df1	df2	ΔSig.
1	.931 ^a	.867	.867	1.18723	.867	2029.373	1	310	.000
2	.932 ^b	.869	.866	1.19164	.001	.542	5	305	.745

Source: Own Survey (2022)

As shown from the ANOVA statics Table 4.43 below, the established regression model had a significance level of 0.000 which is an indication that the data was ideal for making a conclusion on the population parameters as the value of significance (p-value) was less than 5%. The calculated value of the F-statistics is large, but decreased from 2029.373 to 336.180 from model 1 to model 2, which is an indication that the mediator variable (i.e., Demographic Characteristics) has an insignificant influence in the relationship Work Environment (WE) and Employee Performance (EP) in the selected soft drinks, wine, and beer enterprises in Addis Ababa. The F-statistics decreased from model 1 to model 2 showed that the model was insignificant.

Table 4.30: Results of the Analysis of Variance for the Moderating Effect of DC in the Relationship b/n WE and EP

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	2860.435	1	2860.435	2029.373	.000 ^b
	Residual	436.950	310	1.410		
	Total	3297.385	311			
2	Regression	2864.280	6	477.380	336.180	.000 ^c
	Residual	433.104	305	1.420		
	Total	3297.385	311			

Source: Own Survey (2022)

As shown in Table 4.44 below the unstandardized beta coefficients value of Work Environment (WE) and Employee Performance (EP) in model 1 was 0.282, but when Demographic Characteristics (DC) was introduced as a moderator variable in model 2 the unstandardized beta coefficient was decreased to 0.281 or only decreased by 0.001 and also the significance level was greater than 0.05. This result indicated that the strength of the relationship between Work Environment (WE) and Employee Performance (EP) did not become weaker when Demographic Characteristics (DC) is taken into account in model 2. Therefore, at $p < 0.05$, Demographic Characteristics (DC) is found to be insignificantly moderates the link between all Work Environment (WE) characteristics and Employee Performance (EP).

**Table 4.30: The Moderating Effect of DC in the Relationship between WE and EP:
Regression Coefficients**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	-1.821	.560		-3.251	.001		
	Work Environment	.282	.006	.931	45.049	.000	1.000	1.000
2	(Constant)	-2.142	.666		-3.216	.001		
	Work Environment	.281	.006	.929	44.227	.000	.976	1.025
	Gender	.003	.147	.000	.020	.984	.982	1.019
	Age	.067	.096	.015	.695	.488	.979	1.022
	Marital status	-.047	.084	-.012	-.554	.580	.978	1.023
	Educational Level	.070	.079	.018	.886	.376	.991	1.010
	Work Experience	.086	.088	.021	.983	.326	.983	1.017

Source: Own Survey (2022)

4.6. Findings of the Hypothesis Tests

The eight hypotheses of this study concerning the mediating roles of job satisfaction and moderating effects of demographics in the relationship between work environment and employee performance were tested as follows by using as the regression tables above.

Hypothesis One

H_{a1}: Work Environment (WE) dimensions comprising of five sub-dimensions (job safety and security, physical working environment, relationship with co-workers, supervisor support and working hour) is positively and significantly related to job satisfaction in the selected soft drinks, wine and beer companies in Addis Ababa.

The multiple regression analysis given in Table 4.19 above revealed the five sub-dimensions of Work Environment (i.e., job safety and security, physical working environment, relationship with co-workers, supervisor support and working hour) statistically, strongly and significantly correlated to job satisfaction in the selected soft drinks, wine, and beer companies in Addis Ababa at 5% level of significance. This implies that the more the five sub-dimensions of Work Environment increases the more it influences the employee's job satisfaction in the selected soft drinks, wine, and beer companies in Addis Ababa. As a result,

hypothesis one is accepted, and the study indicates that the five sub-dimensions of work environment (i.e., job safety and security, physical working environment, relationship with co-workers, supervisor support and working hour) in the selected soft drinks, wine, and beer companies in Addis Ababa has a favorable and significant impact on job satisfaction.

Testing of Hypothesis Two

H_{a2}: Employee performance (EP) is related to Work Environment (WE) dimensions comprising five sub-dimensions (job safety and security, physical working environment, relationship with co-workers, supervisor support, and working hour) in the selected soft drinks, wine, and beer companies in Addis Ababa.

The multiple regression analysis given in Table 4.22 above revealed the five sub-dimensions of Work Environment (i.e., job safety and security, physical working environment, relationship with co-workers, supervisor support and working hour) statistically, strongly and significantly correlated to employee performance in the selected soft drinks, wine, and beer companies in Addis Ababa at 5% level of significance. This implies that the more the five sub-dimensions of Work Environment increases the more it influences the employee's performance in the selected soft drinks, wine, and beer companies in Addis Ababa. As a result, hypothesis two is accepted, and the study indicates that the five sub-dimensions of work environment (i.e., job safety and security, physical working environment, relationship with co-workers, supervisor support and working hour) in the selected soft drinks, wine, and beer companies in Addis Ababa has a favorable and significant impact on employee performance.

Testing of Hypothesis Three

H_{a3}: In the selected soft drinks, wine, and beer companies in Addis Ababa, Employee Job Satisfaction has a favorable and significant impact on their performance.

The regression analysis as shown in Table 4.25 above confirms that the beta coefficient and p-values are significant showing that there is strong positive and significant relationship between Job Satisfaction (JS) and Employee Performance (EP). This implies that the more the job satisfaction increases the more it influences the employee's performance in the selected soft drinks, wine, and beer companies in Addis Ababa. As a result, hypothesis three is accepted, and the study indicates that the job satisfaction dimensions in the selected soft

drinks, wine, and beer companies in Addis Ababa has a favorable and significant impact on employee performance.

Testing of Hypothesis Four

H₄₄: In the selected soft drinks, wine, and beer companies in Addis Ababa, Job Satisfaction (JS) would favorably and considerably mediate the relationship between Work Environment (WE) and Employee Performance (EP).

As shown in Table 4.28 above the comparison of the normal Pearson correlation matrix between Work Environment (WE) and Employee Performance (EP), without controlling for Job Satisfaction (JS) ($r = 0.931, p < 0.000$) and the output of the partial correlation when Job Satisfaction (JS) is controlled ($r = 0.546, p < 0.000$), shows a significant influence on the relationship between Work Environment (WE) and Employee Performance (EP). The adjustments in R^2 shown in Tables 4.29 and 31 also corroborate this. The R^2 value changed by 6.3 percent between regression models 1 and 2, and the beta value reduced from 0.282 to 0.122, showing that when Job Satisfaction (JS) is included in model 2, the Work Environment (WE) and Employee Performance (EP) association decreases. At $p < 0.05$, Job Satisfaction (JS) is found to significantly influence the link between all Work Environment (WE) characteristics and Employee Performance (EP). As a result, hypothesis four is accepted, and the study finds that in the selected soft drinks, wine, and beer companies in Addis Ababa, Job Satisfaction (JS) positively and significantly mediates the association between all Work Environment (WE) aspects and Employee Performance (EP).

Testing of Hypothesis five

H₄₅: In the selected soft drinks, wine, and beer companies in Addis Ababa, demographic characteristics would positively and considerably moderates the relationship between Work Environment and Employee Performance.

As shown in Table 4.41 above the comparison of the normal Pearson correlation matrix between Work Environment (WE) and Employee Performance (EP), without controlling for Demographic Characteristics ($r = 0.931, p < 0.000$) and the output of the partial correlation when Demographic Characteristics is controlled ($r = 0.930, p < 0.000$), shows insignificant influence on the relationship between Work Environment (WE) and Employee Performance (EP) because the value of r is changed by only 0.001 which is very small. This is also

supported by the changes in R^2 presented in hierarchical regression models showed above by only 0.2% and also the beta value decreased by only 0.001. This result indicated that the strength of the correlation between work environment and employee performance relationship did not weaken when demographic characteristics were included in the regression model as moderator variable. Therefore, the null hypothesis number five is accepted, and the study indicates that demographic characteristics do not modify the link between work environment aspects and employee performance in the Addis Ababa-based soft drinks, wine, and beer industries.

CHAPTER FIVE

CONCLUSIONS AND RECOMMENDATIONS

In this chapter the researcher's recommendations to improve the mediating roles of job satisfaction and moderating impacts of demographics in the relationship between work environment and employee performance: the case of selected soft drinks, wine, and beer companies in Addis Ababa are presented.

5.1. Summary of the Results

The study targeted a sample size of 344 respondents from which 312 filled in and returned the questionnaires making a response rate of 90.7%. This response rate was satisfactory to make conclusions for the study as it acted as a representative.

The descriptive analyses of the work environment variables (i.e. job safety and security, physical working environment, supervisor support, and working hour) have an aggregate mean and standard deviation score value of 3.87 and 0.67 respectively. This revealed that the employees of the selected soft drinks, wine, and beer companies in Addis Ababa agreed that their job has a low risk of accident, takes place in an environment free of health hazards (e.g., chemicals, fumes, etc.), and that there are abundantly available working tools and safety equipment in their workplace, that their job provides them with a steady income, and that certain soft drinks, wine, and beer companies in Addis Ababa have good promotions, compensation, and benefits plans. The respondents agreed that their working environment have fresh and pollution free air, their working place have good room temperature and is free from sound factor like noise, their working place light and color factors like sunlight, brightness, windows and views are comfortable to do their job and also the space or arrangements of their work stations are comfortable to do their job. The employees also agreed that they have good relationship with their fellow workers and with their supervisor and they have also agreed that they have a high level of managing conflicts at their workplace and also they have a good relationship with their customers. In addition to these, the respondents of the selected soft drinks, wine and beer companies in Addis Ababa agreed that they have received high level of support and feedback, well informed in advance concerning important decisions, changes or future plans of the organization by the their supervisor. They have also agreed that they have received a formal and informal support

from their supervisor on conflict resolution and their supervisor gave them promotion, recognition and rewards and also provided them training concerning their work. Finally, the respondents of the selected soft drinks, wine and beer companies in Addis Ababa agreed that there is a comfortable, flexible working hours in the organization, which have extra hour pay for the extra hours of work done and also there is an adequate work load for the employees in the organization.

The job satisfaction items aggregate mean and standard deviation scores were 3.86 and 0.69 respectively, according to descriptive statistics results of the study. This implied that the employees of the selected soft drinks, wine, and beer companies in Addis Ababa agreed that they enjoy doing the things they do at work, that they are satisfied with the pay they receive from their current job, that they are extremely glad that they chose this institution over others to work for, and that they are overall satisfied with their current job.

The employee performance items aggregate mean and standard deviation scores were 3.87 and 0.69 respectively, according to descriptive statistics results of the study. This indicates that the survey's employees of the selected soft drinks, wine and beer companies in Addis Ababa agreed that they have put a high level and quality of effort to their job; they are working cooperatively with their co-workers to achieve the organizations objective and also they agreed that they are committed to their obligations and loyal to their organization, also they have a high interest and ability to do their job, they have the ability to accept and explain the delegations of their task and they also agreed that they are motivated by their job role and level of work provided to them.

In the selected soft drinks, wine, and beer companies in Addis Ababa, the association between work environment parameters and job satisfaction was found to be favorable and substantial between all work environment dimensions (job safety and security, physical working environment, supervisor support, and working hour) and job satisfaction. Furthermore, job satisfaction was strongly associated with job safety and security ($r=0.809$) in selected soft drinks, wine, and beer companies in Addis Ababa, followed by physical working environment ($r=0.795$), supervisor support ($r=0.761$), and working hour ($r=0.697$). Work environment factors and job satisfaction, according to Bhattacharjee (2012), have a

strong and positive link that is statistically significant at the 99 percent confidence level. This discovery was similar to Jain and Kaur (2014) and Badrianto and Ekhsan (2020) findings.

The association between work environment parameters and employee performance was shown to be positive and substantial between all five work environment dimensions (job safety and security, physical working environment, relationship with coworkers, supervisor support, and working hour) and employee performance. Furthermore, employee performance in the study area was strongly linked to coworker relationships ($r=0.827$), followed by the physical working environment ($r=0.821$), job safety and security ($r=0.814$), supervisor support ($r=0.787$), and working hour ($r=0.717$). According to Bhattacharjee (2012), relationships with coworkers, physical working environment, and job safety and security all have a very strong correlation with employee performance, but supervisor support and working hours have a strong and positive correlation that is statistically significant at the 99 percent confidence level. The result of the findings was in line with the findings of Aslam (2018) and Idris et al. (2020) findings.

The inter-correlation between work environment and job satisfaction was ($r=0.904$), between work environment and employee performance ($r=0.931$), and between job satisfaction and employee performance ($r=0.949$), according to the correlation matrix between work environment, job satisfaction, and employee performance. According to Bhattacharjee (2012) all the three variables have extremely strong and positive correlations that are statistically significant at the 95% confidence level. Uzun and Zdem (2017), as well as Badrianto and Ekhsan (2020) found a similar result in their studies.

Job Safety and Security made the most significant contribution to explaining job satisfaction (JS) ($\beta_1= 0.288$) in the regression analysis between work environment dimensions and job satisfaction (JS), followed by Relationship with Co-Workers ($\beta_3 = 0.217$), Working Hour ($\beta_5 = 0.187$), Physical Working Environment ($\beta_2 = 0.161$) and Supervisor Support ($\beta_4 = 0.121$) respectively. The value of R^2 is 0.823, demonstrates that 82.3% of the variation of job satisfaction (JS) in the selected soft drinks, wine and beer companies in Addis Ababa was explained by the work environment dimensions. The rest 17.7% was due to other factors, which is out of the scope of the study. As a result, hypothesis one is accepted, and the study indicates that the work environment in the selected soft drinks, wine, and beer companies in

Addis Ababa has a favorable and significant impact on job satisfaction. This discovery was similar to Jain and Kaur's (2014) and Badrianto and Ekhsan's (2020) findings.

The highest contribution to explaining Employee Performance (EP) was produced by Job Safety and Security ($\beta_1 = 0.339$), in the multiple regression analysis between work environment dimensions and Employee Performance (EP), followed by Physical Working Environment ($\beta_2 = 0.270$), Working Hour ($\beta_5 = 0.260$) and Supervisor Support ($\beta_4 = 0.168$) respectively. The value of R^2 is 0.872, demonstrates that 87.2% of the variation of Employee Performance (EP) in the selected soft drinks, wine and beer companies in Addis Ababa was explained by the five work environment dimensions. The rest 12.8% was due to other factors, which is out of the scope of the study. As a consequence, hypothesis two is accepted, and the research shows that the work environment has a favorable and significant impact on Employee Performance (EP) at Addis Ababa-based soft drinks, wine, and beer companies. Aslam (2018) and Idris et al. (2020) came to similar conclusions.

Job satisfaction and Employee Performance (EP) have a substantial and positive association, according to the regression analysis ($\beta_1 = 1.354$). The value of R^2 is 0.900, demonstrates that 90.0% of the variation of Employee Performance (EP) in the selected soft drinks, wine and beer companies in Addis Ababa was explained by job satisfaction. For the remaining 10% other factors, which were outside the scope of the study, accounted for. As a consequence, hypothesis three is accepted, and the research shows that job satisfaction has a favorable and significant impact on Employee Performance (EP) in Addis Ababa-based soft drinks, wine, and beer companies. Uzun and Zdem (2017), as well as Badrianto and Ekhsan (2017), have published similar findings (2020).

To test the mediating effect of job satisfaction in the relationship between work environment and employee performance the normal Pearson correlation matrix between work environment and employee performance, without controlling for job satisfaction scored ($r = 0.931$, $p < 0.000$) and the output of the partial correlation when job satisfaction is controlled scored ($r = 0.546$, $p < 0.000$), which shows a significant influence on the relationship between work environment and employee performance. This is reinforced by the fact that as we shift from model 1 to model 2, the R^2 value increased by 6.3 percent and the beta value reduced from 0.282 to 0.122, demonstrating that the work environment and employee performance

association weakens when job satisfaction is factored in. As a result, hypothesis four is accepted, and the study finds that job satisfaction strongly mediates the relationship between all work environment indicators and employee performance in the selected soft drinks, wine, and beer industries in Addis Ababa. Uzun and Zdem (2017), as well as Badrianto and Ekhsan (2020), have published similar findings.

To test the moderating effect of demographic characteristics on the relationship between work environment and employee performance the normal Pearson correlation matrix between work environment and employee performance, without controlling for demographic characteristics scored ($r = 0.931$, $p < 0.000$) and the output of the partial correlation when job satisfaction is controlled scored ($r = 0.930$, $p < 0.000$), which shows insignificant influence on the relationship between work environment and employee performance because the value of r is changed by only 0.001 which is very small. This is reinforced by the fact that as we shift from model 1 to model 2, the R^2 value increased by 0.2 percent and the beta value reduced from 0.282 to 0.281 or only reduced by 0.001, demonstrating that the strength of the work environment and employee performance relationship did not weaken when demographic characteristics were taken into account in model 2. As a result, hypothesis eight is denied, and the study indicates that demographic factors did not affect the link between all work environment aspects and employee performance in the selected soft drinks, wine, and beer industries in Addis Ababa only insignificantly. Hamid and Hassan (2015), as well as Beyene and Gituma (2017) found a similar result in their studies.

5.2. Conclusions

The study was concluded to find out the mediating roles of job satisfaction and moderating effects of demographics factors in the link between work environment and employee performance of employees working in soft drinks, wine and beer companies in Addis Ababa, Ethiopia. While studying the relationship work environment with different mediating and moderating variables such as relationship with co-workers, qualifications, gender, age, and marital status, it is concluded that job satisfaction has significance influence with work environment. It is also concluded that job satisfaction has no significance association with demographics variables such as gender, qualification, age and marital status. It is determined that job satisfaction is significantly correlated with employee performance.

The study also concluded that the link between work environment and employee performance has a positive and substantial relationship. At a 99% confidence level, the inter-correlation matrix between work environment, job satisfaction, and employee performance revealed that all the three variables have very high and positive connections. The study concluded that job satisfaction and employee performance will increase if work environment is increased and vice-versa. Therefore, the findings of the study concluded that job satisfaction has significance and favorable mediating role in the relationship between work environment and employee performance in the study area. From this, it is also concluded that the performance of satisfied employees is superior as compared to dissatisfied employees. Hence, the above results suggested that in order to improve the performance of employees such as productivity, leadership qualities, and quality of work, companies should consider obvious factors of job satisfaction and work environment.

Furthermore, it is also concluded from the above results that demographics factors has no significance influence of moderating effects in the association between work environment and employee performance of employees working in soft drinks, wine and beer companies in Addis Ababa, Ethiopia.

5.3.Recommendations

The researcher made the following recommendations, which can have managerial ramifications, in support of the findings and conclusions reached:

- According to the survey results, managers of the selected soft drinks, wine, and beer companies of Addis Ababa should implement strategies to improve the work environment, job satisfaction dimensions, which in turn improve the organization's employee performance by offering a more appealing work environment that can increase employee job satisfaction and performance.
- The companies should also provide adequate tools of labor, and article of furniture (chairs and tables) should be comfortable in terms of height, posture and luxury to verify that the physical working environment is safe for improving employee performance by the workers within the chosen soft drinks, wine, and beer companies in Addis Ababa.
- Employee performance in the selected soft drinks, wine, and beer companies in Addis Ababa will be aided by effective supervisor support, according to the study, and there is a need to inform employees well in advance of important decisions such as changes or future plans to ensure employees receive all the information they require to do their jobs well. To guarantee that employees feel appreciated by the businesses they serve, workplace management should respect and treat people properly by recognizing their input. People spend more time at work, thus it's important to be happy and pleased there.
- Employee motivation must be maintained at all times. As a result, in order to achieve the organization's goals, firms must provide good incentives and recognition systems. Organizations must provide appropriate benefits plans for their employees in order to keep them happy and engaged, which in turn improves their performance.
- The organizations should assess their employee pay and wage structures on a regular basis to verify that they are compatible with their talents and skill, which they are almost like other companies within the market. Employees will feel safer and safer on the work which is able to improve their job satisfaction and performance.

5.4.Suggestions for Future Studies

The purpose of this study was to look into the mediating roles of job satisfaction and the moderating impacts of demographics in the correlation or association between work environment and employee performance in Addis Ababa's soft drinks, wine, and beer firms. The sample was drawn from only from two soft drink companies, one beer company and from one wine manufacturing company, thus this study may be limited in its generalizability of the findings to others soft drinks, wine and beer companies found in Ethiopia. So, future research should have to draw sample of respondents from other soft drinks, wine and beer companies for the sake generalizing the results of the study.

This study employed only five factors for work environment dimensions but there could be some other relevant factors that may be perceived important by employees which were excluded from this study. Future researches, therefore, may consider more factors. Additionally, it is also better if comparative study will be conducted between soft drinks, wine and beer companies with similar issue at hand so as to find out other factors that can affect job satisfaction and employee performance. Furthermore, conducting a replication study in other service industries is also needed; for example in the hotel service, telecommunication service, post office service and etc.

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APPENDICES

Appendix A: Questionnaires

Addis Ababa University

College of Business and Economics

Department of Business Administration

Dear respondent,

Demelash Abiy, a student at Addis Ababa University, will perform this research as part of his Master of Business Administration requirements. "The Mediating Roles of Job Satisfaction and Moderating Effects of Demographics in the Relationship between Work Environment and Employee Performance: The Case of Selected Soft Drinks, Wine, and Beer Companies in Addis Ababa," is the title of a study I'm currently working on.

I would like to congratulate you on being one of the most qualified and trustworthy responders chosen for this survey.

Please help me provide accurate and complete information in order for me to present a representative finding on the current status of The Mediating Roles of Job Satisfaction and Moderating Effects of Demographics in the Relationship between Work Environment and Employee Performance: The Case of Selected Soft Drinks, Wine, and Beer Companies in Addis Ababa.

The survey is completely anonymous, and your participation is entirely voluntary.

Finally, I would want to assure you that any information you share with me will be kept private and utilized just for scholarly purposes. Individual comments will not be identified, and respondents' identities will not be published or shared.

Regards, Sincerely,

Demelash Abiy

Instructions

1. There is no need to write your name.
2. For multiple choice questions indicate your answers by encircling the letter of your choice.

Note: You can contact the researcher at the following address if you have any more comments, clarifications, information, or suggestions:

Name: Demelash Abiy

Mobile: 0910603631

E-mail: demelasheabiy@gmail.com

Thank you in advance for your essential assistance and time commitment.

Part I: Background of the Respondents

Please select the letter of your choosing.

1. Gender
 - a. Male
 - b. Female

2. Age of respondents
 - a. 20-25 Years
 - b. 26-35 Years
 - c. 36-45 Years
 - d. 46 years and above

3. Marital status
 - a. Married
 - b. Single
 - c. Divorced
 - d. Widowed

4. Educational Level
 - a. Certificate and below
 - b. Diploma Holder
 - c. First degree Holder
 - d. Master's degree and above

5. Service Year
 - a. 1 to 5 Years
 - b. 6 to 10 Years
 - c. 11 to 15 Years
 - d. 16 to 20 Years
 - e. Above 20 Years

Part II: Working Environment Dimensions

The dimensions of the work environment are given below. Please specify the extent to which these working environment variables have an impact on your company's jobs. After reading each of these variables, evaluate them in respect to your organization, and then mark the options below with a check mark (√). Where 5 indicate Strongly Agree, 4 indicate Agree, 3 indicate Neutral, 2 indicates Disagree, and 1 indicates Strongly Disagree.

Overall Working Environment Dimensions

Code	Job Safety and Security	1	2	3	4	5
JSS1	The job has a low risk of accident.					
JSS2	The job takes place in an environment free from health hazards (e.g., chemicals, fumes, etc.).					
JSS3	There are abundantly available working tools and safety equipment's in my work place					
JSS4	My job provides me a steady employment					
JSS5	The organization has a good promotions, compensation and benefits plans					

Code	Physical Working Environment	1	2	3	4	5
PWE1	My working environment is air pollution free and there is fresh air					
PWE2	My working place has a good room temperature					
PWE3	My working place is free from sound factor like noise					
PWE4	My working place light and color factors like sunlight, brightness, windows and views are comfortable to do my job.					
PWE5	Space or arrangements of my work stations are comfortable to do my job.					
Code	Relationship with Co-Workers	1	2	3	4	5
RCW1	I have a good relationship with my fellow workers					
RCW2	I have a good relationship with my supervisor					
RCW3	I have a high level of managing conflicts at workplace					
RCW4	I have a good relationship with my customers					
Code	Supervisor Support	1	2	3	4	5
SS1	I have received high level of support from my supervisor when performing my work					
SS2	I have received high level of feedback from my supervisor about my work					
SS3	I am well informed in advance concerning important decisions, changes or future plans of the organization by my supervisor					
SS4	There is a formal and informal support from my supervisor on conflict resolution enabling me to have a closer relations with my supervisor					
SS5	My supervisor gave me promotion, recognition and rewards and also provided me training on my work.					
Code	Working Hour	1	2	3	4	5
WH1	I am comfortable with the working hours of the organization					
WH2	There is flexible working hours in the organization					
WH3	The organization has extra hour pay for the extra hours of work done					
WH4	There is an adequate work load for the individuals in the organization					

Part III: Dimensions of Job Satisfaction

Below are the Job Satisfaction Dimensions. Please specify to what extent these Job Satisfaction Dimensions are used in your company. After reading each of the current Job Satisfaction Dimensions, assess them in reference to your organization, and then mark the options below with a check mark (√). Where 5 indicate Strongly Agree, 4 indicate Agree, 3 indicate Neutral, 2 indicates Disagree, and 1 indicates Strongly Disagree.

Current Job Satisfaction Dimensions

Code	Job Satisfaction	1	2	3	4	5
JS1	I like doing the things that I do at my workplace.					
JS2	I am satisfied with my earning from my current job.					
JS3	I am extremely glad that I chose this institution to work for, over other institutions.					
JS4	Overall, I am satisfied with my current job.					

Part IV: Dimensions of Employee Performance

The dimensions of employee performance are listed below. Please rate how likely these Employee Performance Dimensions are to occur in your organization. After reading each of the Employee Performance Dimensions, assess them in respect to your organization, and then check the options below with a tick mark (√). Where 5 indicate Strongly Agree, 4 indicate Agree, 3 indicate Neutral, 2 indicates Disagree, and 1 indicates Strongly Disagree.

Overall Employee Performance Dimensions

Code	Employee Performance	1	2	3	4	5
EP1	I have put a high level and quality of effort to my job					
EP2	I am working cooperatively with my co-workers to achieve the organizations objective					
EP3	I am committed to my obligations and loyal to my organization					
EP4	I have a high interest and ability to do my job					
EP5	I have the ability to accept and explain the delegations of my task					
EP6	I am motivated by my job role and level of worker provided to me					

Thank you once again!!

Appendix B: Output of the SPSS Results

Figure 1: Regression Model Residuals Scatterplot

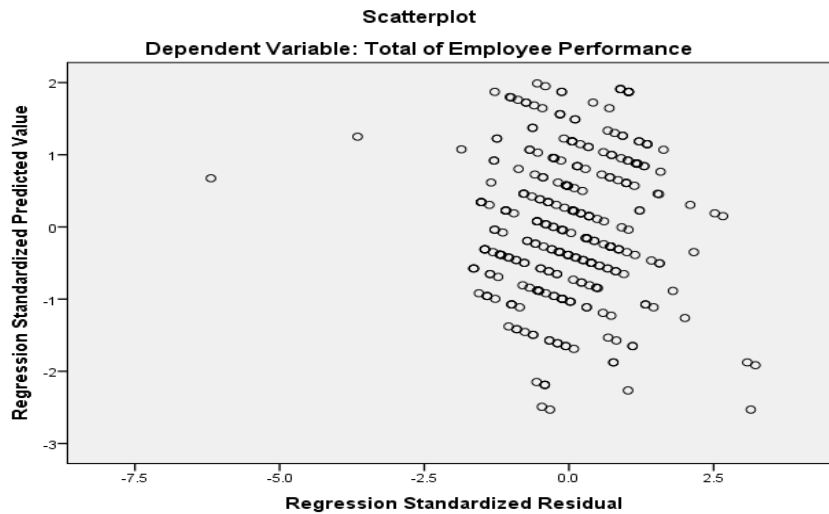
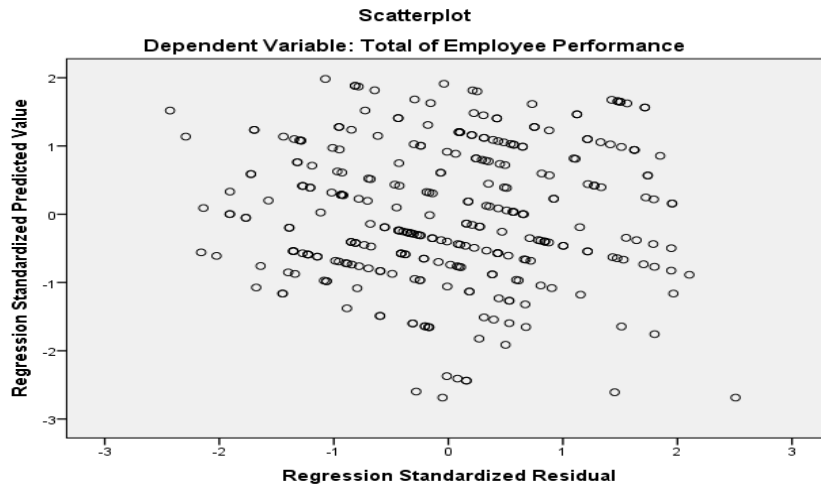
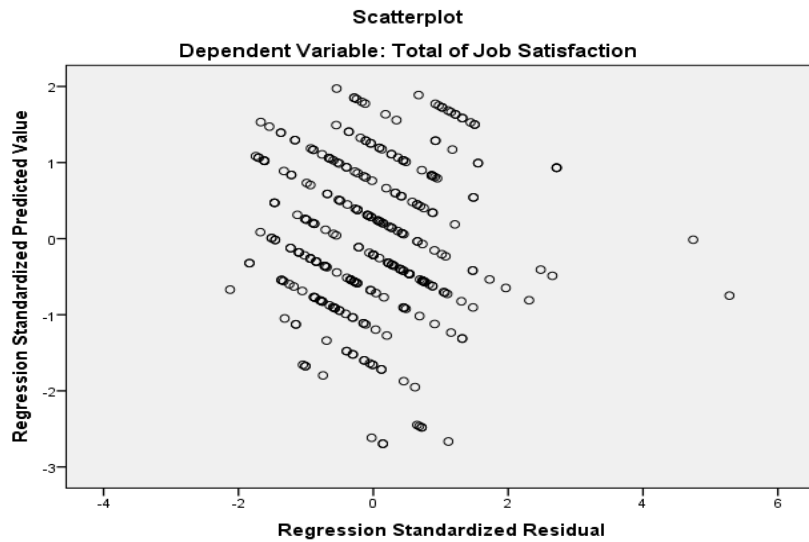


Figure 2: The Regression Model's Histogram

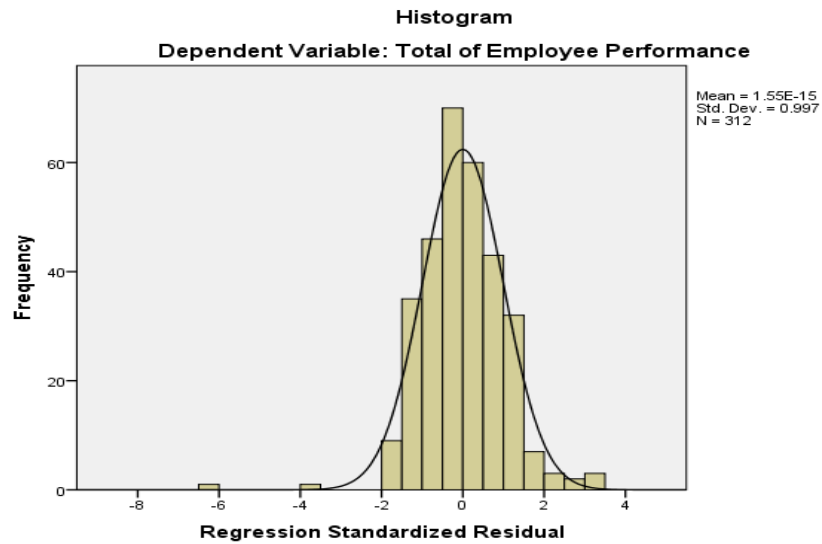
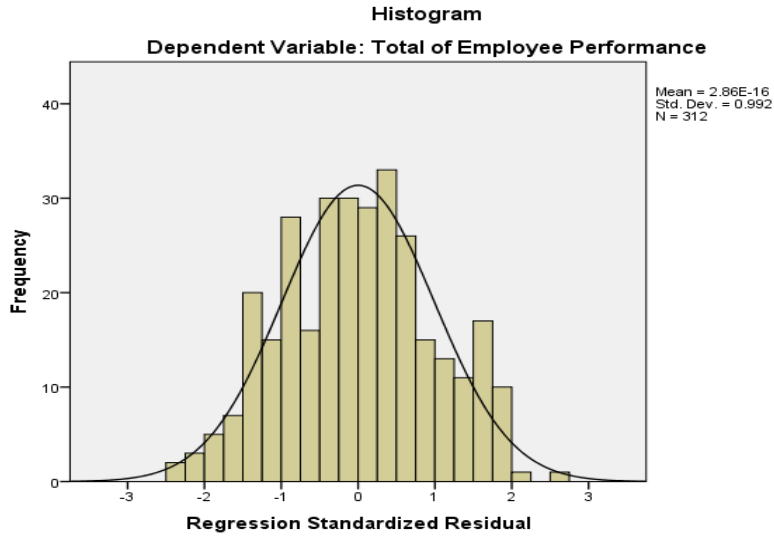
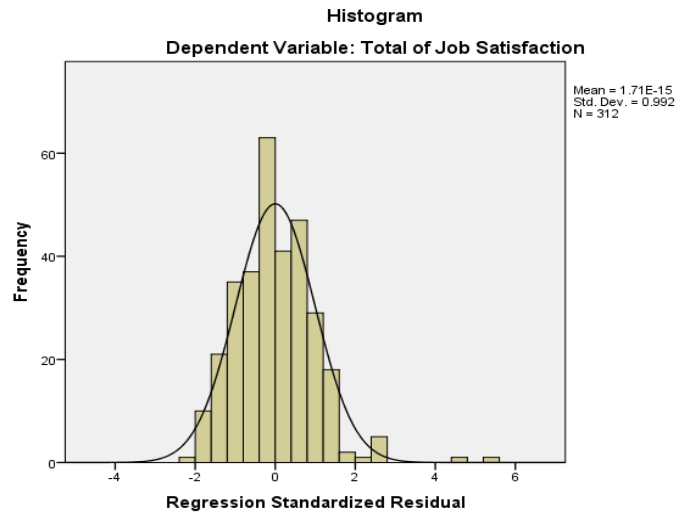


Figure 3: The Regression Model's Normal P-P Plot

