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THE MEDIATING EFFECT OF EMPLOYEE ENGAGEMENT BETWEEN ITS ANTECEDENTS AND EMPLOYEE RETENTION:

THE CASE OF ETHIOPIAN AIRLINES

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THE CASE OF ETHIOPIAN AIRLINES

ADVISOR

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DECLARATION

I, Nardos Andualem Mehari, hereby declare that this research entitled "The Mediating Effect of Employee Engagement between its Antecedents and Employee Retention: The Case of Ethiopian Airlines" is my original work and has not been submitted for award of any degree in this or any other university. I also declare that all sources of materials used for the study have been duly acknowledged.

Declared By:

Name: Nardos Andualem Mehari

Signature _____

Date_____

This master thesis has been submitted for examination with my approval as thesis.

Advisor Name: Lakew Alemu (PhD)

Signature_____

Date_____

CERTIFICATE

This is to certify that Nardos Andualem Mehari has carried out her research work on the topic entitled, "The Mediating Effect of Employee Engagement between its Antecedents and Employee Retention: The Case of Ethiopian Airlines". The work is suitable for submission for the award of the Degree of Master of Business Administration [MBA] at Addis Ababa University.

Approved by Board of Examiners

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Advisor: Lakew Alemu (PhD)   Signature _____Date _____

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Table of Contents

LIST OF TABLES

LIST OF FIGURES

LIST OF ABBREVIATIONS AND ACRONYMS

EAL – Ethiopian Airlines

ANOVA – Analysis of Variance

SPSS – Statistical Package for Social Science

SD – Standard Deviation

HR – Human Resource

JE – Job Embeddedness

EE– Employee Engagement

ER – Employee Retention

PA – Performance Appraisal

TD – Training and Development

PB – Pay and Benefit

WE – Work Environment

PSS – Perceived Supervisor Support

ABSTRACT

Employee engagement is a key in improving productivity, performance, and the ability to retain top talented employees within the company. Employee engagement is also considered to be the most powerful factor to measure an organization's strength and EAL is one of the organizations where engaging and retaining employees are being the most challenging issues but didn't get much attention from the side of management until recently. Thus, the objective of this research was to study the different determinants of employee engagement and to assess the mediating role of employee engagement between its antecedents and employee retention in the context of EAL. To achieve the objective of this study, questionnaires were adapted from previous research works and pilot study was also conducted on 30 respondents to check the accuracy and reliability of the measurement. Convenience and simple random sampling was implemented as sampling technique with sample size of 337 out of 407 distributed questionnaire (83% of response rate). The time dimension of the research design for this study was cross sectional field survey which was used to collect the data from the sample at one point in a time. The study used Descriptive statistics to measure the level of employee engagement and retention; also Multiple linear regression and Mediation analysis techniques to examine the study variables. The overall analysis result of the study indicated that all the study predictors have positive and significant effect on employee retention and on employee engagement. The mediator which is employee engagement has also a positive and significant effect on employee retention. The study result also confirmed that employee engagement had a full mediating role in the relationship between the proposed factors and employee retention. This implies that employee engagement has an indirect effect in the relationship between those factors and employee retention. Moreover, the study found out that pay and benefit is the strongest factor that determines employee engagement and employee retention the most. An important recommendation based on the study result was EAL should implement the significant determinants of Employee Engagement for gaining competitive advantage, reducing turnover and achieving high productivity.

Key Words: EAL, Mediation, Employee Engagement, Employee Retention, Performance Appraisal, Training and Development, Pay and Benefit, Work Environment, and Perceived Supervisor Support

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

In today's dynamic business environment, organizations are expected to use their human resources more effectively and efficiently in order to stay competitive. Today's challenge isn't only retaining talented and professional employees; it's also completely engaging them, keeping them excited about and committed to their organization. Employee engagement is an emerging concept in business, management, organizational psychology and human resource development fields (Wollard & Shuck, 2011) and it recently has become a hot topic (Sandeep et al., 2008).

Gruman and Saks (2011) have established employee engagement as the key to achieving organizational success and competitiveness. Employees who are engaged are more creative, productive, and able to go above and beyond (Bakker & Demerouti, 2008). In fact, engaged employees are important for organizations because they significantly contribute to the bottom line (Demerouti & Cropanzano, 2010). Binyam (2019) has also showed how employee engagement can be influenced by transformational leadership, which ultimately affect job performance and organizational performance as well. Moreover, Assefa (2020) considered Employee Engagement as the outcome of HRM systems and its crucially relevant factor in enhancing organizational performance.

Kahn (1990) described employee engagement first as "the harnessing of organizational members' selves to their job roles; in engagement, people use and express themselves physically, cognitively, and emotionally during role performances". The **cognitive** component of employee engagement deals with employees' beliefs regarding the organization, its leaders and working conditions. The **emotional** part deals with how workers feel about each of those three variables, as well as whether they have positive or negative attitudes about the company and its leaders. The **physical** part of employee engagement concerned with the physical energies applied by the employees to carry out their responsibilities. Hence, according to Kahn (1990), being psychologically as well as physically available while performing an organizational task is what engagement means.

Engagement is about providing opportunities for employees to interact with their coworkers, supervisors, and the larger organization, as per Truss (2009). Besides, it's about creating an environment in which employees are inspired to engage with their jobs and care deeply about doing a good job.

Retaining employees is another growing concern for today's dynamic organizations where researches stressed about having employee engagement strategies in order to reduce turnover intention. According to Sultana & Bushra (2013), employee retention is a company's attempt to create a working environment that encourages existing employees in remaining with the company. Moreover, McKeown (2002) described employee retention as an employer's systematic effort to build and promote an environment that enables current employees to stay employed by having policies and procedures in place to meet their diverse needs. The costs associated with turnover may include customers and business loss and damaged morale. There are also the hard costs of time spent in screening, checking qualifications, recruiting, hiring, and training a new employee to get back to where you began.

Thus, the reason why employee retention is so critical is that when an employee leaves, the company incurs a significant expense in hiring a replacement. Moreover, when one of the team members leaves, the morale of the rest of the team drops (Vigoda, 2000). Hence, Employee retention should be a top priority for every company; otherwise, valuable resources would be wasted, leaving a negative impression and low morale behind (Festing, 2014).

According to Worku (2018), Employee retention is the mechanism by which companies take action to discourage their key employees from changing jobs, and companies must be aware of the contributing factors in order to keep their key employees. As per Abu and Worku (2019), HRM practices that have a significant and positive impact on employee turnover intention account for the majority of the difference in employee turnover intention.

Employee engagement has also been shown to have a significant impact on employee retention, productivity, and organizational performance by researchers (Harter, Schmidt, Agrawal, Plowman, Blue, 2016; Rich, Lepine and Crawford, 2010). Thus, companies are conducting a periodical survey on employee engagement now a day in order to recognize employee engagement determinants so that counteractive strategies can be developed to improve

engagement level of employees, which in turn improves productivity, performance, and the ability to retain top talented employees within the company.

Moreover, elevated employee engagement contributes to higher organizational effectiveness. It is employee engagement that enhances effectiveness in a company by increasing retention, customer satisfaction, competitiveness, safety and eventually, profitability. Employees who are engaged care for their company and want to see it succeed. They are likely to perform better, quicker and more safely (Myilswamy & Gayatr, 2014).

According to Sridevi and Priyanka (2018), employees should be recognized by the organization as powerful contributors to a company's competitive position more than any other variable. As a result, employee engagement should be an ongoing process of learning and development, and ensuring it is the duty of the company, which necessarily involves a proper balance of time, effort, dedication, and investment to be more effective.

Furthermore, employees are critical for the achievement of organizational goals and therefore, managers must consider the engagement of employees as a critical matter. It is also critical to understand which variables have the greatest impact on employee engagement in order to build an environment that is favorable to employee satisfaction and engagement (Heartfield, 2012).

There is no single fixed model showing the importance of the effect of all variables, as different employees put different focus on those variables that impact engagement (Saks, 2006; Chandani, Mehta, Mall & Khokhar, 2016). Thus, the researcher must first consider the factors contributing to workplace engagement in order to practically improve, maintain and achieve the desired outcome of employee engagement (Hale, 2016; Knight, Patterson & Dawson, 2016). As a result, although different literatures show number of factors as antecedent variables of employee engagement, only selected determinant factors were examined under this study based on issues raised repeatedly on different crew meetings and cross-sectional core team meetings that were hold under different departments of the company besides using the recommended potential antecedent of different scholars' models. Based on Robinson, Perryman and Hayday's (2004) study, the researcher has selected three of the antecedents of EE, namely Performance Appraisal, Training and Development, and Pay and Benefit. Working environment has been taken from the study of Sake's (2006) and Brid (2015) study which focused on researching the key drivers of

employee engagement in a declining outsourcing company. The researcher also identified perceived supervisory support from Kahn's (1990) and Maslach et al.'s (2001) study.

1.2 Overview of Ethiopian Airlines

Ethiopian Airlines (Ethiopian) was established on December 21, 1945, and began operations on April 8, 1946. Ethiopian Airlines is Ethiopia's flag carrier, with its main hub at Addis Ababa, Bole. Throughout the past seventy plus years, Ethiopian has been one of the leading carriers on the continent, unrivalled for quality and operational excellence in Africa, turning profits for nearly all the years of its life. The airline, which operates at the forefront of technology, has grown to become one of Ethiopia's most important industries and a true African institution. It controls a lion's share of the Pan-African network including the continent-wide daily and double daily east-west flight. EAL currently operates the newest and youngest fleet, serving 100 international and 21 domestic destinations. EAL was awarded as the 'Best Airline in Africa' for the third year in a row at the Skytrax 2019 World Airlines Awards in Paris on June 18, 2019. In addition, EAL has won the award ceremony for 'Best Enterprise Class in Africa' and 'Best Economy Class in Africa'. At Addis Ababa University's annual graduation ceremony held at the Addis Ababa Millennium Hall on July 13, 2019, the Group CEO of Ethiopian Airlines was also given an honorary doctorate degree.

Ethiopian Airlines is Africa's largest airline with over 17,000 employees. As a result, having an engaged workforce will increase in the company's productivity and reduce employee turnover. On the other hand, disengaged employees will negatively affect the company as well as the country's economy. Ethiopian Airlines is spending time, money, and energy on program so called employee engagement which is recently established for the sole purpose of finding root cause and improving employee engagement in the company. So to maximize employee satisfaction, to improve employee engagement, to increase employee professionalism to retain top talented employees, and to realize ETG's vision 2035; Core team was formed under this sole department of engagement. Core team has members of employees from every section who are selected by the immediate supervisor and by the teams to represent that section and address the employee's issue. (https://corporate.ethiopianairlines.com/AboutEthiopian/Overview)

1.3 Statement of the Problem

Employees are an organization's backbone. Even though a low level of employee retention is acceptable as it can able to offset potential stagnancy, eliminates low performers and replace them with innovative new workforce but, high employee turnover level leads the company to ineffectiveness, huge amount of expenses, and negative company image (Ingersoll & Smith, 2003). Retaining an engaged and motivated workforce is critical to an organization's success because high employee turnover is like a flood that takes away the expertise, talents, and experiences that might have been a source of competitive advantage for the company. Hence, retaining desirable workers is valuable to a company in achieving a competitive advantage that cannot be substituted by other rivals in terms of delivering a high-morale and committed workforce, and it is also critical in keeping the organization on track (Heathfield, 2005).

Only retaining talented employees is not enough, but also completely engaging them is required. Research interest in employee engagement grown in recent years dramatically (Eldor & Vigodagadot, 2016), and nowadays an attention changes in Human resource management strategies to make employees more engaged to their job and organization than focusing only on recruiting and retaining well talented employees. So an assurance of attracting the best talent and retaining these talented employees are not the only goal for organizations now due to only retaining talented employees in an organization is not enough as one may have the best talent but may not be passionate about their work (Kamau & Sma, 2016).

Employees are more creative and innovative when they are engaged and they also offer advances that let companies to evolve positively over time with changes in market conditions (Baumruk, 2004). Organizations that have disengaged employees, on the other hand, would suffer from waste of effort and inadequate talent, receive less dedication from employees, experience greater absenteeism, have a lower customer perspective, lower productivity, and less operating and net profit margins (Markos & Sridevi, 2010).

Employee engagement remains a critical topic in worldwide that needs to be addressed and worthy to recognize the fascinating viewpoints that remain to be investigated (Kwon & Park, 2019). According to many literature reviews, there are more employees who are disengaged or not engaged than engaged employees. Gallup's (2013) as one of the reviews, the Global Workplace showed that only 13% of employees worldwide are engaged at work, 63% are not

engaged, and 24% are actively disengaged. The study was also conducted on 26 Sub-Saharan African countries and found out that only 10% Sub-Saharan employees are engaged while the rest 90% are "not engaged" or "actively disengaged" (Gallup, 2013). As a result, it is important to study the drivers of employee engagement in order to increase the engagement level of employees.

Employees with low rates of work engagement are more likely to have a higher likelihood of leaving the company, as well as actually leaving it (Mitchell et al., 2001). Besides, high turnover is harmful for the companies as it threatens the quality and competitiveness of the company. Employee engagement is a crucial factor in reducing the intention of workers to leave the company. In recent times, it has been argued in the aviation management literature that increasing work engagement rates may be effective in reducing turnover intention (Chen et al., 2010). Evidence shows that engagement reduces the intent of the workers to leave and the Corporate Leadership Council (2004) discovered the most engaged workers are 87% less likely to leave their organization. Moreover, Suhasini and Kalpana (2018) examined the importance of employee engagement specifically with regard to its effect on employee retention and performance.

Employees are the backbone of any organization and when employees leave it is a loss to the company which includes giving a negative company image, the increasing cost associated with the process of hiring a new one, and new employee training cost. EAL has YP (Young Professional) program that is used to hire students graduating from every Ethiopian university with high CGPA every year, so losing these young potential employees besides the experienced employees have been seen as crucial and immediate solution seeking problem in the company.

According to Ethiopian Airlines HR Turnover Analysis Report (2019), employees left the company due to different reasons starting from 2013/14 up to 2017/18 are 4.52%, 4.99%, 6.33%, 3.97%, 3.67% respectively, of employees hired. And the management of Ethiopian Airlines did not work on employee engagement and this concept wasn't considered till vision 2025. High professional staff turnover of the company might indicate the existence of the problem and since employee disengagement is affecting the company boldly, the management is including employee engagement as number one priority in vision 2035. Thus, this research would able to

indicate the direction to how to engage employee as well as retain its employees in order to increase the company's profitability.

In addition, since Ethiopia is a land locked country, EAL serves the country as one of the port through which a good amount of import-export take place (Ethiopian distribution and sales channels, n.d.). As a result, having known the great contribution of EAL to our economic growth, carrying out a research on the antecedent variables that can result in high levels of engagement among employees and retaining those employees are very important.

In previous studies, employee engagement has been examined as a mediating variable (Ram & Prabhakar, 2011; Saks, 2006). However, earlier studies have failed to show EE as a mediating variable between its antecedents and employee retention. In this regard, the researcher is interested to fill the empirical gap by conducting a study that involve EE as a mediator variable to study the indirect effect of its antecedents on employee retention. Having this new model of mediator would have enabled to fill the knowledge gap and introduce new insight of this relationship in this area specifically in Ethiopian Airlines.

Furthermore, as confirmed by Derara (2014), there are very limited academic and empirical researches exists regarding employee engagement in Ethiopian context. Besides, less is known about the possible factors that predict employee engagement (Saks, 2006). So, we can say that a knowledge gap regarding the construct exists. In addition, the construct requires development in terms of its relation with its predictors and consequences (i.e. employee retention) in the context of Ethiopia and Airline industries. Thus, this research may bring new perspectives in the field of knowledge and can be used as a reference material for further researches on the same or related topics and can fill the literature gap to some extent.

Therefore, due to all the above mentioned reasons and considering the existing gap, the researcher is interested to conduct this study at EAL.

1.4 Research Questions

In line with the statements of the problem, the researcher designed research questions for further investigation of the topic.

➢ Does Performance Appraisal have an effect on Employee Engagement and Employee Retention at EAL?

- Does Training and Development have an effect on Employee Engagement and Employee Retention at EAL?

- Does Pay and Benefit have an effect on Employee Engagement and Employee Retention at EAL?

- Does Work Environment have an effect on Employee Engagement and Employee Retention at EAL?

- Does Perceived Supervisor Support have an effect on Employee Engagement and Employee Retention at EAL?

- Which one of the factors most significantly affects Employee Engagement and Retention at EAL?

- What is the degree of Employee Engagement and Employee Retention at EAL?

- Does Employee Engagement mediate the effect of its antecedents on Employee Retention?

1.5 Research Objectives

1.5.1 General Objective

The general objective of the research is to study the different determinants of employee engagement and to investigate if employee engagement mediates the effect of its antecedents on employee retention in EAL context.

1.5.2 Specific Objectives

- To investigate the effect of performance appraisal on employee engagement and employee retention.

- To measure the effect of training and development on employee engagement and employee retention.

- To measure the effect of pay and benefit on employee engagement and employee retention.

- To explore the effect of work environment on employee engagement and employee retention.

- To examine the effect of perceived supervisor support on employee engagement and employee retention.

- To identify the factor that most significantly affects employee engagement and employee retention at EAL.
- To determine the degree of employee engagement and employee retention at EAL.
- To analyze if employee engagement can mediate and explain the indirect relationship between the predicting variables of employee engagement and employee retention.
- To investigate possible ways of enhancing employee engagement and employee retention at EAL.

1.6 Research Hypotheses

Based on the theoretical and empirical arguments explained in chapter two, the following hypotheses are proposed:

- H1: Performance Appraisal have positive and significant effect on Employee Retention
- H2: Training and Development have positive and significant effect on Employee Retention
- H3: Pay and Benefit have positive and significant effect on Employee Retention
- H4: Work Environment have positive and significant effect on Employee Retention
- H5: Perceived Supervisor Support have positive and significant effect on Employee Retention
- H6: Performance Appraisal have positive and significant effect on Employee Engagement
- H7: Training and Development have positive and significant effect on Employee Engagement
- H8: Pay and Benefit have positive and significant effect on Employee Engagement
- H9: Work Environment have positive and significant effect on Employee Engagement
- H10: Perceived Supervisor Support have positive and significant effect on Employee Engagement
- H11: Employee Engagement mediates in the effect of Performance Appraisal on Employee Retention
- H12: Employee Engagement mediates in the effect of Training and Development on Employee Retention

- H13: Employee Engagement mediates in the effect of Pay and Benefit on Employee Retention
- H14: Employee Engagement mediates in the effect of Work Environment on Employee Retention
- H15: Employee Engagement mediates in the effect of Perceived Supervisor Support on Employee Retention
- H16: Employee Engagement have positive and significant effect on Employee Retention

1.7 Significance of the Study

- Employee engagement is a relatively new concept for HRM and has existed in the literature for almost only two decades (Rafferty, Maben, West & Robinson, 2005; Melcrum Publishing, 2005; Ellis & Sorensen, 2007). Studies made so far in Ethiopia, specifically in Aviation Industry with the objective of studying different determinants of employee engagement are very few so the theoretical significance of this research is to contribute on the area of predicting factors of employee engagement specifically in Ethiopian Airlines.

- As to the researcher's knowledge, there is also a great gap of empirical research with regard to demonstrate employee engagement as a mediating role between its antecedents and employee retention in EAL, in which the previous studies only focused on the direct causal relationship between antecedents and employee engagement and no previous studies conducted specifically on the mediating role of employee engagement for this relationship but in this study the researcher would study the indirect effect the antecedents of employee engagement have on employee retention using mediation analysis. Thus, the researcher believed that this research has its own role to fill the gap in this particular area and could serve as a baseline and secondary source of data for further researches on the same or related topics.

- The study findings would have practical significance in assisting human resource practitioners and policy makers to gain deep knowledge about the level of employee engagement and to understand the relevance of the significant factors for engaging and retaining employees in EAL.

➢ Moreover, it would help the management of EAL to reduce employee turnover and increase productivity.

1.8 Scope of the Study

Many studies have been carried out on a wide variety of determinant factors of employee engagement, but it is difficult to achieve a similar outcome and to understand the factors that influence employee engagement (Kahn, 1990; May et al., 2004; Celestine, 2015; Saks, 2006). Thus, this research only focused on main five antecedent variables of employee engagement (Performance Appraisal, Training and Development, Pay and Benefit, Work Environment, and Perceived Supervisor Support) and on Employee Retention as a consequence. The study also delimited itself geographically on head quarter of the company so the findings of the research can only be generalized to permanent employee of EAL that works at head quarter at Addis Ababa.

1.9 Limitation of the Study

This study had some limitations. The first limitation is that the study was conducted on permanent employee of Ethiopian Airlines that works at head quarter at Addis Ababa only; it does not include contrat or temporary employees and also does not include management staffs. The second limitation of the study is that it was focused only on five independent variables of employee engagement and one consequence (i.e. employee retention). This indicates that future studies need to include all types of employees who are located at head quarter and at other areas as well, and use more predictors and consequences for a better assurance on the result. Third limitation is that the research is conducted in a cross-sectional dimension and quantitative research approach were used. Thus, future studies should conduct a longitudinal study to record employee perceptions at different time periods and they should also include qualitative data collection methodology in order to gain more insights.

1.10 Organization of the study

The organization of this study consists of five chapters with different divisions and sub-divisions.

Chapter one carries an introduction to the research. This section includes background of the study, statement of the problem, research questions, and objectives of the study, research hypothesis, significance, scope and limitation of the study.

Chapter two comprises reviews of theoretic and empirical literatures as well as the conceptual framework that rules this research.

Chapter three dealt with the research methodology part of the study including research design, sources of data, sampling method, sample size, data collection procedures, the study's data collection and analysis process.

Chapter four presents the data analysis results, interpretation and discussion on the analysis.

Chapter five provides summary of the study, conclusion of the study and suggests possible corrective recommendations that derived from the result of the study.

CHAPTER TWO

LITRATURE REVIEW

2.1 Theoretical Literature

2.1.1 Definitions of Employee Engagement and Employee Retention

Employee engagement has been defined differently by different academicians as well as human resources practitioners and scholars. Each definition reflects the author's specific to the concept under a separate framework. Hence, to date there is no general and common definition and measurement of employee engagement.

Personal engagement, as per Kahn (1990), is "the harnessing of company members' selves to their job roles; in engagement, people use and express themselves physically, cognitively, and emotionally during role performances". He defines personal disengagement, on the other hand as "the detaching of self from work roles; in disengagement, people withdraw and protect themselves physically, cognitively, or emotionally during role performances". As a result, Kahn suggested that when occupying and performing an organizational task, one should be psychologically engaged (Kahn, 1990, 1992). In fact, Kahn's study findings indicate that there are three psychological factors that affect how people perform their jobs which are, meaningfulness, protection or safety and availability. Kahn's identification of the three psychological conditions are now serves as a framework for the study of employee engagement.

Kahn (1990) defined **Meaningfulness** as a state of focuses on whether the employee perceives their role or task as meaningful, both to the organization and within the context of wider society, to justify their full self being deployed. And he described **Safety** as do the staff feel the workplace provides sufficient safety from any negative consequences such that they are prepared to bring their full self to the role? Finally, **Availability** as does the employee feel sufficiently physically and mentally able to deploy their full self to the task?

In Markos and Sridevi (2010) view, engaged employees are emotionally committed and deeply involved in their jobs are more likely to go beyond the scope of their employment in order to achieve the company's goals. Employee engagement can be described as how the employees show full commitment towards their jobs, emotional bonding and focus on long-term goals

(Ganesan, Zainal & Fageeh, 2017), and physically, emotionally and cognitively perform in their job (Sanneh & Taj, 2015).

Employee engagement, according to Shaufeli (2002), is the degree of commitment, interest, and enthusiasm as an optimistic, fulfilling work-related state of mind marked by vigor, dedication, and absorption. **Vigor** is the work related energy that an individual has. Engaged employees are flexible in challenging situations and know how to allocate their time and energy to achieve each task. Employees with high vigor make good team players who supports other team. **Dedication** is when engaged employees are fully involved in their jobs and have a positive approach to their work. These employees proud of their work and are well aware of their duties and responsibilities. **Absorption** is the extent to which workers are fully alert and immersed in their job. While performing their work, they are completely concentrated and happy; it is a state in which an employee's time passes quickly and it is difficult to detach oneself from assigned tasks. With the presence of these three constructs, it is believed that the employee is engaged. Thus, it is believed that the employee is engaged if these three parameters are present.

Furthermore, Robinson et al. (2004) noted that employee engagement has become so widespread despite the fact that there has been relatively little academic and empirical research on the subject.

Employee retention is described as an organization's ability to keep its most skilled and valuable workers from quitting for a longer period of time than its competitors (Johnson et. al., 2000). Furthermore, retention is a voluntary effort by a company to create a culture that engages workers for the long term (Chiboiwa et.al. 2010).

According to Management Study Guide (n.d), employee retention applies to management strategies that encourage workers to remain with the company for a longer period of time. Armstrong (2008) has also showed how employee retention relates to policies and initiatives targeted at ensuring the company retains the talent it requires. Retention programs are meant to hold individuals as energetic members of the company as possible.

Employee retention techniques go a long way in inspiring workers to remain with the business for as long as possible and contribute efficiently. Several studies have shown that high employee turnover not only raises costs but also decreases company morale. Implementing an employee

retention policy is a smart way to ensure that key employees stay on the job while maintaining their efficiency and productivity (Taylor, 2017).

2.1.2 Types of Employee Engagement

According to Gallup (2006), employee engagement can be categorized into three categories which are engaged employees, followed by non-engaged (disengaged) and actively disengaged. **Engaged employees** are the ones who are happy in doing their task, passion, energetic, have a strong connection to their company, and goes the extra mile for the organizational growth. They encourage innovation and assist the company in moving forward. **Non-engaged** or **disengaged employees** are the employees who are still working and putting time into their job but without any passion towards the job and always inactive. Employees who are **actively disengaged** are those who are dissatisfied at work and spread their dissatisfaction to others, causing others to become disengaged as well (Azoury, Daou & Sleiaty, 2013).

2.1.3 Theoretical Framework of Employee Engagement

Different scholars explain employee engagement from different theoretical perceptions and some of them are presented as the following:

Social exchange theory (SET): According to Celestine (2015), one of the most famous theories related to employee engagement is Social exchange theory (SET). SET lays out a theoretical framework for why employees decide to become more or less engaged in their job. According to SET, responsibilities are created through interactions between parties who are in state of collective interdependence. Social exchange theory also shows that individuals having a strong exchange ideology are more inclined to feel obliged to return the organizational benefits that they receive so there is strong relationship between different predictors and engagement for individuals who are possessing a strong exchange ideology.

SET's basic principle is to develop overtime relationships in to expectation, trustworthy and mutual commitment as long as both parties accept certain exchange rules. The rules of exchange involve mutuality rules so that the movements of one party would lead to reaction by the second party. As a result, one way for employees to compensate their organization is through their level of engagement which means the level of employee engagement depends on the advantages they get from the company.

Gallup's Hierarchy of Employee Engagement: This model suggests that the major engagement drivers are learning and development, career opportunity, and sense of belongingness. According to Gallup, what matters to employees is not just receiving; it matters a lot whether they contribute back to the company or to the accomplishment of corporate objectives. When employees believed their work is pointless and does not have any effect they can feel low and quit the job. Thus, in order to have engaged employees an organization need to determine appropriate employee fit with great managers and leaders need to know what they make employees feel. The conclusion from Gallup indicates that the company that meets these needs has higher rates of engagement than the one that does not satisfy them (Gallup, 1990).

Source: The Gallup (2014) hierarchy of needs

Figure 2.1: Gallup's Engagement of Hierarchy

Towers Watson's Engagement Model: This model depicts a capital "E" diagram that consists of "Engagement" which is the ability of workers to devote significant time on their job, "Enablement" is enabling employees to do their job efficiently with the tools, resources and supervisor support, and "Energy" is to provide a working environment that actively encourages physical, emotional and interpersonal well-being (Towers, 2014). Feel, Think, and Act are the central part of this model where, Feel is the emotional aspect in which workers feel a connection with the company that leads to becoming engaged. Think is the rational part in which employees use their knowledge to perform better, and understand and fit with the organization's mission and goals, and get enabled. Act is the motivational aspect in which workers are encouraged to make significant effort to go beyond their capacity for the organization's benefit and get energized.
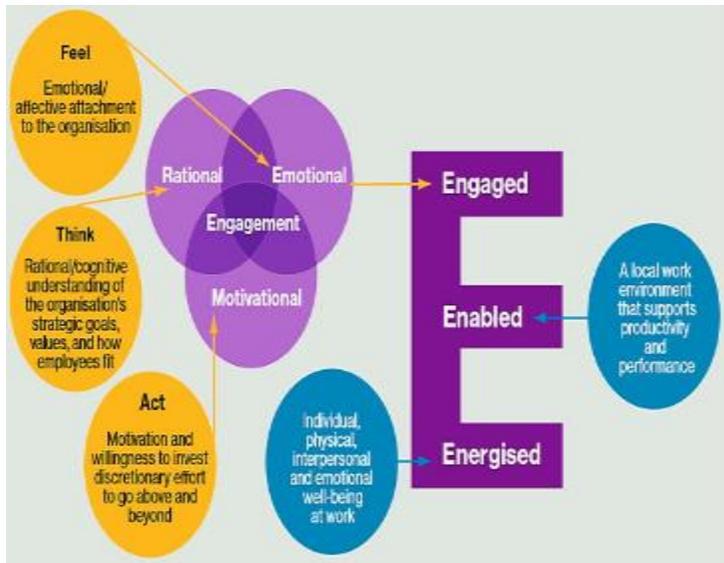
Source: Towers Watson (2014)

Figure 2.2: Tower's Watsons 3E's of engagement Model

Aon Hewitt's Model of Engagement: According to Aon Hewitt, which is a global consultancy firm that assists clients in human resources related issues, engaged employees consistently shows three behaviors in general; Say, Stay, and Strive. Say means employees speak positive about the company and attracts potential employees with their words. Stay means having a strong desire to be a part of the company given opportunities to work elsewhere. Strive means the condition where employees take additional step to meet both individual and organizational targets. Thus, Hewitt's concluded that by delivering all determinants of employee engagement these behaviors of employees can be achieved and the company can be benefited more with low absenteeism, high retention of customers since the internal employees are cared by the organization the external customers are taken care by them which in turn increase revenues, operational income and shareholders returns (Ken, 2015).
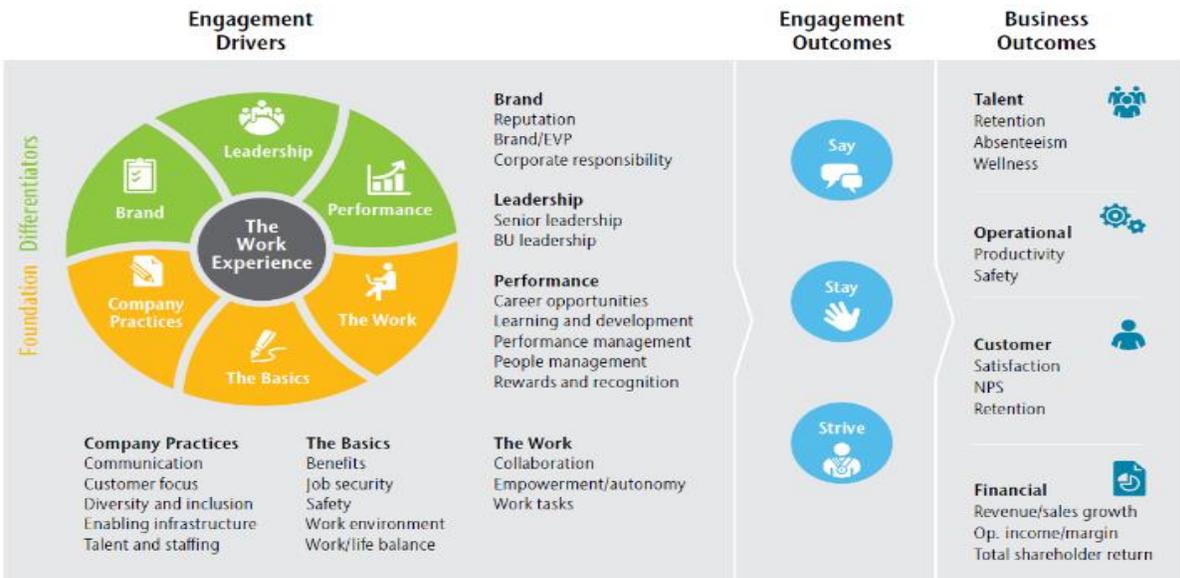
Source: Aon Hewitt (2015)

Figure 2.3: The Aon Hewitt Employee Engagement Model

Penna's Model of Employee Engagement: Penna (2007) demonstrates the impact each level going to have on engagement in hierarchical model of engagement determinants. The Hierarchical Model begins at basic working conditions, and then goes to learning and development, opportunities for career growth, then good leadership, trust and respect which ultimately leads to greater meaning to any employee's work. The author concluded that once meaningfulness in that job is achieved, it will lead to employee engagement, and can attract and retain good employees as well.
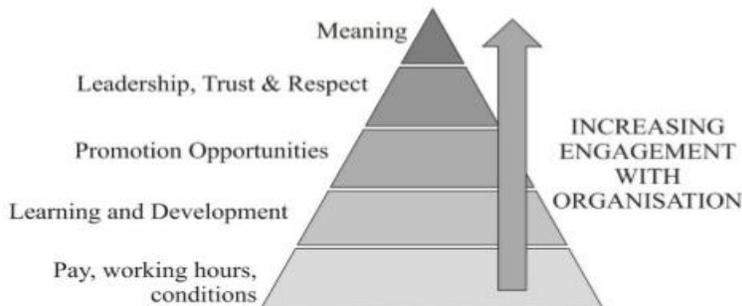
Source: Bhatla (2011)

Figure 2.4: Penna's Model of Employee Engagement

2.1.4 Theoretical Framework of Employee Retention

Retaining competent employees is a major challenge for most organizations. Researchers have created multiple employee retention theories to help businesses retain their workers. Employee retention theories include the following:

Job Embeddedness Theory: Mitchell et al. (2001) was first developed the word "job embeddedness" to describe a higher-order combination of forces for retention. To put it another way, it represents the forces that cause a person to become "stuck" within a company. JE has also been named "the theory of staying" (Holtom & Inderrieden, 2006). According to this theory, employees' relationships to their companies decide whether they quit or remain in their occupations. For example, when the employee feels qualified for the position because they have the required job knowledge, personal skills, a pleasant working environment, and a strong sense of community.

The degree to which workers are integrated into the company and the society in which they work is measured by JE. According to studies, when JE is high, turnover is lower (Mitchell, Holtom, & Lee, 2001; Yao, Lee, Mitchell, Burton, & Sablynski, 2003). This theory argues that employees may get stuck in an organization because of their connection to the community and the organization. And if the employee believes that they would be sacrificing good relationships with their coworkers, as well as good projects, they will choose to remain.

Maslow's Hierarchy of Needs: Maslow (1943) noted that humans have five basic needs: physiological, safety, love, esteem, and self-actualization. The physiological need is the widest level, involving the need for food, shelter, clothes, and physical comfort, among other things. This stage is the foundation of life. The second level is the need for protection and security, which includes avoiding risk, hazard, and insecurity. It also involves physical and job security. Affection and belonging are the third most important social needs. The fourth level is self-esteem, which is described as the need for others to recognize, appreciate, and value you.

This theory stresses the importance of businesses taking into account their workers' basic needs, such as health, job security, and salaries. Employees would be more loyal to the business if they know you care for their health and that their work is secure. Thus, Applying Maslow's theory to a company, these motivators can be used to keep employees engaged and retained. Failure to create a proper environment that allows workers to reach their fullest potential would potentially

reduce employee satisfaction, resulting in poor performance, lower job satisfaction, and increased withdrawal from the company (Steers & Porter, 1983).

Herzberg's Two Factor Theory: Employee retention is determined by two broad groups of factors, according to Herzberg's theory; Motivator and hygiene factors. Employee satisfaction is influenced by motivator factors, while employee dissatisfaction is influenced by hygiene factors. According to the theory, recognition, achievement, work, development, and advancement are all motivator factors. Hygiene factors, on the other hand, include a relationship with managers, supervision, compensation, coworker relationships, work conditions, and the company's policy. Furthermore, Herzberg proposed that before motivational factors, organizations first need to address hygiene factors which would be most effective. Employee complaints are reduced or eliminated as a result of this, and the company can then concentrate on motivating factors that lead to improved employee performance. As a result, managers must consider and attend to both types of categories in order to enhance work attitudes and productivity, rather than assuming that a rise in satisfaction contributes to a decrease in dissatisfaction (Herzberg, 1959). Therefore, when employers prioritize their employees' needs, employees are more driven to succeed and have less grievances, resulting in a work atmosphere that employees choose to stay in and increased retention.

Victor Vroom's Expectancy Theory: According to Vroom's theory, people behave in certain ways because they expect a certain result. Expectancy, instrumentality, and valence are the three components of the theory. The word valence was coined by Vroom to explain how much an individual values a desired goal or reward. Expectancy refers to a person's belief that his or her efforts would result in the expected outcome. Instrumentality is the assumption that if performance expectations are met, the person will be rewarded for his or her efforts. It is made up of trust, control, and policies (Whisenand & McCain, 2014). According to the theory, if an employee's goals are matched with those of the organization, the retention rate is high. As a result, it's important for businesses to acknowledge their employees' goals and whether they align with those of the company's (Victor, 1964).

2.1.5 Antecedents of Employee Engagement

Scholars barely know about the determinants that lead to engagement (Saks, 2006; Rana, Ardichvili & Tkachenko, 2014; Rich, Lepine & Crawford, 2010; Wollard & Shuck, 2011).

Robertson and Markwick (2009) also explained employee engagement and remained the challenge that exist to identify the variables and the difficulties that exist to set a universal way of approaching engagement. There is no single fixed model that shows the relevance of all variables effect because different employees lay different emphasis on those variables impacting engagement (Saks, 2006; Chandani, Mehta, Mall & Khokhar, 2016). Accordingly, to practically improve, maintain, and achieve the desired outcome of employee engagement, the researcher must first consider the factors that contribute to engagement in the workplace (Hale, 2016; Knight, Patterson & Dawson, 2016). Thus, in this research variables for this study were chosen by reviewing the available data and by taking in to consideration of the general and main factors raised by the employees during the engagement core meeting.

A. Performance Appraisal

Performance appraisal is well-defined by DeNisi as a formal process that occurs from time to time, through which employees are assessed by a supervisor who evaluates an employee's performance by means of a series of measures, assigns a grade or scores to the evaluation and then usually notifies the employee of the result. Basically, the aim of the assessment is to enhance the performance of the workforce (DeNisi, et al., 2017).

Furthermore, a performance appraisal is a structured formal interview between an employee and a supervisor, typically in the form of an annual or semi-annual interview, in which the employee's job preferences are analyzed and discussed in order to identify weaknesses and strengths as well as opportunities for change and growth (Senyah, et al., 2016).

Worldwide, performance appraisal has been part of daily life of corporations for more than 60 years now, and each corporation implements an evaluation framework in its functions (Grote, 1996). In almost every company a performance management system must be introduced, since it is very difficult to achieve the desired organizational objectives without providing reliable and timely performance reviews. The lack of such systems makes it much harder to define the necessary improvements (Watkins & Leigh, 2010).

B. Training and Development

In the field of human resource management, training and development is the area concerned with organizational behavior and aimed at improving the performance of individuals and groups in the

workplace. Employee development, human resource development, and learning and development were all terms used to describe it (Harrison, 2005).

According to Oguntimehin (2001) training and development increases productivity, improves job quality, improves skills, experience, understanding and attitude, encourages the use of machinery and equipment, reduces accidents, turnover, waste, lateness, absenteeism, and other overheads; prevents uselessness in expertise, technology, products, and ensures the enterprise's sustainability and growth.

Many scholars agree that investing in training and development is vital for any organization, which will certainly realize a return on investment in training and developing their workers. Those who neglect this this critical element of human resource management are risks in falling behind today's competitive marketplace; in another word, businesses that fall behind in the training and development of their human resources are more likely to fall behind in a variety of other ways (Nel, Gerber, vanDyk, et al., 2004).

Companies are expected to identify their employees' training needs and plan training programs that will eventually help them to best use their workforce in order to achieve the organization's goals (Kennedy, Chyung, Winiecke & Brinkerholff, 2013).

C. Pay and Benefits

Compensation is payment to an employee in exchange for their contribution to the company, which is, for doing their job in the form of wages, bonuses and tips. Pay is described as including all kinds of financial and non-financial rewards what an employee gets against his job after performing his duty (Erasmus, van & Schenk, 2001). Employee benefits include almost any kind of compensation other than direct salaries paid to employees (Rosenbloom, 2001). These may or may not be monetary. They include insurances, retirement benefits, sick leave, vacations, education fund, Gym memberships or discounts, etc. Kahn (1990) states that the degree of engagement of workers is a result of their perception of the benefits they obtain.

Heery and Noon (2001) addressed that the payment includes several components such as basic salary, bonuses, extra work pay and incentives. According to Braton and Gold (2003), basic salary is a fixed monthly payment normally expressed annually for non-manual workers, charged every month with generally no additions for productivity. Payment is important because when

employees feel they are paid enough for their contribution, their behavior and attitude toward the desired goal of the organization could be adversely affected positively (Onukwube, 2012).

D. Work Environment

Work environment is the conditions surrounding an employee operate under. It is a work environment that helps workers achieves concentrated work and interpersonal harmony (Anitha, 2014). According to Kemsley (1991) as cited in Saks (2006), "The working environment has much to contribute towards the provision of better service to the customers and employees; and this is seen as an important aspect of the internal culture in creating the atmosphere in which the relationship can flourish".

As per Islam & Shazali (2011), a favorable working environment, such as working with a good team, having a good boss, and liking the physical surroundings in the workplace, is a contributing factor in inspiring employees to produce better output. In fact, job security, a sustainable compensation package, and food and drink availability at the workplace are also considered to be the main indicators of a favorable working environment. The presence of all these factors in the workplace could shape workers' morale and contribute to increased productivity in the manufacturing sector. Furthermore, Arnold and Feldman (1996), as part of the working environment, advocated factors like temperature, lighting, ventilation, sanitation, noise, working hours, and resources.

E. Perceived Supervisor Support

The degree to which employees believe their superiors value their efforts, offer help, and care about their health is described as perceived supervisor support (Cole, Bruch, & Vogel, 2006; Eisenberger et al., 2002; House, 1981; Kossek, Pichler, Bodner, & Hammer, 2001; Kottke & Sharafinski, 1988). It's about developing perceptions of how their supervisors appreciate their efforts and care for them. PSS is characterized as positive relationships between a supervisor and employees, which have been shown to increase PSS; conversely, negative interactions have been shown to decrease PSS (Cole et al., 2006).

The immediate manager's relationship with his or her employees is the most significant factor in driving employee engagement and retention. Good management is vital for the realization of engaging and retaining employees. The best managers are capable of guiding subordinates on

what is expected of them, providing feedback and direction on their performance, providing growth opportunities, and assigning proper responsibility. They are friendly, fair, and good listeners (Baumruk, 2004). On the other hand, lack of supervisory support has been identified as a key factor in the development of burnout and turnover intention (Maslach et al., 2001).

2.1.6 Mediation

Mediation represents the addition of a third variable in the relationship between an independent and dependent variable, whereby the mediator is influenced by the independent variable, and affects the dependent variable in turn. This is also termed the independent variable's indirect effect on the dependent variable (MacKinnon, Fairchild, and Fritz, 2007).

According to Baron, Kenny (1986) and Muller, et al. (2005), the mediator variable, also known as an "intervening or process variable" is the variable that triggers mediation in the relationship between the dependent variable (called outcome) and the independent variable (called causal variable). An effect can be fully mediated when the direct effect of the independent variable on the dependent variable is not significant or it can be partially mediated when there is a direct effect in addition to the mediation.

The causal steps method, which is based on the influential work of Baron and Kenny (1986), is one of the approaches to statistical mediation analysis. First, the independent variable should significantly affect the dependent variable. Second, the independent variable should significantly affect the hypothesized mediating variable. Third, the mediating variable must significantly affect the dependent variable, controlling for the independent variable. Finally, the relation between the independent variable and the dependent variable should be weaker when the mediating variable is added to the model (Baron and Kenny, 1986).

2.2 Empirical Literature

Empirical literature seeks information based on actual experience and observations rather than driving knowledge from theory, belief or logic. Some of the studies conducted by previous researchers have been reviewed and their major findings and observed gaps are presented as follows:

2.2.1 Performance Appraisal and Employee Engagement

Fair and transparent evaluation of an employee's performance is a significant criterion for determining an employee's level of engagement. A recent study reveals that the criteria by which performance of employees are measured are ambiguous and highly subjective. Therefore, the lack of consistency and objectivity of the metrics used to assess employee performance creates ambiguity of position, dissatisfaction and frustration among employees in taking on their job. Consequently, most respondents challenged the validity and appropriateness of the existing system used to assess staff success in making administrative decisions. As a result, at least, the workers do not consider that their performance is measured; they assume that their true performance is not reflected in the record (Zelalem, 2007).

Main Purpose of performance appraisal system is to figure out what an employee contributes to the organizational goals. For the employee, performance appraisal is very essential as they come to know about the areas of work that he or she is missing in and have to do improvement on the same. Employee assessment is conducted on the basis of some predicated standards and whether there are gaps in the performance of the employee the supervisor in the organization will recognize and determine the employee in the organization needs training. In a study conducted by Ajibola, Mukulu, and Simiyu (2019), it was found that performance appraisal had a positive significant effect on employee engagement.

2.2.2 Training and Development and Employee Engagement

Employees are a valuable asset to any organization and their performance has a direct impact on the organization's performance. Employee engagement has been a crucial feature of target achievement in the financial sector, among other strategies and motivating factors. To accomplish this, training and development are critical in shaping employees to increase their work quality on a lot of levels.

Training is critical for employee development, as it helps to improve employee skills, minimize operating costs, and restrict organizational challenges (Donald & James, 2009). Thus, Training is a learning opportunity that increases employee productivity and results in permanent employee behavioral change (David et al., 2010).

A research conducted by Presbitero (2017) indicates that improvements in the culture of training and development will be linked significantly and positively to improvements in employee engagement. Training and development initiatives could seem expensive, but they ultimately return organizational investments more than their expenses (Heras, 2006; Flynn et al., 1995; Kaynak, 2003). Employees are each organization's most important asset in which a professional workforce is the asset of an organization, and companies invest massive amounts of capital in training and personnel development (Ahmad, Iqbal, Mir, & Haider, 2014).

Development is about seeking to build employee's skills for the future and HR practices play a critical role in organizational development (Paul & Anantharaman, 2003; Hallberg & Schaufeli, 2006). According to Srivastava and Madan (2016), development and engagement are just like a soulmate. AbuKhalifeh and Som (2013) noted employee development as the greatest contributing factor in the research and considered it as important as it will support the development strategies to enhance employee engagement. Wellins and Concelman (2005) observed that organizations can improve engagement for every employee by designing individual development plans and establishing a learning culture.

A research to identify various motivating factors and management systems to engage employees has been conducted by Selvam and Preethi (2017). The finding shows that 96.6% of the employees have agreed that clarity about the job influences employee engagement in the management activity in which having a clear knowledge about the work they carried out and knowing the goal of the job or clear job description matters more. Also 93.3% of the respondents agree on the high effect of Training and Development on employee engagement as training in the emerging concepts in this competitive and globalized world is unavoidable. The author further adds that there are also numbers of other factors that influence employee engagement, which are Organization's reputation, career growth opportunity, rewards and recognition, incentives, and the friendly relationship with immediate supervisor highly affects the most experienced employees who serve the company above 15 years.

2.2.3 Pay and Benefits and Employee Engagement

Another important criterion for employee engagement is pay and benefit. To make payment an effective engager, the company should tie it to jobs, productivity, special incentives, pensions,

and fringe benefits, and among other things. So as to enhance the engagement level of the employee, employees should have to be provided with specific compensation & benefits.

From SET, employees feel obliged to return the organizational benefits and respond to higher levels of engagement (Celestine, 2015). Furthermore, Maha (2015) also conducted a research on the identification of employee engagement factors in the Egyptian banking sector based on the theory of social exchange (SET), his study concluded that leadership and organizational justice, compensation and benefits, policies and procedures and training and development were the most significant drivers of employee engagement. Taking action on these factors would lead the company to a higher level of organizational morale, commitment, efficiency and engagement among employees. By this, the workforce turns out to be more dedicated and satisfied human resources.

In addition, Stachowska (2016) reported that one of the critical determinants which affect the level of engagement is remuneration. According to Maicibi (2005), remuneration is a pay or benefit given to people for performed work, and it includes things like basic salaries, wages, healthcare plans, pension plans, overtime, transportation, housing, and responsibility allowances. Moreover, Remuneration can be stated as a monetary rewards earned in the form of pay, wages, promotions, incentives, bonuses, allowances, and benefits or provided by the employer (company) to an employee or as a result of service delivered by the employee or contribution to the organization.

2.2.4 Work Environment and Employee Engagement

Employees workplace has two forms of impact; positive and negative, on their morale, performance, and commitment. If a good working environment is given for them, the impact will be positive (Chandrasekar, 2011). Employee engagement, according to Robinson (2006), can be achieved by creating an organizational environment that promotes positive feelings like participation and confidence, resulting improved organizational performance, reduced turnover, and better health.

Studies by Anitha (2014) have found that working environment has a significant relationship with employee engagement. Working environments play a significant role for employees in whether they want to continue to work in the company since people want to work in a healthy place of work.

According to Miles et al. (2001), different aspects of the work environment can contribute to different levels of employee engagement. Supportive environments encourage members to explore and try something new, and fail even without fear of the consequences (Kahn, 1990). In addition, recent studies indicate that meaningful working environments are seen as a primary predictor of employee engagement (Popli and Rizvi, 2016; Anitha, 2014).

A cooperative working environment where employees value teamwork was also identified as a driver of employee engagement in the Towers Perrin Talent Report (2003). Engagement can lead to a host of positive organizational outcomes such as increased profitability, higher levels of productivity and task performance, customer satisfaction, and reduced employee turnover (Harter et al., 2002; Rich et al 2010). Given these benefits, managers should strive to develop an environment that fosters engagement and designated that safe working environments are important for employee engagement. Since a healthy and supportive workplace encourages employees to experiment, try new things, and even fail without fear of repercussions (Kahn, 1990).

2.2.5 Perceived Supervisor Support and Employee Engagement

Perceived supervisor support is also considered to be a significant predictor of employee engagement. Per Bates (2004) finding as cited in Saks (2006), first-line supervisors are believed to be particularly critical for developing engagement and also to be the source of employee disengagement.

A recent study conducted by Sadiya and Maimunah (2016), aims at studying the impacts of supervisor support on employees' engagement of the Malaysian Telecommunication companies by using 109 sample employees at lower and middle managerial levels. The findings of the study revealed that supervisor support has significant and positive relationship with an engagement level of employees.

A research carried out by Burns (2016) has also examined how perceived organizational support (POS) and perceived supervisor support (PSS) predicts engagement in a research entitled "Perceived Organizational Support and Perceived Supervisor Support as antecedents of Work Engagement". 382 sample respondents were selected from the employees of Southern California healthcare company and standard multiple regression analysis was conducted to analyze the

collected data. The findings of this study suggested that providing employees with supervisory support increases engagement, but with organizational support being the stronger predictor.

2.2.6 Employee Engagement and Employee Retention

Engaged employees are enthusiastic and happy about their job. These excitement and enthusiasm will bring creativeness and optimistic attitude which later reflect on the performance of the employees and also their intention to stay in the organization for longer period of time. Danish and Tehseena on their paper "The impact of employee engagement on employee retention" tried to examine the relationship between employee engagement and employee retention. They used structured questionnaire with sample size of 200 respondents and analyzed the data with factor analysis and structural equation modelling. The finding showed that there is positive and significant relation between employee engagement and employee retention (Danish & Tehseena, 2019).

On related paper with a title of employee retention through employee engagement discussed the role of engagement on brining high level commitment to the organization that in turn reduces turnover. The paper used random sampling with 185 employees and the result showed that increased employee engagement will improve employee retention (Balakrishnan, Masthan & Chandra, 2013).

2.2.7 Performance appraisal and Employee Retention

Many companies face a problem in retaining employees and failing to do so will bring productivity and performance issue in the company. In a jointly written paper by Saba and Avinash with a title of impact of performance appraisal on employee retention: a study on banking sector of Pakistan tried to see the impact performance appraisal has on employee retention. The paper gathered data from 39 branches of private banks with sample size of 316. And the data later was analyzed with multiple linear regression. The finding of the research showed that performance appraisal has a positive impact on employee retention (Saba & Avinash, 2019).

On another related paper by Nguyen also tried to see the effect of performance appraisal on employee retention. The research used qualitative method of research approach where the data

was collected with semi structured interviews and the result showed that performance appraisal has influence on employee retention (Nguyen, 2016).

2.2.8 Training and Development and Employee Retention

The competition among business is higher than ever as there are more competitors exits in today's market. One of the edges to beat other competitors is to have and retain skilled employees. According to Naveena and Hemakumar preparing and organizing training and development programs a way to retain employees. Their paper titled impact of training and development on employee retention at leading food and agro business company aimed at showing the purpose and impact that training and development has on employee retention. The paper used descriptive research design with a sampling method of stratified. The finding showed that there is relationship between training and development and employee retention (Naveena & Hemakumar, 2020).

On another paper by Umer with a title of impact of training on employee retention which examined the training practice identified that there is a positive relationship between training and employee retention. They used convenience sampling with sample size of 100 and for analysis regression was used (Umer, 2013). Human capital is one of the strong assets in any organization. Training and development helps in retaining the human capital that organizations need to be productive and profitable (Usman, 2018).

2.2.9 Pay and Benefit and Employee Retention

Retaining employees is very important to employers as high turnover might be very costly and disruptive in nature to most companies. Loosing senior employees will create a mentor gap and affects performance on the job, not to mention the cost of training on putting up to speed a newly hired employee. Having a fair and equitable standard for compensation and benefit will have a positive effect on employee retention (Phil & David, 2013). Ekechekwu and Mbah wrote a paper that tried to show the relation between pay and employee retention. Their paper used a survey approach which included interview and questionnaire as data source and later analyzed with regression. The result showed that pay has a positive effect on employee retention (Ekechekwu & Mbah, 2019). Bonuses and increments are benefits that should be considered by the management to retain employees. On a related paper written by Neama and Haitham investigated the effects that bonuses and increments have on employee retention. They used quantitative

method of research approach with sample size of 50 employees. After analyzing the data with SPSS the finding showed that bonuses and increments have a positive and significant effect on employee retention (Neama & Haitham, 2020).

2.2.10 Work Environment and Employee Retention

It's important for companies to work on retaining employees who are knowledgeable and most experienced. And the working environment that consists both the physical (noise, lightening), and psychological aspects (how the work is organized) is an important factor contributing to employee retention. Shyam on his paper on employee retention tried to see the effect of working environment on employee retention. The paper used regression analysis and chi-square for analysis and the result showed that there is positive and significant relation between working environment and employee retention (Shyam, 2016).

When a good working environment is sustained in a given organization, the satisfaction level of the employees will increase hence having employees working for a longer period of time (Pooja, 2020). Puja took sample size of 200 faculty members and data analysis method of regression and chi-square in order to see the relationship between working environment and employee retention. The finding showed that working environment positively affect employee's retention.

2.2.11 Perceived Supervisor Support and Employee Retention

Perceived supervisor support is all about the perception employees had towards their supervisor regarding the contribution they made to the organization and their overall wellbeing. And these perceptions do affect the commitment they have to the organization and hence affecting employee retention. On a paper written by Mariel, Eva and Eduardo investigated the relationship between perceived supervisor support and employee retention. Their paper used regression to analyze the data collected form a sample of 557 employees from different private organizations and the result showed that there is positive and significant relation between working environment and employee retention (Mariel, Eva & Eduardo, 2014). On similar research done which investigated the contribution perceived supervisor support has on employee retention showed that perceived supervisor support has clear contribution on employee retention (Ivan, Sucharski & Linda, 2002).

2.3 Conceptual Framework of the Study

Conceptual model demonstrates the hypotheses made and the domain of the research. From the theoretical framework and the overall related literatures reviewed in the above, as well as from the preliminary assessment done with meetings held across different section of the company; performance appraisal, training and development, pay and benefit, work environment, and perceived supervisor support were selected by the researcher as determinant factors of employee engagement, and employee retention as a consequence variable. Thus, a conceptual model that rules this specific research is developed as below.

Mediator Variable

Independent Variables

Employee Engagement

Dependent Variable

- ✓ Performance Appraisal
- ✓ Training and Development
- ✓ Pay and Benefit
- ✓ Work Environment
- ✓ Perceived Supervisor Support

Employee Retention
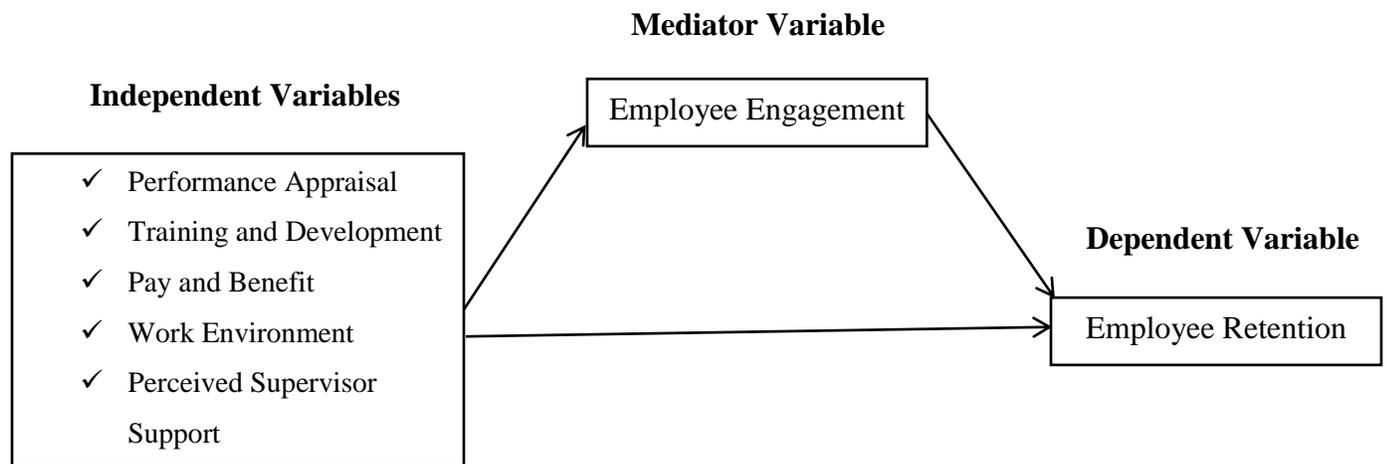
Source: Developed by the researcher based on literature review

Figure 2.5: Conceptual Framework of the study

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Research Approach

In business research, there are three approaches: exploratory, descriptive and explanatory (Zikmund et al, 2010). Exploratory research focuses on the development of ideas and observations through exploration in pursuit of new information, whereas Descriptive study tries to describe phenomena or characteristics of the variables of interest in a situation, and Explanatory analysis seeks to clarify the relationship of cause and effect between variables.

Thus, the researcher adopted Explanatory nature of study in order to determine the clear relationships between the independent variables (Performance Appraisal, Training and Development, Pay and Benefit, Work Environment, and Perceived Supervisor Support), mediator variable (Employee Engagement), and the dependent variable (Employee Retention).

3.2 Research Design

Research design refers to the pattern, the plan or strategy for obtaining answers to research questions or problems in conducting research (Osso & Onen, 2011). According to Creswell (2009), there are three popular research design types in social science and behavioral studies: quantitative, qualitative and mixed. Quantitative approach focuses more on the statistical analysis of data that is gathered through questionnaires and surveys with close ended responses. Qualitative approach appears to be open-ended without predetermined responses which seeks to achieve in-depth responses from the subjects in order to better collect information and analyzed by the interpretation of the researcher. Mixed approach, whereas has a great flexibility by combining elements of qualitative and quantitative methods to have a better understanding of the research problem.

The researcher has adopted quantitative research method to achieve the objectives of this study. The researcher gathers data that would be statistically analyzed to produce a quantified result using a quantitative method. Moreover, the time dimension of the research design for this study was cross sectional field survey which was used in gathering data from the sample at one point in a time to assess this relationship.

3.3 Sources of Data

Data can be obtained from primary or secondary sources. Primary data is original information obtained firsthand by the researcher who collects those data specifically from a source such as observations, surveys, questionnaires, case studies and interviews as needed. While secondary data is the information gathered from already existing sources such as journals, websites, and books.

For conducting this study, the researcher has used primary data gathered from employees of Ethiopian Airlines at Head quarter using questionnaires, where the questionnaires later statistically analyzed using IBM SPSS Statistics software version 20 in combination with the PROCESS version 3.5 macro by Andrew F. Hayes (Andrew, 2013). The researcher has also used Sobel test online calculator to cross check the significance of the mediator (Sobel, 1982). http://quantpsy.org/sobel/sobel.htm

3.4 Data Collection Methods

Collecting accurate and correct information plays a vital role for any research to be good. As a result, the questionnaire in this study was distributed to the selected employees of Ethiopian Airlines at Head quarter via Microsoft Outlook email and using printed questionnaire papers. The questionnaire consisted of two parts where part I provided with the bio-data of the respondents, and part II contains information on the employee engagement determinants, employee engagement itself, and on employee retention. The questionnaire was developed using a five-point Likert scale approach with (1) strongly disagree, (2) disagree, (3) neutral, (4) agree, and (5) strongly agree.

The questionnaire was adopted from previous research papers conducted by different authors (see Table 3.1). In order to determine the construct validity of the questionnaire, factor analysis was performed using dimension reduction in SPSS (see Appendix D). Construct validity is described as how well the outcomes obtained from using of the measure match the theories that the test is based on (Sekaran and Bougie, 2013). Factor analysis was recommended by Sekaran and Bougie (2013) as a method for investigating construct validity. Moreover, all sections of the questionnaires were developed in English language as it is the company's working language.

Part-One: General Information to collect demographic information of respondents. This section covered questions regarding the respondent's gender, age, educational level, and service year at the company.

Part-Two: Subject Matter Questions to collect data regarding the objective of the study. It includes three section developed with Five-point Likert close-ended questions; questionnaire regarding Antecedents (Independent Variables), Dependent Variable, and Mediating Variable. According to Shaufeli, et., al. (2006), employee engagement is measured in three components; vigor (e.g. At my job, I feel strong and vigorous), dedication (e.g. I am enthusiastic about my job) and absorption (e.g. I am immersed in my work).

3.5 Population and Sampling Techniques

3.5.1 Target Population

The target population which is used for this study is Ethiopian Airlines employees working in headquarter at Addis Ababa. The researcher used samples due to the time and budget constraints to take the whole population to carry out the study.

3.5.2 Sampling Technique

Taking a subset from the entire population or from selected sampling frame is called sampling. In this study, the researcher adopted convenience sampling to select sample area which is Headquarter based on the ease of access from population elements that is the whole Ethiopian Airlines Group offices in different sub-cities of the country as well as across the continents. Then to select sample respondents, simple random sampling was implemented in which every case (employees) of the population (selected area, Headquarter) has an equal probability of inclusion in sample.

3.5.3 Sample Size

Finding a sufficient sample size is important to come up with appropriate number of participants. The researcher has used large sample size of the total population to enrich the results and reliability of the study.

For this study, the researcher has adopted Yamane (1967) formula to determine the sample size for known population.

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

Where "n" is the sample size, "N" is population size, "e" is the level of precision and the equation assumes 95% confidence level and 0.05 sampling errors.

So, after selecting HQ as Population with convenience sampling method, the researcher checked from Ethiopian Airlines database and found that 13,439 (which is "N") permanent employees work at HQ. Now, Yamane's equation is used to generate sample size for the given population size.

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

$$n = \frac{13,439}{1 + 13,439(0.05^2)}$$

$$n = \frac{13,439}{34.5975} = 388$$

To compensate for the uncollected and incomplete questionnaires, the researcher added an extra 5% on the sample, i.e., 388. Hence, the researcher has picked 407 sample employees from the target population of 13,439 employees as a sample for the distribution of the questionnaires.

Out of the total 407 sample respondents requested to fill the questionnaires, 34 were disqualified and 36 respondents didn't fill questionnaire at all. The questionnaires collected and used in this data were those of 337 sample employees who were properly filled and summited at time. The Response rate was calculated and resulted, 337/407= 83% which is considered to be very good.

3.6 Data Analysis Methods

Once data was collected, it is necessary to organize the finding for analyzation and interpretation. The researcher used both descriptive and inferential statistics to accomplish this.

Descriptive statistics is used to analyze and describe the respondents' demographic variables, and frequencies, percentage, mean, and standard deviations of the variables of interest in the study (Kohtari, 2004). For inferential statistics, Pearson correlation, multiple linear regression, and Mediation analysis were employed using SPSS Version 20.

Preliminary data analysis and model specification was conducted before undertaking the regression analysis. Since the research involves mediator variable, Baron and Kenny's (1986) model for Mediation Analysis is used to test whether the relationship between the independent variables and dependent variable is explained by a third intermediate variable. The following conditions must be met in order to confirm mediation: (1) the independent variable must significantly affect the dependent variable (path c), (2) the independent variable must significantly affect the mediator (path a), (3) the mediator must significantly affect the dependent variable (path b) and (4) when paths a and b are controlled for, the effect of the independent variable on the dependent variable (path c') must less than in the first equation (c < c', partial mediation) or be insignificant (full mediation) (Baron & Kenny, 1986).

The relationship between dependent variables and one or more independent variables is investigated using regression analysis. When several independent variables are tested against the dependent variable, a multiple regression analysis is performed. Thus, multiple linear regression is used to understand the relative importance of each independent variable (performance appraisal, training and development, pay and benefit, work environment, and perceived supervisor support) with respect to the dependent variable and the mediator variable.

Finally, the analysis and interpretation of the data was used to draw conclusions and to identify opportunities for employee engagement improvement as recommendations.

3.7 Validity and Reliability

The necessary reliability and validity tests of the measurement have taken place in order to validate the result and evaluate the quality of research. Reliability of a measure is an indication of the stability and consistency of the findings. Reliability is about a measure being consistent and validity is about a measure being accurate. Hence, Cronbach's alpha was used to compute reliability for each determinants of employee engagement, employee engagement itself, and employee retention. Cronbach's alpha is most widely used in a questionnaire when there are several Likert questions that shape a scale, and when it's needed to determine if the scale is reliable.

Pilot testing allows assessing the question's validity and the likely reliability of the data (Ranjit, 2011). So, Pilot test was conducted on 30 employees and the result showed that the reliability of the variables are higher than the accepted level; which is (α) is 0.60 (see Table 3.2 and Appendix

A). The researcher has also discussed with advisor and incorporated the research advisor's feedback in modifying the instrument. Based on the pilot test result and based on the research advisor's feedback, the researcher modified some of questions to sustain the measurement's accuracy and reliability. The content validity of the instrument for the present study has also confirmed as the items are identified from the literatures which were reviewed by professionals and academicians.

Table 3.1: Measurement sources

Variables	Source
Performance Appraisal	Saks (2006), Norfarizal (2014)
Training and Development	Ameeq & Hanif (2013), Sinha & Sinha (2012), Demo, Neiva, Nunes, & Rozzett (2012)
Pay and Benefit	Saks (2006), Hasibuan (2012)
Working environment	Brid (2015)
Perceived supervisor support	Saks (2006), Kelista (2016)
Employee Engagement	Saks (2006), Ariani (2013), Schaufeli et al. (2006), Ferreira and de Oliveira (2014)
Employee Retention	Minjoon, Shaohan, & Hojung (2006), Baruch & Peiperl (2000)

Table 3.2: Cronbach's Alpha of Study Instrument based on Pilot Study

Variables	Cronbach's Alpha Coefficients	No. of Items
Performance Appraisal	.884	5
Training and Development	.842	5
Pay and Benefits	.856	5
Work Environment	.893	5

Perceived Supervisor Support	.862	6
Employee Engagement	.948	9
Employee Retention	.869	6
Reliability of Total Scale	**.972**	41

Source: Resercher's Computation (2020)

3.8 Ethical Considerations

The aim of research ethics is to ensure that no one is injured or suffers as a result of the research. In this research study, respondents were given full information on the purpose and objectives of the study and all information concerning the identity of respondents was treated with high confidentiality. Furthermore, all information gathered was used for the sole purpose of this research study.

CHAPTER FOUR

DATA PRESENTATION, ANALYSIS AND INTERPRETATION

This chapter deals with presentations, discussions and analysis of the collected data through questionnaires. The main objective of this chapter is investigating the significance of the proposed variables variable through the appropriate test of the models and regression analysis. The first part is focused on the final version of the questionnaire's reliability and the respondents' demographic characteristics, whereas the second part presents the results of the econometric models regression.

4.1 Reliability Analysis

After collecting the final version of the questionnaire from the different sections of the airline's HQ, the Cronbach's alpha values were calculated for all variables to determine the internal reliability. Typically, an alpha value of 0.80 or higher is taken as a good indication of reliability, although others suggest that it is acceptable if it is 0.67 or above (Cohen et al., 2007). The alpha value of this research was between 0.867 to 0.970 which shows a good reliability (see Table 4.1 and Appendix B).

Table 4.1: Reliability Statistics

Variables	Cronbach's Alpha Coefficients	No. of Items
Performance Appraisal	.887	5
Training and Development	.889	5
Pay and Benefits	.867	5
Work Environment	.883	5
Perceived Supervisor Support	.897	6
Employee Engagement	.970	9
Employee Retention	.910	6

Reliability of Total Scale	**.974**	41	

Source: Resercher's Computation (2021)

4.2 Descriptive Analysis

The descriptive statistics was used in order to get insight into the variables based on the response of the respondent. Mean is the average that reflects the central tendency, while standard deviation is average degree to which scores deviate from the mean. The summary of descriptive statistics that was intended to give general descriptions about the data (both dependent and independent variables) is presented below.

Table 4.2: General Information of respondents

Catagory	Items	Frequency	Percentage
Gender	Female	191	56.7%
	Male	146	44.3%
	Total	**337**	**100.0%**
Age	< 25	28	8.3%
	25-35	211	62.6%
	35-45	55	16.3%
	> 45	43	12.8%
	Total	**337**	**100.0%**
Education Level	Diploma	8	2.4%
	BA/BSC	187	55.5%
	MA/MSc	142	42.1%

	PhD and above	0	0.0%
	Total	**337**	**100.0%**
Service Year	< 2 Years	13	3.9%
	2-5 Years	132	39.2%
	6-10 Years	149	44.2%
	>10 Years	43	12.8%
	Total	**337**	**100.0%**

Source: Researcher's survey data output (2021)

As can be seen from the above table out of the 337 respondents, 56.7% percent were female and the remaining 44.3% were male which shows that the majority of the respondents were female.

The age group 25-35 years covers the majority of the respondent by 62.6% or 211, age group 35-45 covers 16.3% or 55, age range greater than 45 years covers 12.8% of the 337 respondents counting 43 in number, and finally age range less than 25 years accounts to 8.3% of the total respondents which is 28 in number.

The respondents' academic qualification shows that majority of the employees (55.5%) hold their bachelor degree, 42.1% hold master's degree and the rest 2.4% of the respondents have completed diploma, there are no respondents who hold more than master's degree from the sample respondents.

As it can be seen from the above table, majority of the respondents (44.2% or 149 in number) has work experience of between 6-10 years, then respondents with 2-5 years of service year are 39.2% or 132 in number, 12.8% or 43 respondents have greater than 10 years work expireance, and less than two years of service year indicates the lowest number of respondents (3.9% or 13 in number)

Table 4.3: Frequency of Employee's response towards the variables in the study

		Strongly Agree	**Agree**	**Neutral**	**Disagree**	**Strongly Disagree**	**Total**
Performance Appraisal	Frequency	31	22	147	112	25	337
	Percent	9.2%	6.5%	43.6%	33.2%	7.4%	100%
Training and Development	Frequency	4	51	78	166	38	337
	Percent	1.2%	15.1%	23.1%	49.3%	11.3%	100%
Pay and Benefits	Frequency	7	63	72	142	53	337
	Percent	2.1%	18.7%	21.4%	42.1%	15.7%	100%
Work Environment	Frequency	1	50	128	80	78	337
	Percent	0.3%	14.8%	38%	23.7%	23.1%	100%
Perceived Supervisor Support	Frequency	15	71	54	152	45	337
	Percent	4.5%	21.1%	16%	45.1%	13.4%	100%
Employee Engagement	Frequency	42	77	5	84	129	337
	Percent	12.5%	22.8%	1.5%	24.9%	38.3%	100%
Employee Retention	Frequency	15	57	72	124	69	337
	Percent	4.5%	16.9%	21.4%	36.8%	20.5%	100%

Source: Researcher's survey data output (2021)

From the above table, the data of Performance Appraisal, Training and Development, Pay and Benefits, Work Environment, and Percived Supervisor Support shows that the majority of the respondents have "disagreed" and "strongly disagreed" with 40.6%, 60.6%, 57.8%, 46.8%, and 58.5% respectively, which implies that those factors are not well practiced in the company.

Employee's Retention also shows that majority of the employees didn't want to work in the company for longer period of time (57.3% of disagree and strongly disagree). Moreover, Employee engagement shows that the majority of (63.2%) of the respondents are currently not engaged with their job.

Table 4.4: Descriptive Statistics for the study variables

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
PA	337	1.00	5.00	2.7685	1.00586
TD	337	1.00	5.00	2.4570	.92200
PB	337	1.00	5.00	2.4926	1.03255
WE	337	1.00	5.00	2.4540	1.01409
PSS	337	1.00	5.00	2.5816	1.09654
EE	337	1.00	5.00	2.4629	1.49183
ER	337	1.00	5.00	2.4807	1.12616
Valid N (listwise)	337				

Source: Researcher's survey data output (2021)

As can be seen from the above table the mean statistics for all variables ranged between 2.45 to 2.77 indicating all variables are not equally practiced to enhance employee engagement (EE) and employee retention (ER). Work environment appears to be the least practiced with mean statistics of 2.45 (SD=1.01). The mean score of performance appraisal was 2.77, which is greater than the average score on a 5 point Likert scale, while the standard deviation (SD) was 1.0.

The mean score of employee engagement found to be low (mean value 2.46, SD=1.49) which indicates that the organization is unable to create engagement for its employees, in other words this implies that on average majority of the employees were not engaged in their jobs.

The mean score of employee retention also found to be low (mean value 2.48, SD=1.13) which indicates that majority of the employees doesn't want to remain with the company.

To see detail corresponding average responses for the constructs were: Performance Appraisal (Mean=2.77, SD=1.0), Training and Development (Mean=2.46, SD=0.92), Pay and Benefit (Mean=2.49, SD=1.03), Work Environment (Mean=2.45, SD=1.01), Perceived Supervisor Support (Mean=2.58, SD=1.1), Employee Retention (Mean=2.48, SD=1.13), and Employee

Engagement (Mean=2.46, SD=1.49). Since the standard deviations were small compared with mean scores, the calculated means are a good replica of the real population (Field, 2006).

4.3 Pearson's Correlation Analysis

Correlation analysis helps to define the direction of the relationship between the variables among the study variables; the independent variables, the mediator variable and the dependent variable. The value of the correlation coefficient varies between +1 and -1 and helps to gain insight in to the strength of their relationship. When the correlation coefficient is close to ±1, the degree of association between the two variables is said to be perfect. The relationship between the two variables becomes weaker as the correlation coefficient value approaches zero (Cohen and West, 2003). Pearson correlation analysis was used to explore these relationships and the results are summarized in the table below.

Table 4.5: Summary of Pearson Correlation Matrix between the study variables

Correlations

		PA	TD	PB	WE	PSS	EE	ER
PA	Pearson Correlation	1						
	Sig. (2-tailed)							
	N	337						
TD	Pearson Correlation	.583**	1					
	Sig. (2-tailed)	.000						
	N	337	337					
PB	Pearson Correlation	.580**	.616**	1				
	Sig. (2-tailed)	.000	.000					
	N	337	337	337				
WE	Pearson Correlation	.483**	.436**	.619**	1			
	Sig. (2-tailed)	.000	.000	.000				
	N	337	337	337	337			
PSS	Pearson Correlation	.562**	.649**	.777**	.474**	1		
	Sig. (2-tailed)	.000	.000	.000	.000			
	N	337	337	337	337	337		
EE	Pearson Correlation	.611**	.653**	.773**	.652**	.739**	1	
	Sig. (2-tailed)	.000	.000	.000	.000	.000		
	N	337	337	337	337	337	337	
ER	Pearson Correlation	.577**	.613**	.684**	.559**	.660**	.845**	1
	Sig. (2-tailed)	.000	.000	.000	.000	.000	.000	
	N	337	337	337	337	337	337	337

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

Source: SPSS Correlation output (2021)

An inter-correlation matrix was calculated to evaluate relationships between variables. The correlation analysis matrix in the above table 4.5 demonstrated that there are a positive and significant relationship between all proposed variables as their p-value is less than 0.01. Moreover, since they have positive correlation coefficient these variables have a tendency to increase together. Thus, there are significant and positive relationships between the dimensions of the antecedents of employee engagement and employee engagement, all the independent factors were positively and significantly correlated with employee retention, and the correlation between employee retention and employee engagement was positive and significant.

4.4 Preliminary Analysis

Before conducting the regression analysis, tests for the assumptions of multiple regression model are presented as follows.

4.4.1 Multiple Linear Regression Assumptions

4.4.1.1 Normality Test

Regression considers that the predictor or input factors be normally distributed. Normality test was used to determine whether the error term is normally distributed. Figure 4.1 showed that, although there are some residuals that are relatively far away from the curve, many of the residuals are fairly close. Moreover, the histograms are bell shaped which lead to infer that the residual (disturbance or errors) are normally distributed. Thus, we can infer that the assumption of normally distributed error term is not violated.
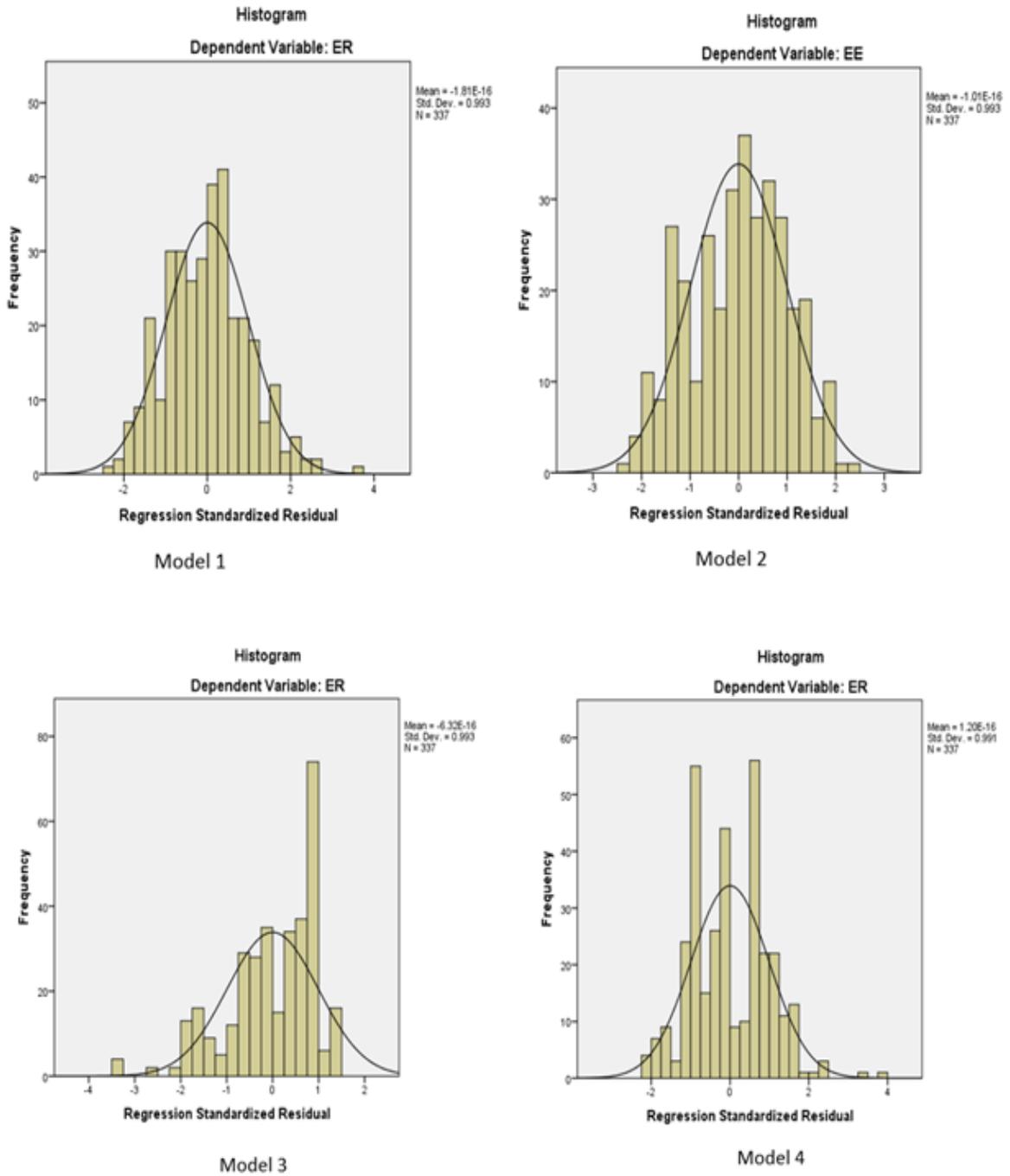
Figure 4.1: Histogram regression of standardized residual of independent variables

4.4.1.2 Linearity Test

The assumption of linearity can be checked by inspecting the Normal Probability Plot (PP) of the Regression Standardized Residual and the Scatter plot. Accordingly, the linearity of the relationship between the dependent variables and the independent variables was checked using scatter plots of the regression residuals through SPSS software. The scatter plot of residuals showed that the points lie in nearly straight line from bottom left to top right. Therefore, Normal P-P Plots show this presumption had been met for this investigation.
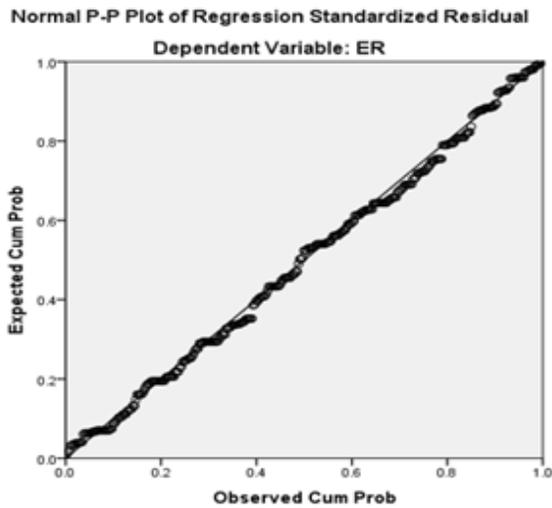
Model 1
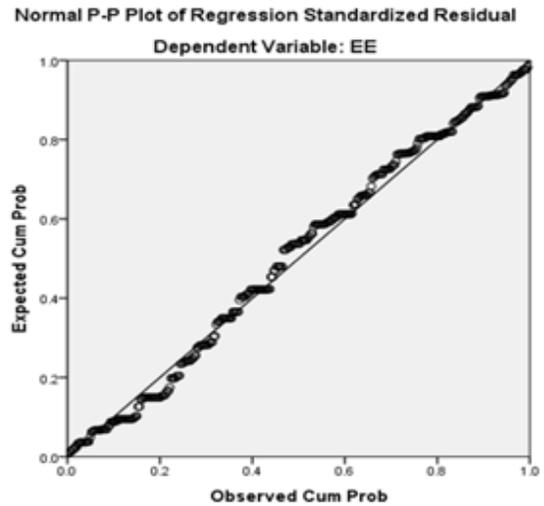
Model 2
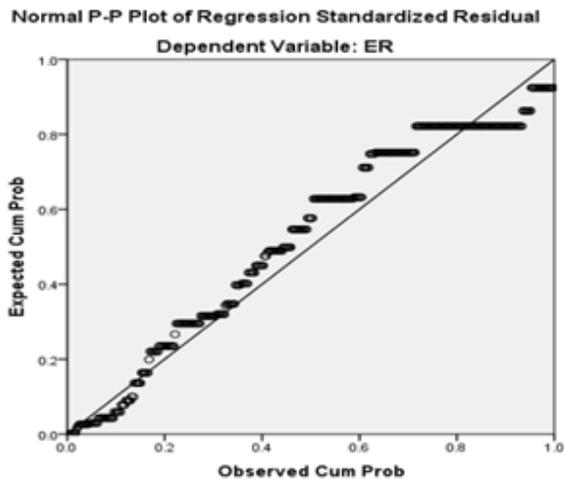
Model 3
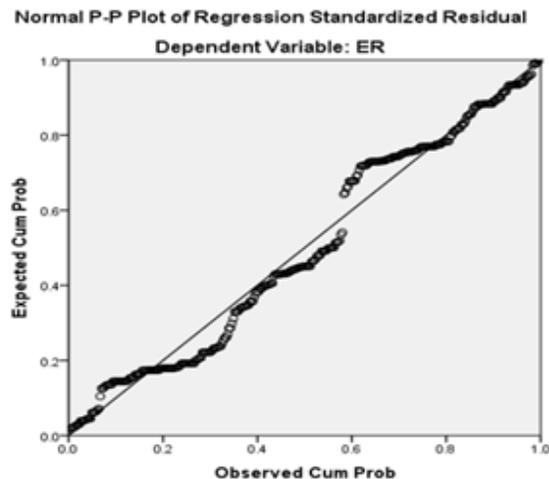
Model 4

Figure 4.2: Normal P-P Plot for linearity test

4.4.1.3 Homoscedasticity test

One of the key classical assumptions of regression is that the variance of the errors is constant across observations. If the errors have constant variance, the errors are called homoscedastic, but the possible existence of heteroscedasticity is a major concern in the application of regression analysis (Gujarati, 2004).

Model 1   Model 2

Model 3   Model 4
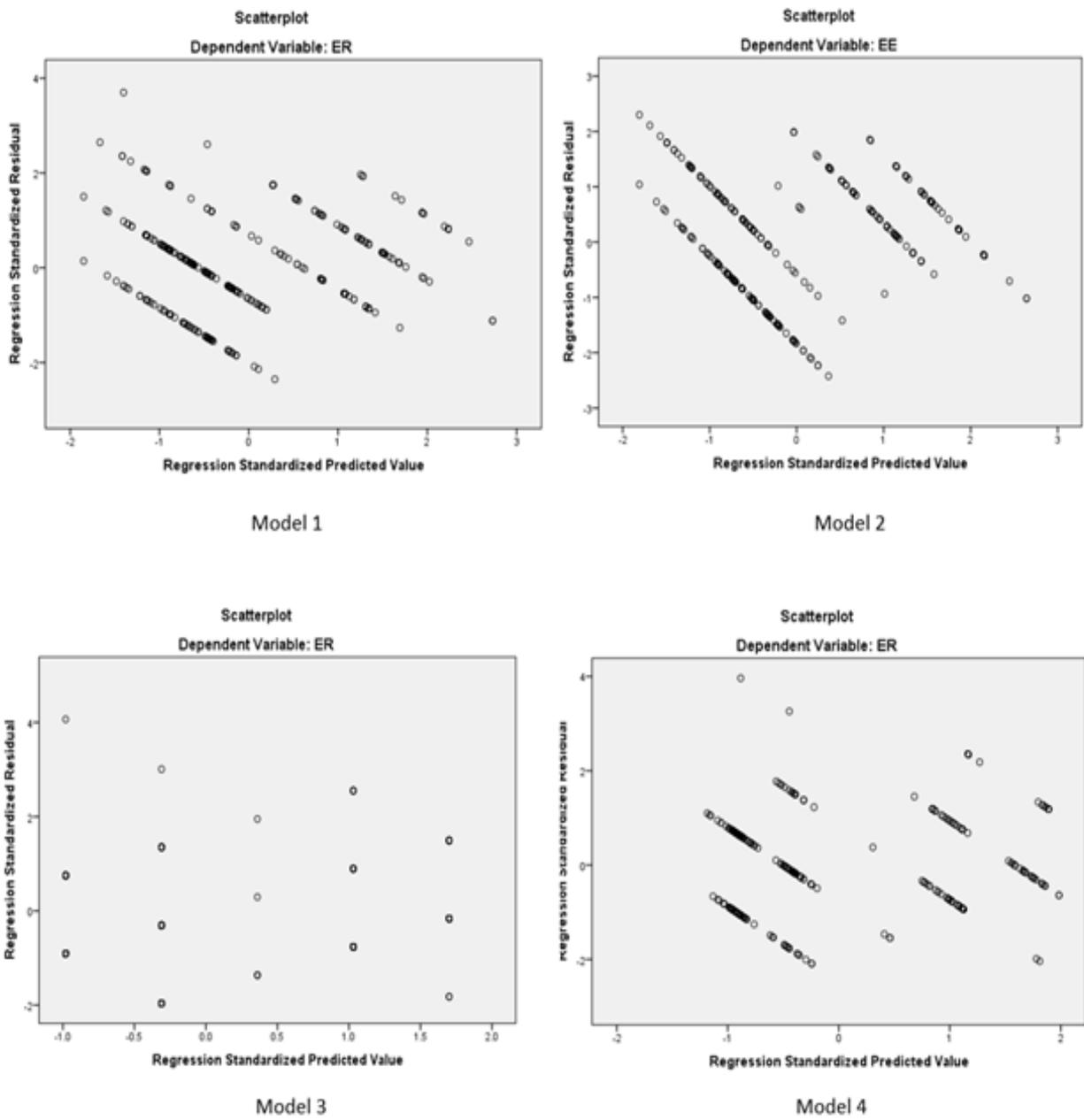
Figure 4.3: Scatter Plot of regression of standardized residual

Homoscedasticity errors are commonly expected to have an unfamiliar however limited variance that is steady over all degrees of the independent variables. This assumption is called the homogeneity of variance assumption. If the errors have a variance that is limited but not constant across dissimilar levels of the predictors (i.e., heteroscedasticity is present), common least squares evaluations will be fair-minded and stable since the errors are unique but won't be efficient (Weisberg, 2005). From the above figure 4.3, it tends to be guaranteed that the point is irregular and evenly throughout the scattered graph and no proof of channel like cone-shaped pattern is watched, which shows that no violation of homoscedasticity.

4.4.1.4 Multi-collinearity Test

Multi-collinearity will occur if some or all of the independent variables are highly correlated with one another that showed the regression model has difficulty in explaining which independent variables are affecting the dependent variable (Brooks, 2008). Multi-collinearity can be tested either from correlation coefficient results or from the value of tolerance and VIF. For this study, the researcher has checked the collinearity issue with the assumption of tolerance and VIF insights. According to Sekaran and Bougie (2016), the acceptable value of tolerance is above 0.10 and variance inflation factor (VIF) is below 10. From the table 4.8 below, it appears that there is no issue of multi-collinearity between the independent variables since the VIF value demonstrates somewhere in the range of 1 to 10, and tolerance value greater than 0.10. Therefore, we can conclude that there is no collinearity issue between the independent variables.

Table 4.6: Multi-collinearity Diagnosis

Coefficients[a]

Model		Collinearity Statistics	
		Tolerance	VIF
1	PA	.544	1.837
	TD	.476	2.099
	PB	.281	3.556
	WE	.523	1.914
	PSS	.318	3.145
	EE	.279	3.580

a. Dependent Variable: ER

Source: Researcher's survey data output (2021)

4.5 Testing the Research Hypotheses

After testing all the relevant assumptions of classical linear regression assumptions for the data used, the researcher conducted regression analysis to explore the relationship between the independent and dependent variables and the Baron and Kenny (1986) model was used as a guiding framework for testing mediation by integrating Process version 3.5 by Andrew F. Hayes with SPSS version 20. Additionally, online calculator of Sobel test has been conducted to test the significance of the mediation (Sobel, 1982). The coefficients of determination (R square value), the regression coefficients (Beta coefficient) and the p-values for each of the significant relationships were reported and discussed.

4.5.1 Regression Model Specification

According to Baron and Kenny (1986) mediation testing framework, the following models were specified for each of the independent variables.

A. Performance Appraisal

<u>**Model 1**</u>

H$_1$: Performance Appraisal has positive and significant effect on Employee Retention = **Path c**

$$y = \alpha_1 + ax + \varepsilon_y \dots\dots\dots\dots\dots\dots\dots \textbf{Model 1}$$

Where:

y = Employee Retention, x = Performance Appraisal, α_1 = intercept of Employee Retention, a = coefficient, ε_y = the random error.

<u>**Model 2**</u>

H$_6$: Performance Appraisal has positive and significant effect on Employee Engagement = **Path a**

$$m = \alpha_2 + bx + \varepsilon_m \dots\dots\dots\dots\dots\dots\dots\dots \textbf{Model 2}$$

Where:

m = Employee Engagement, x = Performance Appraisal, α_2 = intercept of Employee Engagement, b = coefficient, ε_m = the random error.

Model 3

H₁₆: Employee Engagement has positive and significant effect on Employee Retention = **Path b**

$$y = \alpha_3 + cm + \varepsilon y\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots \text{ Model 3}$$

Where:

y = Employee Retention, m = Employee Engagement, α_3 = intercept of Employee Retention, c = coefficient, εy = the random error

Model 4

H₁₁: Employee Engagement mediates the effect of Performance Appraisal on Employee Retention = **Path c'**

$$y = \alpha_4 + dx + em + \varepsilon y\ldots\ldots\ldots\ldots\ldots\ldots\ldots \text{ Model 4}$$

Where:

y = Employee Retention, x = Performance Appraisal, m = Employee Engagement, α_4 = intercept of Employee Retention, d & e = coefficients, εy = random error.

Note:

➢ Partial Mediation: If Performance Appraisal (IV) has both direct and indirect effect on Employee Retention (DV)

➢ Full Mediation: If Performance Appraisal (IV) has only indirect effect on Employee Retention (DV)

➢ The effect of the independent variable on the dependent variable (path c') must less than in the first equation (c < c', partial mediation) or be insignificant (full mediation)

B. Training and Development

Model 1

H₂: Training and Development has positive and significant effect on Employee Retention = **Path c**

$$y = \alpha_1 + ax + \varepsilon y\ldots\ldots\ldots\ldots\ldots\ldots\ldots \text{ Model 1}$$

Where:

y = Employee Retention, x = Training and Development, α_1 = intercept of Employee Retention, a = coefficient, ε_y = the random error.

Model 2

H7: Training and Development has positive and significant effect on Employee Engagement = **Path a**

$$m = \alpha_2 + bx + \varepsilon_m \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\text{ Model 2}$$

Where:

m = Employee Engagement, x = Training and Development, α_2 = intercept of Employee Engagement, b = coefficient, ε_m = the random error.

Model 3

H16: Employee Engagement has positive and significant effect on Employee Retention = **Path b**

$$y = \alpha_3 + cm + \varepsilon_y \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\text{ Model 3}$$

Where:

y = Employee Retention, m = Employee Engagement, α_3 = intercept of Employee Retention, c = coefficient, ε_y = the random error

Model 4

H12: Employee Engagement mediates the effect of Training and Development on Employee Retention = **Path c'**

$$y = \alpha_4 + dx + em + \varepsilon_y \ldots\ldots\ldots\ldots\ldots\text{ Model 4}$$

Where:

y = Employee Retention, x = Training and Development, m = Employee Engagement, α_4 = intercept of Employee Retention, d & e = coefficients, ε_y = random error.

Note:

- ➢ Partial Mediation: If Training and Development (IV) has both direct and indirect effect on Employee Retention (DV)

- ➢ Full Mediation: If Training and Development (IV) has only indirect effect on Employee Retention (DV)

- ➢ The effect of the independent variable on the dependent variable (path c') must less than in the first equation (c < c', partial mediation) or be insignificant (full mediation)

C. Pay and Benefit

Model 1

H3: Pay and Benefit has positive and significant effect on Employee Retention = **Path c**

$$y = α_1 + ax + ε_y ………………………. \textbf{Model 1}$$

Where:

y = Employee Retention, x = Pay and Benefit, $α_1$ = intercept of Employee Retention, a = coefficient, $ε_y$ = the random error.

Model 2

H8: Pay and Benefit has positive and significant effect on Employee Engagement = **Path a**

$$m = α_2 + bx + ε_m …………………………. \textbf{Model 2}$$

Where:

m = Employee Engagement, x = Pay and Benefit, $α2$ = intercept of Employee Engagement, b = coefficient, $ε_m$ = the random error.

Model 3

H16: Employee Engagement has positive and significant effect on Employee Retention = **Path b**

$$y = α_3 + cm + ε_y ……………………………..... \textbf{Model 3}$$

Where:

y = Employee Retention, m = Employee Engagement, α_3 = intercept of Employee Retention, c = coefficient, εy = the random error

Model 4

H$_{13}$: Employee Engagement mediates the effect of Pay and Benefit on Employee Retention = **Path c'**

$$y = \alpha_4 + dx + em + \varepsilon y \ldots\ldots\ldots\ldots\ldots\ldots \text{ Model 4}$$

Where:

y = Employee Retention, x = Pay and Benefit, m = Employee Engagement, α_4 = intercept of Employee Retention, d & e = coefficients, εy = random error.

Note:

➢ Partial Mediation: If Pay and Benefit (IV) has both direct and indirect effect on Employee Retention (DV)

➢ Full Mediation: If Pay and Benefit (IV) has only indirect effect on Employee Retention (DV)

➢ The effect of the independent variable on the dependent variable (path c') must less than in the first equation (c < c', partial mediation) or be insignificant (full mediation)

D. Work Environment

Model 1

H$_4$: Work Environment has positive and significant effect on Employee Retention = **Path c**

$$y = \alpha_1 + ax + \varepsilon y \ldots\ldots\ldots\ldots\ldots\ldots\ldots \text{ Model 1}$$

Where:

y = Employee Retention, x = Work Environment, α_1 = intercept of Employee Retention, a = coefficient, εy = the random error.

Model 2

H$_9$: Work Environment has positive and significant effect on Employee Engagement = **Path a**

$$m = \alpha_2 + bx + \varepsilon_m\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots \textbf{Model 2}$$

Where:

m = Employee Engagement, x = Work Environment, α2 = intercept of Employee Engagement, b = coefficient, ε_m = the random error.

Model 3

H$_{16}$: Employee Engagement has positive and significant effect on Employee Retention = **Path b**

$$y = \alpha_3 + cm + \varepsilon_y\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots \textbf{Model 3}$$

Where:

y = Employee Retention, m = Employee Engagement, α3 = intercept of Employee Retention, c = coefficient, ε_y = the random error

Model 4

H$_{14}$: Employee Engagement mediates the effect of Work Environment on Employee Retention = **Path c'**

$$y = \alpha_4 + dx + em + \varepsilon_y\ldots\ldots\ldots\ldots\ldots \textbf{Model 4}$$

Where:

y = Employee Retention, x = Work Environment, m = Employee Engagement, α4 = intercept of Employee Retention, d & e = coefficients, ε_y = random error.

Note:

➢ Partial Mediation: If Work Environment (IV) has both direct and indirect effect on Employee Retention (DV)

➢ Full Mediation: If Work Environment (IV) has only indirect effect on Employee Retention (DV)

➢ The effect of the independent variable on the dependent variable (path c') must less than in the first equation (c < c', partial mediation) or be insignificant (full mediation)

E. **Perceived Supervisor Support**

Model 1

H5: Perceived Supervisor Support has positive and significant effect on Employee Retention = **Path c**

$$y = \alpha_1 + ax + \varepsilon_y \ldots\ldots\ldots\ldots\ldots\ldots \textbf{Model 1}$$

Where:

y = Employee Retention, x = Perceived Supervisor Support, α_1 = intercept of Employee Retention, a = coefficient, ε_y = the random error.

Model 2

H10: Perceived Supervisor Support has positive and significant effect on Employee Engagement = **Path a**

$$m = \alpha_2 + bx + \varepsilon_m \ldots\ldots\ldots\ldots\ldots\ldots \textbf{Model 2}$$

Where:

m = Employee Engagement, x = Perceived Supervisor Support, $\alpha 2$ = intercept of Employee Engagement, b = coefficient, ε_m = the random error.

Model 3

H16: Employee Engagement has positive and significant effect on Employee Retention = **Path b**

$$y = \alpha_3 + cm + \varepsilon_y \ldots\ldots\ldots\ldots\ldots\ldots \textbf{Model 3}$$

Where:

y = Employee Retention, m = Employee Engagement, α_3 = intercept of Employee Retention, c = coefficient, ε_y = the random error

Model 4

H15: Employee Engagement mediates the effect of Perceived Supervisor Support on Employee Retention = **Path c'**

$$y = \alpha_4 + dx + em + \varepsilon_y \ldots\ldots\ldots\ldots\ldots \textbf{Model 4}$$

Where:

y = Employee Retention, x = Perceived Supervisor Support, m = Employee Engagement, α_4 = intercept of Employee Retention, d & e = coefficients, ε_y = random error.

Note:

➢ Partial Mediation: If Perceived Supervisor Support (IV) has both direct and indirect effect on Employee Retention (DV)

➢ Full Mediation: If Perceived Supervisor Support (IV) has only indirect effect on Employee Retention (DV)

➢ The effect of the independent variable on the dependent variable (path c') must less than in the first equation (c < c', partial mediation) or be insignificant (full mediation)

4.5.2 Multiple Linear Regression Analysis

To ensure the statistical adequacy of the model, the goodness of fit can also be measured by the square of the correlation coefficient, also called R^2. R-squared is measured the goodness of fit of the explanatory variables in explaining the variation in the employment Engagement.

Model 1/ Path 'c' assumes that the independent variable predicts the dependent variable.

As shown in Table 4.7, all the antecedents of employee engagement explain 58% of the variability in employee retention (R^2 = 0.579). The remaining 42% of variation in employee retention was explained by other variables which are not included in this model.

Table 4.7: Model Summary for Model 1

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.761[a]	.579	.573	.73582

a. Predictors: (Constant), PSS, WE, PA, TD, PB

b. Dependent Variable: ER

Source: Researcher's survey data output (2021)

The below table 4.8, ANOVA result indicated a strong positive significant regression because p=0.000, p < 0.01 significant level. This indicates that the sample data provides sufficient evidence to conclude that the regression model was well fit.. This meant that the independent variables have a strong significant influence on the level of employee retention in EAL.

Table 4.8: ANOVA of independent variables and dependent variable for Model 1

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	246.909	5	49.382	91.205	.000[b]
	Residual	179.216	331	.541		
	Total	426.125	336			

a. Dependent Variable: ER

b. Predictors: (Constant), PSS, WE, PA, TD, PB

Source: Researcher's survey data output (2021)

The below Coefficient Table 4.9 indicated the degree of relationship between each independent variable at constant (-0.135, refers to the intercept in Y-axis were the regression line cross the axis) while Performance Appraisal (β=0.140, ρ=0.004, $\rho < 0.01$), Training and Development (β=0.185, ρ=0.000, $\rho < 0.01$), Pay and Benefit (β=0.217, ρ=0.001, $\rho < 0.01$), Work Environment (β=0.178, ρ=0.000, $\rho < 0.01$), and Perceived Supervisor Support (β=0.208, ρ=0.001, $\rho < 0.01$).

Thus, the regression coefficient result indicated that all the independent variables were statistically significant since they have , $\rho < 0.01$. The positive effect of all independent variables on employee retention implies that if there is an increase in the predictors, there will also be an increase in employee retention level. In mathematical words, the regression coefficient (β=0.140) for Performance Appraisal indicates a unit change in Performance Appraisal will lead to 14% improvement in employee retention. The regression coefficient (β=0.185) for Training and Development indicates a unit change in Training and Development will lead to 18.5% improvement in employee retention. The regression coefficient (β=0.217) for Pay and Benefit indicates a unit change in Pay and Benefit will lead to 21.7% improvement in employee retention. The regression coefficient (β=0.178) for Work Environment indicates a unit change in Work Environment will lead to 17.8% improvement in employee retention. The regression

coefficient (β=0.208) for Perceived Supervisor Support indicates a unit change in Perceived Supervisor Support will lead to 20.8% improvement in employee retention.

Standardized coefficient Beta is used to evaluate each of the independent variables, to identify which of the variables in the model contributed the most in prdicting the outcome compare to the different variables. Standardized means this values for each of the different variables is converted in to the same scale in which we can easily compare them. As a result, Pay and Benefit (β=0.217, ρ < 0.01) makes the strongest contribution to explaining the level of Employee retention, while other variables are controlled for.

Table 4.9: Coefficient of independent variables for Model 1

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-.135	.135		-1.004	.316
	PA	.157	.054	.140	2.929	.004
	TD	.226	.062	.185	3.665	.000
	PB	.236	.071	.217	3.343	.001
	WE	.197	.051	.178	3.831	.000
	PSS	.214	.062	.208	3.429	.001

a. Dependent Variable: ER

Source: Researcher's survey data output (2021)

Model 2/ Path 'a' proposes an effect of the predictor variables on the mediator variable (employee engagement).

As shown in Table 4.10, all independent variables explain around 72% of the variability in employee engagement ($R^2 = 0.721$). In addition, as indicated in the ANOVA table 4.11 the p-value (0.000) is less than 0.01 significance level which implies the sample data provides sufficient evidence to conclude that the regression model was well fit. On the basis of the regression coefficients at table 4.12, all variables are statistically significant. Pay and Benefit has the greatest impact on employee engagement ($\beta = 0.264$, $p < 0.01$), while Performance Appraisal has the lowest effect on employee engagement ($\beta = 0.103$, $p < 0.01$). Other coefficients indicate different degrees of predictors' contribution to employee engagement.

Table 4.10: Model Summary for Model 2

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.849[a]	.721	.716	.79444

a. Predictors: (Constant), PSS, WE, PA, TD, PB

b. Dependent Variable: EE

Source: Researcher's survey data output (2021)

Table 4.11: ANOVA of independent variables and dependent variable for Model 2

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	538.879	5	107.776	170.764	.000[b]
	Residual	208.907	331	.631		
	Total	747.786	336			

a. Dependent Variable: EE

b. Predictors: (Constant), PSS, WE, PA, TD, PB

Source: Researcher's survey data output (2021)

Table 4.12: Coefficient of independent variables for Model 2

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-1.328	.146		-9.121	.000
	PA	.152	.058	.103	2.637	.009
	TD	.249	.067	.154	3.730	.000
	PB	.381	.076	.264	4.991	.000
	WE	.366	.056	.249	6.592	.000
	PSS	.352	.067	.259	5.226	.000

a. Dependent Variable: EE

Model 3/ Path 'b' hypothesizes an effect of the mediator variable (employee engagement) on the dependent variable (employee retention).

As displayed in Table 4.13, employee engagement explains 71% of the variance in employee retention ($R^2 = 0.714$). Moreover, as revealed in the ANOVA table 4.14, the p-value (0.000) is less than 0.01 significant level which implies the sample data provides sufficient evidence to conclude that the regression model was well fit. The regression coefficient result as showed in table 4.15 has also confirmed the positive and significant effect of employee engagement in predicting employee retention ($\beta = 0.845$, $p < 0.01$). This implies mathematically that, the regression coefficient ($\beta = 0.845$) for employee engagement indicates a unit change in employee engagement will lead to 85% change in employee retention.

Table 4.13: Model Summary for Model 3

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.845[a]	.714	.713	.60308

a. Predictors: (Constant), EE
b. Dependent Variable: ER

Table 4.14: ANOVA of independent and dependent variable for Model 3

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	304.281	1	304.281	836.602	.000[b]
	Residual	121.843	335	.364		
	Total	426.125	336			

a. Dependent Variable: ER
b. Predictors: (Constant), EE

Table 4.15: Coefficient of independent variable for Model 3

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.910	.063		14.330	.000
	EE	.638	.022	.845	28.924	.000

a. Dependent Variable: ER

Source: Researcher's survey data output (2021)

4.5.3 Mediation Testing with Regression Analysis

To undertake mediation test, Baron and Kenny's (1986) model for testing mediation was used as a guiding framework. Accordingly, in Baron and Kenny's (1986) mediation testing model four conditions must be met for a variable to be considered as a mediator. These are (i) the independent variable must significantly affect the dependent variable in model 1/ path c; (ii) the independent variable must significantly affect the mediator in model 2/ path a; (iii) the mediator must significantly affect the dependent variable in model 3/ path b; (iv) the independent variable must predict the dependent variable less strongly in model 4/ path c' than in model 1/ path c. If the independent variable has no effect (statistically insignificant) on the dependent variable in model 4/ path c' perfect/full mediation holds but if the independent variable explains the dependent variable less strongly in model 4/ path c' than in model 1/ path c partial mediation occurs.

The regression result of Model 1/ Path 'c' (Table 4.9) showed that the effect of the independent variables; Performance Appraisal ($\beta=0.140$, $\rho=0.004$, $\rho < 0.01$), Training and Development ($\beta=0.185$, $\rho=0.000$, $\rho < 0.01$), Pay and Benefit ($\beta=0.217$, $\rho=0.001$, $\rho < 0.01$), Work Environment ($\beta=0.178$, $\rho=0.000$, $\rho < 0.01$), and Perceived Supervisor Support ($\beta=0.208$, $\rho=0.001$, $\rho < 0.01$) on the dependent variable (employee retention) are positive and significant. Thus, the first condition for mediation is fulfilled.

The regression analysis result of Model 2/ Path 'a' (Table 4.12) showed that the effect of the independent variables; Performance Appraisal ($\beta=0.103$, $\rho=0.009$, $\rho < 0.01$), Training and Development ($\beta=0.154$, $\rho=0.000$, $\rho < 0.01$), Pay and Benefit ($\beta=0.264$, $\rho=0.000$, $\rho < 0.01$), Work Environment ($\beta=0.249$, $\rho=0.000$, $\rho < 0.01$), and Perceived Supervisor Support ($\beta=0.259$,

ρ=0.000, ρ < 0.01) on Employee Engagement (the mediator variable) are positive and significant. Therefore, the second condition is satisfied as well.

The regression analysis result of Model 3/ Path 'b' (Table 4.15) showed that the regression coefficient for the mediator variable (Employee Engagement) on the dependent variable (Employee Retention) is positive and significant ($\beta = 0.845$, p=0.000, $\rho < 0.01$). This implies that the third condition is fulfilled.

The fourth condition Model 4/ Path **c'** states the independent variable must predict the dependent variable less strongly in path **c'** than in path **c** or be insignificant; if the independent variable has no effect on the dependent variable in path **c'** perfect/full mediation holds but if the independent variable explains the dependent variable less strongly in path **c'** than in path **c** partial mediation occurs.

Table 4.16: Model Summary for Model 4

Model Summary^b

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.851^a	.724	.719	.59673

a. Predictors: (Constant), EE, PA, WE, TD, PSS, PB

b. Dependent Variable: ER

Source: Researcher's survey data output (2021)

Table 4.17: ANOVA of independent and dependent variable for Model 4

ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	308.616	6	51.436	144.448	.000^b
	Residual	117.508	330	.356		
	Total	426.125	336			

a. Dependent Variable: ER

b. Predictors: (Constant), EE, PA, WE, TD, PSS, PB

Table 4.18: Coefficient of independent variable for Model 4

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.586	.122		4.793	.000
	PA	.074	.044	.066	1.686	.093
	TD	.091	.051	.075	1.783	.075
	PB	.029	.059	.027	.493	.622
	WE	-.002	.044	-.002	-.043	.966
	PSS	.023	.053	.022	.429	.668
	EE	.543	.041	.720	13.164	.000

a. Dependent Variable: ER

As it can be seen in Model 1/ Path **c** (table 4.9), the coefficients of the independent variables Performance Appraisal, Training and Development, Pay and Benefit, Work Environment, and Perceived Supervisor Support are 0.140, 0.185, 0.217, 0.178, and 0.208 respectively with significant p-value < 0.01, whereas the coefficients of the independent variables in Model 4/ Path **c'** (Table 4.18) are 0.066, 0.075, 0.027, -0.002, and 0.022 respectively, which are less than the coefficients in Model 1/ Path **c**. But the coefficients of the independent variables in **path c'** are not statistically significant ($\rho > 0.05$). As a result, employee engagement fully mediates in the relationship between its antecendents and employee retention. More specifically:

Performance appraisal in Model 4/ Path **c'** is not statisticaly significant on employee retention when the mediation variable is included (p-value=0.093, $\rho > 0.05$). Therefore, employee engagement fully mediated in the relationship between performance appraisal and employee retention.

Training and development in Model 4/ Path **c'** has no effect on employee retention when controlling for the mediation variable (p-value=0.075, $\rho > 0.05$). So, employee engagement

perfectly (fully) mediated in the relationship between training and development and employee retention.

When a mediating variable is added (Model 4/ Path **c'**), Pay and benefit is insignificant on employee retention (p-value=0.622, $\rho > 0.05$). Therefore, we can conclude that employee engagement fully mediated in the relationship between pay and benefit and employee retention.

In Model 4/ Path **c'** of the mediation analysis, we can see the perfect (full) mediation role of employee engagement between work environment and employee retention since work environment is not statistically significant when a mediating variable is included (p-value=0.966, $\rho > 0.05$).

Model 4/ Path **c'** for perceived supervisor support indicated that perceived supervisor support doesn't significantly affect employee retention (p-value=0.668, $\rho > 0.05$) when a mediator is included. Thus, employee engagement fully mediated in the relationship between perceived supervisor support and employee retention.

4.5.4 Mediation Testing using Sobel Test

When looking at the effect of X and Y, a mediator is a variable that acts as a phase in between, where X triggers a mediator M and M is the direct cause of Y. In order to test mediated effect for significance, the standard error of effect is required. Sobel test is basically used to see whether the reduction in the effect of the independent variable after the mediator is included in the model is a significant reduction, and thus to determine if the mediation effect is statistically significant. Sobel (1982) test is the most common method to test for the significance of Mediated effect with an estimate of its standard error. Sobel test can be conducted using the online calculator for the Sobel Test (http://quantpsy.org/sobel/sobel.htm). The significance of the mediator effect can also be tested with regression equations as showed in the above section.
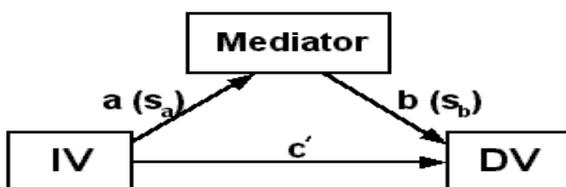
Figure 4.4: General Mediation Model

Source: Sobel (1982)

66

From Figure 4.4, a, b, and c' are path coefficients and values in parentheses are standard errors of those path coefficients (S_a and S_b). To conduct the Sobel test, coefficients of the indirect effect is required which is comprised of the product of two normally distributed regression coefficients. To get numbers, (1) we need to run a regression analysis with the independent variable predicting the mediator which gives 'a' and S_a. (2) we need to run a regression analysis with the independent variable and mediator predicting the dependent variable. This will give 'b' and S_b.

Descriptions of numbers needed are:

➢ a = raw (unstandardized) regression coefficient for the association between IV and mediator.

➢ S_a = standard error of a.

➢ b = raw coefficient for the association between the mediator and the DV (when the IV is also a predictor of the DV).

➢ S_b = standard error of b.

Table 4.19: Sobel Test for Significancy of the Mediator between Performance appraisal and Employee retention

Input:		Test statistic:	Std. Error:	p-value:
a	0.152	Sobel test: 2.57084091	0.03210467	0.01014519
b	0.543	Aroian test: 2.56381747	0.03219262	0.0103528
S_a	0.058	Goodman test: 2.57792239	0.03201648	0.00993963
S_b	0.041	Reset all	Calculate	

Source: Researcher's survey data output (2021)

As shown in Table 4.19, Sobel Test for testing the significancy of the mediator between Performance appraisal and Employee retention has a p-value < 0.05. So the mediator is significant in the independent and dependent variable relationship.

Table 4.20: Sobel Test for Significancy of the Mediator between Training and Development and Employee retention

Input:		Test statistic:		Std. Error:	p-value:
a 0.249		Sobel test:	3.57820617	0.03778625	0.00034596
b 0.543		Aroian test:	3.56878797	0.03788597	0.00035864
S_a 0.067		Goodman test:	3.58769932	0.03768627	0.00033361
S_b 0.041		Reset all		Calculate	

Source: Researcher's survey data output (2021)

As Table 4.20 indicated, the p-value is < 0.01 when testing the significancy of the mediator between Training and Development and Employee retention using Sobel Test. Thus, employee engagement can significantly mediate the relationship between the independent and dependent variable.

Table 4.21: Sobel Test for Significancy of the Mediator between Pay and Benefit and Employee retention

Input:		Test statistic:		Std. Error:	p-value:
a 0.381		Sobel test:	4.68850897	0.04412554	0.00000275
b 0.543		Aroian test:	4.67686238	0.04423543	0.00000291
S_a 0.076		Goodman test:	4.70024301	0.04401538	0.0000026
S_b 0.041		Reset all		Calculate	

Source: Researcher's survey data output (2021)

As you can see from Table 4.21 of Soble Test, the significance of the mediator between Pay and Benefit and Employee retention has a p-value < 0.01. This shows that the mediator is significant in the independent and dependent variable relationship.

Table 4.22: Sobel Test for Significancy of the Mediator between Work Environment and Employee retention

Input:		Test statistic:		Std. Error:	p-value:
a 0.366		Sobel test:	5.86090603	0.03390909	0
b 0.543		Aroian test:	5.84751679	0.03398673	1e-8
S_a 0.056		Goodman test:	5.87438767	0.03383127	0
S_b 0.041		Reset all		Calculate	

Source: Researcher's survey data output (2021)

As seen in Table 4.22, the Soble Test testing the significance of employee engagement mediating between Work Environment and Employee retention has a p-value < 0.05. Hence making the mediator significant in the independent and dependent variable relationship.

Table 4.23: Sobel Test for Significancy of the Mediator between Perceived Supervisor Support and Employee retention

Input:		Test statistic:	Std. Error:	p-value:
a	0.352	Sobel test: 4.88352017	0.03913898	0.00000104
b	0.543	Aroian test: 4.87153621	0.03923526	0.00000111
s_a	0.067	Goodman test: 4.89559301	0.03904246	9.8e-7
s_b	0.041	Reset all	Calculate	

Source: Researcher's survey data output (2021)

According to Table 4.23, the Soble Test testing the significance of the mediator between Perceived Supervisor Support and Employee retention has a p-value < 0.05. Showing the mediator is significant in the independent and dependent variable relationship.

4.5.5 Mediation Testing using Process (One-step Method)

The other most efficient method of conducting Mediation Analysis is using Hayes PROCESS macro on SPSS. It can able to comprises Baron and Kenny's four steps regression analyses of each path in to one step. Thus, with Process we can able to run together all the direct effect, indirect effect and total effect using Model 4 for basic mediation. Statistical analyses were performed using IBM SPSS Statistics, Version 20 in combination with the PROCESS version 3.5 macro by Andrew F. Hayes.

According to Hayes (2013, p. 193), multiple independent variables can be integrated in a mediation analysis by using them as covariates. Since the output does not produce all of the required tables, Hayes suggests repeating the process; conducting the analysis for each independent variable while treating the others as covariates, which means, in analysis 1, independent variable_1 is considered the independent variable, while independent variables_2-n are being considered covariates. In analysis 2, independent variable_2 is considered the independent variable, while independent variable_1 and independent variables_3-n are

considered the covariates and so on by using Hayes Model 4. To summarize, n analyses will be made. The results should not differ, as the independent variables and the covariates are being treated the same in the analyses.

4.5.5.1 Mediation analysis between Performance appraisal and Employee Retention

  1. X variable pridicts Y= path c

As indicated in Table 4.26, R-square value was 0.5794. This indicates that, in this study the independent variables explains about 58% of the variation in the level of employee retention, and the over all model was well fit and significant as p-value is < 0.01. It also showed that performance appraisal significantly affect employee retention as the p value is less than 0.01 (b= 0.1401, p=0.0036).
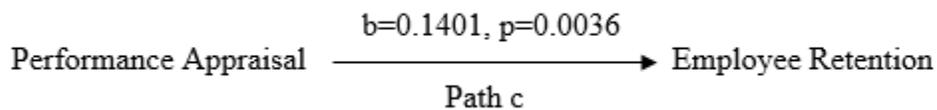
Figure 4.5: Simple Relation Model for Performance Appraisal

  2. X variable pricts M = path a

In this study the independent variables together explains about 72% of the variation in the level of employee engagement as R-square value was 0.7206 (Table 4.24). The over all model was well fit and significant as well since p-value is < 0.01. Performance appraisal also significantly affects employee engagement (b= 0.1028, p=0.0088, $p < 0.01$).

  3. X and M together pridicts Y

        a. M variable pridicts Y= path b

        b. X variable no longer pridicts Y or is lessened predicting Y- path c'

Table 4.25 showed that the independent variables and the mediator together explains about 72% of the variation in the level of employee retention ($R^2 = 0.7242$), and the over all model was well fit and significant (p-value < 0.01). It also showed that employee engagement (Mediator) significantly affect employee retention (b=0.7200, p=0.0000, $p < 0.01$). Moreover, this table showed performance appraisal do not affect employee retention when controlling for the

mediator as the p value is greater than the significancy level (b=0.0661, p=0.0927). Thus, employee engagement fully mediated the effect of performance appraisal on employee retention.
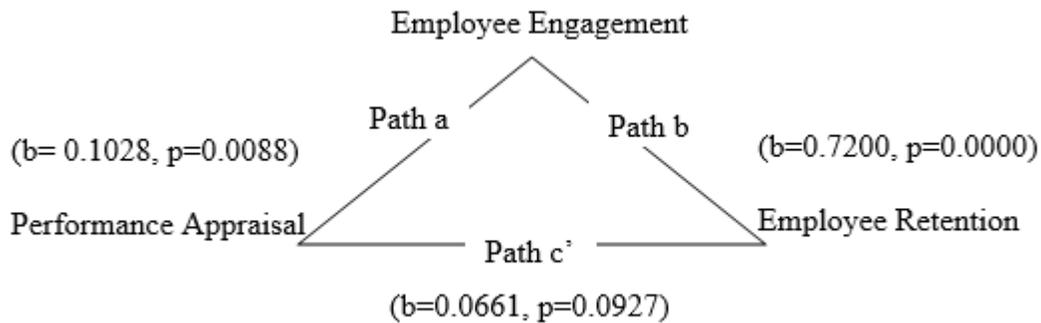
Figure 4.6: Simple Mediation Model for Performance Appraisal

In addition, Table 4.27 indicated that the effect of performance appraisal on employee retention that operates indirectly is around 52.8% (Indirect effect/ Total effect, 0.0828/0.1568= 52.8%) so 47.2% of the relationship operates directly. Thus, the impact on employee retention accounts for 47% is directly by the effect of performance appraisal, but 53% is managed through the employee engagement.

Table 4.24: Mediation analysis between Performance appraisal and Employee Retention using PROCESS for Model 2

➜ Matrix

```
[DataSet1] E:\MBA, AAU, S2\Year 2\Thesis\Data\Data_Entry_NEW.sav


Run MATRIX procedure:

***************** PROCESS Procedure for SPSS Version 3.5.2 ****************

          Written by Andrew F. Hayes, Ph.D.        www.afhayes.com
     Documentation available in Hayes (2018). www.guilford.com/p/hayes3


*************************************************************************
```

```
Model  : 4
    Y  : ER
    X  : PA
    M  : EE


Covariates:
 TD        PB        WE        PSS


Sample
Size:  337


*********************************************************************
OUTCOME VARIABLE:
 EE


Model Summary
           R        R-sq        MSE          F        df1        df2          p
        .8489       .7206       .6311   170.7635     5.0000   331.0000       .0000


Model
            coeff         se          t          p        LLCI        ULCI
constant   -1.3282      .1456    -9.1207       .0000    -1.6147     -1.0418
PA           .1524      .0578     2.6373       .0088      .0387       .2661
TD           .2489      .0667     3.7303       .0002      .1176       .3801
PB           .3810      .0763     4.9913       .0000      .2308       .5312
WE           .3664      .0556     6.5924       .0000      .2571       .4758
PSS          .3520      .0674     5.2255       .0000      .2195       .4845


Standardized coefficients
        coeff
PA      .1028
TD      .1538
PB      .2637
WE      .2491
PSS     .2587
```

Source: Researcher's survey data output (2021)

Table 4.25: Mediation analysis between Performance appraisal and Employee Retention using PROCESS for Model 3

```
************************************************************************
OUTCOME VARIABLE:
 ER

Model Summary
          R        R-sq        MSE          F        df1        df2          p
      .8510       .7242       .3561   144.4483     6.0000   330.0000       .0000

Model
               coeff          se           t           p        LLCI        ULCI
constant       .5865       .1224      4.7931       .0000       .3458       .8272
PA             .0740       .0439      1.6861       .0927      -.0123       .1603
EE             .5435       .0413     13.1641       .0000       .4623       .6247
TD             .0912       .0512      1.7834       .0754      -.0094       .1919
PB             .0293       .0595       .4930       .6224      -.0876       .1463
WE            -.0019       .0444      -.0431       .9657      -.0893       .0854
PSS            .0226       .0526       .4294       .6679      -.0810       .1262

Standardized coefficients
           coeff
PA         .0661
EE         .7200
TD         .0747
PB         .0269
WE        -.0017
PSS        .0220
```

Source: Researcher's survey data output (2021)

Table 4.26: Mediation analysis between Performance appraisal and Employee Retention using PROCESS for Model 1

```
************************* TOTAL EFFECT MODEL ***************************
OUTCOME VARIABLE:
 ER

Model Summary
          R       R-sq        MSE          F        df1        df2          p
      .7612      .5794      .5414    91.2048     5.0000   331.0000      .0000

Model
              coeff        se          t          p       LLCI       ULCI
constant     -.1354      .1349    -1.0038      .3162     -.4007      .1299
PA            .1568      .0535     2.9292      .0036      .0515      .2621
TD            .2265      .0618     3.6652      .0003      .1049      .3481
PB            .2364      .0707     3.3434      .0009      .0973      .3755
WE            .1972      .0515     3.8312      .0002      .0960      .2985
PSS           .2139      .0624     3.4286      .0007      .0912      .3367

Standardized coefficients
          coeff
PA        .1401
TD        .1854
PB        .2167
WE        .1776
PSS       .2083
```

Source: Researcher's survey data output (2021)

Table 4.27: Mediation analysis between Performance appraisal and Employee Retention using PROCESS

```
************** TOTAL, DIRECT, AND INDIRECT EFFECTS OF X ON Y **************

Total effect of X on Y
     Effect         se          t          p       LLCI       ULCI       c_ps       c_cs
      .1568      .0535     2.9292      .0036      .0515      .2621      .1392      .1401

Direct effect of X on Y
     Effect         se          t          p       LLCI       ULCI      c'_ps      c'_cs
      .0740      .0439     1.6861      .0927     -.0123      .1603      .0657      .0661

Indirect effect(s) of X on Y:
       Effect    BootSE    BootLLCI    BootULCI
EE      .0828     .0303       .0225       .1419
```

Source: Researcher's survey data output (2021)

4.5.5.2 Mediation analysis between Training and Development and Employee Retention

1. X variable pridicts Y= path c

As showed in Table 4.30, Training and Development significantly affect employee retention (b= 0.1854, p=0.0003, p < 0.01).

Training and Development $\xrightarrow[\text{Path c}]{\text{b= 0.1854, p=0.0003}}$ Employee Retention
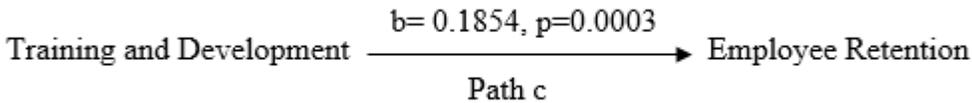
Figure 4.7: Simple Relation Model for Training and Development

2. X variable pricts M = path a

Table 4.28 indicated that Training and Development have a significant effect on employee engagement as p-value < 0.01 (b= 0.1538, p=0.0002).

3. X and M together pridicts Y

     a. M variable pridicts Y= path b

     b. X variable no longer pridicts Y or is lessened predicting Y- path c'

According to Table 4.29, the Mediator variable (employee engagement) significantly affects employee retention (b= 0.7200, p=0.0000, p < 0.01), but Training and Development is no longer predicts employee retention when the mediator added (b= 0.0747, p=0.0754, p > 0.05), so employee engagement fully mediated in the relationship between Training and Development and employee retention.

Employee Engagement

Path a   Path b

(b= 0.1538, p=0002)   (b=0.7200, p=0.0000)

Training and Development   Employee Retention

Path c'

(b= 0.0747, p=0.0754)
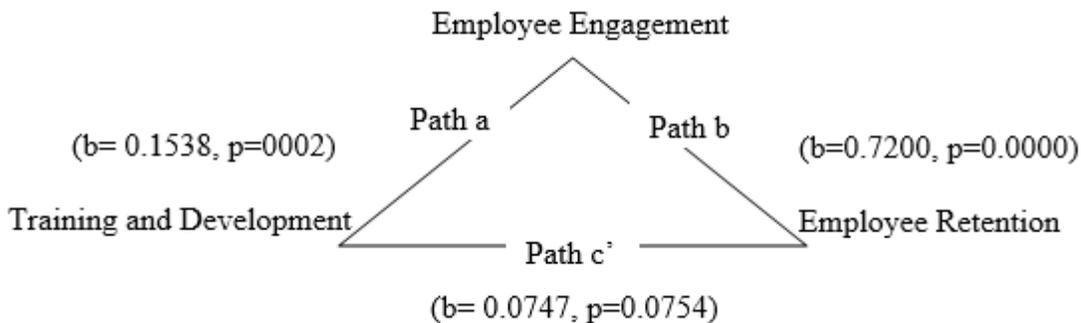
Figure 4.8: Simple Mediation Model for Training and Development

Furthermore, Table 4.31 showed the indirect effect of Training and Development on employee retention is around 59.7% (Indirect effect/ Total effect, 0.1353/0.2265= 59.7%) but 40.3% of the relationship operates directly. Thus, 40% of the impact on employee retention is due to the direct effect of Training and Development and 60% of the impact is managed through the employee engagement.

Table 4.28: Mediation analysis between Training and Development and Employee Retention using PROCESS for Model 2

```
Model  : 4
    Y  : ER
    X  : TD
    M  : EE


Covariates:
 PB          WE          PSS         PA


Sample
Size:  337


**************************************************************************
OUTCOME VARIABLE:
 EE


Model Summary
            R          R-sq         MSE          F          df1         df2           p
         .8489        .7206        .6311    170.7635      5.0000    331.0000        .0000


Model
               coeff         se           t           p         LLCI        ULCI
constant     -1.3282       .1456     -9.1207       .0000     -1.6147     -1.0418
TD             .2489       .0667      3.7303       .0002       .1176       .3801
PB             .3810       .0763      4.9913       .0000       .2308       .5312
WE             .3664       .0556      6.5924       .0000       .2571       .4758
PSS            .3520       .0674      5.2255       .0000       .2195       .4845
PA             .1524       .0578      2.6373       .0088       .0387       .2661


Standardized coefficients
         coeff
TD       .1538
PB       .2637
WE       .2491
PSS      .2587
PA       .1028
```

Source: Researcher's survey data output (2021)

Table 4.29: Mediation analysis between Training and Development and Employee Retention using PROCESS for Model 3

```
**********************************************************************
OUTCOME VARIABLE:
 ER

Model Summary
          R         R-sq        MSE          F          df1        df2          p
      .8510       .7242       .3561    144.4483     6.0000   330.0000       .0000

Model
            coeff         se          t          p         LLCI        ULCI
constant    .5865       .1224     4.7931      .0000       .3458       .8272
TD          .0912       .0512     1.7834      .0754      -.0094       .1919
EE          .5435       .0413    13.1641      .0000       .4623       .6247
PB          .0293       .0595      .4930      .6224      -.0876       .1463
WE         -.0019       .0444     -.0431      .9657      -.0893       .0854
PSS         .0226       .0526      .4294      .6679      -.0810       .1262
PA          .0740       .0439     1.6861      .0927      -.0123       .1603

Standardized coefficients
        coeff
TD        .0747
EE        .7200
PB        .0269
WE       -.0017
PSS       .0220
PA        .0661
```

Source: Researcher's survey data output (2021)

Table 4.30: Mediation analysis between Training and Development and Employee Retention using PROCESS for Model 1

```
*************************** TOTAL EFFECT MODEL ***************************
OUTCOME VARIABLE:
 ER

Model Summary
          R       R-sq       MSE         F        df1        df2          p
      .7612      .5794      .5414    91.2048     5.0000   331.0000      .0000

Model
                coeff        se          t          p        LLCI       ULCI
constant       -.1354      .1349    -1.0038      .3162     -.4007      .1299
TD              .2265      .0618     3.6652      .0003      .1049      .3481
PB              .2364      .0707     3.3434      .0009      .0973      .3755
WE              .1972      .0515     3.8312      .0002      .0960      .2985
PSS             .2139      .0624     3.4286      .0007      .0912      .3367
PA              .1568      .0535     2.9292      .0036      .0515      .2621

Standardized coefficients
          coeff
TD        .1854
PB        .2167
WE        .1776
PSS       .2083
PA        .1401
```

Source: Researcher's survey data output (2021)

Table 4.31: Mediation analysis between Training and Development and Employee Retention using PROCESS

```
*************** TOTAL, DIRECT, AND INDIRECT EFFECTS OF X ON Y ***************

Total effect of X on Y
    Effect        se          t          p        LLCI       ULCI       c_ps       c_cs
     .2265      .0618     3.6652      .0003      .1049      .3481      .2011      .1854

Direct effect of X on Y
    Effect        se          t          p        LLCI       ULCI       c'_ps      c'_cs
     .0912      .0512     1.7834      .0754     -.0094      .1919      .0810      .0747

Indirect effect(s) of X on Y:
      Effect    BootSE    BootLLCI    BootULCI
EE    .1353     .0351      .0687       .2064
```

Source: Researcher's survey data output (2021)

4.5.5.3 Mediation analysis between Pay and Benefit and Employee Retention

1. X variable pridicts Y= path c

Pay and Benefit is stastically significant on employee retention since p-value < 0.01 (b= 0.2167, p=0.0009) (see Table 4.34).
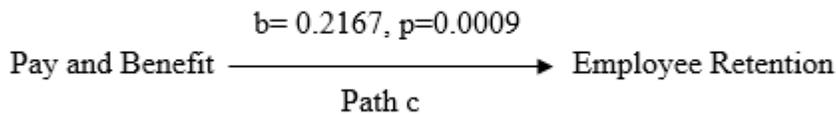
Figure 4.9: Simple Relation Model for Pay and Benefit

2. X variable pricts M = path a

Table 4.32 presented that Pay and Benefit significantly affect employee engagement (b= 0.2637, p=0.0000, p < 0.01).

3. X and M together pridicts Y

    a. M variable pridicts Y= path b

    b. X variable no longer pridicts Y or is lessened predicting Y- path c'

As indicated in Table 4.33, employee engagement (Mediator) significantly affect employee retention as the p value is less than 0.01 (b= 0.7200, p=0.0000). Moreover, this table showed Pay and Benefit is not statically significantly in affecting employee retention when controling for the mediator since the p value is greater than 0.05 (b= 0.0269, p=0.6224). Thus, employee engagement fully mediated the effect of Pay and Benefit on employee retention.
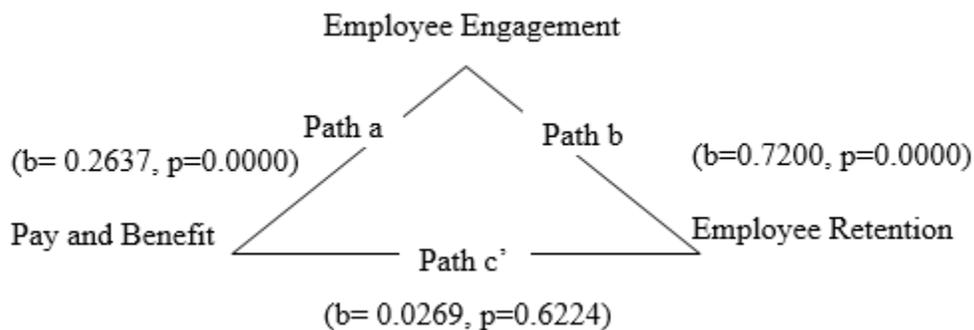
Figure 4.10: Simple Mediation Model for Pay and Benefit

Additionally, Table 4.35 indicated that the effect of Pay and Benefit on employee retention that operates indirectly is around 87.6% (Indirect effect/ Total effect, 0.2071/0.2364= 87.6%) so 12.4% of the relationship operates directly. Thus, the impact on employee retention accounts for 12% is directly by the effect of Pay and Benefit, but 88% is managed through the mediating variable (employee engagement).

Table 4.32: Mediation analysis between Pay and Benefit and Employee Retention using PROCESS for Model 2

```
Model  : 4
    Y  : ER
    X  : PB
    M  : EE


Covariates:
 PA        TD        WE        PSS


Sample
Size:  337


*********************************************************************
OUTCOME VARIABLE:
 EE


Model Summary
         R           R-sq         MSE          F          df1         df2           p
       .8489        .7206        .6311     170.7635      5.0000     331.0000       .0000


Model
                coeff        se           t           p          LLCI         ULCI
constant       -1.3282      .1456      -9.1207       .0000      -1.6147      -1.0418
PB              .3810      .0763       4.9913       .0000       .2308        .5312
PA              .1524      .0578       2.6373       .0088       .0387        .2661
TD              .2489      .0667       3.7303       .0002       .1176        .3801
WE              .3664      .0556       6.5924       .0000       .2571        .4758
PSS             .3520      .0674       5.2255       .0000       .2195        .4845


Standardized coefficients
        coeff
PB       .2637
PA       .1028
TD       .1538
WE       .2491
PSS      .2587
```

Source: Researcher's survey data output (2021)

Table 4.33: Mediation analysis between Pay and Benefit and Employee Retention using PROCESS for Model 3

```
*************************************************************************
OUTCOME VARIABLE:
 ER

Model Summary
          R        R-sq        MSE          F        df1        df2          p
       .8510       .7242      .3561   144.4483     6.0000   330.0000      .0000

Model
              coeff         se          t          p        LLCI        ULCI
constant      .5865      .1224     4.7931      .0000       .3458       .8272
PB            .0293      .0595      .4930      .6224      -.0876       .1463
EE            .5435      .0413    13.1641      .0000       .4623       .6247
PA            .0740      .0439     1.6861      .0927      -.0123       .1603
TD            .0912      .0512     1.7834      .0754      -.0094       .1919
WE           -.0019      .0444     -.0431      .9657      -.0893       .0854
PSS           .0226      .0526      .4294      .6679      -.0810       .1262

Standardized coefficients
         coeff
PB       .0269
EE       .7200
PA       .0661
TD       .0747
WE      -.0017
PSS      .0220
```

Source: Researcher's survey data output (2021)

Table 4.34: Mediation analysis between Pay and Benefit and Employee Retention using PROCESS for Model 1

```
*********************** TOTAL EFFECT MODEL ***************************
OUTCOME VARIABLE:
 ER

Model Summary
          R        R-sq        MSE          F        df1        df2          p
      .7612       .5794       .5414    91.2048     5.0000   331.0000       .0000

Model
            coeff         se          t          p        LLCI        ULCI
constant    -.1354      .1349    -1.0038      .3162      -.4007       .1299
PB           .2364      .0707     3.3434      .0009       .0973       .3755
PA           .1568      .0535     2.9292      .0036       .0515       .2621
TD           .2265      .0618     3.6652      .0003       .1049       .3481
WE           .1972      .0515     3.8312      .0002       .0960       .2985
PSS          .2139      .0624     3.4286      .0007       .0912       .3367

Standardized coefficients
        coeff
PB      .2167
PA      .1401
TD      .1854
WE      .1776
PSS     .2083
```

Source: Researcher's survey data output (2021)

Table 4.35: Mediation analysis between Pay and Benefit and Employee Retention using PROCESS

```
************** TOTAL, DIRECT, AND INDIRECT EFFECTS OF X ON Y **************

Total effect of X on Y
    Effect         se          t          p        LLCI        ULCI        c_ps        c_cs
     .2364      .0707     3.3434      .0009       .0973       .3755       .2099       .2167

Direct effect of X on Y
    Effect         se          t          p        LLCI        ULCI       c'_ps       c'_cs
     .0293      .0595      .4930      .6224      -.0876       .1463       .0260       .0269

Indirect effect(s) of X on Y:
      Effect      BootSE    BootLLCI    BootULCI
EE     .2071      .0425       .1280       .2923
```

Source: Researcher's survey data output (2021)

4.5.5.4 Mediation analysis between Work Environment and Employee Retention

1. X variable pridicts Y= path c

As presented in Table 4.38, Work Environment significantly affect employee retention (b= 0.1776, p=0.0002, p < 0.01).
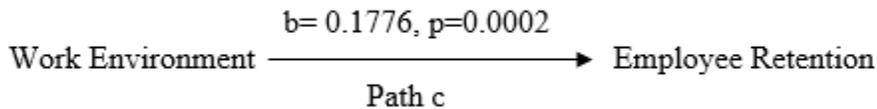
Figure 4.11: Simple Relation Model for Work Environment

2. X variable pricts M = path a

As indicated in Table 4.36, Work Environment have a significant effect on employee engagement (b= 0.2491, p=0.0000, p < 0.01).

3. X and M together pridicts Y

    a. M variable pridicts Y= path b

    b. X variable no longer pridicts Y or is lessened predicting Y- path c'

Table 4.37 also showed that the mediator (employee engagement) have a significant effect on employee retention (b= 0.7200, p=0.0000, p < 0.01). Furthermore, this table showed Work Environment is not statically significantly in affecting employee retention when the mediator added (b= -0.0017, p=0.9657, p > 0.05). Thus, employee engagement fully mediated the effect of Work Environment on employee retention.
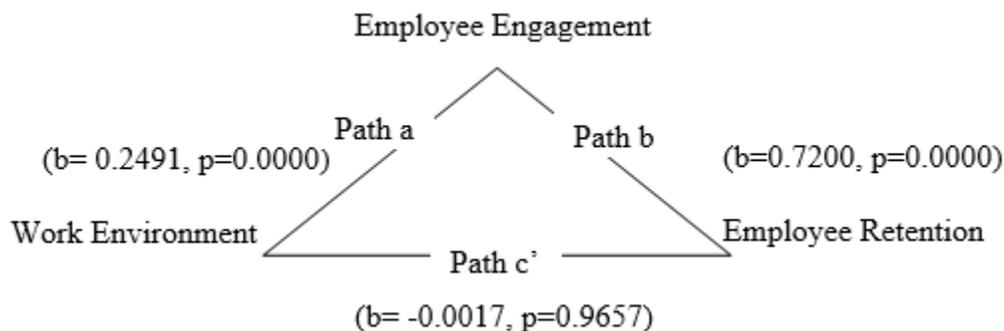
Figure 4.12: Simple Mediation Model for Work Environment

Besides, Table 4.39 showed that the effect of Work environment on employee retention that operates indirectly is 100% (Indirect effect/ Total effect, 0.1991/0.1972= 100%). Thus, according to this result, the impact of work environment on employee retention is totally through the indirect effect which is managed by employee engagement.

Table 4.36: Mediation analysis between Work Environment and Employee Retention using PROCESS for Model 2

```
Model  : 4
    Y  : ER
    X  : WE
    M  : EE


Covariates:
 PA        TD          PSS        PB


Sample
Size:  337


********************************************************************
OUTCOME VARIABLE:
 EE


Model Summary
          R         R-sq         MSE           F         df1         df2           p
      .8489        .7206        .6311    170.7635      5.0000    331.0000        .0000


Model
              coeff          se           t           p        LLCI        ULCI
constant    -1.3282       .1456     -9.1207       .0000     -1.6147     -1.0418
WE            .3664       .0556      6.5924       .0000       .2571       .4758
PA            .1524       .0578      2.6373       .0088       .0387       .2661
TD            .2489       .0667      3.7303       .0002       .1176       .3801
PSS           .3520       .0674      5.2255       .0000       .2195       .4845
PB            .3810       .0763      4.9913       .0000       .2308       .5312


Standardized coefficients
          coeff
WE        .2491
PA        .1028
TD        .1538
PSS       .2587
PB        .2637
```

Source: Researcher's survey data output (2021)

Table 4.37: Mediation analysis between Work Environment and Employee Retention using PROCESS for Model 3

```
************************************************************************
OUTCOME VARIABLE:
 ER

Model Summary
          R         R-sq        MSE          F         df1         df2           p
      .8510        .7242       .3561    144.4483     6.0000    330.0000        .0000

Model
              coeff          se           t           p         LLCI         ULCI
constant      .5865        .1224      4.7931        .0000        .3458        .8272
WE           -.0019        .0444      -.0431        .9657       -.0893        .0854
EE            .5435        .0413     13.1641        .0000        .4623        .6247
PA            .0740        .0439      1.6861        .0927       -.0123        .1603
TD            .0912        .0512      1.7834        .0754       -.0094        .1919
PSS           .0226        .0526       .4294        .6679       -.0810        .1262
PB            .0293        .0595       .4930        .6224       -.0876        .1463

Standardized coefficients
          coeff
WE       -.0017
EE        .7200
PA        .0661
TD        .0747
PSS       .0220
PB        .0269
```

Source: Researcher's survey data output (2021)

Table 4.38: Mediation analysis between Work Environment and Employee Retention using PROCESS for Model 1

```
*************************** TOTAL EFFECT MODEL ****************************
OUTCOME VARIABLE:
 ER

Model Summary
          R        R-sq        MSE          F         df1        df2          p
      .7612       .5794       .5414     91.2048     5.0000    331.0000       .0000

Model
             coeff         se           t           p         LLCI        ULCI
constant    -.1354       .1349     -1.0038       .3162      -.4007       .1299
WE           .1972       .0515      3.8312       .0002       .0960       .2985
PA           .1568       .0535      2.9292       .0036       .0515       .2621
TD           .2265       .0618      3.6652       .0003       .1049       .3481
PSS          .2139       .0624      3.4286       .0007       .0912       .3367
PB           .2364       .0707      3.3434       .0009       .0973       .3755

Standardized coefficients
         coeff
WE       .1776
PA       .1401
TD       .1854
PSS      .2083
PB       .2167
```

Source: Researcher's survey data output (2021)

Table 4.39: Mediation analysis between Work Environment and Employee Retention using PROCESS

```
*************** TOTAL, DIRECT, AND INDIRECT EFFECTS OF X ON Y ***************

Total effect of X on Y
    Effect        se           t           p         LLCI        ULCI        c_ps        c_cs
     .1972       .0515      3.8312       .0002       .0960       .2985       .1751       .1776

Direct effect of X on Y
    Effect        se           t           p         LLCI        ULCI        c'_ps       c'_cs
    -.0019       .0444      -.0431       .9657      -.0893       .0854      -.0017      -.0017

Indirect effect(s) of X on Y:
      Effect    BootSE     BootLLCI    BootULCI
EE     .1991     .0340       .1356       .2693
```

Source: Researcher's survey data output (2021)

4.5.5.5 Mediation analysis between Perceived Supervisor Support and Employee Retention

1. X variable pridicts Y= path c

According to Table 4.42, Perceived Supervisor Support have a significant effect on employee retention (b=0.2083, p=0.0007, $p < 0.01$).
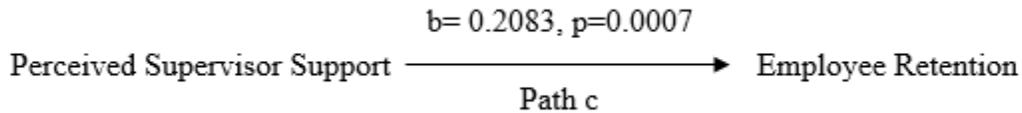
Figure 4.13: Simple Relation Model for Perceived Supervisor Support

2. X variable pricts M = path a

As indicated in Table 4.40, Perceived Supervisor Support significantly affect employee engagement (b=0.2587, p=0.0000, $p < 0.01$).

3. X and M together pridicts Y

   a. M variable pridicts Y= path b

   b. X variable no longer pridicts Y or is lessened predicting Y- path c'

The mediating variable (employee engagement) significantly affects employee retention (b=0.7200, p=0.0000, $p < 0.01$). But, Perceived Supervisor Support is no longer predicts employee retention when a mediating variable is added (b=0.0220, p=0.6679, $p > 0.05$), so employee engagement fully mediated the effect of Perceived Supervisor Support on employee retention (see Table 4.41).
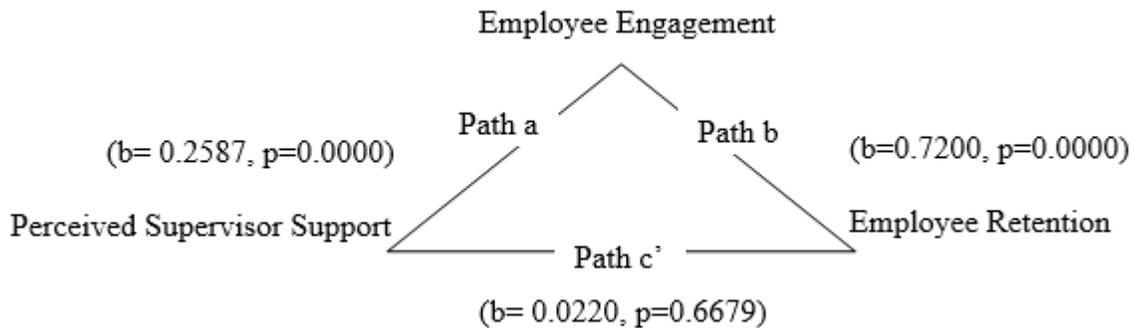
Figure 4.14: Simple Mediation Model for Perceived Supervisor Support

In addition, Table 4.43 indicated that the effect of Perceived Supervisor Support on employee retention that operates indirectly is around 89.4% (Indirect effect/ Total effect, 0.1913/0.2139= 89.4%) which means 10.6% of the relationship operates directly. Thus, the impact on employee retention accounts for 11% is directly by the effect of Perceived Supervisor Support, but 89% is managed through the employee engagement.

Table 4.40: Mediation analysis between Perceived Supervisor Support and Employee Retention using PROCESS for Model 2

```
Model  : 4
    Y  : ER
    X  : PSS
    M  : EE


Covariates:
 PA        TD        PB        WE


Sample
Size:  337


*************************************************************************
OUTCOME VARIABLE:
 EE


Model Summary
          R        R-sq        MSE          F        df1        df2          p
      .8489       .7206       .6311   170.7635     5.0000   331.0000       .0000


Model
              coeff         se          t          p        LLCI        ULCI
constant    -1.3282      .1456    -9.1207      .0000     -1.6147     -1.0418
PSS          .3520      .0674     5.2255      .0000       .2195       .4845
PA           .1524      .0578     2.6373      .0088       .0387       .2661
TD           .2489      .0667     3.7303      .0002       .1176       .3801
PB           .3810      .0763     4.9913      .0000       .2308       .5312
WE           .3664      .0556     6.5924      .0000       .2571       .4758


Standardized coefficients
        coeff
PSS      .2587
PA       .1028
TD       .1538
PB       .2637
WE       .2491
```

Source: Researcher's survey data output (2021)

Table 4.41: Mediation analysis between Perceived Supervisor Support and Employee Retention using PROCESS for Model 3

```
OUTCOME VARIABLE:
 ER

Model Summary
          R         R-sq        MSE           F         df1         df2           p
      .8510        .7242       .3561    144.4483      6.0000    330.0000       .0000

Model
              coeff         se          t           p         LLCI        ULCI
constant      .5865       .1224     4.7931        .0000        .3458       .8272
PSS           .0226       .0526      .4294        .6679       -.0810       .1262
EE            .5435       .0413    13.1641        .0000        .4623       .6247
PA            .0740       .0439     1.6861        .0927       -.0123       .1603
TD            .0912       .0512     1.7834        .0754       -.0094       .1919
PB            .0293       .0595      .4930        .6224       -.0876       .1463
WE           -.0019       .0444     -.0431        .9657       -.0893       .0854

Standardized coefficients
          coeff
PSS       .0220
EE        .7200
PA        .0661
TD        .0747
PB        .0269
WE       -.0017
```

Source: Researcher's survey data output (2021)

Table 4.42: Mediation analysis between Perceived Supervisor Support and Employee Retention using PROCESS for Model 1

```
************************* TOTAL EFFECT MODEL ***************************
OUTCOME VARIABLE:
 ER

Model Summary
          R        R-sq        MSE          F        df1        df2          p
      .7612       .5794       .5414    91.2048     5.0000   331.0000      .0000

Model
             coeff         se          t          p       LLCI       ULCI
constant    -.1354      .1349    -1.0038      .3162     -.4007      .1299
PSS          .2139      .0624     3.4286      .0007      .0912      .3367
PA           .1568      .0535     2.9292      .0036      .0515      .2621
TD           .2265      .0618     3.6652      .0003      .1049      .3481
PB           .2364      .0707     3.3434      .0009      .0973      .3755
WE           .1972      .0515     3.8312      .0002      .0960      .2985

Standardized coefficients
        coeff
PSS     .2083
PA      .1401
TD      .1854
PB      .2167
WE      .1776
```

Source: Researcher's survey data output (2021)

Table 4.43: Mediation analysis between Perceived Supervisor Support and Employee Retention using PROCESS

```
************** TOTAL, DIRECT, AND INDIRECT EFFECTS OF X ON Y **************

Total effect of X on Y
     Effect         se          t          p       LLCI       ULCI       c_ps       c_cs
      .2139      .0624     3.4286      .0007      .0912      .3367      .1900      .2083

Direct effect of X on Y
     Effect         se          t          p       LLCI       ULCI      c'_ps      c'_cs
      .0226      .0526      .4294      .6679     -.0810      .1262      .0201      .0220

Indirect effect(s) of X on Y:
      Effect      BootSE    BootLLCI    BootULCI
EE     .1913      .0383       .1188       .2692
```

Source: Researcher's survey data output (2021)

4.6 Discussion

The study result indicated that the effect of performance appraisal on employee retention is positive and significant. Hypothesis 1 stated that performance appraisal has positive effect on employee retention. Thus, the study supports hypothesis 1 (H1). It is, therefore, in agreement with the findings of Saba and Avinash (2019), and Nguyen (2016).

The study also found that training and development has a positive and significant effect on employee retention. Hypothesis 2 stated that training and development has positive effect on employee retention. Thus, the study supports hypothesis 2 (H2). It is, therefore, in agreement with the findings of Naveena and Hemakumar (2020), Umer (2013), and Usman (2018).

The study result also indicated that the effect of pay and benefit on employee retention is positive and significant. Hypothesis 3 stated that pay and benefit has positive effect on employee retention. Thus, the study supports hypothesis 3 (H3). The expected positive coefficient estimates of pay and benefits is consistent with Phil and David (2013), Ekechekwu and Mbah (2019), and Neama and Haitham (2020).

The study result also point out that the effect of work environment on employee retention is positive and significant. Hypothesis 4 stated that work environment has positive effect on employee retention. Thus, the study supports hypothesis 4 (H4). This finding therefore consistence with Shyam (2016), and Pooja (2020).

The finding presented that the effect of perceived supervisor support on employee retention is positive and significant. Hypothesis 5 stated that perceived supervisor support has positive effect on employee retention. Thus, the study supports hypothesis 5 (H5). Therefore, this finding is consistence with Mariel, Eva and Eduardo (2014), and Ivan, Sucharski and Linda (2002).

Similarly, the study result confirmed that the effect of performance appraisal on employee engagement is positive and significant. Hypothesis 6 stated that performance appraisal has positive effect on employee engagement. Thus, the study supports hypothesis 6 (H6). Therefore, it is in agreement with the findings of of Ajibola, Mukulu, and Simiyu (2019).

The study's findings have revealed that training and development has also a positive and significant effect on employee engagement. Hypothesis 7 stated that training and development has positive effect on employee engagement. Thus, the study supports hypothesis 7 (H7).

Therefore, it is in agreement with the findings of Presbitero (2017), Srivastava and Madan (2016), AbuKhalifeh and Som (2013), Wellins and Concelman (2005), Selvam and Preethi (2017).

The study result also confirmed that the effect of pay and benefit on employee engagement is positive and significant. Hypothesis 8 stated that pay and benefit has positive effect on employee engagement. Thus, the study supports hypothesis 8 (H8). Therefore, it is in agreement with SET theory of Celestine (2015), Stachowska (2016), and Maha (2015).

According to this research findings, the effect of work environment on employee engagement is positive and significant. Hypothesis 9 stated that work environment has positive effect on employee engagement. Thus, the study supports hypothesis 9 (H9). Therefore, it is in agreement with the findings of Robinson (2006), Kahn (1990), Anitha (2014), Miles et al. (2001), Popli and Rizvi (2016), and Towers Perrin Talent Report (2003).

The finding also confirmed that the effect of perceived supervisor support on employee engagement is positive and significant. Hypothesis 10 stated that perceived supervisor support have positive effect on employee engagement. Thus, the study supports hypothesis 10 (H10). Therefore, it is in agreement with the findings of Bates (2004), Sadiya and Maimunah (2016), and Burns (2016).

The study finding revealed that employee engagement has positive and significant effect on employee retention. Hypothesis 16 stated that employee engagement has positive effect on employee retention. Thus, the study supports hypothesis 16 (H16). Therefore, it is in agreement with Danish and Tehseena (2019), and Balakrishnan, Masthan and Chandra (2013).

In terms of employee engagement mediating role in the relationship between performance appraisal and employee retention, the findings revealed that employee engagement played a fully mediating role in the relationship between performance appraisal and employee retention. According to Hypothesis 11, employee engagement mediates the effect of performance appraisal on employee retention. Thus, the study result supports hypothesis 11 (H11).

Employee engagement as a mediating factor in the relationship between training and development and employee retention; the findings revealed that employee engagement had a perfect/full mediating role in the relationship between training and development and employee

retention. According to Hypothesis 12, employee engagement mediates the effect of training and development on employee retention. Thus, the study result supports hypothesis 12 (H12).

The findings revealed that employee engagement played a perfect/full mediating role in the relationship between pay and benefits and employee retention. Hypothesis 13 stated that employee engagement mediates in the effect of pay and benefit on employee retention. Thus, the study result supports hypothesis 13 (H13).

The results also showed that employee engagement had a perfect/full mediating role on the relationship between work environment and employee retention. Hypothesis 14 stated that employee engagement mediates in the effect of work environment on employee retention. Thus, the study result supports hypothesis 14 (H14).

The mediating role of employee engagement in the relationship between perceived supervisor support and employee retention; the results showed that employee engagement played a perfect/full mediating role in the relationship between perceived supervisor support and employee retention. Hypothesis 15 stated that employee engagement mediates in the effect of perceived supervisor support on employee retention. Thus, the study result supports hypothesis 15 (H15).

Table 4.44: Summary of Hypotheses

Hypotheses	Description	Result	Explanation
H1	Performance Appraisal has positive effect on Employee Retention	Accepted	In agreement with the findings of Saba and Avinash (2019), and Nguyen (2016).
H2	Training and Development has positive effect on Employee Retention	Accepted	In agreement with the findings of Naveena and Hemakumar (2020), Umer (2013), and Usman (2018).

H3	Pay and Benefit has positive effect on Employee Retention	Accepted	In agreement with Phil and David (2013), Ekechekwu and Mbah (2019), and Neama and Haitham (2020).
H4	Work Environment has positive effect on Employee Retention	Accepted	In agreement with Shyam (2016), and Pooja (2020).
H5	Perceived Supervisor Support has positive effect on Employee Retention	Accepted	In agreement with Mariel, Eva and Eduardo (2014), and Ivan, Sucharski and Linda (2002).
H6	Performance Appraisal has positive effect on Employee Engagement	Accepted	In agreement with the findings of of Ajibola, Mukulu, and Simiyu (2019).
H7	Training and Development has positive effect on Employee Engagement	Accepted	In agreement with the findings of Presbitero (2017), Srivastava and Madan (2016), AbuKhalifeh and Som (2013), Wellins and Concelman (2005), Selvam and Preethi (2017).
H8	Pay and Benefit has positive effect on Employee Engagement	Accepted	In agreement with SET theory of Celestine (2015), Stachowska (2016), and

			Maha (2015).
H9	Work Environment has positive effect on Employee Engagement	Accepted	In agreement with the findings of Robinson (2006), Kahn (1990), Anitha (2014), Miles et al. (2001), Popli and Rizvi (2016), and Towers Perrin Talent Report (2003).
H10	Perceived Supervisor Support have positive effect on Employee Engagement	Accepted	In agreement with the findings of Bates (2004), Sadiya and Maimunah (2016), and Burns (2016).
H11	Employee Engagement mediates in the effect of Performance Appraisal on Employee Retention	Accepted	The findings showed that employee engagement fully mediated in the relationship between performance appraisal and employee retention.
H12	Employee Engagement mediates in the effect of Training and Development on Employee Retention	Accepted	The findings showed that employee engagement fully mediated in the relationship between training and development and employee retention.
H13	Employee Engagement mediates in the effect of Pay and Benefit on Employee Retention	Accepted	The findings showed that employee engagement fully mediated in the relationship between pay

			and benefit and employee retention.
H14	Employee Engagement mediates in the effect of Work Environment on Employee Retention	Accepted	The findings showed that employee engagement fully mediated in the relationship between work environment and employee retention.
H15	Employee Engagement mediates in the effect of Perceived Supervisor Support on Employee Retention	Accepted	The findings showed that employee engagement fully mediated in the relationship between perceived supervisor support and employee retention.
H16	Employee Engagement has positive effect on Employee Retention	Accepted	In agreement with Danish and Tehseena (2019), and Balakrishnan, Masthan and Chandra (2013).

CHAPTER FIVE

SUMMARY, RECOMMENDATION AND CONCLUSION

This chapter dealt with brief summary and conclusion of the study based on the main findings of the analysis. Moreover, forward recommendations that can be implemented for future research based on the overall results of the study.

5.1 Summary of the Study

The objective of the research was to study the different determinants of employee engagement and to investigate if employee engagement mediates the effect of its antecedents on employee retention in the context of EAL. Based on the objectives and hypotheses of the study, questionnaire was adopted and organized from existing literature to measure the research variables and pilot study was also tested on 30 respondents to validate the questionnaire. 337 (83%) valid questionnaires were collected out of 407 distributed questionnaires and used for the analysis using statistical package for social science software (SPSS) version 20. The reliability result showed that all measures used in this study had an alpha value of greater than 0.80 which is taken as a good indication of reliability. Regression analyses were conducted to test the hypotheses and preliminary tests such as, normality, linearity, homoscedasticity and multi-collinearity tests were conducted before applying the regression analysis and found to be consistent with the assumptions.

Regarding hypotheses testing, all the independent variables had positive and significant effect on employee retention and employee engagement as well. Similarly, the results also confirmed that the effect of employee engagement on employee retention was positive and significant. With regard to the mediating role of employee engagement, multiple linear regression analysis, Hayes PROCESS macro and Sobel test were used to test the significance of the mediator. As a result, employee engagement fully mediates in the relationship between the proposed antecendents of employee engagement and employee retention. Therefore, the results supported hypothesis H1, H2, H3, H4, H5, H6, H7, H8, H9, H10, H11, H12, H13, H14, H15, and H16.

5.2 Conclusion

Based on the results of the study the researcher has made the following conclusions:

➢ Performance appraisal, training and development, pay and benefit, work environment, and perceived supervisor support were significantly and positively affected employee engagement and employee retention.

➢ Employees who assumed they are being rated fairly and the metrics are consistence and objective that can able to measure their true performance are more engaged and want to remain in the company.

➢ Employees who have the opportunity of training and development tend to show an increase in their productivity and improvement in their engagement than the one who doesn't get that opportunity. Hence, this can lead to positive organizational outcomes such as, higher levels of productivity and reduced employee turnover.

➢ Employees provided with attractive pay and benefits feel obliged to return the organizational benefits and respond to higher levels of engagement. Fair and equitable standard of compensation and benefit also leads the company to a higher level of organizational morale, commitment, efficiency and engagement among employees. Moreover, providing the necessary remuneration would have positive impact in retaining employees that saves the company from losing senior and top talented employees.

➢ The study finding showed that supportive working environment was one of the significant factors that contribute for employee engagement. Supportive work environments encourage employees to explore and try something new, and fail even without fear of the consequences that healthy place of work increases the level of the employee's engagement considerably. Providing a good working environment increases the satisfaction and engagement level of the employees which ultimately result in having employees working for a longer period of time

➢ The result has also showed that good supervisory support is critical for the realization of engaging and retaining employees. Employees who get feedback

and direction on their performance and provided with growth opportunities, in general employees who have open and supportive relationships with their supervisors encouraged to be totally engaged with their responsibilities and committed to serve the organization for longer period of time.

➢ The result of pay and benefit on employee engagement as well as on employee retention has the highest impact of all other factors for the case of EAL. This implied that providing better and attractive pay and benefit package to the employee is the top most essential factor for best employee engagement and for retaining the best talent.

➢ In determining the degree of employee engagement and employee retention at EAL, the study finding showed that the majority of (63.2%) of the employees are not engaged with their job presently, and most of the employees (57.3%) neither want to stay within the company longer, nor want to recommend the company to a friend.

➢ From the study analysis it can also able to provide a conclusion that a higher level of engagement would lead to higher level of employee retention.

➢ Furthermore, the finding proved that employee engagement fully mediates the effects of performance appraisal, pay and benefit, work environment, and perceived supervisor support on employee retention.

5.3 Recommendation

From the conclusion made based on the major findings of the research, the following recommendations are suggested:

➢ As performance appraisal, training and development, pay and benefit, work environment, and perceived supervisor support are factors that were significantly and positively affected employee engagement and retention as well, EAL needs to consider these factors as very important factors in enhancing the level employee engagement in the organization and bringing high level commitment to the organization that in turn reduces turnover.

➢ To evaluate employee's performance fairly: The metrics used to measure the performance of employees should not be ambiguous and not be highly subjective.

Moreover, a performance appraisal system that can able to give insights for the employees about their strengths and weaknesses will encourage them to improve their productivity and become more engaged, and also increase their intention to remain with the company.

➢ To develop skills: Relevant training, mentoring, online courses or external training opportunities should be given to employees and managers should always encourage staff to improve their skills. Thus, there should be a system that allows employees to identify their career development needs through periodical meetings with their line supervisors.

➢ To provide competitive pay and benefits: Fair salaries are important, but competitive benefits are also critical to keep employees more engaged. Therefore, as pay and benefit is the top most significant factor of employee engagement in the case under study, making benefits package less attractive would make employees look for other opportunities with organizations that are more appealing. Beyond overtime pay, benefits such as insurance, flex time, paid holidays and other allowances are important factors to employee engagement. Moreover, by assessing the market, significant review in the basic salary, benefits and other rewards should be in place in order to attract and retain competent talents.

➢ To create healthy work environment: Healthy or positive workplace is an essential factor to an organization. If the workspace isn't positive, companies can't expect the workers to be positive. Creating a conductive and safe working environment will positively nurture the outcome of the airline. Therefore, managers need to be trained on how to build a safe working environment in order to increase employee engagement and to have an employee who works for a longer period of time comfortably.

➢ EAL should also create an environment where employees can get a good supervisor support who facilitate openness and supportiveness. Employees who have good interpersonal relationships with their managers also experience greater meaning in their work in which high degree of engagement can be succeeded. Moreover, having a positive perception towards supervisor positively affects the commitment they have to the organization and hence affects their intention to stay within the organization positively.

➢ To engage employees and to increase level of employee retention: The study result showed that, currently, the majority of the employees at EAL are not engaged and doesn't want to

work with the company for longer. Thus, the airline should focus on those factors of employee engagement and improve accordingly. The organization should also track its employee's engagement level by conducting open discussion and surveys regularly to resolve the issues exist in the company. This allows the company to improve and monitor engagement levels which in return reduce turnover and save the company.

➢ In general, since employee engagement enhancement is not a one-time job, the airline should periodically revise and improve its performance appraisal system, training and development, pay and benefit, work environment, and perceived supervisor support and also check employee engagement levels regularly.

5.4 Future Research Area

➢ This study examined engagement level of employees at EAL by selecting specific variables, but there are many variables which are not included in this study. The study also focused on only one consequence (employee retention) of employee engagement. Thus, it is recommended for future researchers to further assess by incorporating additional antecedents and consequences.

➢ There is a potential to include all occupational groups including management staffs and temporary employees rather than a specific sub-set of the organization.

➢ This research is a cross-sectional study which is performed at a single point in time without any attempt to follow-up over time. So, any future research might undertake a longitudinal study that would capture employee perceptions at different time.

➢ Mixed research approach can also be adopted that involves mixing of quantitative and qualitative research methods in order to offer the benefits that account for the shortcomings of both quantitative and qualitative methods.

➢ Finally, this study is performed only for EAL and the finding has a great potential for further studies in identifying different determinants of employee engagement and its consequences for other sectors.

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Appendices

Appendix A: Cronbach's Alpha of Study Instrument based on Pilot Study

Scale: PA_Reliability_Pilot_Test

Case Processing Summary

		N	%
Cases	Valid	30	100.0
	Excluded[a]	0	.0
	Total	30	100.0

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

Reliability Statistics

Cronbach's Alpha	N of Items
.884	5

Source: Researcher's survey data SPSS output for Performance appraisal (2020)

Scale: TD_Reliability_Pilot_Test

Case Processing Summary

		N	%
Cases	Valid	30	100.0
	Excluded[a]	0	.0
	Total	30	100.0

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

Reliability Statistics

Cronbach's Alpha	N of Items
.842	5

Source: Researcher's survey data SPSS output for Training and Development (2020)

Scale: PB_Reliability_Pilot_Test

Case Processing Summary

		N	%
Cases	Valid	30	100.0
	Excluded[a]	0	.0
	Total	30	100.0

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

Reliability Statistics

Cronbach's Alpha	N of Items
.856	5

Source: Researcher's survey data SPSS output for Pay and Benefit (2020)

Scale: WE_Reliability_Pilot_Test

Case Processing Summary

		N	%
Cases	Valid	30	100.0
	Excluded[a]	0	.0
	Total	30	100.0

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

Reliability Statistics

Cronbach's Alpha	N of Items
.893	5

Source: Researcher's survey data SPSS output for Work Envirnoment (2020)

Scale: PSS_Reliability_Pilot_Test

Case Processing Summary

		N	%
Cases	Valid	30	100.0
	Excluded[a]	0	.0
	Total	30	100.0

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

Reliability Statistics

Cronbach's Alpha	N of Items
.862	6

Source: Researcher's survey data SPSS output for Perceived Supervisor Support (2020)

Scale: EE_Reliability_Pilot_Test

Case Processing Summary

		N	%
Cases	Valid	30	100.0
	Excluded[a]	0	.0
	Total	30	100.0

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

Reliability Statistics

Cronbach's Alpha	N of Items
.948	9

Source: Researcher's survey data SPSS output for Employee Engagement (2020)

Scale: ER_Reliability_Pilot_Test

Case Processing Summary

		N	%
Cases	Valid	30	100.0
	Excluded[a]	0	.0
	Total	30	100.0

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

Reliability Statistics

Cronbach's Alpha	N of Items
.869	6

Source: Researcher's survey data SPSS output for Employee Retention (2020)

Scale: Total_Reliability_Pilot_Test

Case Processing Summary

		N	%
Cases	Valid	30	100.0
	Excluded[a]	0	.0
	Total	30	100.0

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

Reliability Statistics

Cronbach's Alpha	N of Items
.972	41

Source: Researcher's survey data SPSS output for total (2020)

Appendix B: Reliability Statistics

Scale: PA_Reliability_Test

Case Processing Summary

		N	%
Cases	Valid	337	100.0
	Excluded[a]	0	.0
	Total	337	100.0

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

Reliability Statistics

Cronbach's Alpha	N of Items
.887	5

Source: Researcher's survey data output (2021)

Scale: TD_Reliability_Test

Case Processing Summary

		N	%
Cases	Valid	337	100.0
	Excluded[a]	0	.0
	Total	337	100.0

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

Reliability Statistics

Cronbach's Alpha	N of Items
.889	5

Source: Researcher's survey data output (2021)

Scale: PB_Reliability_Test

Case Processing Summary

		N	%
Cases	Valid	337	100.0
	Excluded[a]	0	.0
	Total	337	100.0

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

Reliability Statistics

Cronbach's Alpha	N of Items
.867	5

Source: Researcher's survey data output (2021)

Scale: WE_Reliability_Test

Case Processing Summary

		N	%
Cases	Valid	337	100.0
	Excluded[a]	0	.0
	Total	337	100.0

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

Reliability Statistics

Cronbach's Alpha	N of Items
.883	5

Source: Researcher's survey data output (2021)

Scale: PSS_Reliability_Test

Case Processing Summary

		N	%
Cases	Valid	337	100.0
	Excluded[a]	0	.0
	Total	337	100.0

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

Reliability Statistics

Cronbach's Alpha	N of Items
.897	6

Source: Researcher's survey data output (2021)

Scale: EE_Reliability_Test

Case Processing Summary

		N	%
Cases	Valid	337	100.0
	Excluded[a]	0	.0
	Total	337	100.0

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

Reliability Statistics

Cronbach's Alpha	N of Items
.970	9

Source: Researcher's survey data output (2021)

Scale: ER_Reliability_Test

Case Processing Summary

		N	%
Cases	Valid	337	100.0
	Excluded[a]	0	.0
	Total	337	100.0

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

Reliability Statistics

Cronbach's Alpha	N of Items
.910	6

Source: Researcher's survey data output (2021)

Scale: Total_Reliability_Test

Case Processing Summary

		N	%
Cases	Valid	337	100.0
	Excluded[a]	0	.0
	Total	337	100.0

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

Reliability Statistics

Cronbach's Alpha	N of Items
.974	41

Source: Researcher's survey data output (2021)

Addis Ababa University
College of Business and Economics
Program of Business Administration

This is a questionnaire to be filled by permanent employees of Ethiopian Airlines at HQ.

Dear Colleague,

Greetings!

I am conducting a research on "The Mediating Effect of Employee Engagement between its Antecedents and Employee Retention: The Case of Ethiopian Airlines" as part of the course requirements for the degree of Masters in Business Administration at Addis Ababa University.

The purpose of this questionnaire is to collect relevant information for the current study. This study is for academic purpose only and your honest opinion will be completely anonymous. Therefore, you are not required to write your name. You are respectfully requested to provide genuine response as per the requirements of each question.

For any queries and suggestion regarding the questionnaires, please do not hesitate to contact me.

I would like to thank you in advance for your honest cooperation.

Kind regards,

Nardos Andualem

Phone No: +251902453865

Email: rosebella2221@gmail.com

PART I. GENERAL INFORMATION

1. Gender? ☐ Male ☐ Female

2. Age? ☐ <25 ☐ 25-35 ☐ 35-45 ☐ >45

3. Educational Level ☐ Diploma ☐ BA/BSc ☐ MA/MSc ☐ PhD and above

4. How long have you been working for the Company? ☐ < 2 Years ☐ 2-5 Years

☐ 6-10 Years ☐ > 10 Years

PART II. SUBJECT MATTER QUESTIONS

Please put a check mark (✔) in one of the 5-boxes of the parameters that ranges from **Strongly Disagree (1)** to **Strongly Agree (5)**.

No.	Items	Strongly Disagree (1)	Disagree (2)	Neutral (3)	Agree (4)	Strongly Agree (5)
Performance Appraisal						
1	The basic objective of performance appraisal is clear.					
2	The performance appraisal system works fairly/ equitably.					
3	The appraisal criteria (general) in which I am evaluated is fair.					
4	The performance appraisal system adopted by the firm is able to measure the real performance of employee.					

126

5	The performance appraisal system helps employees to gain insights into their strengths and weaknesses.				
Training and Development					
1	I have many opportunities to learn new things.				
2	The company uses a systematic process for identifying employee development needs and implementing solutions.				
3	Employees are continually developed through training, education, and opportunities for promotion.				
4	The training I receive is relevant to my job.				
5	My manger assists me to identify my training and development needs.				
Pay and Benefit					
1	I feel I am being paid a fair amount for the work I do.				
2	I feel appreciated by the organization when I think about what they pay me.				

3	Raises and Benefits are too many and frequent.				
4	I cannot earn better salary if I work with other companies.				
5	I feel that benefits I receive are compatible to the environmental and operational risk.				
Work Environment					
1	The environment in this organization supports a balance between work and personal life.				
2	I am able to satisfy both my job and family/personal responsibilities.				
3	The pace of work in this organization enables me to do a good job.				
4	My team work effectively together to meet our objectives.				
5	The amount of work I am asked to do is reasonable.				
Perceived Supervisor Support					
1	My supervisor cares about my opinions.				

2	My work supervisor really cares about my well-being.					
3	My supervisor strongly considers my goals and values.					
4	My Manager recognizes me when I perform well.					
5	My Manager gathers my input when making decisions that affect me.					
6	My Manager helps me learn from my mistakes and turns them into productive development opportunities.					
Employee Engagement						
1	At my work, I feel bursting with energy.					
2	At my job, I feel strong and vigorous.					
3	When I get up in the morning, I feel like going to work.					
4	Time flies when I am working.					
5	I am immersed in my work.					
6	I get carried away when I am working.					

7	My job inspires me.					
8	I am enthusiastic about my job.					
9	I am proud of the work that I do.					
Employee Retention						
1	I feel a lot of loyalty to this company.					
2	This is the best company for me to work for.					
3	I would choose to work for the company for the next five years.					
4	If I want to do another job, I would look first at the possibilities within this company.					
5	The work that I am doing is very important to me.					
6	I would recommend this company to a friend if he/she is looking for a job.					

Appendix D: Factor Analysis

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.745
Bartlett's Test of Sphericity	Approx. Chi-Square	1144.500
	df	10
	Sig.	.000

Component Matrix[a]

	Component
	1
The basic objective of performance appraisal is clear.	.890
The performance appraisal system works fairly/ equitably.	.824
The appraisal criteria (general) in which I am evaluated is fair.	.816
The performance appraisal system adopted by the firm is able to measure the real performance of employee.	.843
The performance appraisal system helps employees to gain insights into their strengths and weaknesses.	.794

Extraction Method: Principal Component Analysis.

a. 1 components extracted.

Rotated Component Matrix[a]

a. Only one component was extracted. The solution cannot be

131

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.787
Bartlett's Test of Sphericity	Approx. Chi-Square	1103.516
	df	10
	Sig.	.000

Component Matrix[a]

	Component
	1
I have many opportunities to learn new things.	.807
The company uses a systematic process for identifying employee development needs and implementing solutions.	.837
Employees are continually developed through training, education, and opportunities for promotion.	.840
The training I receive is relevant to my job.	.812
My manger assists me to identify my training and development needs.	.880

Extraction Method: Principal Component Analysis.

a. 1 components extracted.

Rotated Component Matrix[a]

a. Only one component was extracted. The solution cannot be rotated.

132

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.774
Bartlett's Test of Sphericity	Approx. Chi-Square	917.736
	df	10
	Sig.	.000

Component Matrix[a]

	Component
	1
I feel I am being paid a fair amount for the work I do.	.761
I feel appreciated by the organization when I think about what they pay me.	.822
Raises and Benefits are too many and frequent.	.801
I cannot earn better salary if I work with other companies.	.838
I feel that benefits I receive are compatible to the environmental and operational risk.	.846

Extraction Method: Principal Component Analysis.

a. 1 components extracted.

Rotated Component Matrix[a]

a. Only one component was extracted. The solution cannot be rotated.

133

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.780
Bartlett's Test of Sphericity	Approx. Chi-Square	1116.048
	df	10
	Sig.	.000

Component Matrix[a]

	Component
	1
The environment in this organization supports a balance between work and personal life.	.862
I am able to satisfy both my job and family/personal responsibilities.	.920
The pace of work in this organization enables me to do a good job.	.814
My team work effectively together to meet our objectives.	.901
The amount of work I am asked to do is reasonable.	.617

Extraction Method: Principal Component Analysis.

a. 1 components extracted.

Rotated Component Matrix[a]

a. Only one component was extracted. The solution cannot be rotated.

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.747
Bartlett's Test of Sphericity	Approx. Chi-Square	1780.145
	df	15
	Sig.	.000

Component Matrix[a]

	Component
	1
My supervisor cares about my opinions.	.866
My work supervisor really cares about my well-being.	.848
My supervisor strongly considers my goals and values.	.629
My Manager recognizes me when I perform well.	.940
My Manager gathers my input when making decisions that affect me.	.881
My Manager helps me learn from my mistakes and turns them into productive development opportunities.	.731

Extraction Method: Principal Component Analysis.

a. 1 components extracted.

Rotated Component Matrix[a]

a. Only one component was extracted. The solution cannot be rotated.

135

Component Matrix[a]

	Component
	1
At my work, I feel bursting with energy.	.886
At my job, I feel strong and vigorous.	.837
When I get up in the morning, I feel like going to work.	.926
Time flies when I am working.	.907
I am immersed in my work.	.962
I get carried away when I am working.	.962
My job inspires me.	.901
I am enthusiastic about my job.	.860
I am proud of the work that I do.	.829

Extraction Method: Principal Component Analysis.

a. 1 components extracted.

Rotated Component Matrix[a]

a. Only one component was extracted. The solution cannot be rotated.

136

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.855
Bartlett's Test of Sphericity	Approx. Chi-Square	1647.845
	df	15
	Sig.	.000

Component Matrix[a]

	Component
	1
I feel a lot of loyalty to this company.	.810
This is the best company for me to work for.	.878
I would choose to work for the company for the next five years.	.564
If I want to do another job, I would look first at the possibilities within this company.	.893
The work that I am doing is very important to me.	.909
I would recommend this company to a friend if he/she is looking for a job.	.914

Extraction Method: Principal Component Analysis.

a. 1 components extracted.

Rotated Component Matrix[a]

a. Only one component was extracted. The solution cannot be rotated.

137