Factors Affecting Employee Engagement; Mediating Role of Job Satisfaction in Construction Sector in Addis Ababa, Ethiopia

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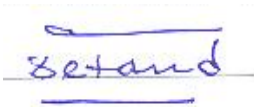
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This is to certify that the thesis prepared by Selamawit Amaha entitled: *factors affecting employee engagement; mediating role of job satisfaction* and submitted in partial fulfilment of the requirements for the degree of *Degree of Master of Business Administration (MBA)* complies with the regulation of the University and meets the accepted standards with respect to originality and quality.

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ABSTRACT

Success in organizations is highly dependent on profitability and the ability to retain a work force for prolonged period of time. The later is entrenched in the need to make sure a continued employee engagement and job satisfaction in work environment. This particular study digs in to the influence of six main factors on employee engagent and the mediating effect of job satisfaction. Accordingly job characteristics, reward and recognition, procedural justice, distributive justice, perceived organizational support, and perceived supervisor support in the construction sector that are in Addis Ababa are examined in relation with employee engagement.The study employed a cross sectional quantitative approach. Being an explanatory research, the above described independent variables and job satisfaction and its presumed effect on dependent variable of employee engagement was thoroughly examined. In order to do so, data was collected using structured questionnaire as a primary source and extensive desktop review as secondary source of data. Both correlation and regression analysis were conducted to clearly understand the hypothesized effect. Job satisfaction in general does play a significant role in the wake of employee engagement decision. Of the six factors, rewards and procedural justice has the most influence on employee engagement. Regardless of the magnitude among the said six variables in job satisfaction, employee engagement is indicated as strongly related. The lessons learnt could help future employers decision. Research gaps identified include the need to replicate the study in other sectors, perhaps a qualitative approach in the subject matter, the study also didn't include all the variables under job satisfaction and its suggested that a more comprehensive study could have additional result.

Keywords*: Employee Engagement, Job Characteristics, Reward and Recognition, Perceived organizational and supervisor support, Distributive and Procedural Justice, and Job Satisfaction.*

Contents

LIST OF ACRONYMS

ANOVA-Analysis of Variance

EE – Employee Engagement

FDRE-Federal Democratic Republic of Ethiopia

GDP-Gross Domestic Products

POS-Perceived Organizational Support

PSS-Perceived Supervisor Support

SD- Standard Deviation

SPSS-Statistical Package for the Social Sciences)

VIF-Variance Inflation Factor

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CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

Ethiopia is one of the largest least developed countries (LDCs) in Sub-Saharan Africa, with a population of about 94 million people in 2012 (Adamsu,2017). With high rate of urban unemployment (25%) which is even higher among the youth (WB, 2015), it behoves to improve the job creation of each sector as well as their ability to sustain continuous employment.

Part of the main reason for sustained employee turnover in Ethiopia is lack of adequate understanding on the significance of human capital (Birknesh, 2017). The need to boost ones satisfaction in a work environment is critical to enhance organizational success. Employees are the core assets and key part of any organisations by which all means of production are handled (Wasif, 2016). Radhika (2015) confirms that when the human resources are satisfied with their jobs, then they will contribute towards the functioning of the organization to the best of their abilities and enhance productivity.

Employee engagement became a very popular managerial construct. Organisations use different engagement building tools in order to stay competitive and improve performance (Schaufeli, 2013). Accordingly, the emergence of engagement at the beginning of the 21st century has to do with two converging developments: (1) the growing importance of human capital and psychological involvement of employees in business, and (2) the increased scientific interest in positive psychological states.

Engagement is most closely associated with the constructs of job involvement and 'flow'. (Csikszentmihalyi, 1990) On the other hand engagement is concerned more with how the individual employs him/her self during the performance of his/her job. (May, 2004) Whereas, the focus of job involvement is on cognitions, engagement, according to most definitions, also encompasses emotions and behaviours.

The effect of employee engagement on business performance has been studied by various experts (Anton, 2017). Often the result indicates the more enthusiastic the workers are the better operating results they achieve for the company. Regardless, although job satisfaction and employee engagement poses a positive correlation, the extent to which one affects the other is not as clear.

Several scholars denominate the indicators of job satisfaction in different variables. For instance, Mark & Suzanne (2017) claim job satisfaction are more of internal but could be affected by the kind of job allocated in a company, where as Marek and Jakub (2008) believe job satisfaction is the result of characteristics of occupation group. Meanwhile, Edwin (2004) asserts job satisfaction is more determined by the sense of justice. Although some of the scholars include more factors than the others, the six variables identified below are shared commonly.

Prolonged delays in construction projects in the country are partly due to sustained employee turnover, which in turn could have been avoided or minimized if handled otherwise. This study aims to dig to the factors affecting employee engagement using effect of job satisfaction as a mediating variable Ethiopian Construction Sector. Construction is expected to remain an important sector both in terms of investment and job creation in the next years. Construction is chosen as its one of the biggest employers

in the country accounting for close to 12% of job opportunities in the country (FDRE, 2019).

In order to closely scrutinize the issue, the focus of the research is Grade-1 Contractors as they are most likely to have permanent employees who were willing and capable of responding to the written questionnaire. There are 133 registered Grade-1 Contractors in Ethiopia (Ministry of Construction, 2016). The study identified the top 3 performers based on business revenue and portfolio. Accordingly, Yotek Construction, Afrotsion General and Teklebirhan Ambaye General Contractors were selected. Each has an annual turnover of more than 1 billion birr. Permanent employees with more than 5 years of experience and above were identified as respondents.

The current reality of Covid-19 has altered life as we know it. It's hard not to mention the resulting difficulty to manoever across the environment and make sure perfect data collection. Responsiveness of questionnaire and resulting timeliness has been affected. This is why the researcher only managed to collect 80% of the distributed questionnaires.

The purpose of this research is to determine the extent to which the six independent factors identified as potential influencers of EE of job satisfaction influence on employee engagement. Accordingly, the study employed a quantitative approach and a cross sectional study. The causal relationship is examined among each factor of job satisfaction and the hypothesized effect on employee engagement.

1.2 Problem statement

Several researches have been conducted in different time frames and numerous contexts and variables regarding employee engagement and job satisfaction. For instance, organizational justice is considered a fundamental requirement for an effective functioning of an organizations, job satisfaction (Jain, 2015), work motivation (Cropanzano, 2003) , organizational commitment (Ayobami, 2013), turnover intention (Ponnu, 2010), organizational identification (Aydogan, 2016).

Saks (2006) suggested that both psychological conditions of personal engagement and disengagement by Kahn (1990) nor the (Maslach 2001) and (Schaufeli, 2004) engagement models spoke the psychological conditions or predecessors that were necessary for engagement.

Rebeca (2018) asserts that the relationship between job satisfaction and employee engagement is well understood by most organization in the context of social exchange theory. However, in countries like Ethiopia, the mediating role of satisfaction in relation with employee engagement in the case of construction protocol is not well studied.

Although few studies were conducted in other fields like banking and hospitals Construction sector involvement is almost rare. Given the sectors monumental contribution to the country's GDP and its significant job creation role, one can assume the benefit of having such studies which could contribute to better performing entities.

This study is conducted with the hope that it shines light on the effect of job satisfaction on employee engagement. Accordingly, job satisfaction as indicated in the hypothesis were measured by job characteristics, reward and recognition, procedural

justice, distributive justice, perceived organizational support, and perceived supervisor support in the construction sector.

1.3 Objective of the Study

1.3.1   General Objective

The general objective of the study is to examine the mediating role of satisfaction of employee engagement in the relationship between job characteristics, reward and recognition, procedural justice, distributive justice, perceived organizational support, and perceived supervisor support in the construction sector that are in Addis Ababa.

In relation with the aforementioned general objective, this study has the following specific objectives:

1.3.2   Specific Objectives:

- To examine the mediating impact of job satisfaction on employee engagement in the construction sector.

- To examine the relationship between job characteristics and employee engagement

- To examine the relationship between reward and recognition and employee engagement

- To examine the relationship between perceived organizational support and employee engagement

- To examine the relationship between perceived supervisor support and employee engagement

- To examine the relationship between procedural and distributive justice, and employee engagement

1.4 Research Hypothesis

Following are hypothesis which are developed for the purpose of this study

H_1. Job characteristic has no effects on employees' engaged in their assigned roles.

H_2. Reward and recognition have no effect on employee engagement.

H_3. Perceived supervisor or organizational support has no effect on employees' engagement.

H_4. Procedural and distributive justices have no effect on employees' engagement.

H_5. Job satisfaction doesn't mediate in the relationship between employee engagement and the independent variables (job characteristics, reward and recognition, procedural justice, distributive justice, perceived organizational support, and perceived supervisor support).

1.5 Significance of the Study

Understanding the underlying relationship between job satisfaction and employee engagement is vital in organizational success (Unutmaz, 2014).. This research has tried to pin point the very factors affecting job satisfaction and employee engagement in the Ethiopian construction sector.

The study has a significant contribution for firms, industry and government in how to manage their vital resource and devise a better policy; making sure the productivity of the human capital. Going forward the research has the following key contributions.

- It would derive a valuable lesson to the construction segment; contractors, human resource managers, recruitment bureaus/agencies and every stockholder in the human capital function and management in underscoring the level of effect on

continued employee engagement. There by boosting productivity and continued attachment with their most valuable resource.

- The government and respected stakeholders are expected to learn on the significance of factors affecting job satisfaction and resulting employee engagement. This is under the assumption a continued attachment will bring economies of scale, reduced cost and better project completion efficiency. This in turn will have a national impact on GDP.

- Lessons learnt include indicating research gaps for future study. This include a qualitative look in to job satisfaction to understand the depth of the relationship with employee engagement and sector to sector comparison on employee engagement could contribute benchmarking capacity

In light of the lack of empirical research in association with employee engagement and the independent variables; job characteristics, reward and recognition, procedural justice, distributive justice, perceived organizational support, and perceived supervisor support as well as the mediating role of job satisfaction on employees' engagement in the context of construction sector. This study would serve as a research foundation for further study in the area, identify the core reasons behind employee turnover and would be a spotlight for retentions.

1.6 Scope of the study

Factors affecting employee engagement have been scrutinized with mediating variable of job satisfaction in the construction sector with selected construction companies in Addis Ababa, Ethiopia. Being a cross sectional study, the research is limited to a single time response. Such topics could have been more helped if they are conducted in longitudinal manner.

The scope of the study is explaining the above hypothesized effects as per the conceptual framework in construction sector in Addis Ababa, Ethiopia. In addition, only the three biggest Grade-1 contractors were targeted. Having an annual turnover of more than 1 billion birr, the companies are assumed to be ideal in drawing the required sample size.

1.7 Limitation of the study

The study is also limited to construction sector as it's the biggest employer in urban areas. Although Addis Ababa represents 2/3 of the national construction volume, it's fair to say the research is limited to the capital. Regardless, replicating the result should be made with care and consideration inters-sectoral differences.

The need to down size the scope of the research given the focus of the objectives and as per scholar's evaluation explains the choice of the research design being explanatory. It underscores and examines the underlying relationship between the factors affecting employee engagement with mediation of job satisfaction.

The research focused only on factors affecting employee engagement with the variables mentioned as (job characteristics, reward and recognition, procedural justice, distributive justice, perceived organizational support, and perceived supervisor support)

and some demography variables (age, gender, year of service and education level) of
based on (Saks, 2006) model. Although the above described factors are the most
commonly referred in the many scholars described above, broader and more inclusive
variables could have been considered. .

1.8 Organization of the paper

The study paper has five parts. In order of consecutive appearance, it includes:
Introduction, literature review, methodology, finding and analysis and conclusion and
recommendations. The five Chapters guide the reader through gradual proceedings of the
research from defining the background, offering relevant literature, citing required
methodological order followed by conclusive remarkable and way forwards.

The first chapter entails the background on the overall economy of Ethiopia,
employee engagement and job satisfaction. In addition, the new normal under Covid-19
and subsequent challenges are also discussed under the chapter. It also guides the reader
on the main objectives of the research, proposed hypothesis and its significance.

Chapter two is a run on relevant research materials done on the subject matter. Both
theoretical and empirical literatures are considered for the purpose of consolidating the
interest area and its previous knowledge gap. Readers are brought in to pace with the
need to do this particular inquiry as it's not seen from different studies conducted on the
subject matter.

How the research was conducted, method of engagement, sampling, data analysis
methods as well as manners of presentation road map is showcased on Chapter three of

research. Readers are certainly be able to poses better insight on how the research is done
after going through the methodology section.

Data analysis and presentation of findings is presented on Chapter four of the
research. A correlation analysis on the potential linear linkage hypothesized in Chapter
One is further scrutinized to accept or reject the notion. A regression analysis is
conducted to quantity the magnitude of the effect the mediating variable has on the
dependent variable.

The last part is conclusion and recommendation as Chapter five. The six variables
identified as independent factors do pose a strong impact on job satisfaction and the later
has the power to influence the level of employee engagement. Possible recommendations
for policy and knowledge implications are expected on the recommendations. The study
also indicated a research gap for further enquiries.

CHAPTER TWO

LITERATURE REVIEW

Chapter introduction

The need to consider employee engagement and its profound impact on business success is of utmost importance. It's a gradually developed trait which has a great significance in sustaining business in particular and overall economy in general. As competitiveness is defined as the ability to provide products and services as or more effectively and efficiently than the relevant competitors (Krugman, 1994); its influence in business sustainability is monumental.

In relation with the construction sector and the job behaviours, employees' dedication, commitment and the engagement towards achieving their task play a significant role since completing a certain project in the proposed time line is mandatory burden though it has been a problem repeatedly reported, as they could not run the project based on their committed time line. Hence forth, acquiring the right and engaged employees in every work stream will assist the sector for better handling the project and perform the task with quality.

Successful companies often have the much needed influence in their operational existence accrued during the many years they stayed in business. Whether we like it or not their influence is observed in wherever they operate. This particular research is focused in examining the very factors that could lead to better job satisfaction ensuring a continued employee engagement. Accordingly, the relevant literatures both theoretical and empirical are presented below.

2.1   Theoretical Review

2.1.1   Employee Engagement

Companies are required to create engage able moments for the employees to positively impact their attitudes which will result in high levels of engagement which is considered crucial in today's business challenge of "doing more with less" (Carley and Ranis, 2010)

Employee attitude is considered as critically linked with efficiency and productivity which has resulted in the emergence of concepts like employee commitment and Organizational Citizenship Behavior (OCB). Managers now focus more on keeping their employees more engaged in their jobs (Markos and Sridevi, 2010) as cited by Naveed et al (2014).

Employee engagement, as defined by Right Management (2006), is "every person in the organization understanding and being committed to the success of the business strategy, and that this goes more than just simple job satisfaction and incorporates aspects of commitment, pride and advocacy about the organization's products and brand" (cited by Abraham, 2012) (Naveed et al, 2014).

Meanwhile, according to Abrham (2012), Employee engagement is powerfully linked to a range of success factors including customer experience which ultimately leads to customer loyalty and customer retention, and organization's financial success

Creating and sustaining job satisfaction and engagement with employees is an ongoing challenge for organizations; establishing employee organizational commitment represents a significant additional challenge. Engaged, satisfied, and committed

employees constitute a highly productive workforce that is coveted by management

(Bhattacharya, 2015).

Organizations want dedicated, satisfied, and committed employees working for them

because these employees understand how they help meet the goals of the organization

(Dobre, 2013). Engaged, satisfied, and committed employees tend to stay with the

company, which helps create a competitive advantage of consistent productivity.

Employees with organizational commitment share their knowledge for the

betterment of the organization (Casimir, Lee, & Loon, 2012), causing the employees to

become relevant to the organization.

The link between employee engagement and job satisfaction has been studied from

various angels. For instance Holbeche (2003) concluded that The high levels of

engagement can only be achieved in workplaces where there is a shared sense of destiny

and purpose that connects people at an emotional level and raises their personal

aspirations.

Regardless of the above idea stated, other studies of organizations often overlook the

effects on behaviour of feelings and satisfaction. Wilson (2004) states that satisfaction is

state of feeling that one's expectations are fully or majorly covered or fulfilled by the

organisations one time or consistent implementation of a positive company culture.

According to Sandeep et al (2008), the existence of common drivers of engagement,

different groups and individuals are influenced by different factors. Furthermore, it is

argued that an individual's personality and perception shapes and directs how engaged an

employee will be. Emotions and wellbeing have also been found to be related to

engagement. Regardless, their study overlooks the variables which have a positive effect on employees' engagement.

2.1.2   Job characteristics

Job characteristics is entertained under individuals self construct in how he sees his work and self role according to Kahn (1990). Meanwhile, Hackman (1980) argues that that the task itself is a key to employee satisfaction. Specifically, a boring and monotonous job stifles motivation to perform well, whereas a challenging job enhances satisfaction. The resulting argument entails job enrichment and job rotation are the two ways of adding variety and challenge. According to the authors, there are five core job characteristics (skill variety, task identity, task significance, autonomy, and feedback) which impact three critical psychological states (experienced meaningfulness, experienced responsibility for outcomes, and knowledge of the actual results), in turn influencing work outcomes (job satisfaction, absenteeism, work motivation, etc.).

2.1.3   Perceived Organizational Support

Organizations are required to maintain the necessary level of support to bost employee morale and motivation. This is clearly stipulated under Ovidiu (2013).Accordingly, motivation and performance of the employees are essential tools for the success of any organization in the long run.

On the other hand, Caroline et al (2007) discovered that perceived organizational support (POS) is positively and significantly correlated with affective and normative commitment. Meanwhile, the results also provide evidence in favor of managerial interventions aimed at enhancing perceived control and, consequently, minimizing the negative effects of a lack of organizational support on employees' affective commitment.

POS is described as a reciprocal act from both the employee and organizational perspective. According to James et al (2015), POS should be enhanced to the degree that employees attribute favorable treatment received from the organization to positive regard. It stipulates the organization kindness in offering what employee need is moderated by stiff labor market and the inherent expectation from employee to do better in return.

2.1.4 Received supervisor Support

A similar result found in the study conducted by (Rhoades & Eisenberger, 2002) showing that employees tended to view the level of supervisor support as indicative of organizational support that could help to determine an employee's level of engagement. As identified social exchange theory, positive organizational support created an obligation by the employee to care about the organization's well-being and, therefore, the employee helped the organization to reach its objectives.

Meanwhile, Simon et al (2014) advocate that a well received supervisory support increases employee satisfaction and organizational success. Therefore, Employees who perceived greater organizational support were more likely to respond with higher levels of engagement in both their job and their organization. In addition, the root of employee disengagement would be the perceived lack of support for employees from first-line supervisors. Also, Saks found that employees who had a better relationship with their supervisor would have more positive attitudes and behaviours leading to lower turnover intentions, and job and organization engagement were negatively related to intention to quit.

2.1.5   Reward and Recognition

Reward and appreciation were long argued to be great motivators of people. In particular Baskar (2013) confirms that well appreciated employee tend to be more motivated and commit more for better results. Whereas Maslach (2001) states that lack of rewards and recognition can lead to burnout, appropriate recognition and reward is important for engagement.

The concept of inner satisfaction was based on the premise that individuals are enthusiastic about their work because of positive internal feelings that result from doing well rather than occurring as a result of external factors such as incentive pay or compliments for the satisfaction to work successfully (Hackman, 1971).

Effort-Reward Imbalance model (Siegrist, 1996) claims that failed reciprocity in terms of high efforts spent and low rewards received in turn is likely to elicit recurrent negative emotions and sustained stress responses in exposed people. Conversely, positive emotions evoked by appropriate social rewards promote well-being, health and survival.

2.1.6   Procedural Justice

Reil and Kjell (1996) indicated that our innate feeling of being served and treated fairly is behind employee perception of fair distribution of scarce resource. this feeling is extended to work environment where allocation decision follow certain procedures could be deemed unfair and result grudge in the eye of employee.

Yean (2016) believes that procedural justice focuses on the process that the steps taken by the management to reach a just decision. Its subjective nature is reflected by Gurbuz (2009). Accordingly, organizational justice can be defined as employees'

perception of justice concerning various practices and activities of the organization (Gurbuz, 2009).

Procedural justice refers to fairness issues concerning the methods, mechanisms, and processes used to determine outcomes. it is also defined procedural justice as it refers to the means by which outcomes are allocated, but not specifically to the outcomes themselves (Cropanzano, 2003).

2.1.7   Distributive Justice

Cohen-Charash (2001) first introduced the concept of distributive justice into social psychology literature by his academic work of Social Behavior in 1961. The work of (Adams, 1965) further advanced the concept of distributive justice (Rupp, 2017). Distributive justice is interested with the reality that all workers are not treated alike i.e. the allocation of outcomes is differentiated in the workplace (Cropanzano,2005).

An employee perceives inequity or unfairness when his /her input-to-outcome ratio comparisons with a similar other are unequal. According to Adams (1965), inequity happens not only when he/she is relatively underpaid, but also when he/she received high pay with low effort as compared to others' effort and pay. The major structural components of the Adams equity theory are inputs and outcomes.

Distributive justice focuses on the employees' belief and feelings of satisfaction with their work outcomes (Aboagye, 2015). As stated in the above paragraph, an individual perceives distributive justice as a form of equity while calculating the ratio of his or her own contributions to the outcomes received and comparing his or her ratio to ratios of similar individuals. This implies that distributive justice refers to the perceived fairness of the outcomes that an employee receives from organization.

2.1.8   Job Satisfaction as a Mediator

ADP (2012) asserts that job satisfaction and employee engagement are very critical yet distinctive issues. Employee satisfaction is typically measure through surveys designed to gather opinions about HR-related issues like bonus programs, benefits, and work/life balance, so leaders or managers can implement changes designed to increase morale and, theoretically, drive higher retention. Employee engagement is a newer concept that has been adopted by HR professionals within the past decade as global competition skyrocketed, "lifetime employment" faded into oblivion, and organizations looked to more directly align employee performance with business goals.

Robert (2006) argues that an engaged employee can also be a satisfied employee; few people are willing to go the extra mile for their employer unless they are fundamentally happy in their jobs. However, it is certainly possible to have a satisfied employee with a low engagement level someone who shows up to work and goes through the motions, but does not demonstrate a lot of initiative or put in a lot of extra effort to further the success of the organization. That's why focusing on satisfaction without addressing engagement is unlikely to foster the kind of exceptional workforce performance that drives business results.

2.2   Empirical Review

Lack of employee engagement often leads to unsettling decision to continuous stay at organizations. Resulting decision leads to employee turnover. The later can be caused by various factors which in turn can have impacts in the performance (Ojedokun, 2008). Given their importance in quitting intentions, managers must monitor both the extrinsic and intrinsic sources of job satisfaction provided to workers.

Low incentive and benefits packages, is also an important factor for high employee turnover intention. When a worker is employed with limited benefits, there is little incentive to stay, even if he/she is offered slightly higher rate of salary. For these reasons, most companies focus on employee retention strategies regardless of pay levels (Ojedokun,2008). Rampur (2009) in his study concluded that employees prefer other companies which may provide them with higher posts and increased benefit packages.

Magner et al. (1996) argue that employees quit from organization due economic reasons. Using economic model they showed that people quit from organization due to economic reasons and these can be used to predict the labour turnover in the market. So, good local labour market conditions with availability of alternative and high paying organizations will drive turnover.

The linearity of the relationship between job satisfaction has been confirmed by Anton et al (2017) the result confirms that the relationship between employee engagement and job satisfaction is positive and statistically significant. The study states that people spend most of their time at work, and their motivation is considered to be an important factor for job performance. The later is associated with employee engagement.

The aim of this research is to focus on an industry that has been understudied with regard to role of satisfaction and employee engagement of its employees with the variables mentioned in the research. The findings of the research are expected not only to be a guide to construction organizations in personnel selection, but also to be a benchmark for future researches and recruitments as well.

The other concept worthy dealing is the concept by (Schaufeli et al, 2002) which defines engagement as a positive, fulfilling, work-related state of mind that is

characterized by vigour, dedication, and absorption. Employees become more engaged, when they feel the work they do is meaningful and work that make them feel safe and when employee is psychologically available on his work.

Engagement is conceived as a set of motivating resources. As per Bakker (2012), it is conceived in terms of commitment and extra-role behaviour, and it is independently from job resources and positive organizational outcomes. As s psychological state, where employees feel a vested interest in the company's success and perform to a high standard that may exceed the stated requirements of the job'' or as ''personal satisfaction and a sense of inspiration and affirmation they get from work and being a part of the organization''.

In a close analysis in our independent variables, Yasmin (2011) confirms that perceived organizational support was significantly positively related to job engagement. In addition, job characteristics were found contributing to job engagement, and organizational engagement. Meanwhile Woodruffe (2006) describe advancement, autonomy, civilized treatment, employer commitment, environment, exposure to senior people, awarding of due praise, availability of support, feeling of being challenged, feeling of being trusted, feeling of working for a good and reliable organization, feeling of working on useful assignments and respecting work/life balance do increase employee engagement.

The historical origins of engagement are presented via the literature of (Chalofsky, 2003). Initial foundations for engagement with job enrichment studies that (Kahn, 2012) utilized to begin his engagement studies. Saks (2006) builds on the work of Kahn and

others to provide the main concept for the current body of work regarding how

antecedents and consequences of employee engagement affect employee satisfaction.

Among the related researched studied on employee engagement Saks's study

showed that the psychological conditions leading to organization and job engagement, as

well as the consequences of each, are different. His study results also showed that

perceived organization support predicted job and organization engagement; by

comparison, particular job characteristics predicted individual job engagement. The

researcher concluded that procedural justice predicted organization engagement and that

job and organization engagement are both related to employee attitudes, intentions, and

behaviours. In particular, job and organization engagement predict job satisfaction,

commitment to the organization.

Antecedents	**Employee Engagement**	**Consequences**
Job Characteristics Perceived organizational support Perceived supervisor support Rewards and recognition Procedural justice Distributive justice	Job engagement Organization engagement	Job satisfaction Organizational commitment Intention to quit Organizational citizenship behavior
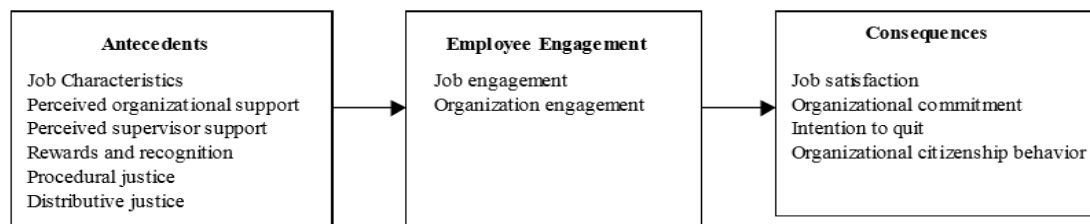
Figure 2.1 Sak's Model

The above studies indicated the many options to analyse factors affecting

employee engagement. This particular inquiry aims to shine light on the subject using job

satisfaction as mediating variable. Hence the researcher selected Saks's model to better

demonstrate the concept. Saks (2006) provides the initial model of the antecedents and

consequences of employee engagement as shown in Figure 1.1 (P.37).

2.3   Conceptual framework

This particular inquiry aims to configure the factors affecting employee engagement with the mediating role of job satisfaction. The six variables indicated in the hypothesis are regarded as independent variable where as employee engagement is regarded as the main dependent variables as indicated in the diagram below. In addition, the proposed framework consists of a mediating variable in job satisfaction.

Employing a Saks model (Saks, 2006), the study has proposed the following conceptual framework and in the next Chapter the hypothesized link is tested. As indicated in Chapter One and Two, the below identified conceptual integration is established as per noted scholars in the field of the study.
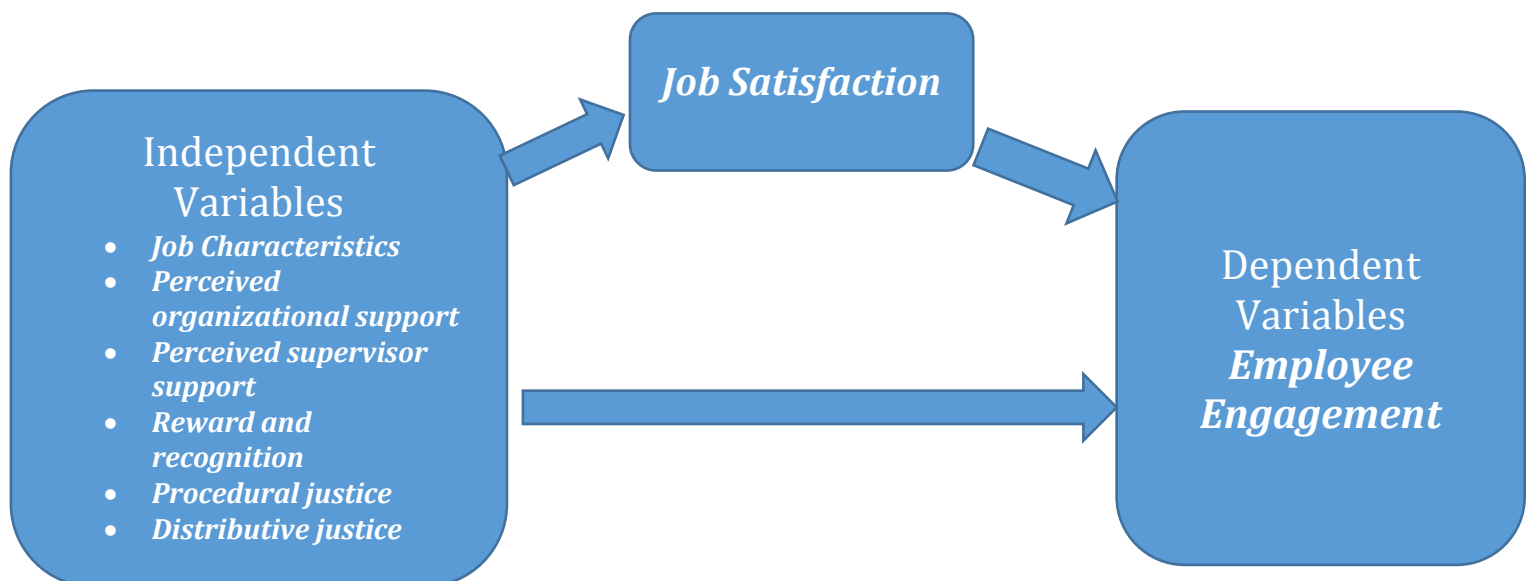
Figure 1.1:- Proposed model of employee engagement

CHAPTER THREE

RESEARCH METHODOLOGY

Chapter Introduction

Several factors affect job satisfaction and in turn employee engagement (Elvita, et al, 2017). Regardless, the direction of the effect remains inconclusive. The aforementioned literature on Chapter Two of the research has made a relevant count of both theoretical and empirical data available on the area of the study. In the process, the focus has been guiding the reader on description of the availing data on on factors affecting employee engagement. How it affects and correlates to each other is the subject of this very study.

This chapter discusses the methods adopted in the study to examine the mediating role of job satisfaction on employees' engagement in relationship between job characteristics, reward and recognition, procedural justice, distributive justice, perceived organizational support, and perceived supervisor support.

In view of that, the discussion in this chapter focused on the following major points: (i) research design, (ii) target population and sample size, (iii) data source and collection instruments, (iv) method of data analysis and presentation (v) quality assurance tests and (v) conceptual framework.

3.1 Research Design

This research is an explanatory inquiry on the hypothesized effect of factors effecting job satisfaction and employee engagement. Being a cross-sectional study, its conducted at a single time frame in the construction sector in Addis Ababa, Ethiopia. The study is also designed to quantitatively assess the mediating role of satisfaction on employees' engagement.

The choice of quantitative design is due to the need to empirically test the hypotheses developed for the study. Further to the robust literature review, the factors in such studies are suggested to be better studied in quantitative manner.

3.2 Target Population and Sample

Although the target population is construction employees in Addis Ababa, due to the nature of the study only permanent employees were targeted. Accordingly, employees of Grade-1 contractors were targeted. Based on availability, top three companies were selected from the total group. These companies are Yotek Construction, Afrotsion Construction and Teklebirhan Ambaye Construction. These companies are selected based on their annual turnover of more than 1 billion birr each.

In order to determine the sample size for the study, a sample size formula i.e. survey software and based on a margin of error of 5% and a confidence interval of 95% 353 respondents are chosen among 3042 permanent employees. The researcher used Slovin's formula (Singh et al, 2014) to come up with representative sampling. Respondents were first identified to have 3 years plus years of experience. A simple

random sampling was used to identify respondents across the offices and sites of the

companies.

n = N / (1+Ne2)

N- Total population

e- Margin of error (5%)

n- Sample size

3.3 Data Source and Collection Instruments

Both primary and secondary data was used to develop the research. The primary

data collected through questionnaire from the randomly selected sample of individual

employees of the three construction companies. .

Close-ended questionnaire is chosen as instrument of data collection. The

questionnaire used as a data collection instrument in this study, consisted of two sections.

The first section included demographic expressions designed to collect the demographic

characteristics of respondents. The second section consists between job characteristics,

reward and recognition, procedural justice, distributive justice, perceived organizational

support, perceived supervisor support, and the mediating role of satisfaction.

The items included in the second section were presented using a 5-point Likert scale

from 1 (—strongly disagree) to 5 (—strongly agree). Each of the six independent

variables between job characteristics, reward and recognition, procedural justice,

distributive justice, perceived organizational support, and perceived supervisor support

will be measured using seven items, six items, eight items, and seven items respectively,

using the measurement scale developed by (Rich, 2010). Similarly, Role of satisfaction on employees' engagement was measured using six items that were developed by (Colarelli, 1984).

Despite the challenge posed by Covid-19, nearly 82% of distributed questionnaires were completed and collected. As far as the procedure of data collection is concerned, the questionnaires distributed to the selected sample of individuals' convenient by time, place and availability in the selected companies. Questionnaires were collected physically from the respondents at their site by the researcher and the personnel assigned by the researcher for the purpose of data collection.

3.4 Method of Data Analysis and presentation

The analysis is based on statistical analysis using both descriptive and inferential statistics on the independent variable and dependent variable. The hypothesized relation between the independent factors and employee engagement is first tested for correlation and then passed to regression to further cement the validity of the hypothesis.
The analysis made use of both descriptive and inferential statistics to gather a deeper look on the factors affecting employee engagement with mediating effect of job satisfaction.
In doing so, Common descriptive statistics measures of frequency, standard deviation and other tabular data are enclosed as part of a descriptive analysis. Where as a correlation and regression analysis is done to accept or reject the null hypothesis

3.4.1 Correlation Analysis

The purpose of this analysis is to explore the strength as well as the direction of the relationship among the independent variables (.i.e. job characteristics, reward and recognition, procedural justice, distributive justice, perceived organizational support, and perceived supervisor support). The researcher used Pearson correlation analysis to explore such relationship.

3.4.2 Regression Analysis

Regression analyses is used to explore the relationship between the independent and dependent variables while for testing mediation the (Saks, 2006) model used as a guiding framework. The five assumptions of simple linear relationships were carefully computed and proved to be met.

3.4.3 Assumptions of linear relationship

3.4.3.1 Linearity

Existence of linear relationship has been tested among the independent variables of job characteristics, reward recognition, procedural justice, distributive justice, perceived organizational support, and perceived supervisor support and dependent variable of employee engagement was first tested for linear correlation. The scattered plots in the diagram below/SPSS extract/ indicate the existence of linear linkage. The detailed procedure is indicated on the next Chapter.

3.4.3.2 Multivariate Normal

Normality of all linear combination proved in the correlation analysis was confirmed. Disturbance or errors are normally distributed for all models. Thus, no violations of the assumption normally distributed error term. Test for normality is also seen in the data analysis and presentation part of the study.

3.4.3.3   No or little Multicollineairty

Potential dependency among independent variables is tested. Variance inflation factor (VIF) was computed under SPSS in order to proof absence of minimal influence of multicollineairty. VIF = 1/(1-R2). In each case, the independent variables are less dependent on each other.

3.4.3.4   No Autocorrelation

Autocorrelation refers to the degree of correlation between the values of the same variables across different observations in the data (Bradley and Sean, 2006). The scattered plots on observed data indicate absence of autocorrelation. Meaning, values in independent variable are not strongly related to each other. In addition, Durbin-Watson test for independence (Durbin & Watson, 1951) the required statistics should be 1.5 to 2.5 to be considered non-autocorrelation. Accordingly, the test has been conducted and found not auto correlated (Seen in Chapter four)

3.4.3.5   Homoscedasticity

Evidence of the residual plot indicated in the graphs below, there is almost equal distribution. This further entails the validity and existence of linear relationship among the predictor and dependent variable of the study.

Findings as well as a stream analysis as per the objective of the research are seen on the next Chapter of paper. The presentation is mainly thematic presentation in a way that answers each of the specific objectives. A theoretical triangulation is observed as per the above model and other main theoretical constructs are employed to better shine a more clear light on the effect of independent variables on employee engagement.

3.5 Validity and reliability Test

3.5.1   Validity Test

Validity of a research instrument assesses the extent to which the instrument measures what it is designed to measure (Robson, 2011). It is the degree to which the results are truthful. So that it requires research instrument (questionnaire) to correctly measure the concepts under the study (Pallant, 2011). In this study the researcher used certain procedures to check for the accuracy of the research findings based on (Creswell, 2014). It is not a part of the questionnaire but questionnaire scores and their interpretations was assessed. The researcher conducted the following two essential parts of validity.

Both Internal validity and external validity has been checked. The researcher described appropriate strategies, such as triangulation, prolonged contact, member checks, saturation, reflexivity, and peer review. On external validity, careful illustration methodlogy is indicated to make sure result transferability. The researcher emphasised the external validity by achieving representation of the population through strategies, such as, random selection, using heterogeneous groups, using non-reactive measures, and using precise description to allow for study replication across different populations, settings, etc (Bougie S. &., 2010).

3.5.2   Reliability Test

Each hypothesis proposed was discussed in this section of the study empirically tested and discussed in this part. Regression analyses were used to explore the relationship between the independent and dependent variables while for testing mediation the (Baron, 1986) model used as a guiding framework. The coefficients of determination (R square value), the regression coefficients (Beta coefficient) and the p-values for each

of the significant relationships were testified. Reliability tested using Cronbach's alpha values for the items in each construct. According to (Bougie S. &., 2016) reliabilities less than 0.60 are considered to be poor, those in the 0.70 range, acceptable, and those over 0.80 good.

CHAPTER FOUR

DATA ANALYSIS AND INTERPRETATION

Chapter Introduction

Construction sector in particular is plagued by frequent turnover and delays in the Ethiopian context. This study attempted to understand factors affecting employee engagement in the industry via six factors and with mediating role of job satisfaction in the area. The Chapter entails a detailed testing of the conceptual framework seen above.

The overall analysis is done simultaneously on the data gathered through structured questionnaire and rigorous desktop review. Accordingly, both descriptive statistics and inferential analysis were employed to refine the findings. The former is focused to sampling the demographic profiles of participants. Mixed chronological order of analysis is used to put forward formidable results.

This chapter presents, the results of the study based on the empirical studies conducted to test the hypotheses. The chapter is divided into six major sections. The first section is the introductory part followed by the demographic profiles of the respondents. The third section is analysis of independent variables with employee engagement. Fourth section contends the correlation between independent variables. Fifth section discusses effect of dependent and independent variables on employee engagement. The final section illustrate about the result of the factor analysis testing and continued from Chapter three.

4.1 Demographic Profiles of the Respondents

The demographic data is assumed to have little or no role in the hypothesis. It's only indicated for further correlation and indication of the age and gender structure of employment in construction industry.

4.1.1   Sample population by Gender

The data collected on demographic variables is expected to serve for descriptive purposes.

	Frequency	Percent
Male	182	64.1
Female	102	35.9
Total	284	100

Table 4. 1 Sample Population by Gender (Own survey)

As we can see from Table 4.2, males and females recognized 64.1 % and 35.9 % of the same population respectively. we see that the majority of the construction employees are male (64.1 %) while women make up the balance of the population. Keep in mind that the gender gap as a result of the total population characteristics. Since there is an equal opportunity employer while there is some gap in gender representation. The gender gap is not due to sampling error since data is distributed randomly selected offices. Generally, it is the reflection of the total population structure.

4.1.2   Sample Population by Age structure

	Frequency	Percent
26-30	81	28.8
31-40	163	57.2
41-50	30	10.5
above 50	10	3.5

Total	**284**	**100**

Table4. 2. Sample Population by Age (own survey)

The age distribution shows that the age of 28.8 % of the respondents are within 26-30, 57.2 % are within the age group of 31-40, 10.5 % are within the age group of 41-50 and the remaining 3.5 % respondents represent the age group above 50 years. This indicates that most of the employees are young and may imply the construction sector employment trend focuses on new and young employees. This is again a reflection of the total population.

4.1.3   Sample Population by Educational Qualification

The following table indicates the educational qualifications of our respondents.

	Frequency	**Percent**
College Diploma	10	3.5
Undergraduate Degree	72	25.4
Graduate Degree and Above	202	71.1
Total	284	100.0

Table4. 3 Sample Population by Educational level (Own survey)

In terms of educational qualification, the sample population was classified into three categories, ranging from college diploma to degree and above. Table 4.3 displays the different levels of educational qualification along with their corresponding percentage. The highest share of the sample holds First Degree and above (71.1 %) followed by Undergraduate Degree (25.4%) and Diploma holders (3.5%). This indicates that the majority of sample respondents are First Degree and above holders. This has happened due to the recruitment policy of the sector tends to the very qualified professional in order to handle activities and responsibilities professionally.

4.1.4   Sample Population by years of service

	Frequency	Percent
3 to 5 years	91	32
6 to 10 years	153	53.9
11 to 15 years	30	10.6
16 to 20 years	10	3.5
Total	284	100.0

Table4. 4 Sample Population by years of service (own survey)

Table 4.4 demonstrations, the majority of the respondents (53.9 %) are serving the

organization from 6 to 10 years, 21.1 % worked for 3 to 5 years, 10.9 % worked for 0 to 2 years,

10.6% worked for 11 to 15 years and the remaining 3.5 % worked for 16 to 20 years. This is due

to majority of the employees are matured i.e. between 30-39 years of age have experience

between 6 to 10 years.

4.1.5   Sample Population by Position Status

	Frequency	Percent
Staff	234	82.4
Site Manager	10	3.5
Manager	40	14.1
Total	284	100.0

Table4. 5 Sample population by Position (own survey)

As can be seen from Table 4.5, 17.6 % of the sample is managerial staff and 82.4

% is non-managerial or professional staff. The reason why the researcher wanted to see

the sample proportion by position status was she assumed that employee engagement

may vary by position status, and the sample population seems to represent the total

population.

4.2   Diagnostic and Analysis of variables

This section describes the responses of the respondents to the seven separately

selected variables which affects employee engagement. Employee engagement is a

dependent variable impacted by the seven antecedent factors namely job characteristics,

perceived organizational support, perceived supervisor support, reward, recognition,

procedural justice and distributive justice.

	Mean	Std. Deviation
Job characteristics	3.924	0.805
Perceived Organizational support	3.511	0.757
Perceived supervisor support	3.717	0.781
Rewards	3.717	0.781
Recognition	3.648	0.773
Procedural Justice	3.694	0.778
Distributive Justice	3.687	0.777

Table4. 6 Descriptive statistics of dependent variables (own survey)

As exhibited in Table 4.6 the mean value for Job characteristics is 3.924. This

means the respondents generally are satisfied and indicated they have relatively better

interest about the organization job segregation.

The mean value for perceived organizational and supervisor Support is 3.511 and

3.717 respectively. Perceived organizational and supervisor support is related with the

attention payed by the organization as well as the assigned direct line manager to overcome the employees challenge facing in their daily activities. This implies employees have above average satisfaction in relation with perceived organizational support.

Reward and recognition has mean value of 3.717 and 3.648 respectively. With regard to statements related with praise, appreciation, recognition and benefits the respondents have average feeling of satisfaction. This implies that the company payed attention to take care the employees' internal expectation though they are not full satisfied means there are still unsatisfied parts to cover up.

The mean value for procedural and distributive justice is 3.694 and 3.687 respectively. Procedural and distributive Justice is related with the transparency and partiality of the company's hierarchical set up and procedural freedoms to address a certain individual and/or group interest. This means respondents have average satisfaction level or feeling with procedural and distributive justice.

The overall interpretation of the mean and standard deviation is made based on the 68, 95 and 99.7 rule. Accordingly, the variation among the variables and the distance from the mean is explained. For instance, the mean and standard deviaton of job characterstics has been given in the above table as 3.924 and 0.805 respectively. Using the above rule, we can estimate that 68% of respondents are allocated just one standard deviation away from the mean (i.e between 3.924 and 4.724). Whereas, 95% are allocated just two standard deviation away from the mean i.e between 3.924 and 5.524. The same kind of conclusion can be drawn for the rest of the variables.

4.3 Correlation between independent variables and Employee Engagement

Correlation is primarily concerned with finding out whether a relationship exists and with determining its magnitude and direction (Samithamby, 2019). When two variables vary together they are said to be correlated. Accordingly, correlation studies are attempts to find the extent to which two or more variables are related.

The Pearson Product moment correlation coefficient (commonly called Pearson Correlation Coefficient) measures the strength and direction of relationship between variables. According to Field (2005), a coefficient(r) of +1 indicates a perfect positive relationship while -1 indicates a negative relationship. Breaking down the strength of the relationship, values of r=±0.1 to ± .29 represent a weak relationship while r=±0.3 to ± .49 represent a medium relationship while r=±0.5 to ± 1.0 indicate a strong relationship.

	1	2	3	4
Job Characteristics	1.000			
Perceived Organizational/ Supervisor Support	0.462	1.000		
Reward & Recognition	0.274	0.136	1.000	0.355
Procedural & Distributive Justice	0.470	0.456	0.355	1.000
**. Correlation is significant at the 0.01 level (2-tailed).				
*. Correlation is significant at the 0.05 level (2-tailed).				

Table4. 7 Correlations between Independent variables(own survey)

Testing the hypothesis formulated at the discussion of the engagement model using the correlation table above, we can presume the following dependent variables that are job characteristics, perceived organizational support, perceived supervisor support, reward, recognition, procedural justice and distributive justice.

Hypothesis 1: There is a relationship between Job characteristics and employee engagement. The correlation between job characteristics and employee engagement is positive and statistically significant (r= 0.376, p<.oo1). This means that job characteristics increases, so do employee engagement level. This doesn't imply causality. The significant relationship merely indicates that the two variables co-vary.

Hypothesis 2: There is a relationship between Reward and Recognition, and employee engagement. The correlation between Reward and Recognition, and employee engagement is positive and statistically significant (r= 0.213 & 0.483 respectively, p<.oo1). This means that Reward and Recognition increases, so do employee engagement level. This doesn't imply causality. The significant relationship merely indicates that development and employee engagement co-vary.

Hypothesis 3: There is a relationship between Perceived supervisor or organizational support and employee engagement. The correlation between perceived supervisor or organizational support and employee engagement is positive and statistically significant (r= 0.258 & 0.153 respectively, p<.oo1). This means that perceived supervisor or organizational support increases, so do employee engagement level. This doesn't imply causality. The significant relationship merely indicates that reward and recognition and employee engagement co-vary.

Hypothesis 4: There is a relationship between Procedural and distributive justices and employee engagement. The correlation between Procedural and distributive justices and employee engagement is positive and negative statistically significant ($r= 0.251$ & -0.171, $p<.oo1$). This means that Procedural increases, so do employee, however the weak negative relation relies between Distributive Justice and employee engagement.

4.4 Regression Analysis

Chapter Three/3.4.2/ indicates the required procedure for testing linearity in our hypothesis correlation. Accordingly, the study run the five key assumptions of regression analysis as indicated above. Results indicate, the conceptual framework is ready to be tested via regression.

Here is a brief account of the basic assumption of regression analysis autocorrelation, multicollineairty, linearity, normality and Homoscedasticity are checked accordingly.

4.4.1   Autocorrelation Test

According to Durbin-Watson test for independence (Durbin & Watson, 1951) the required statistics should be 1.5 to 2.5 to be considered non-autocorrelation. Accordingly looking at the model summary below (1.504), the assumption of autocorrelation is not violated.

Model Summary[b]					
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson

1		.405	0.164	0.152	0.74915	1.504
		a				

Table 4.8: Multicollineairty test

a. Predictors: (Constant), Procedural & Distributive Justice, Reward & Recognition, Perceived Organizational/Supervisor Support, Job Characteristics.

b. Dependent Variable: Employee Engagement

4.4.2   Multicollineairty Test

One major assumption that applies in regression analysis is the existence of a very high correlation between the independent variables of the study which is termed as Multi-co linearity (Burns, 2008). In this research multi co linearity was checked with tolerance and VIF statistics. Andy (2006) suggested that a tolerance value less than 0.1 almost certainly indicates a serious co linearity problem. Also VIF value greater than 10 is also a concern. In this study, all of the independent variables were found to have a tolerance of more than 0.1 and a VIF value of less than 10, which indicates that the assumption of Multi-co linearity is not violated (Burns, 2008).

	Tolerance	VIF
(Constant)		
Job Characteristics	0.686	1.457
Perceived Organizational/Supervisor Support	0.709	1.410
Reward & Recognition	0.854	1.171
Procedural & Distributive	0.652	1.533

Justice
a. Dependent Variable: Employee Engagement

Table 4. 9: Autocorrelation test

4.4.3   Linearity Test

Linearity refers to the degree to which the change in the dependent variable is related to the change in the independent variables. To determine whether the relationship between the dependent variables and the independent variables is linear; scatter plots of the regression residuals for each model through SPSS software had been used.

The scatter plot of residuals (see figures below) showed in that the points lie in a reasonably straight line from bottom left to top right. This is, therefore, showed that the assumption of linearity was not violated.

Normal P-P Plot of Regression Standardized Residual
Dependent Variable: EEV1

Normal P-P Plot of Regression Standardized Residual
Dependent Variable: EEV1

Normal P-P Plot of Regression Standardized Residual
Dependent Variable: EEV1

Normal P-P Plot of Regression Standardized Residual
Dependent Variable: EEV1
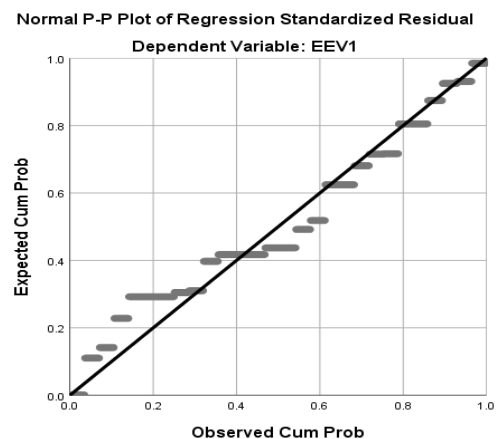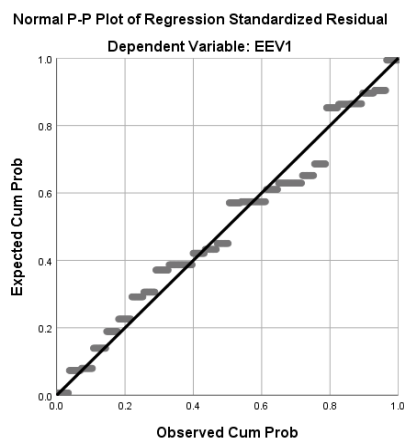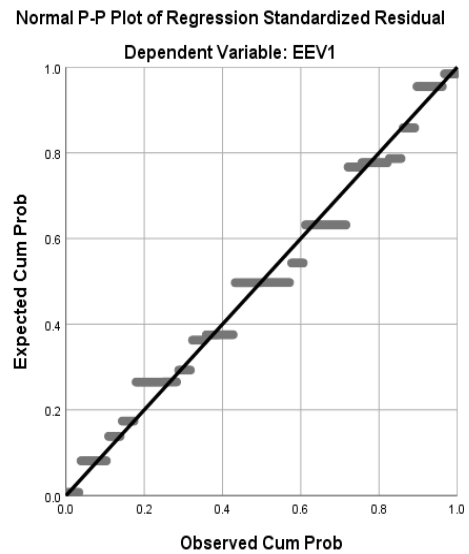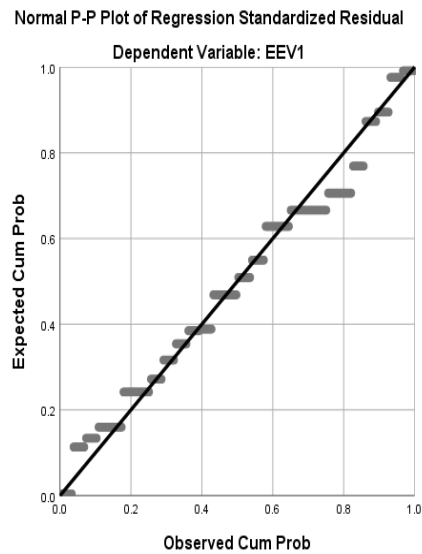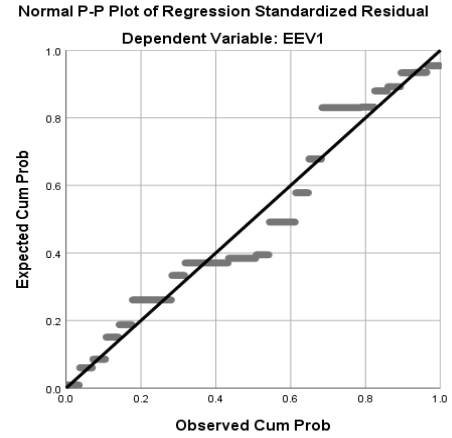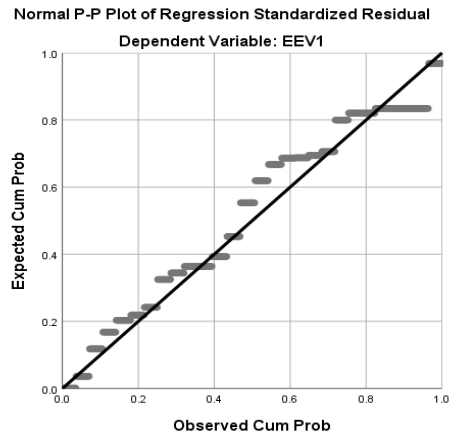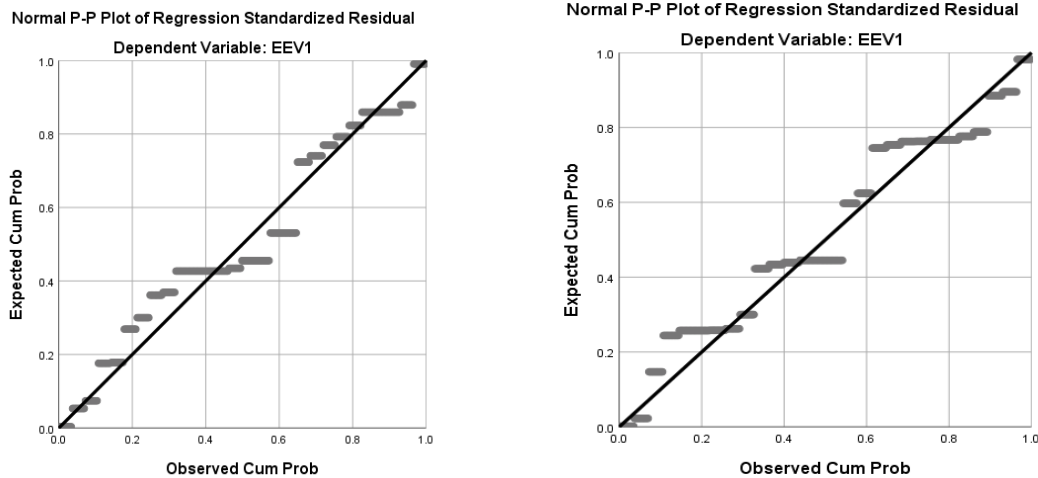
Figure 4.1:- Linearity result (**own survey**)

4.4.4   **Normality Test**

Below figures shows the frequency distribution of the standardized residuals compared to a normal distribution. As you can see, although there are some residuals (e.g., those occurring around 0) 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 for all models. Thus, no violations of the assumption normally distributed error term.

Thus, from an examination of the information presented in all the tests the researcher concludes that there are no significant data problems that would lead to say the assumptions of classical linear regression have been seriously violated.

Histogram
Dependent Variable: EEV1

Mean = -3.72E-16
Std. Dev. = 0.991
N = 284

Frequency

Regression Standardized Residual

Histogram
Dependent Variable: EEV1

Mean = -3.72E-16
Std. Dev. = 0.991
N = 284

Frequency

Regression Standardized Residual

Histogram
Dependent Variable: EEV1

Mean = 4.79E-17
Std. Dev. = 0.995
N = 284

Frequency

Regression Standardized Residual

Histogram
Dependent Variable: EEV1

Mean = -8.49E-16
Std. Dev. = 0.995
N = 284

Frequency

Regression Standardized Residual

Histogram
Dependent Variable: EEV1

Mean = -1.77E-16
Std. Dev. = 0.995
N = 284

Frequency

Regression Standardized Residual

Histogram
Dependent Variable: EEV1

Mean = -7.45E-16
Std. Dev. = 0.995
N = 284

Frequency

Regression Standardized Residual

Figure 1.2 :- Normality result (own survey)

4.4.5   Homoscedasticity test

Homoscedasticity test was conducted to see a situation in which the error term is the same across all values of the independent variables. Accordingly the assumption of Homoscedasticity is not violated as seen in below figure.
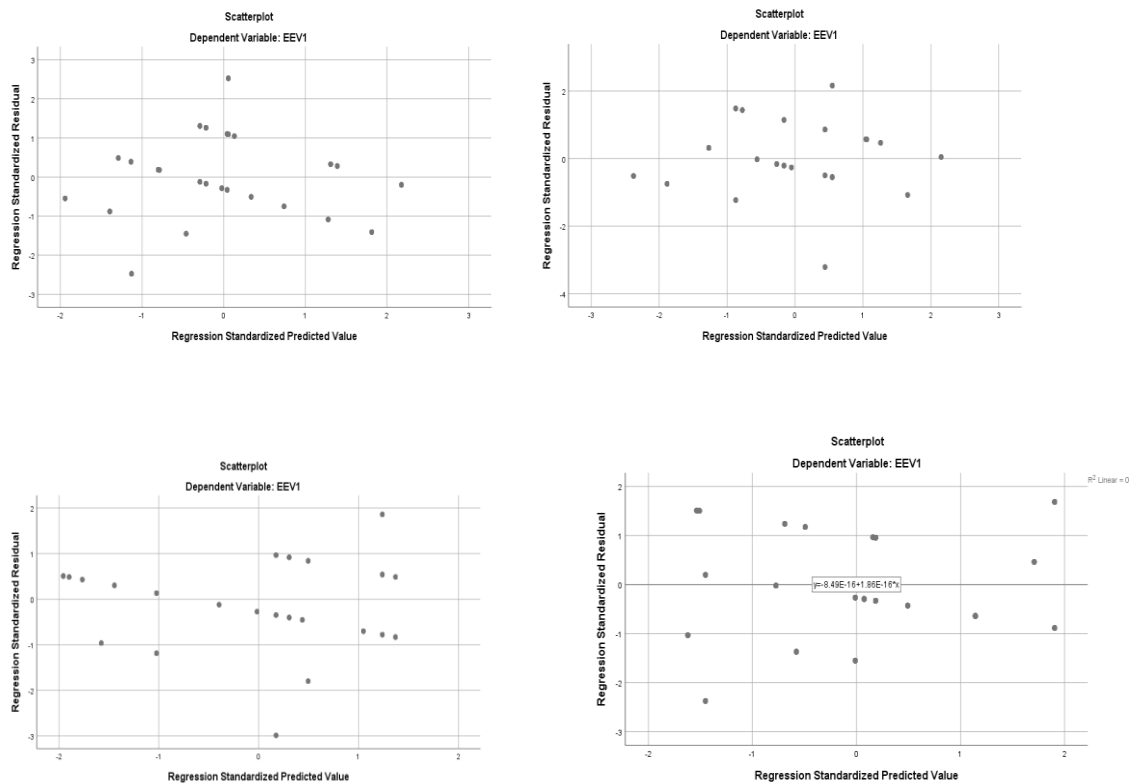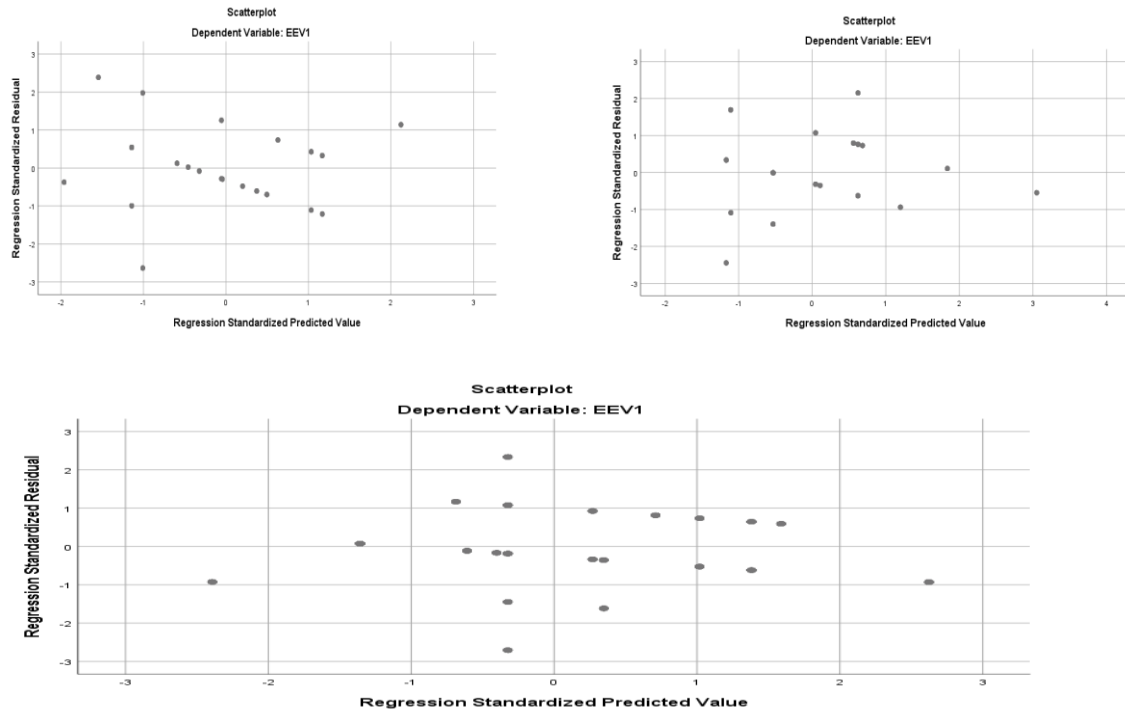
Figure 4.3:- Homoscedasticity result (**own survey**)

4.5 The effect of variables on Employee Engagement

The study has confirmed the existence of significant relationship among the conceptualized variables in Chapter three. Regression and correlation are closely related. Both techniques involve the relationship between two variables, and they both utilize the same set of paired scores taken from the same subject (Mohamed, 2015).

However, whereas correlation is concerned with the magnitude and direction of the relationship, regression focuses on using the relationship for prediction. In terms of prediction, if two variables were correlated perfectly, then knowing the value of one score permits a perfect prediction of the score on the second variable. Generally, whenever two variables are significantly correlated, the researcher may use the score on one variable to predict the score on the second. Since the correlation analysis we found

that the dependent variables of engagement have significant relationship against employee engagement.

The study employed a regression analysis to quantify the nature and magnitude of the relationship among the independent and dependent variables. A linear regression analysis was conducted to predict the impact of drivers of engagement on employee engagement.

4.5.1   Effect of Job characteristics on Employee Engagement

A measure of the strength of the computed equation is R-square, sometimes called the coefficient of determination. R-square is simply the square of the multiple correlation coefficients listed under R in the model summary table, and represents the proportion of variance accounted for in the dependent variable (employee engagement) by the predictor variable (communication).

For this analysis, the multiple correlation coefficients is 0.524, and the R-square is 0.275. Thus, for this sample, the predictor variable of job characteristics has explained 27.5% of the variance in the dependent variable of Employee Engagement.

Model Summary[b]				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.524[a]	0.275	0.262	0.69899
a. Predictors: (Constant), Job characteristics				
b. Dependent Variable: Employee Engagement				

Table 4.10: Model summary

The ANOVA in the above table presents results from the test of the null hypothesis that

R-square is zero. An R-square of zero indicates no linear relationship between the

predictor and dependent variable. The ANOVA table shows that the computed F statistic

is 21.080, with an observed significance level of less than 0.001. Thus, the hypothesis

that there is no linear relationship between the predictor (Job characteristics) and

dependent variable (employee engagement) is rejected.

ANOVA[a]					
Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	51.497	5	10.299	21.080	.000[b]
Residual	135.827	278	0.489		
Total	187.324	283			
a. Dependent Variable: Employee Engagement					
b. Predictors: (Constant), Job characteristics					

Table 4.11: ANOVA of Job Characteristics and EE

The Coefficients table 4.12 presents the standardized Beta coefficient between the

predictor variable Job characteristics and the dependent variable Employee Engagement.

The Beta coefficient is shown to be positive and statistically significant at the 0.001 level.

Thus, the higher the Job characteristics, the higher Employee Engagement level, Beta =

0.323, t = 5.71, p< .001.

Coefficients[a]				
Model	Unstandardized Coefficients	Standardized Coefficients	t	Sig.

	B	Std. Error	Beta		
1 (Constant)	0.225	0.474		0.476	0.635
JC	0.426	0.075	0.323	5.71	.000
a. Dependent Variable: Employee Engagement					

Table 4.12 Coefficients

4.5.2   Effect of Perceived Organizational support on Employee Engagement

A measure of the strength of the computed equation is R-square, sometimes called

the coefficient of determination. R-square is simply the square of the multiple correlation

coefficient listed under R in the Model Summary table 4.12, and represents the

proportion of variance accounted for in the dependent variable (employee engagement)

by the predictor variable (Perceived Organizational support).

For this analysis, the multiple correlation coefficient is 0.431, and the R-square is

0.186. Thus, for this sample, the predictor variable of development has explained 18.6%

of the variance in the dependent variable of Employee Engagement.

Model Summary[b]				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.431[a]	0.186	0.177	0.73794
a. Predictors: (Constant), Perceived Organizational support				
b. Dependent Variable: Employee Engagement				

Table 4.13 Model Summary of POS and EE

The ANOVA table 4.14 presents results from the test of the null hypothesis that

R-square is zero. An R-square of zero indicates no linear relationship between the

predictor and dependent variable. The ANOVA table shows that the computed F statistic

is 21.330, with an observed significance level of less than 0.001. Thus, the hypothesis

that there is no linear relationship between the predictor (Perceived Organizational

support) and dependent variable (employee engagement) is rejected.

ANOVA[a]					
Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	34.847	3	11.616	21.330	.000[b]
Residual	152.477	280	0.545		
Total	187.324	283			
a. Dependent Variable: Employee Engagement					
b. Predictors: (Constant), Perceived Organizational support					

Table 4.14 ANOVA on POS and EE

The Coefficients table 4.15 presents the standardized Beta coefficient between the

predictor variable Perceived Organizational support and the dependent variable Employee

Engagement. The Beta coefficient is shown to be positive and statistically significant at

the 0.001 level. Thus, the higher the development, the higher Employee Engagement

level, Beta = 0.338, t = 5.975, p< .001.

Coefficients[a]					
Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	0.851	0.300		2.834	0.005

POS	0.389	0.065	0.338	5.975	0.000

a. Dependent Variable: EEV1

Table 4.14 Coefficients of POS and EE

4.5.3   Effect of Perceived supervisor support on Employee Engagement

A measure of the strength of the computed equation is R-square, sometimes called the coefficient of determination. R-square is simply the square of the multiple correlation coefficient listed under R in the Model Summary table 4.14, and represents the proportion of variance accounted for in the dependent variable (employee engagement) by the predictor variable (Perceived supervisor support).

For this analysis, the multiple correlation coefficients are 0.375, and the R-square is 0.141. Thus, for this sample, the predictor variable of perceived supervisor support has explained 14.1% of the variance in the dependent variable of Employee Engagement.

Model Summary[b]				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.375[a]	0.141	0.132	0.75815
a. Predictors: (Constant), Perceived supervisor support				
b. Dependent Variable: Employee Engagement				

Table 4.16 Model Summary

The ANOVA table 4.17 presents results from the test of the null hypothesis that R-square is zero. An R-square of zero indicates no linear relationship between the predictor and dependent variable. The ANOVA table shows that the computed F statistic is 15.300, with an observed significance level of less than 0.001. Thus, the hypothesis

that there is no linear relationship between the predictor (Perceived supervisor support) and

dependent variable (employee engagement) is rejected.

ANOVA[a]					
Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	26.383	3	8.794	15.300	.000[b]
Residual	160.941	280	0.575		
Total	187.324	283			
a. Dependent Variable: Employee Engagement					
b. Predictors: (Constant), Perceived supervisor support					

Table 4.17 ANOVA

The Coefficients table 4.18 presents the standardized Beta coefficient between the

predictor variable Perceived supervisor support and the dependent variable Employee

Engagement. The Beta coefficient is shown to be positive and statistically significant at

the 0.001 level. Thus, the higher the Perceived supervisor support, the higher Employee

Engagement level, Beta = 0.320, t = 4.774, p< .001.

Coefficients[a]					
Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	1.963	0.224		8.757	0.000
PSS	0.267	0.056	0.320	4.774	0.000

a. Dependent Variable: Employee Engagement

Table 4.18 Coefficients of SD on PSS

4.5.4   Effect of Rewards on Employee Engagement

A measure of the strength of the computed equation is R-square, sometimes called the coefficient of determination. R-square is simply the square of the multiple correlation coefficient listed under R in the Model Summary table 4.17, and represents the proportion of variance accounted for in the dependent variable (employee engagement) by the predictor variable (Rewards).

For this analysis, the multiple correlation coefficient is 0.309, and the R-square is 0.095. Thus, for this sample, the predictor variable of Reward and Recognition has explained 9.5% of the variance in the dependent variable of Employee Engagement.

Model Summary[b]				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.309[a]	0.095	0.086	0.77795
a. Predictors: (Constant), Reward				
b. Dependent Variable: Employee Engagement				

Table 4.19 Model Summary

The ANOVA table 4.20 presents results from the test of the null hypothesis that R-square is zero. An R-square of zero indicates no linear relationship between the predictor and dependent variable. The ANOVA table shows that the computed F statistic is 9.840, with an observed significance level of less than 0.001. Thus, the hypothesis that

there is no linear relationship between the predictor (Reward) and dependent variable

(employee engagement) is rejected.

ANOVA[a]					
Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	17.866	3	5.955	9.840	.000[b]
Residual	169.458	280	0.605		
Total	187.324	283			
a. Dependent Variable: Employee Engagement					
b. Predictors: (Constant), Reward					

Table 4.20 ANOVA of Rewards and EE

The Coefficients table 4.21 presents the standardized Beta coefficient between the

predictor variable Reward and the dependent variable Employee Engagement. The Beta

coefficient is shown to be positive and statistically significant at the 0.001 level. Thus,

the higher the Reward, the higher Employee Engagement level, Beta = 0.221, t = 3.539,

p< .001.

Coefficients					
Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	1.961	0.235		8.354	0.000
Reward	0.191	0.054	0.221	3.539	0.000

a. Dependent Variable: EEV1

Table 4.21 Coefficients

4.5.5   Effect of Recognition on Employee Engagement

A measure of the strength of the computed equation is R-square, sometimes called the

coefficient of determination. R-square is simply the square of the multiple correlation

coefficient listed under R in the Model Summary table 4.20, and represents the

proportion of variance accounted for in the dependent variable (employee engagement)

by the predictor variable (Recognition).

For this analysis, the multiple correlation coefficient is 0.606, and the R-square is

0.368. Thus, for this sample, the predictor variable of Recognition has explained 36.8%

of the variance in the dependent variable of Employee Engagement.

Model Summary[b]				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.606[a]	0.368	0.361	0.65044
a. Predictors: (Constant), Recognition				
b. Dependent Variable: Employee Engagement				

Table 4.22 Model Summary

The ANOVA table 4.23 presents results from the test of the null hypothesis that

R-square is zero. An R-square of zero indicates no linear relationship between the

predictor and dependent variable. The ANOVA table shows that the computed F statistic

is 54.255, with an observed significance level of less than 0.001. Thus, the hypothesis

that there is no linear relationship between the predictor (Recognition) and dependent

variable (employee engagement) is rejected.

ANOVA[a]					
Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	68.862	3	22.954	54.255	.000[b]
Residual	118.462	280	0.423		
Total	187.324	283			
a. Dependent Variable: Employee Engagement					
b. Predictors: (Constant), Recognition					

Table 4.23 ANOVA

The Coefficients table 4.24 presents the standardized Beta coefficient between the

predictor variable Recognition and the dependent variable Employee Engagement. The

Beta coefficient is shown to be positive and statistically significant at the 0.001 level.

Thus, the higher the Recognition, the higher Employee Engagement level, Beta = 0.345, t

= 5.356, p< .001.

Coefficients[a]					
Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	1.574	0.142		11.104	0.000
Recognition	0.271	0.051	0.345	5.356	0.000

a. Dependent Variable: Employee Engagement

Table 4.24 Coefficients

4.5.6   Effect of Procedural Justice on Employee Engagement

A measure of the strength of the computed equation is R-square, sometimes called

the coefficient of determination. R-square is simply the square of the multiple correlation

coefficient listed under R in the Model Summary table 4.23, and represents the

proportion of variance accounted for in the dependent variable (employee engagement)

by the predictor variable (Procedural Justice).

For this analysis, the multiple correlation coefficients is 0.476, and the R-square is

0.226. Thus, for this sample, the predictor variable of Procedural Justice has explained

22.6% of the variance in the dependent variable of Employee Engagement.

Model Summary[b]				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.476[a]	0.226	0.218	0.71936
a. Predictors: (Constant), Procedural Justice				
b. Dependent Variable: Employee Engagement				

Table 4.25 Model Summary

The ANOVA table 4.26 presents results from the test of the null hypothesis that

R-square is zero. An R-square of zero indicates no linear relationship between the

predictor and dependent variable. The ANOVA table shows that the computed F statistic

is 27.330, with an observed significance level of less than 0.001. Thus, the hypothesis

that there is no linear relationship between the predictor (Procedural Justice) and dependent

variable (employee engagement) is rejected.

ANOVA[a]					
Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	42.428	3	14.143	27.330	.000[b]
Residual	144.896	280	0.517		
Total	187.324	283			
a. Dependent Variable: Employee Engagement					
b. Predictors: (Constant), Procedural Justice					

Table 4.26 ANOVA

The Coefficients table 4.27 presents the standardized Beta coefficient between the

predictor variable Procedural Justice and the dependent variable Employee Engagement.

The Beta coefficient is shown to be positive and statistically significant at the 0.001 level.

Thus, the higher the Procedural Justice, the higher Employee Engagement level, Beta =

0.624, t = 7.133, p< .001.

Coefficients[a]					
Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	2.558	0.154		16.608	0.000
PJ	0.470	0.066	0.624	7.133	0.000

a. Dependent Variable: Employee Engagement

Table 4.27 Coefficients

4.5.7   Effect of Distributive Justice on Employee Engagement

A measure of the strength of the computed equation is R-square, sometimes called the coefficient of determination. R-square is simply the square of the multiple correlation coefficient listed under R in the Model Summary table 4.28, and represents the proportion of variance accounted for in the dependent variable (employee engagement) by the predictor variable (Distributive Justice).

For this analysis, the multiple correlation coefficient is 0.247, and the R-square is 0.61. Thus, for this sample, the predictor variable of Distributive Justice has explained 6.10% of the variance in the dependent variable of Employee Engagement.

Model Summary[b]				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.247[a]	0.061	0.051	0.79268
a. Predictors: (Constant), Distributive Justice				
b. Dependent Variable: Employee Engagement				

Table 4.28 Model Summary

The ANOVA table 4.29 presents results from the test of the null hypothesis that R-square is zero. An R-square of zero indicates no linear relationship between the predictor and dependent variable. The ANOVA table shows that the computed F statistic is 6.042, with an observed significance level of less than 0.001. Thus, the hypothesis that

there is no linear relationship between the predictor (Distributive Justice) and dependent

variable (employee engagement) is rejected.

ANOVA[a]					
Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	11.389	3	3.796	6.042	.001[b]
Residual	175.935	280	0.628		
Total	187.324	283			
a. Dependent Variable: Employee Engagement					
b. Predictors: (Constant), Distributive Justice					

Table 4.29 ANOVA

The Coefficients table 4.30 presents the standardized Beta coefficient between the

predictor variable Distributive Justice and the dependent variable Employee Engagement.

The Beta coefficient is shown to be positive and statistically significant at the 0.001 level.

Thus, the higher the Distributive Justice, the higher Employee Engagement level, Beta =

0.229, t = 3.034, p< .001.

Coefficients[a]					
Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	3.685	0.274		13.434	0.000
DJ	0.208	0.068	0.229	3.034	0.000

a. Dependent Variable: Employee Engagement

Table 4.30 Coefficients

4.5.8   Mediating effect of Job satisfaction on Employee Engagement

A measure of the strength of the computed equation is R-square, sometimes called the coefficient of determination. R-square is simply the square of the multiple correlation coefficient listed under R in the Model Summary table 4.31, and represents the proportion of variance accounted for in the dependent variable (employee engagement) by the mediator (Job satisfaction).

For this analysis, the multiple correlation coefficient is 0.446, and the R-square is 0.199. Thus, for this sample, mediator job satisfaction has explained 19.9% of the variance in the dependent variable of Employee Engagement.

Model Summary[b]				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.446[a]	0.199	0.190	0.73208
a. Predictors: (Constant), Job satisfaction				
b. Dependent Variable: Employee Engagement				

Table 4.31 Model Summary

The ANOVA table 4.32 presents results from the test of the null hypothesis that R-square is zero. An R-square of zero indicates no linear relationship between the mediator and dependent variable. The ANOVA table shows that the computed F statistic is 23.174, with an observed significance level of less than 0.001. Thus, the hypothesis

that there is no linear relationship between the mediator (job satisfaction) and dependent

variable (employee engagement) is rejected.

ANOVA[a]					
Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	37.259	3	12.420	23.174	.000[b]
Residual	150.065	280	0.536		
Total	187.324	283			
a. Dependent Variable: Employee Engagement					
b. Predictors: (Constant), Job satisfaction					

Table 4.32 ANOVA

The Coefficients table 4.33 presents the standardized Beta coefficient between the

mediator job satisfaction and the dependent variable Employee Engagement. The Beta

coefficient is shown to be positive and statistically significant at the 0.001 level. Thus,

the higher the job satisfaction, the higher Employee Engagement level, Beta = 0.436, t =

6.541, p< .001.

Coefficients[a]					
Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	3.510	0.285		12.313	0.000
JS2	0.344	0.053	0.436	6.541	0.000

a. Dependent Variable: Employee Engagement

Table 4.33 Coefficients

4.5.9   Common effects of the variables on employee engagement

Factors affecting employee engagement has been explained in the above regression. Resulting influence has been quantified as per their predicting capacity. As the result, each of the above factors poses different predicting capacity. Regardless, one cannot rule out the summed and amalgamated effect could be bigger than separate impacts.

The conceptual frame work used in the study formulates the sum effect of the six main factors to be inherently be embedded under job satisfaction and we can assume that the common effect of the predicting factors to be 20%. The scope of the study was not set in identifying the common effects among the pre-identified factors. Instead, each of the listed independent variables and the mediating effect of job satisfaction is explained.

4.6 Reliability Test

According to (Bougie,2010) reliability of a measure is an indication of the stability and consistency with which the instrument measures the concept and helps to assess the goodness‖ of a measure. In conducting the reliability test using SPSS version 20 for windows, the researcher calculated Cronbach's alpha values for the items in each construct as indicated below. According to (Bougie ,2016) reliabilities less than 0.60 are considered to be poor, those in the 0.70 range, acceptable, and those over 0.80 good.

Reliability Test			
	Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
Job Characteristics	0.755	0.766	15
Perceived Organizational & Supervisor Support	0.611	0.593	6
Reward & Recognition	0.778	0.777	6
Procedural & Distributive Justice	0.839	0.842	6
Employee Engagement	0.839	0.842	6

Table 4.34 Reliability test (Researcher's survey data output)

As indicated in table 4.34 the Cronbach's alpha coefficients of for Procedural & Distributive Justice and employee engagement is above 0.80 which shows a good reliability of the variables of measurement. Similarly, Cronbach's alpha coefficient of Job Characteristics, and Reward & Recognition are also above 0.70 which indicates an acceptable reliability of the variables of measurement. However, the Cronbach's alpha coefficient of Perceived Organizational & Supervisor Support is below 0.70 but above 0.60. Thus, the overall reliability of the measures used in this study can be considered to be acceptable.

Additionally, the (Baron, 1986) method is an analysis strategy for testing mediation hypotheses. in this method for mediation, there are two paths to the dependent variable. the independent variable (job characteristics, reward and recognition, procedural justice, distributive justice, perceived organizational support, and perceived supervisor

support) must predict the dependent variable (employee engagement), and the

independent variable must predict the mediator (job satisfaction).

AS a result, the following conditions are met in the results to support mediation:

1. the independent variable is shown to significantly influence the dependent

   variable

2. independent variable is shown to significantly influence the mediator

3. Mediator must significantly influence the dependent variable

Therefore, mediation is present when the independent variable no longer influences

the dependent variable after the mediator has been controlled and all of the above

conditions are met. Partial mediation occurs when the independent variable's influence

on the dependent variable is reduced after the mediator is controlled.

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATION

5.1 Summary of the Study

The above study is an empirical inquiry to uncover and examine the possible factors behind employee engagement behaviours. The overarching objective of the research paper is to examine the factors affecting employee engagement under the mediating role of job satisfaction in construction sector in Addis Ababa, Ethiopia. Using a quantitative approach the study focused on the top three Grade-1 contractors with annual turnover more than 1 billion birr. A Sak's model of employee engagement and job satisfaction was used to further conceptualize the core hypothesis in the study.

The study uncovers the underlying correlation among the independent variables of job characteristics, reward and recognition, procedural justice, distributive justice, perceived organizational support, and perceived supervisor support and that of employee engagement as dependent variable. A regression analysis further cemented the magnitude of the effect. As the result, all of the independent variables were found to be strongly correlated with employee engagement. However, only job Characteristics, and Reward & Recognition were found to have the strongest predication capacity on employee engagement than the rest of independent variables.

The overall results of hypotheses testing indicated that Procedural & Distributive Justice have significant and negative relationship with employee engagement respectively. With regard to the mediating role of job satisfaction on employee engagement the results showed that job satisfaction had mediating role on employee

engagement. Therefore, the results reported in this study don't support hypotheses H_1, H_2, H_3, H_4, and H_5.

5.2 Conclusion

One way to positively contribute to sustainable organizational success is adhering to enhancing employee commitment. Several scholars including those indicated in the study agree in the above statement. Initial energy and desire to give what it takes by respective staff of a company are positively influenced if entities focus on measures that increase employee engagement.

Results of the study indicate that the factors affecting employee engagement and the mediating role of job satisfaction have a diverse effect. Each of the above examined correlation indicates the existence of different but strong predicting capacity on employee engagement. The underlying implication is for organizations to focus on the said factors to boost employee morale and attachment. It's understood from the bulk of literatures cited in the study that such moves contribute to organizational success.

Construction sector is among the highest employers of the Ethiopian economy. The study uncovers there is a strong correlation among the independent variables of job characteristics, reward and recognition, procedural justice, distributive justice, perceived organizational support, and perceived supervisor support and resulting employee engagement. The strength of the relation differs among the variables.

Both descriptive and inferential analysis was done to measure and quantify their effect. Results indicate strong support for the positive relationship between Job characteristics and employee engagement. Recognition and reward are the leading factors in determining the level of employee engagement. The change in employee engagement

was explained close to 36% by reward and recognition. On the other hand, interpersonal treatment, fairness and transparency of the processes of decisions making, are important aspects that influence the employees to greater extent. Furthermore, job satisfaction and employee engagement are not always directly related whilst there is a degree to which employees engagement are dependent on job satisfaction.

Despite demonstrating strong correlation, the factors influencing capacity is moderate. In a sense, the closest they come to predict employee engagement is via recognition and justice in the work place as indicated above. This indicates, there may are other factors in qualitative sense or outside the scope of the study to better predict strong employee engagement. In which case, the rampant turnover in the construction sector could be explained better.

5.3 Recommendation

Understanding the factors influencing employee engagement is critical .The study has overseen their effect on particular reference construction sector and emphasising the mediating role of job satisfaction. Being a quantitative inquiry, it covered the significance level correlation and level of influence among critical variables in the mix.

Major lessons learnt in the process include company level, industry level and country level remarks. Discussing sustained employee engagement is seen to have important contribution for overall organizational success. Job satisfaction has individual, environmental as well as country wide macroeconomic dimension. Such is the lesson in going forward. Accordingly, the recommendation focuses on how we should integrate our employees and adjust them to reap the gains of stronger employee engagement.

Based on the findings and the conclusions the following recommendations were forwarded:

5.3.1   Construction Sector

Since human capital is a source of competitive advantage (Cook, 2008); (Kumar and Renugadevi, 2013), the future success of the companies will depend on the extent to which companies are able to attract and retain skilled and talented employees (Schonebeck, 2016). This will make it imperative for construction sites to look for other ways to develop loyalty and commitment among their workforces. The findings of the study suggest that treating employees with fairness enhances employee engagement level.

Therefore, the company has to apply the dimensions of organizational justice, i.e. applying rules and procedures fairly and consistently to all employees, and rewarding them based on performance and merit without personal bias in order to create a positive perception of justice in the company.

Fairness and transparency of the process how decisions are made in terms of rewards, promotions, resource allocation, etc and interpersonal treatment and communication are critical aspects that the company has to give considerable attention in order to enhance the level of employee engagement.

In general, the work of the construction company to enhancing the positive perception of employees in organizational justice leads to a win-win situation. This implies, employees become more comfortable in their current situation and they are engaged on their jobs; likewise the company also will have highly engaged employees and lower employee turnover.

Specific organizations that are expected to assume the above lessons include FDRE, Ministry of Urban Development and Construction, FDRE, Chemical Institute and Construction Inputs Industry Development Institute, Contractors Association, FDRE MoLSA, Employment Creation Agency and other related entities.

5.3.2   Research Implication

Exploiting the limitations and scope of this particular inquiry any future attempt in this regard might could employ a longitudinal study that would capture employee attitudes or perceptions at different time periods offering more rigors as well as any possible variance to the study findings. This would also help in refining the measurement instruments of different variables in the proposed model.

On top of the findings of the research, one can explore and examine the other aspects of job satisfaction which are not covered in this study. To this regard, we can expand to the gender and educational status and other socio-economic indicators to employee engagement and organizational success.

Finally, this study is performed only in the construction sector that are in Addis Ababa with a small sample size; In order to get a comprehensive picture and generalizations of the study findings, any future study can be carried out with a relatively larger sample size that should be taken from other industries as well

Here, the focus is knowledge institutions including universities and other professional associations. The formulated practical knowledge can be used as an in put to conducting future studies as well as lobbying policy and procedures of employing organization in particular to construction industry.

REFERENCES

Aboagye E. (2015), *A study of the Dimensions of Organizational Justice which best predict Employee Trust and Productivity in Ghanaian higher education institutions:* MPHIL thesis; University of Ghana Business School.

Abraham, D. (2012). *Development of Employee Engagement Programme on the basis of Employee Satisfaction Survey.* Journal of Economic Development, Management, IT, Finance and Marketing, 4(1), Pp. 27-37

Adams J. (1965) *Inequity in Social Exchange*, 1965 Academic Press Inc. Published by Elsevier Inc

Adamsu Shiferaw (2017). *Productive Capacity and Economic Growth in Ethiopia*. CDP Background Paper No. 34 ST/ESA/2017/CDP/34. College of William and Mary, Williamsburg, Virginia

ADP (2012). *Employee Satisfaction vs. Employee Engagement*: ADP research team. USA

Aon H. (2015). *Aon Hewitt's Model of Employee Engagement*. Aon Inc., (January). Retrieved from https://www.aonhewitt.co.nz/getattachment/77046028-9992-4d77868a32fbf622fec6/file.aspx?disposition=inline

Aydogan E. and Ekmekcioglu E. (2016), *The Effect of Organizational Justice Perception on Turnover Intention in Cooperative Organizations*: The Mediating role of Organizational Identification; QUEBEC International Summit of Cooperatives

Ayobami A. and Eugene O.(2013), *Impact of Perceived Organizational Justice on Organizational Commitment of a Food and Beverage Firm in Nigeria*; Vol. 3 No. 14; Special Issue -July 2013; International Journal of Humanities and Social Science

Baskar P.(2013) *A Study on the Impact of Rewards and Recognition on Employee Motivation* International Journal of Science and Research (IJSR) 4(11):1644

Bakker, A., Demerouti, E.,and Brummelhuis, L. (2012). *Work engagement, performance, and active learning: The role of conscientiousness*. Journal of Vocational Behavior - J Vocat behav (Vol. 80). https://doi.org/10.1016/j.jvb.2011.08.008

Baldwin S. (2006), *Organizational Justice;* Published by Institute for Employment Studies

Baron R. and David A.(1986). *The Moderator-Mediator Variable Distinction in Social Psychological Research: Conceptual, Strategic, and Statistical Considerations*. Journal of Personality and Social Phycology, 51(6), 1173–1182.

https://doi.org/http://dx.doi.org/10.1037/0022-3514.51.6.1173

Bhattacherjee A. (2012), *Social Science Research: Principles, Methods, and Practices; 2nd edition;* A free textbook published under the Creative Commons Attribution 3.0 License

Birknesh Gemechu. (2017). *Factors influencing employee intention to turnover at Commercial Bank of Ethiopia*. Addis Ababa University, Addis Ababa, Ethiopia

Boone, H. and Boone, D. (2012). *Analyzing Likert Data.* Journal of Extension, 50(2), 1–5. https://doi.org/10.1111/j.1365-2929.2004.02012.x

Bradley H. and Sean L (2006). *Autocorrelation. Encyclopedia of Measurement and Statistics*, Edition: Autocorrelation. Encyclopedia of Measurement and Statistics. SAGE Publications

Byrne Z.. and Cropanzano R. (2001), *History of organizational justice: The founders speak (P. 3 26); Russell Cropanzano (Edt.)* Justice in the workplace from theory to practice, Volume 2; Lawerence Erlbaum Associates

Carley F.and Ranis C. (2010). "*Exploring the relationship between corporate, internal and employer branding"*. Journal of Product & Brand Management, 19 (6), Pp. 401 - 409.

Caroline A. Vicent R. and Estele M.(2007) *Perceived organizational support and organizational commitment : The moderating effect of locus of control and work autonomy*. Department of Management, HEC Montreal, Montreal, Canada

Casimir, G., Lee, K., & Loon, M. (2012). *Knowledge sharing: Influences of trust, commitment andcost.JournalofKnowledgeManagement*,-16,740–753 oi:10.1108/13673271211262781

Chalofsky, N. (2003). *Meaningful Work*. Training and Development, 57(12), 52-58

Cohen-Charash Y. and Spector P.. (2001), *The Role of Justice in Organizations: A Meta-Analysis*; Organizational Behavior and Human Decision Processes; Vol. 86,

Colarelli, (1984). *Job Engagement*: Antecedents and Effects on Job Performance; The Academy of Management Journal.

Colquitt Jason A. (2008), *Two Decades of Organizational Justice: Findings, Controversies, and Future Directions (P. 73 – 88);* in The SAGE Handbook of Organizational Behavior, Volume I, Micro Approaches; Edited by Barling Julian and Cooper Cary L. (2008)

Creswell, J (2014). *Research Design: Qualitative, Quantitative and Mixed Methods Approaches (4th ed.).* Thousand Oaks, CA: Sage

Cropanzano, R., & Mitchell, M. S. (2005). *Social exchange theory: An Interdisciplinary review. Journal of Management.* https://doi.org/10.1177/0149206305279602

Cropanzano Russell and Rupp Deborah E., (2003), *An Overview of Organizational Justice: Implications for Work Motivation*

Csikszentmihalyi, M. (1990). *Flow: The Psychology of Optimal Experience*. New York, NY: Harper Perennial.

Demerouti, E., Nachreiner, F., Bakker, A. B., & Schaufeli, W. B. (2001). *The job demands resources model of burnout. Journal of Applied Psychology,* 86(3), 499–512. https://doi.org/10.1037/0021-9010.86.3.499

Dibekulu, Takele (2017) "*The Effect of Employee Engagement on the intent to turner - a case of Ethiopian Airlines*. A Thesis for the Degree of Master of Arts, Addis Ababa University,

Dobre, O. (2013). *Employee motivation and organizational performance*. Review of Applied Socio-Economic Research, 5, 53-60. Retrieved from http://www.reaser.ru

Dunham, R. B., Smith, F. J., & Blackburn, R. S. (1977). *Validation of the Index of Organizational Reactions with the JDI, the MSQ, and Faces Scales*. Academy of Management Journal, 20(3), 420–432

Edwin A. (2004). *Industrial Psychology.* In Encyclopedia of Applied Psychology, Harvard University

Elvita B., Sri K. and Mohammed T. (2018) *Job satisfaction as predictor of employee engagement. Advances in Social Science,* Education and Humanities Research (ASSEHR), volume 127 8th International Conference of Asian Association of Indigenous and Cultural Psychology

FDRE,Job Creation Commission (2019). *National plan for job creation (2020-2025).* Addis Ababa, Ethiopia

FDRE, Ministry of Construction, 2016, *unofficial report*. Addis Ababa, Ethiopia

Greenberg J. (2001), *Studying Organizational Justice Cross-Culturally: Fundamental Challenges*; The International Journal of Conflict Management, Vol. 12, No. 4, 2001, P. 365 – 375

Gurbuz S. and Mert I.,(2009), *Validity and Reliability Testing of Organizational Justice Scale: An Empirical Study in a Public Organization*; Review of Public Administration, Volume 42 Issue 3,p. 117-139.

Hackman, J. R., & Lawler, E. E. (1971). *Employee reactions to job characteristics*. Journal of Applied Psychology, 55, 259-286.

Hackman, R.J. & Oldham, G.R. (1980). *Work Redesign*. Reading, MA: Addison- Wesley.

Harter, J., Schmidt, F., & L Hayes, T. (2002). Business-*Unit-Level Relationship Between Employee Satisfaction, Employee Engagement, and Business Outcomes*: A Meta-Analysis. The Journal of applied psychology (Vol. 87). https://doi.org/10.1037//0021-9010.87.2.268

He Hongwei , Zhu Weichun and Zheng Xiaoming;(2013), *Procedural Justice and Employee Engagement: Roles of Organizational Identification and Moral Identity Centrality*; June 2013; Springer Science Business Media Dordrecht.

Holbeche, L. and Springett, N. (2003) *In Search of Meaning in the Workplace*. Horsham, Roffey Park.

http://etd.lib.metu.edu.tr/upload/12618253/index.pdf *Institution.* Middle East Technical University. Retrieved March 22 8:45 PM from

Jain Monika and Mathur Garima (2015), *Effect of Organization Justice and Employee Engagement on Job satisfaction*; International Journal Of Core Engineering & Management (IJCEM); Volume 2, Issue 3, June 2015

James N., Robert E., Michael T., Louis C., Kathleen A. and Stewart C. (2015) *Perceived Organizational Support: A Meta-Analytic Evaluation of Organizational Support Theory*

George Mason University University of Houston University at Albany, SUNY U.S. Customs and Border Protection

Kahn, W. (1990). *Psychological Conditions of Personal Engagement and Disengagement at Work*. The Academy of Management Journal, https://doi.org/10.1021/la051212i

Kahn. W.(2012). *Employee engagement*, The Academy of Management Journal

Krugman, P.(1996) *Making Sense Of The Competitiveness Debate*. Oxford Review Of Economic Policy, Vol. 12, No. 3, Masachuset, USA

Magner, N., Welker, R and Johnson, G. (1996).*The interactive effects of participation and outcome favorability in performance appraisal on turnover intentions and evaluations of supervisors*. J. occupational org. psychol. 69: 135-143

Marek F. and Jakub V. (2008). *Personal Characteristics and Job Satisfaction*. Ekonomie a Management (11).63-76

Mark L.and Suzanne S. (2017).*Vocational Psychology Overview. in Reference Module in Neuroscience and Bio-behavioral Psychology*. Kent State University, Kent, OH, United States

Maslach, C., Shaufeli, W. & Leiter, M. (2001). *Job burnout.* Annual Review of Psychology, 52,397422.Retrieved15December,2013,from

http://www.employmentstudies.co.uk/main/index

May, D., L. Gilson, R., & M. Harter, L. (2004). *The Psychological Conditions of Meaningfulness, Safety and Availability and the Engagement of the Human Spirit at Work.* Journal of Occupational and Organizational Psychology (Vol. 77). https://doi.org/10.1348/096317904322915892

Mohamed A. (2015) *Correlation and Regression Analysis Textbook*. Organization of Islamic Cooperation Statistical Economic and Social Research and Training Centre for Islamic Countries. Egypt

Naveed A. Nadeem I., Rubina K., Hina J. and Komal J. (2014) T*he mediating role of employee engagement in relationship of internal branding and brand experience: Case of service organizations of Dera Ghazi Khan* . International Journal of Information, Business and Management, Vol. 6, No.4, 2014 Faculty of Management Sciences, Ghazi University, Dera Ghazi Khan, Pakistan

Ojedokun, A.(2008). *Perceived job insecurity, job satisfaction and intention to quit* African Journal for the Psychological Study of Social Issues, 11(2), 204-220

Ovidiu-Iliuta D. (2013). *Employee motivation and organizational performance*.The Bucharest University of Economic Studies Review of Applied Socio- Economic Research (Volume 5, Issue 1/ 2013), pp. 53

Ponnu C. H. and Chuah C.C. (2010), *Organizational commitment, organizational justice and employee turnover in Malaysia;* African Journal of Business Management Vol. 4.

Ramesh ,P and Dominic J. (2016) *Variables of Job Satisfaction: A review study with special reference to LIS Professiona*ls. Baba Ghulam Shah Badshah University& Karunya University

Rebeca J(2018) *The Relationship of Employee Engagement and Employee Job Satisfaction to Organizational Commitment*. Walden University

Remo Neli (2012), *Comparing Two Models of Employee Engagement: An Examination of Antecedents and Outcome Variables*; PhD Dissertation at the University of Windsor, Ontario, Canada.

Riël V. and Kjell T. (1996) *Introduction: Distributive and procedural justice.* Social Justice
Research 9(4):305-310, University of Netherland and Stockholm

Robert J. (2006) *Employee engagement and commitment*. SHRM Foundation, 1800 Duke Street,
Alexandria, VA 22314

Schaufeli, W. (2013). *What is engagement? In C. Truss, K. Alfes, R. Delbridge, A. Shantz, & E.
Soane (Eds.), Employee Engagement in Theory and Practice*. London: Routledge.

Rich, L. & Crawford (2010). *Qualitative Research Methods in Psychology* Deborah Biggerstaff
Warwick Medical School University of Warwick, Coventry UK

Robinson, d.; Perryman, D.; Hayday, S. (2004). *The Drivers of Employee Engagement. IES
Research Netwroks (Vol., 408*). Retrieved from www.employmentstudies.co.uk/pubs/repo
rt.php?id=447

Roy J., Bastounis M. and Poussard J.,(2012), Interactional Justice And Counterproductive Work
Behaviours: The Mediating Role Of Negative Emotions; Social Behaviour and
Personality, Vol. 40.

Rupp D., Shapiro D., Folger R. Skarlicki D.. and Shao R. (2017), *A Critical Analysis Of The
Conceptualization and Measurement Of Organizational Justice*: Is It Time For
Reassessment? Academy of Management Annals, Vol. 11, No. 2, P. 919–959.

Samithamby S (2019). *Usefulness of Correlation Analysis*. International Training Institute
Papua New Guinea

Sandeep K., Mark G., Chris R., Emma S. and Katie T.(2008). *Employee Engagement: A
Literature Review*. Working Paper Series No 19. Kingston University , Jamaica

Saks, A. (2006). *Antecedents and consequence of work engagement: A literature review.* International Journal of Applied Business and Economic Research.

https://doi.org/10.1108/02683940610690169

Schaufeli W. (2002), *The measurement of engagement and burnout*: journal of Happiness Studies, Kluwer Academic Publishers. Printed in the Netherlands.

Schaufeli, W. and Bakker, A. (2004), "*Job demands, job resources, and their relationship with burnout and engagement: a multi-sample study*", Journal of Organizational Behaviour, 25, 293-315.

Shuck B. (2011) *Four emerging perspectives of employee engagement An integrative literature review* .Human resource development review 10(1) 304-28

Siegrist, J. (1996). *Adverse health effects of high-effort/low-reward conditions.* Journal of Occupational Health Psychology, 1(1), 27–41.

Simon B., Kai Y.and Comelis C.(2014). *The Role of Supervisor Support In Predicting Employee Job Satisfaction From Their Perception Of The Performance Management System:* A Test Of Competing Models In Engineering Environments. South African Journal of Industrial Engineering 25(1):85-95

Singh A. and Masuka M. (2014) *Sampling techniques & determination of sample size in applied statistics research: an overview.* International Journal of Economics, Commerce and Management United Kingdom Vol. II, Issue 11. University of Swaziland, Luyengo, Swaziland

Smith, (1976), *Assessing the Construct Validity of the Job Descriptive Index*, NY, USA

Thibaut, J. and Walker, L. (1975) *Procedural Justice: A Psychological Analysis*

Towers Perrin. (2003). *Working today: Understanding what drives employee engagement*: The 2003 Towers Perrin talen report. https://doi.org/10.13109/prkk.2007.56.4.310

Unutmaz, S. (2014). *Factors Affecting Job Satisfaction of the Employees in a Public*

Viswesvaran, C. (Vish, & Ones, D. (2002). *Perspectives on Models of Job Performance. International Journal of Selection and Assessment (Vol. 8)*. https://doi.org/10.1111/14682 389.0015

Wilson, F. (2004) *Organisational Behaviour and Work, A Critical Introduction*. 2nd ed. Oxford, Oxford University Press.

Woodruffle, (2006) *The crucial importance of employee engagement*; Article in Human Resource Management International Digest 14(1):3-5 · January 2006

World Bank (2015). *SME Finance in Ethiopia: Addressing the Missing Middle Challenge*. Working Paper 96365, Washington DC: World Bank.

Yean T. and Yusof A. (2016), *Organizational Justice: Conceptual Discussion; Procedia* – Social and Behavioral Science, P. 798 – 803, Published by Elsevier Ltd.

APPENDICES

Questionnaire

ADDIS ABABA UNIVERSITY

COLLEGE OF BUSINES AND ECONOMICS

DEPARTMENT OF MANAGEMENT

Dear Respondents:

I am a graduate student at Addis Ababa University College of Business and Economics, Department of Management. Presently, I am conducting a research titled: - Factors affecting EE: The Mediating Role of job satisfaction in the case of construction sector in Addis Ababa as a partial fulfilment of requirements for the award of Masters of Business Administration.

Your participation is entirely voluntary and the questionnaire is completely anonymous. I confirm you that the information you share will stay confidential, and only will be used for the analysis of the research objectives that are assessing the relationship between the independent variables against the mediator and employee engagement. So, your genuine, frank and timely response is vital for the success of the study. I want to thank you in advance for your kind cooperation and dedication of your precious time to fill this questionnaire. If needed we will let you know the final result of this study.

This questionnaire is adopted from the antecedents and consequence of work engagement (Saks, 2006)in which the variable are articulated in a way that can assess and elaborates the research question and be able to answer the research objective.

Instructions

1. No need of writing your name.

2. Put either of these "√" or "X" marks on the appropriate block/cell choices and

Likert scale questions.

3. If you need further explanation you can contact me and discuss the matter freely

at (Telephone No. 0911814688, E-mail: - selamawit_amaha@yahoo.com).

Part 1:

Demographic Information:

1. How many years have you worked for the company?

    0 to 2 years ☐   3 to 5 years ☐   6 to 10 years☐

    11 to 15 years☐   16 to 20 years ☐   Over 20 years☐

2. Age: ☐

3. Gender: M ☐   F ☐

4. What is the highest level of education you have completed?
 Circle one:

    College diploma ☐   Undergraduate Degree ☐

    Graduate Degree and above ☐

5. Job title;

    a) Staff ☐   b) Site Manager ☐   c) manager ☐

Part 2
Five point Likert scale questions

Please express your level of agreement in the following questions by putting "√" or "X" mark in

the appropriate cell. 1= Strongly Disagree, 2= Disagree, 3= Neutral, 4= Agree, 5= Strongly Agree

---

No of items	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
Job characteristics					
Skill Variety					
The job involves a great deal of task variety					
The job involves doing a number of different things.					
The job requires the performance of a wide range of tasks.					
Task Significance					
The results of my work are likely to significantly affect the lives of other people.					
The job itself is very significant and important in the broader scheme of things					
The job has a large impact on people outside the organization					
Task Identity					
The job involves completing a piece of work that has an obvious beginning and end					
The job is arranged so that I can do an entire piece of work from beginning to end					
The job provides me the chance to completely finish the pieces of work I begin					
Feedback					
The work activities themselves provide direct and clear information about the effectiveness (e.g., quality and quantity) of my job performance					
The job itself provides feedback on my performance					
The job itself provides me with information about my performance					

Description of items	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
Autonomy					
The job allows me to decide on the order in which things are done on the job					
The job allows me to make a lot of decisions on my own					
The job allows me to make decisions about what methods I use to complete my work					
Perceived Organizational support					
Working for this organization influence my overall attitude toward my job					
My organization considers employee welfare as equivalent as the company's profit.					
I get a continuous organizational follow up and support towards performing the given task.					
Perceived supervisor support					
I feel satisfied about the supervision by the supervisor.					
The way I am treated by the supervisor influences my overall attitude toward my job					
My supervisor effort on me adds to the success of my organization					
Rewards					
My needs satisfied by the pay and benefits I receive from the company					
The payment am getting for the extra effort I put does worth it.					
The amount of money I am now making influence my overall attitude toward my					

job.					
Recognition					
My company or organization makes me feel valued					
I have experienced receiving recognition for the task I have accomplished well.					
My organization makes me feel Valued through recognition.					
Procedural Justice					
I fell my company is fair enough to address equal career growth opportunities.					
I believe the decision makers are trustworthy.					
I am comfortable with the transparency of the management hierarchy.					

Description of items	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
Distributive Justice					
I consider my work load to be quite fair					
I feel that my job responsibilities are quite fair					
My job outcome is fairly measured against the responsibilities am assigned for.					
Job satisfaction					
I get a feeling of accomplishment from my job					

I believe the company has a career development opportunities for me					
I am comfortable with the work environment					
Employee Engagement					
VIGOR					
At my work, I feel like bursting with energy.					
When I get up in the morning, I feel like going to work.					
I can continue to work for long periods.					
DEDICATION					
I find the work that I do meaningful and purposeful.					
I am enthusiastic about my job.					
I am proud of the work that I do.					
ABSORPTION					
Time flies when I am at work.					
When I work, I forget everything else around me					
I feel happy when I work intensively					

Thanks for the kind cooperation!!!

APPENDIX 2

Correlations

		JCSV1	POS1	PSS1	Reward1	Recognition1	PJ1	DJ1
JCSV1	Pearson Correlation	1	.462**	.135*	.274**	.517**	.470**	.280**
	Sig. (2-tailed)		.000	.023	.000	.000	.000	.000
	N	284	284	284	284	284	284	284
POS1	Pearson Correlation	.462**	1	.191**	.136*	.545**	.456**	.237**
	Sig. (2-tailed)	.000		.001	.022	.000	.000	.000
	N	284	284	284	284	284	284	284
PSS1	Pearson Correlation	.135*	.191**	1	-.062	.288**	.213**	.274**
	Sig. (2-tailed)	.023	.001		.295	.000	.000	.000
	N	284	284	284	284	284	284	284
Reward1	Pearson Correlation	.274**	.136*	-.062	1	.464**	.355**	.019
	Sig. (2-tailed)	.000	.022	.295		.000	.000	.756
	N	284	284	284	284	284	284	284
Recognition1	Pearson Correlation	.517**	.545**	.288**	.464**	1	.796**	.289**
	Sig. (2-tailed)	.000	.000	.000	.000		.000	.000
	N	284	284	284	284	284	284	284
PJ1	Pearson Correlation	.470**	.456**	.213**	.355**	.796**	1	.272**
	Sig. (2-tailed)	.000	.000	.000	.000	.000		.000

	N	284	284	284	284	284	284	284
DJ1	Pearson Correlation	.280**	.237**	.274**	.019	.289**	.272**	1
	Sig. (2-tailed)	.000	.000	.000	.756	.000	.000	
	N	284	284	284	284	284	284	284

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

*. Correlation is significant at the 0.05 level (2-tailed).

GRAPH

 /SCATTERPLOT(BIVAR)=EEV1 WITH JCSV1

 /MISSING=LISTWISE.

Graph
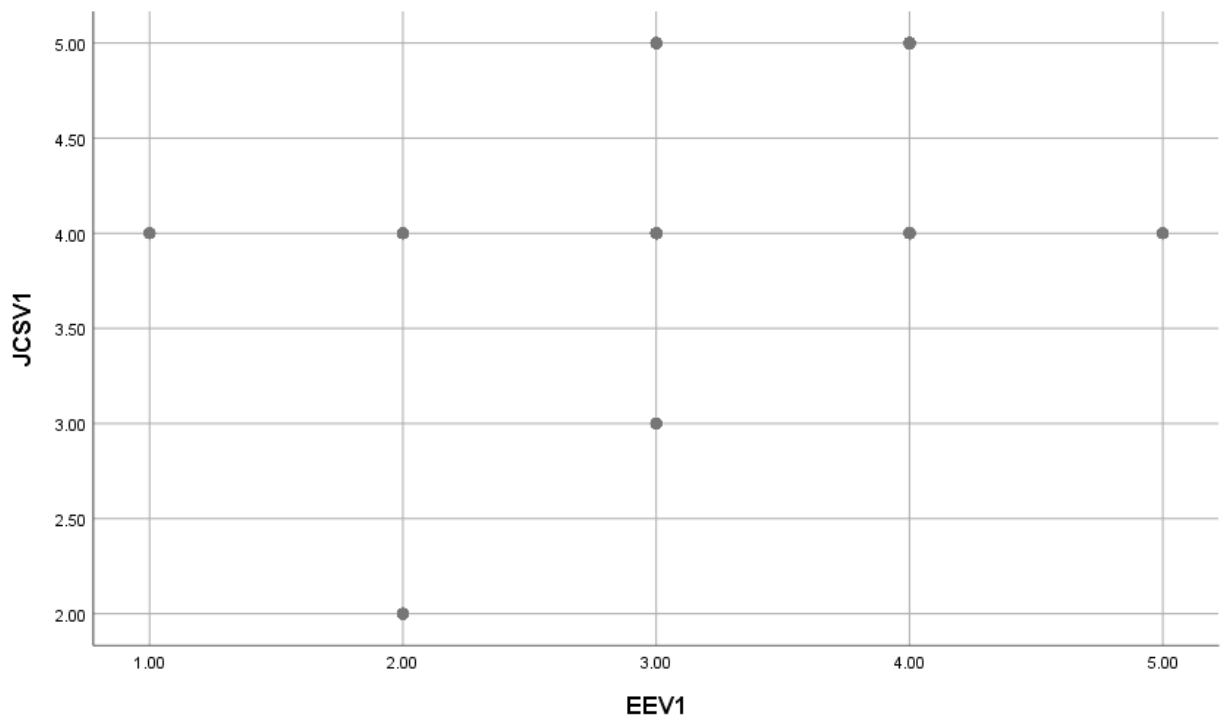
GRAPH

/SCATTERPLOT(OVERLAY)=JCSV1 JCSV2 JCSV3 JCTS1 JCTS2 JCTS3 JCTI1 JCTI2 JCTI3

WITH EEV1 EEV2 EEV3

  EED1 EED2 EED3 EEA1 EEA2 EEA3 (PAIR)

/MISSING=LISTWISE.

Reliability

Scale: ALL VARIABLES

Case Processing Summary

		N	%
Cases	Valid	284	100.0
	Excluded^a	0	.0
	Total	284	100.0

a. Listwise deletion based on all variables in the

procedure.

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.755	.766	15

Item Statistics

	Mean	Std. Deviation	N
Job Characterstics	4.1092	.61666	284
Job Characterstics	4.1444	.78655	284
Job Characterstics	4.4296	.77412	284

Job Characterstics	4.0070	.96582	284
Job Characterstics	3.9718	.97997	284
Job Characterstics	4.0810	.80004	284
Job Characterstics	4.1373	.95785	284
Job Characterstics	3.3556	.93060	284
Job Characterstics	3.7852	.89738	284
Job Characterstics	4.1373	.63925	284
Job Characterstics	3.8908	.72223	284
Job Characterstics	4.1056	.55392	284
Job Characterstics	3.8239	.60387	284
Job Characterstics	3.2430	.98798	284
Job Characterstics	3.6338	.85714	284

Inter-Item Correlation Matrix

	Job Charactersti cs	Job Charactersti cs	Job Charactersti cs	Job Charactersti cs	Job Charactersti cs	Job Charactersti cs	Job Charactersti cs	Job Charactersti cs	Job Charactersti cs	Job Charactersti cs	Job Charactersti cs	Job Charactersti cs	Job Charactersti cs	Job Charactersti cs	Job Charactersti cs
Job Characterstics	1.000	.776	.723	.361	.186	.061	.040	.061	.106	.222	.186	.380	.156	.368	.276
Job Characterstics	.776	1.000	.542	.329	.331	-.069	-.022	.272	.395	.375	.152	.127	.210	.505	.026
Job Characterstics	.723	.542	1.000	.090	.067	-.108	.011	-.061	-.019	.302	.084	.388	.170	.140	.068
Job Characterstics	.361	.329	.090	1.000	.120	.425	-.066	.040	.161	.050	.097	.329	.184	.335	.387
Job Characterstics	.186	.331	.067	.120	1.000	.327	.121	.209	.311	-.056	.495	.266	-.188	.044	-.227
Job Characterstics	.061	-.069	-.108	.425	.327	1.000	-.148	-.034	.118	-.305	.254	.220	-.044	.064	.136
Job Characterstics	.040	-.022	.011	-.066	.121	-.148	1.000	.425	.034	-.094	-.183	-.161	-.196	.013	.079
Job Characterstics	.061	.272	-.061	.040	.209	-.034	.425	1.000	.600	.268	-.047	-.005	.244	.371	.297
Job Characterstics	.106	.395	-.019	.161	.311	.118	.034	.600	1.000	.544	.073	.117	.263	.462	.224
Job Characterstics	.222	.375	.302	.050	-.056	-.305	-.094	.268	.544	1.000	-.044	.258	.145	.333	.286
Job Characterstics	.186	.152	.084	.097	.495	.254	-.183	-.047	.073	-.044	1.000	.559	-.044	.087	.055
Job Characterstics	.380	.127	.388	.329	.266	.220	-.161	-.005	.117	.258	.559	1.000	.161	.147	.454
Job Characterstics	.156	.210	.170	.184	-.188	-.044	-.196	.244	.263	.145	-.044	.161	1.000	.380	.496
Job Characterstics	.368	.505	.140	.335	.044	.064	.013	.371	.462	.333	.087	.147	.380	1.000	.410
Job Characterstics	.276	.026	.068	.387	-.227	.136	.079	.297	.224	.286	.055	.454	.496	.410	1.000

Scale Statistics

Mean	Variance	Std. Deviation	N of Items
58.8556	33.919	5.82400	15

RELIABILITY

 /VARIABLES=POS1 POS2 POS3 PSS1 PSS2 PSS3

 /SCALE('ALL VARIABLES') ALL

 /MODEL=ALPHA

 /STATISTICS=DESCRIPTIVE SCALE CORR.

Scale: ALL VARIABLES

Case Processing Summary

		N	%
Cases	Valid	284	100.0
	Excluded[a]	0	.0
	Total	284	100.0

a. Listwise deletion based on all variables in the

procedure.

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.611	.593	6

Item Statistics

	Mean	Std. Deviation	N
Percieved Organizational/Supervisor Support	3.5669	.77443	284
Percieved Organizational/Supervisor Support	3.1408	.78943	284
Percieved Organizational/Supervisor Support	3.8239	.70635	284
Percieved Organizational/Supervisor Support	3.6444	.89182	284
Percieved Organizational/Supervisor Support	3.7887	.97554	284
Percieved Organizational/Supervisor Support	3.8908	.93917	284

Inter-Item Correlation Matrix

	Percieved Organizational/Supervisor Support	Percieved Organizational/Supervisor Support	Percieved Organizational/Supervisor Support	Percieved Organizational/Supervisor Support	Percieved Organizational/Supervisor Support	Percieved Organizational/Supervisor Support
Percieved Organizational/Supervisor Support	1.000	.453	.119	.191	.299	.280

Percieved Organizational/Supervisor Support	.453	1.000	.298	.021	-.058	-.175
Percieved Organizational/Supervisor Support	.119	.298	1.000	-.156	.100	-.082
Percieved Organizational/Supervisor Support	.191	.021	-.156	1.000	.360	.717
Percieved Organizational/Supervisor Support	.299	-.058	.100	.360	1.000	.561
Percieved Organizational/Supervisor Support	.280	-.175	-.082	.717	.561	1.000

Scale Statistics

Mean	Variance	Std. Deviation	N of Items
21.8556	8.859	2.97640	6

RELIABILITY

/VARIABLES=Reward1 Reward2 Reward3 Recognition1 Recognition2 Recognition3

/SCALE('ALL VARIABLES') ALL

/MODEL=ALPHA

/STATISTICS=DESCRIPTIVE SCALE CORR.

DECLARATION

I, the undersigned, declare that this is my original work and has not been presented for a degree in any other university and all the sources of materials used for the research project have been duly acknowledged.

Student Name   **Signature**   **Date**

Selamawit Amaha   ………………………..   ………………………….

Advisor's Name

Lakew (PhD)   …………