Impact of Employee Engagement on Career Development: A Study in Manufacturing Industries

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ABSTRACT

Employee engagement is important today because it contributes in the achievement of organizational objectives. Employee engagement is the result when employees are treated well and rewarded. Opportunity for development, advancement and participation also help employees become engaged. The study explores meaningful relationship between employee engagement and one of the important developmental measure career development. Career development emphasizes holding a sequence of positions during a career by an individual. They can be pursued internally with the same employer or externally among various employers. This research is specifically undertaken in context of the manufacturing organizations.

During the last several years, many studies have been carried out on employee engagement in India by academicians. The studies have so far covered many factors of engagement leaving aside the process outcomes like career development. Therefore, the need for the present study is to explore linkages of employee engagement to career development.

The coverage of the study includes studying nature of employee engagement and career development and relationship between the two, including the causal relationship. Some demographic variables like experience, age, qualification, gender and income effects on the relationship have been studied. One of the basic objectives is to explore predictive capacity of independent variables for future actions in this field. The objectives of the research are as follows;

a. To measure the relationship between employee engagement and career development.

b. To find evidence about the predictive effect of employee engagement on career development.
c. To assess if demographic variables such as age, experience, income, qualification and gender act as a moderator on the relationship between employee engagement and career development.
d. To determine the effect of age, experience, income, qualification and gender on employee engagement predictor.
e. To determine the effect of age, experience, income, qualification and gender on criterion of career development.

Seventeen hypotheses were generated for the study, which were subsequently tested;

Hypothesis 1: Hypothesis 1 can be stated in the null and alternate as follows:

$H1_0$: There is no significant relationship between employee engagement and Career Development.

$H1_A$: There is a significant relationship between employee engagement and career development.

Hypothesis 2*:* Hypothesis 2 can be stated in the null and alternate as follows:

$H2_0$: Employee engagement in organizations will not result in employees' career development.

$H2_A$: Employee engagement in organizations will result in the career development of employees.

Hypothesis 3*:* Hypothesis 3 can be stated in the null and alternate as follows:

$H3_0$: There is no moderation effect of employees' experience on the relationship between employee engagement and career development.

$H3_A$: There is a moderation effect of employees' experience on the relationship between employee engagement and career development.

Hypothesis 4*:* Hypothesis 4 can be stated in the null and alternate as follows:

$H4_0$: There is no moderation effect of employees' age on the relationship between employee engagement and career development.

$H4_A$: There is a moderation effect of employees' age on the relationship between employee engagement and career development.

Hypothesis 5*:* Hypothesis 5 can be stated in the null and alternate as follows:

$H5_0$: There is no moderation effect of employees' income on the relationship between employee engagement and career development.

$H5_A$: There is a moderation effect of employees' income on the relationship between employee engagement and career development.

Hypothesis 6*:* Hypothesis 6 can be stated in the null and alternate as follows:

$H6_0$: There is no moderation effect of employees' qualification on the relationship between employee engagement and career development.

$H6_A$: There is a moderation effect of employees' qualification on the relationship between employee engagement and career development.

Hypothesis 7*:* Hypothesis 7 can be stated in the null and alternate as follows:

$H7_0$: There is no moderation effect of employees' gender on the relationship between employee engagement and career development.

$H7_A$: There is a moderation effect of employees' gender on the relationship between employee engagement and career development.

Hypothesis 8*:* Hypothesis 8 can be stated in the null and alternate as follows:

$H8_0$: Employee engagement in organizations is not influenced by the age of the employees.

$H8_A$: Employee engagement in organizations is influenced by the age of the employees.

Hypothesis 9*:* Hypothesis 9 can be stated in the null and alternate as follows:

$H9_0$: Employee engagement in organizations is not influenced by the experience of the employees.

$H9_A$: Employee engagement in organizations is influenced by the experience of the employees.

Hypothesis 10*:* Hypothesis 10 can be stated in the null and alternate as follows:

$H10_0$: Employee engagement in organizations is not affected by the income-levels of the employees.

$H10_A$: Employee engagement in organizations is affected by the income-levels of the employees.

Hypothesis 11*:* Hypothesis 11 can be stated in the null and alternate as follows:

$H11_0$: Employee engagement in organizations is not affected by the qualification of the employees.

$H11_A$: Employee engagement in organizations is affected by the qualification of the employees.

Hypothesis 12*:* Hypothesis 12 can be stated in the null and alternate as follows:

$H12_0$: Employee engagement in organizations is not influenced by the gender of the employees.

$H12_A$: Employee engagement in organizations is influenced by the gender of the employees.

Hypothesis 13*:* Hypothesis 13 can be stated in the null and alternate as follows:

$H13_0$: Career development in organizations is not influenced by the age of the employees.

$H13_A$: Career development in organizations is influenced by the age of the employees.

Hypothesis 14*:* Hypothesis 14 can be stated in the null and alternate as follows:

$H14_0$: Career development in organization is not influenced by the experience of the employees.

$H14_A$: Career development in organization is influenced by the experience of the employees.

.**Hypothesis 15:** Hypothesis 15 can be stated in the null and alternate as follows:

$H15_0$: Career development experience in organization is not affected by the income- levels of the employees.

$H15_A$: Career development experience in organization is affected by the income- levels of the employees.

Hypothesis 16*:* Hypothesis 16 can be stated in the null and alternate as follows:

$H16_0$: Career development in organizations is not influenced by the qualification of the employees.

$H16_A$: Career development in organizations is influenced by the qualification of the employees.

Hypothesis 17*:* Hypothesis 17 can be stated in the null and alternate as follows:

$H17_0$: Career development experience in organization is not affected by the gender of the employees.

$H17_A$: Career development experience in organization is affected by the gender of the employees.

The research design of this study is descriptive and quantitative. To measure employee engagement and career development, a self-constructed questionnaire was administered to the respondents. The sample size consisted of 337 employees belonging to three different organizations.

It was hypothesized that there will be a positive correlation between employee engagement constructs and career development of employees. It was also assumed that employee engagement in organizations has predictive value with respect to career development of employees. It was also planned to study the moderation effects of demographic variables on the relationship between employee engagement and career development. The relationship of the demographic variable with the predictor and the criterion variable was also deliberated. Review of related literature has been done particularly with a view to locate the possible correlates of the variables studied.

After determining the reliabilities (Cronbach's alpha) for the measures for the sample, frequency distributions for the demographic variables were obtained. The dispersion of the data was on expected lines with most of the observations around mean. Each hypothesis was then tested. A factor analysis of independent variable was done to gain a pattern of distribution. Three factors

for employee engagement and career development each with Eigen value of 1 or more have been selected and identified accordingly. The factors identified for employee engagement were Factor 1, called drive factor (involvement , attachment and dedication , understanding mission, excellent work place, feeling of pride , excitement in the job), Factor 2, called commitment factor (participation , personal accomplishment , contributions, and goal achievement) and Factor 3, called proactive behavior factor (care for organization, discretionary effort).

- The first research hypothesis stated that there is a significant relationship between employee engagement and career development. The correlation matrix provides the answer for the first hypothesis. The result of the study showed that there is a positive relationship between the two variables. However, excellent work place (0.522), feeling of pride (0.520), and excitement in the job (0.554) are more correlated with career development whereas involvement (0.372), discretionary effort (.397) and personal accomplishment (0.395) were less correlated with career development.
- The second hypothesis stated that employee engagement in organizations will significantly explain the career development of employees. To test this hypothesis, Drive, Commitment, Proactive behavior factor of employee engagement measures; the independent variable, were regressed against career development, the dependent variable. Results showed that each factor of employee engagement was a predictor of career development. That is, the R^2 value of .483 at a significance level of $p<.001$ confirms that 48.30 % of the variance in career development is significantly explained by the independent variables.

- The third research hypothesis tested the moderation effect of demographic variables of experience on the relationship between employee engagement and career development. This hypothesis was assessed using Preacher and Hayes method . The results indicates that the *F* value of 32.75 with R^2 of .41 is significant (p<.001), i.e. 41% variance is due to predictor Drive and levels of experience. Similarly, 39% of variance is due to predictor Commitment and levels of experience , with *F* value of 30.30 at P<0.001. *F* value of 14.24 at P<0.001 with an R^2 = .23 indicates a 23% of variance is due to predictor proactive behavior and levels of experience. Simple Slopes for X to Y given level of experience indicate that for employees having 05 -10 yrs. experience, commitment factors predict increase in career development by 9.72 points; employees having 10-15 yrs. experience, commitment factors predict increase in career development by 7.32 points; employees having more than 15 yrs. experience, commitment factors predict increase in career development by 7 points. The hypothesis was substantiated.
- The fourth research hypothesis tested the moderation effect of demographic variables of age on the relationship between employee engagement and career development. This hypothesis was assessed using Preacher and Hayes method. The result indicates that the *F* value of 33.32 with R^2 of .4149 is significant (p<.001), i.e. 41% variance is due to predictor Drive and age. Similarly, 36% of variance is due to predictor Commitment and age , with *F* value of 26.81 at P<0.001. *F* value of 14.55 at P<0.001 with an R^2 = .23 indicates a 23% of variance is due to predictor proactive behavior and age. Simple Slopes for X to Y for given age indicate that for employees having age group 18-25 yrs., drive factors predict increase in career development by 5.32 points; for employees having age group 26-35 yrs., drive factors predict increase in career development by

7.96 points; employees having age group 36-45 yrs. , drive factors predict increase in career development by 5.46 points; for employees of age group more than 46 years age , drive factors predict increase in career development by 5.08 points. The hypothesis was substantiated.

- The fifth research hypothesis tested the moderation effect of demographic variables of income level on the relationship between employee engagement and career development. This hypothesis was assessed using Preacher and Hayes method. The regression coefficients for interactions are not statistically significant. There is no moderation effect of demographic variable of income on relationship between employee engagement factors and career development. The hypothesis was not substantiated.
- The sixth research hypothesis tested the moderation effect of demographic variables of qualification on the relationship between employee engagement and career development. This hypothesis was assessed using Preacher and Hayes method. The result indicates that the F value of 51.75 with R^2 of .4388 is significant (p<.001), i.e. 43.88% variance is due to predictor Drive and qualification. Similarly, 38.15 % of variance is due to predictor Commitment and qualification, with F value of 40.83 at P<0.001. F value of 20.40 at P<0.001 with an R^2 = .2356 indicates a 23.56 % variance due to predictor proactive behavior and qualification. Simple Slopes for X to Y given qualification indicate that for employees having Diploma Qualification, drive factors predict increase in career development by 5.14 points, employees have Graduate qualification; drive factors predict increase in career development by 7.48 points, employees having Post-Graduate qualification, drive factors predict increase in career development by 4.039 points. Similarly, for employees having graduate qualification, commitment factors predict

increase in career development by 9.5762 points, employees having Post-Graduate qualification, commitment factors predict increase in career development by 4.666 points. The hypothesis was substantiated.

- The seventh research hypothesis tested the moderation effect of gender on the relationship between employee engagement and career development. This hypothesis was assessed using Preacher and Hayes method. The result indicates that the *F* value of 69.10 with R^2 of 0.3837 is significant (p<.001), i.e. 38.37 % variance is due to predictor Drive and gender. Similarly, 29.26 % of variance is due to predictor Commitment and gender, with *F* value of 45.91 at P<0.001. *F* value of 32.27 at P<0.001 with an R^2 = 0.2253 indicates a 22.53% of variance is due to predictor proactive behavior and gender. Simple Slopes for X to Y given gender indicate that for male employees, commitment factors predict increase in career development by 6.62 points. The hypothesis was substantiated.

- The eight research hypothesis stated that employee engagement in organizations is influenced by the age of the employees. The hypothesis was tested using ANOVA. The *F* value of 18.561 is significant at .0001 level. This implies that hypothesis is substantiated. There is significant difference in the mean employee engagement level in the four age groups.
- The ninth research hypothesis stated that employee engagement in organizations is influenced by the experience of the employees. The hypothesis was tested using ANOVA. The *F* value of 17.208 is significant at .0001 level. This implies that

hypothesis is substantiated. There is significant difference in the mean employee engagement level in the four experience groups.

- The tenth research hypothesis stated that Employee engagement in organizations is not affected by the income-levels of the employees. The hypothesis was tested using ANOVA. The *F* value of 8.883 is significant at .0001 level. This implies that hypothesis is substantiated. There is significant difference in the mean employee engagement level in the four income groups.
- The eleventh research hypothesis stated that Employee engagement in organizations is not affected by the qualification of the employees. The hypothesis was tested using ANOVA. The *F* value of 4.333 is significant, ($P<.05$). This implies that hypothesis is substantiated. There is significant difference in the mean employee engagement level in the three qualification groups.
- The twelfth research hypothesis stated that Employee engagement in organizations is not influenced by the gender of the employees. The hypothesis was tested using independent sample t test. The t value of -.705 is not significant. This implies that hypothesis is not substantiated. There are no significant differences between male and female employees with respect to employee engagement, and the null hypothesis is accepted.
- The thirteenth research hypothesis stated that career development in organizations is influenced by the age of the employees. The hypothesis was tested using ANOVA. The *F* value of 3.903 is significant at .009 level. This implies that hypothesis is substantiated. There is significant difference in the mean career development in the four age groups.
- The fourteenth research hypothesis stated that career development in organization is not influenced by the experience of the employees. The hypothesis was tested using

ANOVA. The *F* value of 3.696 is significant at .012 level. This implies that hypothesis is substantiated. There is significant difference in the mean career development experiences of the four experience groups.

- The fifteenth research hypothesis stated that career development experience in organization is not affected by the income- levels of the employees. The hypothesis was tested using ANOVA. The *F* value of 2.355 is not significant at .072 level. This implies that hypothesis is not substantiated. It indicates that there are no significant differences in the mean career development experiences of the employees in the four income groups.
- The sixteenth research hypothesis stated that Career development in organizations is not affected by the qualification of the employees. The hypothesis was tested using ANOVA. The *F* value of 4.333 is significant, ($P<.05$). This implies that hypothesis is substantiated. There is significant difference in the mean career development in the three qualification groups, and the null hypothesis is rejected.
- The seventeenth research hypothesis stated that Career development experience in organization is not affected by the gender of the employees. The hypothesis was tested using independent sample t test. The t value of -.288 is not significant. This implies that hypothesis is not substantiated. There are no significant differences between male and female employees with respect to career development, and the null hypothesis is accepted.

Table showing summary of results of testing of hypotheses

S.No	Tag	Null Hypothesis	Accepted/Rejected
1.	$H1_0$	There is no significant relationship between employee engagement and Career Development.	Rejected
2.	$H2_0$	Employee engagement in organizations will not result in employees' career development.	Rejected
3.	$H3_0$	There is no moderation effect of employees' experience on the relationship between employee engagement and career development.	Rejected
4.	$H4_0$	There is no moderation effect of employees' age on the relationship between employee engagement and career development.	Rejected
5.	$H5_0$	There is no moderation effect of employees' income on the relationship between employee engagement and career development.	Accepted
6.	$H6_0$	There is no moderation effect of employees' qualification on the relationship between employee engagement and career development.	Rejected
7.	$H7_0$	There is no moderation effect of employees' gender on the relationship between employee engagement and career development.	Rejected
8.	$H8_0$	Employee engagement in organizations is not influenced by the age of the employees.	Rejected
9.	$H9_0$	Employee engagement in organizations is not influenced by the experience of the employees.	Rejected
10	$H10_0$	Employee engagement in organizations is not affected by the income-levels of the employees.	Rejected

S.No	Tag	Null Hypothesis	Accepted/Rejected
11	$H11_0$	Employee engagement in organizations is not affected by the qualification of the employees.	Rejected
12	$H12_0$	Employee engagement in organizations is not influenced by the gender of the employees.	Accepted
13	$H13_0$	Career development in organizations is not influenced by the age of the employees.	Rejected
14	$H14_0$	Career development in organization is not influenced by the experience of the employees.	Rejected
15	$H15_0$	Career development experience in organization is not affected by the income- levels of the employees.	Accepted
16	$H16_0$	Career development in organizations is not influenced by the qualification of the employees.	Rejected
17	$H17_0$	Career development experience in organization is not affected by the gender of the employees.	Accepted

In conclusion, it is worthwhile to mention that employee engagement as a predictor has significant relationship and explanatory capacity with the constructs of career development. It should also be mentioned that what appears to a moderately respectable relationship has turned to be a conditional relationship when demographic variables as moderator are taken into account. Also, there are direct relationship between demographic variable with predictor and criterion variable. Therefore organization while using employee engagement as predictor of useful developmental outcomes, an organization should moderate their interventions according to the demographic profile of the employees.

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ACRONYM	FULL FORM
EE	EMPLOYEE ENGAGEMENT
CD	CAREER DEVELOPMENT
JD	JOB DESIGN
L&D	LEARNING AND DEVELOPMENT
PM	PERFORMANCE MANAGEMENT
UWES	UTRECHT WORK ENGAGEMENT SCALE
SD	STANDARD DEVIATION
EFA	EXPLORATORY FACTOR ANALYSIS
PCA	PRINCIPAL COMPONENT ANALYSIS
EPS	EARNING PER SHARE
ISR	INTERNATIONAL SURVEY RESEARCH
ANOVA	ANALYSIS OF VARIANCE
IV	INDEPENDENT VARIABLE
DV	DEPENDENT VARIABLE
SS	SUM OF SQUARES
SE	STANDARD ERROR
CI	CONFIDENCE INTERVAL
DF	DEGREE OF FREEDOM
MSA	MEASURE OF SAMPLE ADEQUECY

CHAPTER I: INTRODUCTION

CHAPTER – I: INTRODUCTION

1.1. Overview

Employee Engagement is viewed as giving out discretionary effort, that is, when employees have choices, they will act in a way that furthers their organization's interests. The results of poor engagement are reflected in high level of turnover, absenteeism, awful customer service and non-fulfillment of organizational objectives. Career development frameworks in organizations have been redefined. Traditionally, career development systems represent an alternative approach to filling job openings from within, thereby, ensuring a career ladder for everyone. This trend is less common now. This chapter provides the introduction to the concept of employee engagement and career development.

1.2. Employee Engagement

The term 'employee engagement' (EE) was coined by the American psychologist （Kahn, 1990). Engaged people, at work are assumed to be better prepared to put discretionary effort into their work beyond the minimum to get it done.

W.A. Kahn (1990) conceived of it being made up of two distinct elements:

- emotional engagement: a situation in which employees have strong emotional ties to their managers, feel their opinions matter and feel that their managers give them development input;

- cognitive engagement: a situation in which employees know what is required of them, know their purpose or mission, are provided opportunities to develop, and are given feedback about how to progress in organization.

As Macey et al (2009) put it, an engaged employee will think and act proactively. Macleod and Clarke（2009) consider employee engagement as 'an attitude, a behavior, and an outcome.

1.2.1 Elements of employee engagement

The three key elements of employee engagement are said to be: intellectual engagement, or thinking hard about one's job and how to do it better; affective engagement, or feeling positively about doing a good job ; and social engagement, or actively taking opportunities to discuss work-related improvements with others at work (CIPD 2010*b).*

Engaged employees do not put their heart and mind in their job because they are forced to, but because they want to. Reilly and Brown (2008) opined that the terms job satisfaction, and commitment are being replaced now by engagement, because it appears to have more descriptive nature. There is a linkage between levels of engagement and discretionary behavior on the part of employees. According to them, there are two key elements that have to be present if actual engagement in its real sense is to exist. The first is the rational side, which relates to an employee's appreciation of their role, where it integrates with the wider organization, and how it aligns with organization goals. The second is the emotional side, which has to do with how the person feels about the organization culture, whether their work gives them a sense of personal achievement and how they are led by their manager.

Employee Engagement: two key ingredients

Ownership of the Job

W. A. Kahn (1990) used the terms “personal engagement” and “personal disengagement”, which stand for two ends of an engagement continuum. At the level of “personal engagement”, persons completely occupy themselves—physically, intellectually and emotionally—in their work role. At the “personal disengagement” level, they detach themselves and pull out from the role.

Commitment to the Job and the Organization

Commitment refers to a willingness to carry on with a course of action. Commitment manifests itself in persons devoting time and energy to fulfill their responsibilities. Employees and employers have traditionally made a psychological contract: In exchange for workers’ commitment, organizations in its turn would provide secure jobs and reasonable compensation. When any of the entity fails to come through with the expected exchange, the commitment erodes.

1.2.2 Drivers of engagement

MacLeod and Clarke (2009) have listed following drivers of engagement:

- A strong organizational culture which gives employees a sense of vision and aims of the organization;
- Employers who valued, equipped and support their people doing the job;
- Employees jointly sharing problems and a commitment to arrive at joint solutions;
- A sense of trust and integrity among employees of the organization.

MacLeod and Clarke (2009) expressed that engagement is a two-way process: 'organizations should work to engage the employee, who have a choice to offer the level of engagement to the employer.'

Balain and Sparrow (2009) says that 'To understand what really causes engagement, and what it causes in turn, one must appreciate social exchange theory, which sees feelings of loyalty, commitment, discretionary effort as all being forms of social reciprocation by employees to a good employer.'

1.2.3 Measurement of Employee Engagement

Employee engagement dimensions are measurable and can be influenced by organizational practices. One of the most reliable measures of engagement designed and developed by Gallup organization is having 12 standard questions on engagement issues. The coverage of items includes job content and context, alignment with goals of the organization, learning and development and individual feeling of worth. Gallup model classify employees into the following categories;

- Engaged: Engaged workers are highly dedicated to their work. They are committed to fulfill the goals of the organization. They bring new ideas and innovation to the organizational working. They take responsibility of their work and are very enthusiastic towards the bright future of the organization.
- Actively disengaged: They are highly dissatisfied with the organization. They resist any new initiative to change the organization.

- Not engaged: These employees are neutral. They are not proactive and avoid any extra work, although they perform their job as per the expectation.

ISR (2007) measures three aspect of engagement: thinking, feeling and acting. The 'thinking' aspect measures the extent to which employees are committed to the mission and goals of the organization. The 'feeling' component assess the affective aspect such as emotion and pride in the company, and the 'acting' aspect defines the employees' discretionary effort at work and their intention to stay.

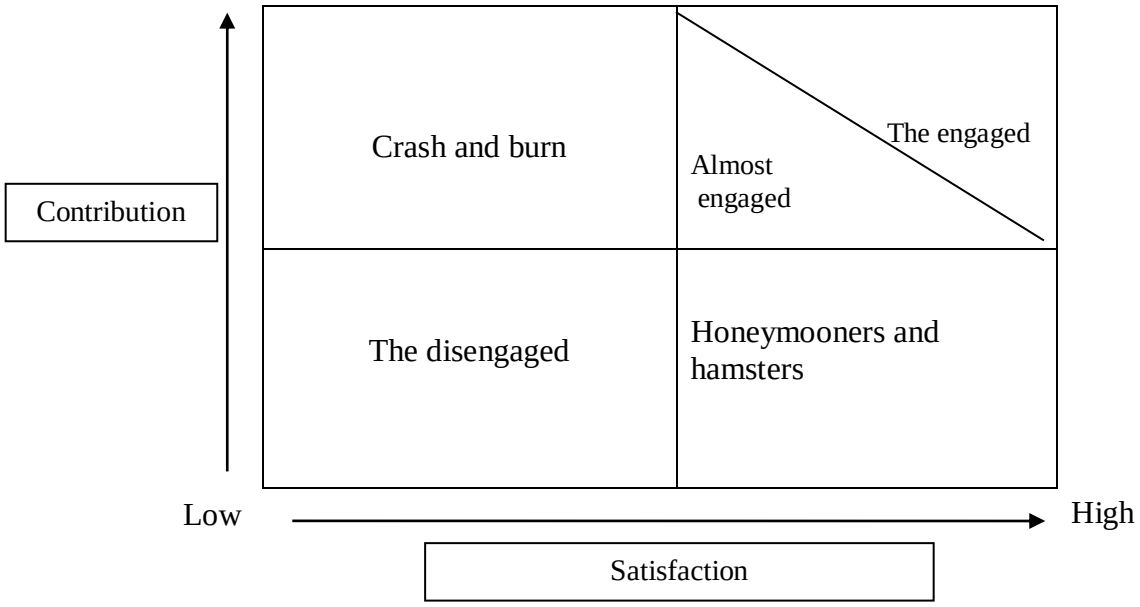
ISR approach result in four parameters of engagement:

- Highly engaged: Highly engaged employees have positive attitude to all three, thinking, feeling and acting dimension of engagement.
- Complacent: These types of employees have intention to stay but avoid any discretionary or extra effort in their work.
- Less committed employee: Less committed employee's intention to leave the organization will be very high. He or she scores average on all the dimensions.
- Fully disengaged employee: These types of employees are emotionally detached from the organization. They put minimum effort and are actively thinking of exiting the organization.

Blessing White (2018) model is having two axes of contribution and satisfaction to assess the levels of engagement or disengagement. According to them, there are five categories of engagement;

- The engaged: These are employees who belong to 'high contribution and high satisfaction segment'. They are proactive in behavior and ready to put extra effort for the organization.

Table 1.2.1: Model of Employee Engagement



Source: Table framed by Researcher

- Almost engaged: They belong to medium- to- high contribution and satisfaction. They are high performers and always looking for better avenue.
- Honeymooners and hamsters: These are employees who belong to medium-to-high satisfaction but low contribution. Honeymooners are new to the organization and learning the work.
- Crash and burn: They belong to medium -to-high contribution and satisfaction category. They are the people, whose contribution has not been recognized by the organization.

- The disengaged: These are the individuals belonging to low- to- medium contribution and satisfaction. Their attitude towards work and organization is negative. They are resistance to change and have rapid erosion of role and skills.

Aon Hewitt defines engagement through three characteristics that comprise the degree to which employees:

- Say — speak positively about the organization to co-workers, prospective employees and customers.
- Stay — have a strong sense of belonging and craving to be a part of the organization.
- Strive — are inspired and exert effort toward success in their job and for the organization.

1.2.4 Outcomes of employee engagement

Employer gained a number of tangible benefits for organization through engagement (MacLeod and Clarke 2009). Research has indicated that higher levels of engagement produce a range of organizational benefits, for example:

- higher productivity/performance – engaged employees perform 20 per cent better than the average (Conference Board, 2006);
- lower staff turnover – engaged employees are 87 per cent less likely to leave (Corporate Leadership Council, 2004);
- better attendance – engaged employees have lower sick leave (CIPD, 2007);
- Improved safety (Vance, 2006).

There is evidence of significant relations between the extent of employees' emotional and cognitive engagement and other variables such as profitability, productivity, customer satisfaction. Another significant study carried out by Towers Perrin–ISR (2006) has shown statistically significant links between the level of engagement among employees and measures of business success, notably rise in operating income, net income and earnings per share. A study by Gallup of earnings per share (EPS) growth of 89 organizations found that the EPS growth rate of organizations with engagement scores in the top quartile was 2.6 times that of organizations with below average engagement scores.

1.3. Nature of Career Development

Career development (CD) program is an integral part of any comprehensive employee development system. The need to plan for employee career issue is significant from both economic and social perspective. A planned program of developing employee career has huge advantages than relying upon outside recruitment when needs suddenly appear. Besides, too many employees' reach dead-end when there is no organizational concern for career development. In addition, the emphasis on self-actualization or doing work that is self- fulfilling have induced employers to recognize employee career development programme.

A career may be defined as an "individually perceived sequence of attitudes and behaviors associated with work-related experiences and activities over the span of the person's life." (Hall, 1976). The objective of career development is to ensure that there is a talent flow that creates and maintains the required talent pool in the organization.

The human resources of the organization flowing through a variety of job experiences, training and development are described as the path towards the career development. However, career development is very closely associated with promotion. The upward mobility decisions made by management for each employee are the ultimate inducement of a career development programme.

Williams (1984) is of the opinion that the upward view of a career progression does not always integrate with the current conditions of leaner and fitter organizations with fewer promotion opportunities. With fewer opportunities for career progression available, lateral moves – like job rotation – ensures continual career development. Customer-focused organization requires employees to move along a horizontal ladder, doing cross-sectional projects with people from different backgrounds in their organization.

The work of Super (1957) has been particularly influential in explaining the ways in which careers develop over the span of an individual's adult life. He proposed a 5-stage model: from growth, exploration, establishment, maintenance to decline covering Development of self, family and career.

Hall (1976) has proposed three distinct career stages of people working in organizations;

- Establishment: This stage, which is approximately between ages 20 to 40, people try to establish themselves in their careers. In the middle of this period, based on the career advancement, people experience a sense of self- efficacy. If unsuccessful in promotions or on being ignored, they reassess their priorities related to wok role and career.

- Maintenance: The ages between 40 to 55 is period of introspection regarding career goals. It is also the period of midlife crisis. People try to cope with the situation by changing their values, interests or finding new avenues to get a sense of achievement.
- Decline: This is period where work life is supposed to be at end- stage and it occurs between 50 or 55, when they confront retirement. It brings physical and psychological changes in the individual. Social support may be required in planning for retirement.

Organizations facilitate career development through career counseling, career pathing, career information system, human resource planning, and training. Career development of employees may provide them with the following experiences: (1) an increase of at least one skill area in each new assignment; (2) an increase of measured performance on each new assignment; and (3) encouragement to take up assignment in several different areas.

Edgar Schein (1971) suggests that an individual can move in three dimensions through the various parts of the organization as part of their career development. 'Vertical movement is a hierarchy-based change in one's rank or level. 'Radial movement' is a second type of movement toward or away from the "central core" of the organization. The third is 'Circumferential movement', which is transfer or deployment to a different function, department or division. Each kind of movement, according to him, involves passage through right boundaries. Hierarchical boundaries divide one management level from another, radial boundaries detach people closer to the power center from those out of inner circle, and circumferential boundaries is the separation among department or division. People who want to cross these boundaries within the organizations require acceptance of the members of the group to which they aspire to join. Vertical or radial moves would require congruence with the values, work styles and attitude

of the new group members or unit of work. Circumferential movement would, however, depend on acquisition of cross-functional skills and competencies.

According to Dalton, Thompson and Price (1979), career roles and relationships have four dimensions;

- Apprentices: When a person starts his or her career, he or she mostly does routine work, under the supervision of a coach or mentor. The person as such will be on learning curve. They are dependent on their supervisor, as they are learning the skills.
- Colleague: Colleagues are independent contributor. They rely on superior for directions, but still take many decisions independently, if they feel confident.
- Mentors: At the next level of development, employee becomes mentors take responsibility for their subordinates' work. Their role is to generate ideas and manage people.
- Sponsors: When a person advanced to the upper level, he or she becomes sponsors. These individual will manage and organize the entire organization or a major segment of it. They must develop a longer-term conceptually oriented vision of the organization. They identify talent and give directions to organizations' growth and development.

Therefore, at each stage employee develops a new perspective, new roles and relationships.

John L. Holland (1997) suggests that individuals can be classified into six personality types. These personality types are a major factor in choice of an occupation. A person may occupy a managerial position in any of this chosen area.

Table 1.2.2: Occupational Choice Model

Type	Individual preference	Occupational choice
1. Realistic	Skill-oriented activities	Farming, Architecture
2. Investigative	Preference for thinking and understanding	Science, Mathematics related
3. Social	Emphasizes feeling, emotions	Social work
4. Conventional	Structure- oriented	Finance, Accounting
5. Enterprising	Power and status -orientation	Law, Management
6. Artistic	Self-expression behavior	Music, Art

Source: Table framed by Researcher

According to Ann Roe (1972), person career choices are based on the factors;

1) environmental factors over which the person has no control (chance, economy, family)
2) the marital status of person
3) the characteristics of a person (temperament, interest and the gender)
4) abilities and skills.

A typology of career systems developed by Jeffrey Sonnenfeld and Maury Peiperl (1999) explain the differences in deployment of human resources of an organization. Companies in this typology are classified as (1) clubs, (2) baseball teams, (3) academies, and (4) fortresses.

1) Club- Types of companies in the club category include airlines, banks, utilities, and governmental agencies. Club human resources policies put emphasis on development and training, as employees are recruited in only at entry level, talent is nurtured within the organization, and top-level positions are filled by promotions from within. There is an anticipation that employees will stay with the company for a long time.

2) Baseball Team- Investment banks, IT software, entertainment companies, advertising agencies, consulting firms fit in this category. The baseball team source talent at any level within the organization and does not put much importance on development. Instead, there is a "buy" approach to talent sourcing. However, there may be growth through fast assignment on projects. However, career development frequently involves moving to other company with higher compensation and responsibility. Advancement policies are often "up or out" as those neglected for upward mobility are terminated.

3) Academy- Types of companies in this group include manufacturers of electronics, pharmaceuticals, consumer products, and automobiles. In this category, there is considerable stress on development and outsiders are sourced to fill higher-level positions. These companies have both "make" and "buy" approach to manage their human resources. There are wide-ranging career paths available within the companies themselves.

4) Fortress- Organizations in this category are operating in environments with rapid changes. Examples of the types of companies in this category include those in hotels, retailing, e-commerce etc. Career development effort is mainly initiated by employee themselves in terms of new work experiences and training.

1.4. Need for the study

Employee engagement is particularly essential today because several studies have found that employees, in general, are not fully engaged in their work. They do what is required of them but do not contribute extra mental and physical effort to be excellent. The need for the study is directed towards strengthening the area of employee engagement by analyzing its impact on

career development. The linkage of employee engagement with career development as one of the important outcomes will cover the gaps in human requirements of the organization.

1.5. Coverage of the Study

The study attempts to cover the question of employee engagement with special reference to career development. The study aims at presenting a coherent account of employee engagement and its impact on career development of employees working in organizations. The interaction of additional variable has also been taken into account while covering for relationship between employee engagement and career development variables. The relationship of moderator variable with the predictor and criterion variable has also been deliberated.

1.6. Scope of the study

The scope of the study is an attempt to evolve a human system of employee engagement in organizations. This system would help in developing a robust system of career development for employees. This study is confined to manufacturing industries, but the range of observation would also be applicable in sector other than the studied sector in developing a generalized model of employee engagement directed towards career development.

1.7. Significance of the Study

Employee engagement as an attitudinal and behavioural concept has emerged as an umbrella tool to direct the developmental and retentions efforts towards managing the people dimension in contemporary organizations. Many elements of the constructs of employee engagement has been explored and applied. The causes of engagement and disengagement are the subject of much

analysis, but, at the same time the outcomes of this novel idea in terms of its developmental role need a more thorough examination. Career development pattern as an employee aspiration requires a careful, systematic and meaningful efforts by the organizations. This has become more relevant and challenging as on the one hand employees' expectations has increased, on the other, the meaning attached to the career development has broadened.

An understanding of the relationship between employee engagement and career development is important from the perspective of framing an inclusive policy of developing human resources by the organizations, as it also takes care of attitudinal and behaviour dimensions of people in consideration. This also provides a raison d'être for initiating employee engagement programmes in the organizations.

1.8. The state of manufacturing in India

Production of goods in huge quantities after processing from raw materials to more precious products is called manufacturing. Manufacturing sector is considered the backbone of advances in general and economic development. Over the last two decades, the share of manufacturing sector has stagnated at 17 per cent of GDP – out of a total of 27 per cent for the industry which includes 10 per cent for mining, quarrying, electricity and gas. The trend of growth rate in manufacturing has been around 7 to 8 per cent.

Manufacturing Industry in India started developing after 1850 in which first few industries like cotton mills, jute mills were started on a minute scale. The first steel mill was laid in 1904 and production began in 1911. Cotton mills in Bombay and Ahmadabad, jute mills in the Hooghly area, woolen and leather factories in Kanpur started and accelerated the industrial growth of the nation. The profile of some of the major industries is:

Iron and Steel Industry: The iron and steel Industry is the vital industry since all the other industries — heavy, medium and light, depend on it for their machinery. Production and consumption of steel is often regarded as the index of a country's development.

Aluminum Industry: Aluminum smelting is the second most important metallurgical industry in India. It is blight, resistant to corrosion, a good conductor of heat, malleable and becomes strong when it is mixed with other metals. Aluminium smelting plants in the country are located in Odisha, West Bengal, Kerala, Uttar Pradesh, Chhattisgarh, Maharashtra and Tamilnadu.

Cement Industry: Cement is fundamental to construction activity such as building houses, factories, bridges, roads, airports, dams and for other commercial establishments. This industry requires bulky and heavy raw materials like limestone, silica, alumina and gypsum. Coal and electric power are needed apart from rail transportation. The first cement plant was set up in Chennai in 1904. Cement industry is making rapid strides in capacity, process, technology and production.

Automobile Industry: Trucks, buses, cars, motor cycles, scooters, three-wheelers and multi-utility vehicles are manufactured in India at various centers. This industry had experienced a quantum leap in less than 15 years. Foreign Direct Investment brought in new technology and aligned the industry with global developments. The industry is located around Delhi, Gurgaon, Mumbai, Pune, Chennai, Kolkata, Lucknow, Indore, Hyderabad, Jamshedpur and Bengaluru.

Textile Industry: The textile industry occupies distinctive place in the Indian economy, because it contributes considerably to industrial production (14 per cent), employment creation (35 million persons directly – the second largest after agriculture) and foreign exchange earnings (about 24.6

per cent). It contributes 4 per cent towards GDP. It is the single industry in the country, which is self-reliant and complete in the value chain i.e., from raw material to the highest value added products. The first textile mill was established in Mumbai in 1854. As on 30 November 2011, there were 1946 cotton and human-made textile mill in the country. About 80 per cent of these are in the private sector and the rest in the public and cooperative sectors.

Information Technology and Electronics Industry: The electronics industry covers a wide range of products from transistor sets to television, telecom products, and computers. Bangalore has emerged as the major electronic center of India. Other important centres for electronic goods are Mumbai, Delhi, Hyderabad, Pune, Chennai, Kolkata, Lucknow and Coimbatore.

1.8.1 Company Profile: 1

Larsen & Toubro is one of the foremost technology, engineering, constructions, manufacturing and financial services conglomerate, with global operations. It addresses vital needs in key sectors - Hydrocarbon, Infrastructure, Power, Process Industries and Defense - for customers in over 30 countries around the world. It is engaged in core, high impact sectors of the economy and integrated capabilities across the entire spectrum of 'design to deliver'. With 8 decades of a strong, customer focused approach and a continuous pursuit for world-class quality, the company has unrivaled proficiency across Technology, Engineering, Construction, Infrastructure Projects and Manufacturing, and maintain a leadership in all major lines of business. Every part of its businesses is characterized by professionalism and high standards of corporate governance. Sustainability is embedded into our long-term strategy for growth. The Company's manufacturing path extends across eight countries in addition to India. IT has numerous international offices and a supply chain that extends around the globe.

L&T Vision

L&T shall be a professionally managed Indian multinational, committed to total customer satisfaction and enhancing shareholder value. L&T-ites shall be an innovative, entrepreneurial and empowered team constantly creating value and attaining global benchmarks. L&T shall foster a culture of caring, trust and continuous learning while meeting expectations of employees, shareholders, and society.

Its kansbahal works is located near Rourkela (Orissa) and is the state's largest heavy engineering unit in the private sector. It is a world-class Integrated Machine Building Centre with facilities for Casting, Fabrication, Machining and Assembly, complemented by excellent design, engineering, quality control and logistics support. Set up in 1962 as an Indo-German Venture, it merged with IT in 1982. The facility produces Crushing and Screening systems, Pulp & Paper machinery, Windmill components, Cast products, Mining equipment and various other specialized industrial products.

The Kansbahal Works R&D wing is equipped to carry out process engineering, mechanical design / analysis, 3D modeling, Finite Element Analysis, and basic and detailed engineering.

Foundry Business unit

It is the company only foundry facility which is located at Kansbahal and is equipped with the latest state-of-the-art facilities to manufacture quality castings in steel, alloy iron, cast iron, with intricate geometries and large tonnages. It have complete in-house facilities like technology centre, pattern shop, machine moulding, heat treatment facilities, melting furnaces and complete QA tools.

Fabrication Shop

The Kansbahal works fabrication shop is equipped with the latest state-of-the-art facilities to manufacture fabricated job up to 100 tons capacity. It covers 9760 sq.mtr of floor area and maximum gantry height is 16 meter. The major fabrication jobs carried-out are surface minor, TLC, Crushers, and impactors.

Machine Shop

Machine Shop is equipped with a wide range of machines for Turning (upto 3.5 m dia x 10 m long) , Boring (10 m x 5 m x 2.2 m with 65 T table capacity), Cylinder Grinding (2.5 m dia x 10 m long) and Planning (2 m x 1.6 m x 6 m) of complex welded structures/ castings / forging.

1.8.2 Company Profile: 2

OCL India was established in the year 1949 & became successful in dispatching the first batch of cement on 31st Dec 1951 under the brand name of KONARK. From a modest 500 TPD capacity imported single wet process cement kiln of FL Smith make of Denmark, the House of 'Konark' brand cement has journeyed a long way . To cater the rising demand the company better its installed capacity with addition of its second wet process 600 TPD kiln in 1957. Keeping a sound progress with time and technology, it has created the first clinker through modernized and fully automated dry process plant in 1988. To make certain easy accessibility and suitable supply of cement to the customers in the coastal area of Odisha, a split level cement grinding unit Kapilas Cement Manufacturing Works was set up near Cuttack in 2008. Thereafter it further improved its installed capacity by adding its 2nd clinkerization unit at Rajgangpur in 2009. Now it has up to

date dry process cement capacity of 5.35 Million TPA Mill capacity at two locations of Rajgangpur and Kapilas.

On its attempt to discover new opportunities, the company ventured into the turf of refractory in 1954. Now it has become one of the biggest and modern refractory with an annual production capacity of 80 KMT, covering a broad range of products for use in Ferrous & non ferrous industries. It is among the market leaders and one of the best in the world in the segment of Silica Bricks for Coke Ovens & blast furnace stoves with amazing supply references. The Refractory have worldwide recognition with exports to Americas as well as many Euro-Africa-Asian Nations. A broad range of products manufactured at Rajgangpur and its associate company in China has given it the unique prospect of everlasting customer base in Iron, Steel, and Copper, Precious Metal extraction, Aluminum and many more refractory Consuming processes.

Currently the group's activities include Cement, Refractory, Industrial Machines, Computer Software, Travel and Investments. While thus contributing to help India build and reinforce infrastructure facilities and make advances in other related fields, the group has been constantly building for itself an enviable standing worldwide for the quality of its products and services.

In the last decade, the group’s sales have grown at a CAGR of 24% to over ₹12,100 Cr in the year 2020. The market cap has also grown to ₹10,000 Cr in the year 2020.

The drive for quality through continuous technological up-gradation has resulted in many 'Firsts' for the company. A few of them are, The first auto kiln control system based on fuzzy logic in India, The world's largest cement and slag grinding Vertical Roller Mill during 1997,The second such Cement Vertical Roller Mill during 2001, The third Cement Vertical Roller Mill again with

60% additional capacity and first in the world market in 2005. In 2003, it became the first Cement manufacturer in eastern India and one amongst the only four Indian Cement manufacturers who are accorded with the right to use American Petroleum Institute's (API) monogram for its Oil Well grade cement, approved for use in various Oil Well constructions

1.8.3 Company Profile: 3

The company, IFGL, is a producer of specialized Refractory and requisite Operating Systems for Iron and Steel Industry. It has a large team of trained engineers and application specialists to offer customers total solution for Refractory for flow control in Steel Teeming and Continuous Casting of Steel. The company is an exclusive Indian Licensee of Flocon Slide Gate Systems, developed by US Steel Corporation through their wholly-owned subsidiary USS Engineers and Consultants Inc. This plant now manufacturers Slide Gate Systems and Refractory with the latest know-how from Krosaki Harima Corporation, Japan, a subsidiary of Nippon Steel Corporation.

The Continuous Casting Refractory plant set up in technical collaboration with Krosaki Harima Corporation, Japan (then known as Harima Ceramics Corporation) started production in 1993 manufacturing isostatically pressed continuous casting refractory and magnesia carbon tap hole. It operates the quality management system which complies with the requirements of BS EN ISO 9001:2008 and ISO 14001:2004.

Quality Policy

"Our policy 1s to identify customers need, design and develop products, subsequently manufacture and supply at competitive prices to achieve total customer satisfaction."

The company acquired Monocon Group in September, 2005.In December, 2006, Monocon Group acquired Goricon Metallurgical Services Ltd, Wales (UK) and Goricon LLC, Ohio (USA) engaged in manufacture of Darts, Lances, Ladle Powders etc used by the Steel Industry. In July, 2008 Hoffman Group was acquired with manufacturing facilities for Foundry Ceramics – Casting Filters, Feeders, SiC Chill Plates, Pouring System and Monoblock Stopper, High Grade fire proof refractory shapes, Drawing tools and Tread Guides. In September, 2010 the company acquired EI Ceramics LLC and CUSC International Limited (CUSC), both Cincinnati, Ohio based companies engaged in manufacture of isostatically Pressed Continuous Casting Refractory. The company now has manufacturing facilities in China, Germany, India, UK and USA.

1.9. Organization of the Study / Thesis

The chapter I broadly covers a review of employee engagement and career development concepts. It attempts to enumerate the origin of employee engagement, meaning of employee engagement, career development process, relevant strategies and need for employee engagement.

The chapter II covers a review of studies carried out on employee engagement and career development, and also highlights research gaps.

The chapter III covers the details of methodology adopted for the present study. It deals with the methods of data collection, instruments used, sample, reliability measures and procedure adopted for coding and analysis purposes.

The chapter IV covers the data analysis and interpretation. It also covers hypothesis testing.

The chapter V largely covers the research finding, discussion of results and conclusion from the research. An attempt has been made to prescribe some implications and limitation of the study.

1.10. Summary

To conclude, employee engagement will be affected by work and job design, leadership exercised by line managers and the recognition system. Employee engagement will also be affected by the quality of work life provided by the organizational environment. However one must accept that the antecedents of employee engagement vary from person to person, let alone workplace to workplace.

Models of career development in terms of reaching different career stages in a person's life have been developed. One of the most significant finding of the career stage theory is identification of a midlife career crisis experienced by many individuals. Career development aspirations matched by the type of personality and skill- sets are particularly relevant for a successful career. Creating development opportunity by means of offering challenging work assignments, opportunities to participate in decision making, and access to information and resources is vital part of career development as well as engagement. Engaged employee's job is to assume responsibility for their career development, obtain career-related information through self-assessment and data collection, developing a plan to reach career objectives and result-oriented performance on the current job. It may be argued that the more persons are engaged to their job, the more likely it is that opportunities will arise that they can utilize profitably for their career development.

CHAPTER – II: REVIEW OF LITERATURE

CHAPTER – II: REVIEW OF LITERATURE

2.1. Overview

Many writers have defined employee engagement and career development. It is evident from the study of these explanations that employee engagement is different from earlier construct of job satisfaction, employee involvement, motivation and organizational citizenship behavior. Career development is part of a broader human resource development agenda of the organization and has been explained in both subjective and objective terms. The important aspect that we have to keep in mind is that these construct means different today from the earlier uses and has to be understood in a proper context.

2.2. Literature Reviewed on Employee Engagement

Employee engagement was first introduced in early 1990s (Kahn 1990, 1992) as a concept which has supposed positive effect on a range of important employee and organizational outcomes, on various aspects of job and organizational performance (Halbesleben, 2010).

The conceptualizations of employee engagement fall into two main categories, namely, those that analyze the employee engagement as a psychological state or attitude and those that view it as a form of behavior (Macey and Schneider, 2008).

The psychological state or attitudinal approach to employee engagement is best represented by the work of Schaufeli, Bakker and colleagues (Schaufeli et al. 2006; Schaufeli et al. 2002), while the behavioral approach is represented by the work of Kahn (1990, 1992).

The element of attitudinal employee engagement comprises ‘vigour, dedication and absorption’; all indicating an employee’s committed mindset (Schaufeli et al. 2002).

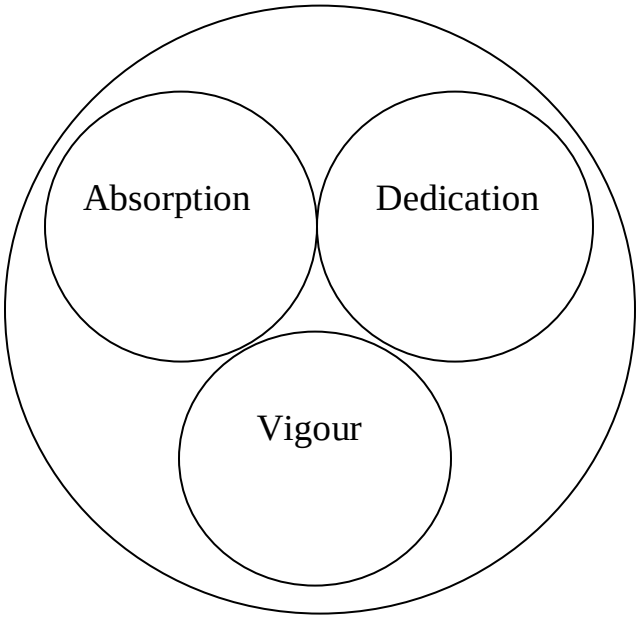


Figure 2.2.1 Source: Framed by researcher based on Schaufeli, Salanova, Gonzalez-Roma, & Bakker, 2002; Employee Engagement Dimensions

Vigour refers to ‘a positive psychological state at work, the willingness to invest effort in one’s work, and persistence even in the face of difficulties’, while dedication is characterized by feelings of significance and enthusiasm. Absorption refers to ‘being fully concentrated and engrossed in one’s work’ (Schaufeli et al. 2002). The UWES instrument is the most widely used approach to measure employee engagement. The UWES utilizes three scales to establish the level of work engagement: Vigor, dedication, and absorption.

As argued by Bakker et al. (2011), a key characteristic of attitudinal work engagement is that it represents a positive psychological state combining both pleasure and activation. The behavioral approach to employee engagement represented by work of Khan (1990, 1992),

views employee engagement in explicitly behavioral terms – as a directly observable behavior in the job environment rather than as a psychological state.

Harrison et al. (2006) define behavioral engagement as 'a general tendency of employees to contribute desirable inputs towards their work roles rather than withholding those inputs'. Kahn (1990, 1992) view engagement as the harnessing by employees of their full selves to their work roles by investing high levels of personal, physical, cognitive and emotional energy into the performance of their job. Engaged individuals put in physical effort into their job, are cognitively attentive, and are emotionally attached to their work. Employee Engagement describes the conditions under which people work. Although, Employee engagement may well correspond as a concept having multidimensional construct (Law, Wong and Mobley, 1998) .

A growing number of consultancy firms have developed an approach to employee engagement, like that of Gallup's Q12 employee engagement scale but none of these measures have been evidence- based (Wefald and Downey, 2009). A significant feature of these conceptualizations is that they do not actually assess individuals' experience of engagement as such, but rather, measures the 'antecedents and consequences of engagement' (Schaufeli and Bakker, 2010). Similarly, UK's Chartered Institute of Personnel and Development (CIPD) defines employee engagement as an aspect of organizational commitment and citizenship behavior, arguing that engagement can be seen as a combination of commitment to the organization and its values and a willingness to help colleagues. Engaged employees have constructive behaviors and attitudes resulting from a high intensity of shared relationship with other employees and their employer (Ologbo and Saudah, 2012).

There is a strong relationship between employee engagement factors and organizational development (Mkheimer and Mjlae, 2020). There is a strong relationship between engagement and employee performance (Mustika and Widyawati, 2020). Employee engagement is result as well as a precursor of high- performance organizations (Arrowsmith and Parker, 2013).

Organizations use a number of employment practices that directly affect job performance of people with an ultimate aim of achieving goals for the organization. Employees' response to these practices reflected in their levels of engagement.

Job Design (JD) and engagement

Job design model proposes five "core" or motivational job characteristics: skill variety, task identity, task significance (which promote a sense of work meaningfulness), autonomy and performance feedback (Hackman & Oldham, 1980). Jobs that have these characteristics encourage intrinsic motivation, —in short, engagement. Besides this, a connection between job enrichment's and proactive behavior—a fundamental aspect of engagement has been recognized (Parker, Williams & Turner, N. 2006).

Training and Development (T&D) and engagement

Training and development can serve as catalyst for enhancing engagement (Vance, R.J., 2006). It gives a chance to promote employee engagement by explaining how the employees' job contributes to the organization's mission. Employees who augment their skills through training are more likely to engage fully in their work.

Performance Management (PM) and engagement

Performance management processes function on an uninterrupted basis. They afford the best opportunities for employers to further employee engagement and commitment. An employee's career goals can get attentive consideration during performance reviews. A performance management system that recognizes and rewards proactive work behavior in organization can act as an incentive to employee engagement approach (Vance, R.J., 2006).

Conceptually, there may be considerable overlap between engagement and a number of other behavioural work related constructs;

Engagement as satisfaction

One of the most popular employee engagement surveys, The Gallup Workplace audit, refers it as the measure of ''satisfaction-engagement'' Harter et al. (2002). According to them, employee engagement is ''the individual's involvement and satisfaction with as well as enthusiasm for work''.

There are others, who view employee engagement as consisting of an emotional component and a rational element. The emotional component has overlap with job satisfaction. According to this perspective ''the emotional factors tie to people's personal satisfaction they get from their work and being part of their organization'' Towers-Perrin (2006). It seems that job satisfaction is more of a state of satiation, while engagement is a state of activation and enthusiasm (Harter, Schmitt & Hayes, 2002).

Engagement and Personality

Employee engagement is considered to be a psychological state (Kahn, 1990), while personality is a dispositional trait. Studies linking personality and engagement are scarce. The two constructs appears to be conceptually distinct.

There is strong argument of treating engagement as a positive psychological state involving feelings of vigour, dedication and absorption (Bakker et al. 2011; Schaufeli et al. 2002; Schaufeli and Salanova 2010;).

2.3. Literature Reviewed on Career Development

Career development has been defined as a succession of related jobs, arranged in a hierarchy of prestige, through which persons move in an ordered, predictable sequence (Wilensky, 1960).

Careers consist, objectively, of a series of status and clearly define offices… Subjectively, a career is the moving perspective in which the person sees his life as a whole and interprets the meaning of his various attributes, actions and things which happen to him (Hughes, 1937).

There is often a distinction between the objective and the subjective career. The objective career is affected by opportunities for promotion along with continuous learning. This learning and development modify their orientation to the role, their relationship at work, and experience they gain from their working lives: their subjective career. The ever-increasing changeability of employment and career is expected to set in motion an even more active connection between subjective and objective career (Arthur, Khapova and Wilderom, 2005).

Collin and Young (2000) view career as a collage of experiences. Career guidance practices, focuses upon career choice and the most effective ways of matching people to jobs (Holland, 1997). Employees perception of a better career growth results in the formation of a strong sense of belonging and responsibility towards the organization (Bai and Liu, 2018).

An approach to career development is influenced by trends in developmental psychology. Career development theorists study the ways in which careers develop over the span of an individual's adult life. The 5-stage model of Super (1957): from 'growth' to 'decline' laid the foundation for much of the theorizing about career development.

Adult career phases derived from Super (1957) framework:

Exploration phase: Development of one's ideas about suitable and meaningful employment leading to plan for entering chosen occupation.

Establishment phase: Settling into job, progression in terms of status and responsibility.

Maintenance: Resilience, keeping up to date in terms of development requirement in field.

Disengagement: Slowing down in terms of workload and looking forward to retirement.

Of the many other attempts to map out adult life, that of Levinson (1986), while attempting to map out adult life proposed that in each of three eras of adulthood (early, middle and late) there are alternating stable and transitional periods.

- Early adulthood (ages 17–40) begins with the *early adult transition* (ages 17–22), where the person seeks a niche in the adult world.
- *Entering the adult world phase* (ages 22–28), where the task is to exploration of various roles.

- A*ge 30 transition (*between 28 and 33), where the person appraises his or her experiences. This is followed by a stable settling down phase, when that lifestyle is implemented.
- The *midlife transition* (ages 40–45) identified by Levinson has often been considered the most important feature of his work. He argued that the life is reappraised at this age, frequently with considerable exigency and feeling – so much so that it is at times referred to as the 'midlife crisis'. There are by now obvious indications of whether or not earlier career ambitions will be achieved.
- After the midlife transition comes *entering middle adulthood* (45–50), then the *age 50* transitions (50–55), then the *culmination of middle adulthood* (55–60), the *late adult transition* and *late adulthood* follow.

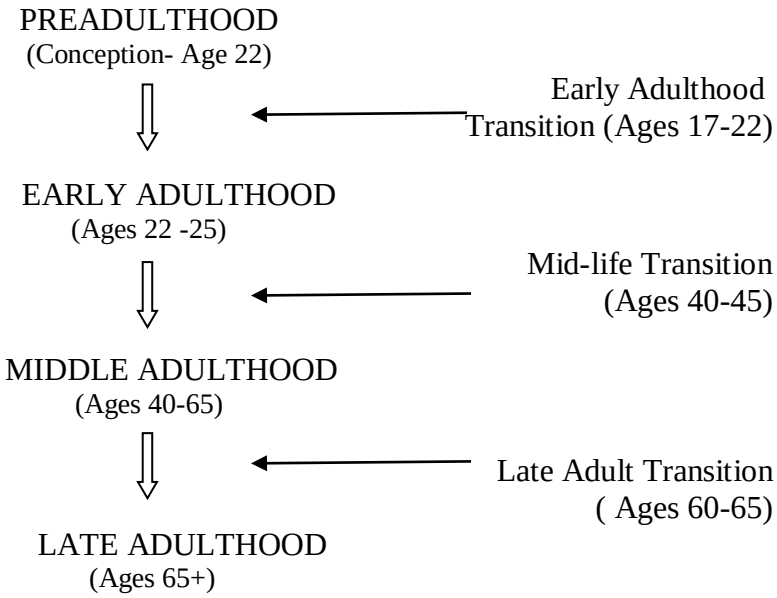


Figure 2.3.1 Source: Framed by Researcher based on Levinson (1986) Adult Stages

These approaches to adult development have implications for career development in organizations. Therefore, in early adulthood, people must be given the opportunity to integrate

themselves into an organization and/or career, and express their worth to themselves and others. This may involve specific efforts to give the beginner considerable work assignments and social support. In mid-career, it may be essential to give opportunities to some people to allow them to keep current in their selected domain. The people, who are in their mid to late career may act as mentor to younger employees.

(Cron, 1984) has described the adult development stages in the context of work. According to him, the four career stages are;

(1) Exploration (finding an appropriate occupational field),

(2) Establishment (successfully establishing a career in a certain occupation),

(3) Maintenance (holding on to what has been achieved, reassessing the career and possible redirection),

(4) Disengagement (completing one's career) (Cron, 1984).

According to Schein career development is about anchoring. Schein used the concept of anchor to describe the ideas around which individuals build their careers. These career anchors develop though experiences at the work place and give directions to an individual's entire career. He identified eight such anchors: technical/functional competence, general management competence, autonomy/independence, security/stability, entrepreneurial creativity, service/dedication, pure challenge and lifestyle (Schein, 1996).

Driver's (1982) views on career development are in terms of patterns: transitory, steady state, linear and spiral;

- Linear career concept: It is the traditional way in which most people view their career within organizations. The individual joins an occupation, aspire to become vertically promoted, and achieve it.
- Steady-state career concept: A person having steady state career concept chooses a field, stays in it for considerable time, but does not attempt to move upward. Although he or she develops skills and competencies but probably motivated to fulfill his or her security needs.
- Spiral career concept: This pattern of career development focuses on personal growth. The individual will have aspiration to move upward in a particular task or job and become successful. In order to seek personal challenge and growth, he or she would regularly shift the career goals and join a completely different or new occupation.
- Transitory career concept: In the transitory career, the person does not have a fixed career pattern. He or she will drift from one job to another job and remain independent for most of time.

Derr's five 'career logics': getting ahead, getting secure, getting free, getting high and getting balanced, takes a rational and logical view of career development (Derr 1986). Kanter (1989) explains traditional organizational career as 'bureaucratic' career. The 'professional' form of career (Kanter, 1989) is defined by craft or skill; Kanter further says (Kanter, 1989) professional occupational status is achieved through the 'monopolization of socially valued knowledge' and 'reputation' is a key resource for the individual. The 'entrepreneurial' career

develops 'through the creation of new value or new organizational capacity' (Kanter, 1989). Its key idea is the capacity to create value, while freedom, independence and control over tasks and surroundings are the outcomes. A 'bureaucratic' career has security and 'professionals' can grow and command a market rate. However, the entrepreneur benefits from exploring opportunities. It is the 'bureaucratic' form of career that is now under challenge, but the 'professional' and 'entrepreneurial' career forms are thriving (Collin and Watts, 1996).

Hall (1976) sees career development as the 'Protean career', in which people engage in 'interminable series of experiments and explorations'. Such a career calls for flexibility, a multi-layered sense of self; separating identity from jobs; the preservation of the ability to make choices within the organization; the identification of distinctive competence; and the synthesis of complex information (Weick and Berlinger, 1989).

Arthur and Rousseau (1996) considers career development as becoming 'boundary less', crossing traditional boundaries – between organizations, and home and work.

2.4. Empirical Studies

Many Studies have been carried out by eminent academicians on employee engagement and career development. Kahn has identified employee engagement as variable for performance and productivity in organizations (Kahn, 1990). In a study the role of employee engagement has been linked to attaining business – unit –level performance outcomes, Harter et al. (2002). Job and personal resources has been highlighted as an antecedent linking it to employee career development (Bakker et al., 2011). Some of the relevant studies have been highlighted and tabulated below;

Table 2.4.1: List of reviewed literature

Sl. No.	Literature Reviewed	Literature re Type	Author/s	Year	Gist of Points gained	Gap	Linkage to own research
1	"The meaning of employee engagement". *Industrial and Organizational Psychology: Perspectives on Science and Practice*, Vol.1, pp. 3-30.	Research paper	Macey, W.H. and Schneider, B.	2008	The paper highlights the 3 facets of engagement; psychological state engagement, behavioral engagement and trait engagement.	Job attributes as a part of behavioral engagement doesn't include learning input affecting the performance of a job.	The paper gives conceptual insights about employee engagement.
2	"Linking job demands and resources to employee engagement and burnout: A theoretical extension and meta-analytic test". *Journal of Applied psychology*, 95, 834-48.	Research Paper	Crawford, E. R., LePine, J.A., and Rich, B.L.	2010	The paper investigates the correlation between core self evaluation and engagement.	Learning as tool to enhance positive self-evaluation has not been identified.	Individual and organizational factors affect different aspect of job including engagement.
3	"Increasing employee engagement and performance: drama-based interventions". *Training and Development in Australia;* v.37 n.1 pp.14-17.	Research paper	Carter, R.	2010	Key themes of the study include action plans to enhance employee engagement. Gives self-efficacy as variable affecting engagement.	Interventions to improve self-efficacy should also be part of the study.	The paper introduces the theme of self-efficacy into the domain of employee engagement.
4	"A Framework towards Employee Engagement: The PSU Experience". *ASCI Journal of Management*, 42 (1): 92-110.	Research Paper	Sahoo, C.K. and Mishra, S.	2012	The paper presents key drivers of employee engagement and its impact.	Opportunity for development could be one of the drivers of engagement, which is missing.	The paper is useful in terms of exploring the development aspect of engagement.
5	"Perceived Organizational Support and Employee Engagement: Based on the Research of organizational Identification and Organizational Justice". *Open Journal of Social Sciences*, 4, 46-57.	Research paper	Dai, K.L. and Qin, X.Y.	2016	Organizational identification significantly affects employee engagement.	Organizational support in terms of developmental input to encourage engagement is missing.	The paper has discussed overall linkage between organizational support and employee engagement.
6	"Employee Engagement: A Study of Ashok Iron Works, Plant-III, Belguam". *International Journal in Management and Social Science*, Vol. 4 Issue 9. pp 76-108	Research paper	Uma, M.H.	2016	The paper identifies constituent of employee engagement like open door management and communication.	Employee engagement is considered as a form of participation.	The paper presents a perspective on the constituent of engagement.
7	"Employee Engagement and Its Impact on Organizational Success – A Study in Manufacturing Company in India". IOSR Journal of Business and Management, Vo.18, Issue 4. pp 52-57.	Research Paper	Sarangi, P. and Nayak B.	2016	The presence of 6Cs parameter of clarity, confidence, convey, connect, credibility and career in organization influence the level of employee engagement.	Human Resource Development is not a part of 6Cs required to influence employee engagement.	A conceptual relationship has been drawn between element of 6C and employee engagement.

Sl. No.	Literature Reviewed	Literature re Type	Author/s	Year	Gist of Points gained	Gap	Linkage to own research
8	"Employee Engagement and Work Culture complement each other at Bhilai Steel Plant". *International Journal in Management and Social Science*, Vol.4, Issue 11. pp 231-244.	Research Paper	Panda M. and Verma T.	2016	There is a strong link between attributes of culture in an organization and employee engagement.	An orientation towards developmental element of culture was missing.	Identification of culture as a variable refines the concept of employee engagement.
9	The Fifth Discipline: The art and practice of the learning organization, Currency, New York.	Book	Senge, Peter M.	1990	Identifies methods of providing development opportunities.	The linkage between opportunities to development and employee engagement has to be established.	The entire spectrum of creating and sustaining a learning climate is useful.
10	"What is Engagement?" In C. Truss, K. Alfes, R. Delbridge, A. Shantz, & E. Soane (Eds.), *Employee Engagement in Theory and Practice*. London: Rutledge.	Book Chapter	Schaufeli, W.B.	2013	The chapter profiles the evolution of the concept of employee engagement and its distinctiveness.	The implementation of employee engagement programmes and its link with development should be considered.	The paper presents a historical analysis of Employee Engagement.
11	"Health psychology and work stress: A more positive approach". In J.C. Quick & L.E. Tetrick (Eds.), *Handbook of occupational health psychology* (pp 97-119). Washington D. C.: American Psychological Association.	Book Chapter	Nelson, D. L., & Simmons, B.L.	2003	Defines engagement as attitude of positive emotions toward work and having hope about the future of their career.	The paper highlights engagement more of an affective element of individual rather than cognitive and behavioral.	There is linkage between employee attitude towards job and engagement.
12	*Human Resource Development: Learning and Training for individuals and Organisations*. London: Kogan Page.	Book	Wilson, J.	2005	Employee Engagement leads to longer term organization growth and survival.	The paper highlights the outcome rather than the determinants of employee engagement.	Investment in people theme is the highlight of the paper.
13	*Strategic Reward: Making it Happen*. London: Kogan Page.	Book	Armstrong, M. and Brown, D.	2006	Opportunity to develop provides learning as well as motivation	The paper doesn't Identify opportunity to develop as a tool for engagement.	Opportunity to development has been recognized as a factor.
14	*OrganizationalBehaviour. New York: Pearson.*	Book	Robbins, S.P. and Judge, T.	2012	The psychological contract between employer and employee is the basis of employee engagement.	Engagement is not seen as a result of learning experiences.	Psychological contract as one of the moderator of employee engagement has been identified.
15	*"Employee engagement, organisational performance and individual Well-being: exploring the evidence, developing the theory". The International Journal of Human Resource Management, Vol. 24, No. 14, 2657–2669,*	Research Paper	C. Truss et al.	2013	The paper identifies the nexus between HRM and engagement construct.	Focus has been on link between performance aspect of human resources rather than development as a determinant in performance.	The paper tries to present a fit between HRM issues and engagement.

Sl. No.	Literature Reviewed	Literature re Type	Author/s	Year	Gist of Points gained	Gap	Linkage to own research
16	*"Job Crafting and its impact on work engagement and job satisfaction in mining and manufacturing" .South African Journal of Economics and Management Sciences , 19; No 3:400-412*	Research Paper	Beer, L.T. ,Tims M. , Bakker, A.B.	2016	The paper highlights that challenging job demands are significant predictors of work engagement.	The theme is on the job and not on the individual's competency. Need to have a balanced view.	The paper introduces the concept of job crafting in the debate on work engagement.
17	*"Performance management and employee engagement". Human Resource Management Review, Vol. 21 : 123–136*	Research Paper	Gruman,J. A. , Saks A.M.	2011	The key theme of the paper on orienting the Performance Management system to promote employee engagement.	The model presented to link PMS and Engagement is complex. may not be practical.	A dimension of performance management is added to the employee engagement process.
18	*"Contingent reward as a strategy for influencing employee engagement in manufacturing companies: Case study of Williamson Tea Kenya limited". International Journal of Business and Commerce Vol. 4, No.05: [20-59].*	Research Paper	Jilani , E.M. & Juma, D.	2012	The paper highlights the role of contingent/flexible reward system in promoting employee engagement.	Non-monetary reward and recognition like opportunities for employee development has not been mentioned.	Reward Management may be a vital ingredient for employee engagement process.
19	*"The Relationship between Career Growth and Job Engagement among Young Employees: The Mediating Role of Normative Commitment and the Moderating Role of Organizational Justice". Open Journal of Business and Management, 2017, 5, 83-94.*	Research Paper	Liu, J. He, X., Yu, J.	2017	The paper identifies the role of career growth, organizational commitment and Justice in enhancing engagement among young employees.	Opportunity for employee development as an antecedent of employee engagement is missing. Too many variables.	Organizational commitment and perception of justice as an attitudinal measure is important.
20	*"A Study on Employee Engagement in Manufacturing Micro, Small and Medium Enterprises (MSMEs) in India" Research Journal of Social Science and Management, Volume: 03, Number: 03. 13-14*	Research Paper	Ravi Kumar, T.	2013	The key theme is on measuring employee engagement in manufacturing MSMEs in India.	Constituent of engagement in MSME sector have not been defined.	The paper throws lights on the relevance of employee engagement initiatives in MSME sector.
21	*"Identified Research Gaps in Employee Engagement" International Business Research; Vol. 10, No. 2; pp 64-70*	Research Paper	Iddagoda1, Y.A. Opatha H.H.D.N.P.	2017	The study investigates the gap in the concept & theory of employee engagement.	The context being Sri Lanka may be limiting factor in acceptability.	The seven gaps in the literature on employee engagement is a useful contribution.
22	"Drivers of Employee Engagement-A conceptual study". International Journal of World Research, Vol: I Issue XXVI, pp 13-19	Research Paper	Chaudhary, S., Kumar, A.K.H.	2016	The paper discuses the conceptual aspect of Employee Engagement drivers.	The discussion is based only on literature research, thus missing the practical side of the concept.	Identified antecedents of employee engagement are useful and clear.

Sl. No.	Literature Reviewed	Literature re Type	Author/s	Year	Gist of Points gained	Gap	Linkage to own research
23	"An Analysis of the Factors Affecting the New Generation Employee Engagement in the Manufacturing Industry in China". International Journal of Business and Management; Vol. 10, No. 10. 19-21.	Research Paper	Luo, J.M. Tan, S. & Lam, C.F.	2015	The paper highlights the role of career development, welfare scheme and employee involvement programmes in promoting engagement.	An overlap with the concept of commitment, HRD and job satisfaction seems to be present in the interpretation.	The paper gives a comparative perspective on employee engagement.
24	"The Idea of National HRD: An Analysis Based on Economics and Theory Development Methodology". Human Resource Development Review Vol. 7. No. I; 79-106.	Research Paper	Wang, G. J. & Swanson, R. A.	2008	The paper conceives Human Resource Development as Human Development (HD) and highlights its relevance in the National context.	A micro perspective on HRD is missing.	Linking Economic Development Theory with Human Development present a Reliable approach to development at macro level.
25	A study on the antecedents of employee engagement and their impact on employee performance	Thesis	Bharti Shasi	2018	The thesis discusses and analyzes the factors causing employee engagement at the work place.	Employee Engagement as a concept is much broader than its factors.	Introductory knowledge about employee engagement
26	A study on employee engagement in public sector undertaking among managerial employees	Thesis	Karuppasamy Pandian SP	2018	Few of the PSU under study are manufacturing sector organization.	The development outcomes of employee engagement has not been covered in the study	The context of the study is useful for my research.
27	Employee Engagement for optimizing organizational performance	Thesis	Mohd. Sadique	2016	Outcomes of employee engagement system have been dealt with in greater detail.	A development perspective of employee engagement is missing.	The conceptual detail about employee engagement is useful.
28	Employee Engagement and its impact on individual work behavior and discretionary effort.	Thesis	S. Priya	2019	Behavioral work engagement as an aspect of employee engagement has been a new perspective.	Too few outcomes of employee engagement have been discussed.	Discretionary effort as part of overt expression of employee engagement has been noteworthy,
29	A study on the effectiveness of employee engagement practices in Bhilai steel plant	Thesis	Sharma, Apoorva	2018	The practices of employee engagement have been discussed in an important organization	The development outcome of employee engagement has not been discussed.	The context of the study, being a manufacturing organization has been useful.

Sl. No.	Literature Reviewed	Literature re Type	Author/s	Year	Gist of Points gained	Gap	Linkage to own research
30	Impact of mentoring on career development and retention in the it and ites sector.	Thesis	Banerjee, Srirupa	2015	Mentoring as a parameter of employee engagement has been discussed.	Besides mentoring, hygiene factors are also important for engagement.	A development parameter has been highlighted as an aspect of employee engagement.
31	Efficacy of career development practices in Indian Industries : A study	Thesis	Mohapatra , AK Das	2018	A detailed analysis of career development system is noteworthy.	Outcome related measure has not been studied.	Career development system prevailing in Indian Industries has been discussed, which is useful.
32	Mid-life Career Stress	Thesis	Fauzia Obaid	2016	Mid-life crises as an aspect career stage approach are important.	The discussion on entire career stage has not been highlighted.	Mid-life crisis as an important part of career development has been the highlight of the thesis.
33	Career development of women employees of IT industry in Chennai city	Thesis	Felin Bimba,S	2018	Career development restrictive and enabling practices have been discussed.	A specific sector and segment limitation is prevalent in the study.	The programme of career development, as discussed in the thesis is useful
34	Career development stress experienced in nursing profession and their association with work family conflict.	Thesis	Pokkhriyal . S.	2013	Career development challenges have been discussed in a broader way.	A profession perspective on career development.	Quality of work life is an important parameter of the study.

Source: Table framed by researcher

2.5. Research Gap

1. Most of the studies which have been undertaken to explain the phenomena of employee engagement deals with finding out antecedent of employee engagement. This generate similar outcome in the form a list of factors similar to the previous construct of highly researched area of job satisfaction. There is hardly any study which has a developmental outcome like career development.
2. In most of the studies, career development has been equated with upward mobility of employee, which is mostly an internal perspective. The broader view of career development which defines it in terms of individual development as well as growth has been particularly absent.
3. There is dearth of research in India of the employee engagement in private manufacturing organization with a focus on overall development and growth of the employees.
4. Mentoring and work-life balance as a dimension of career development has been missing in the study on career related constructs.

Therefore, this study fills a research gap on the lines of contributions of employee engagement practices which is especially oriented towards career development.

2.6. Summary

A review of the literature has thrown light on the vital importance of employee engagement and its positive linkage with many valued outcomes. The review has highlighted the research gap and help in exploring some important question related to the above constructs. The literature on employee engagement has mostly taken it as an attitude or a state of mind which has a positive impact on the productive behavior of employees in organization. However, it is different from

other attitudinal construct like job satisfaction, employee involvement and organizational citizenship behavior. The recent literature on career development has reflected the new trend in organizational processes and systems. It is mainly internal oriented, broad- based and integrated with the overall direction and strategy of the organization.

CHAPTER – III: RESEARCH METHODOLOGY

CHAPTER – III: RESEARCH METHODOLOGY

3.1. Overview

The application of research methodology follows a deductive design in the study. Based on the design, the research work has been undertaken leading to testing of assumptions and some insights for the organization for future course of action.

3.2. Research Questions

The research addresses the following questions;

- Is there a relationship between Employee engagement and Career Development?
- Does Employee Engagement predict career development?
- Does the demographic factor such as age, experience, income level, qualification and gender of the employees moderate the relations between employee engagement and career development?
- Does age, experience, income-level, qualification, gender of employees affect employee engagement in organizations?
- Does age, experience, income-level, qualifications, gender of employees affect career development in organizations?

3.3 . Research Objectives

- To measure the relationship between employee engagement and career development.
- To find evidence about the predictive effect of employee engagement on career development.

- To assess if demographic variables such as age, experience, income, qualification and gender act as a moderator on the relationship between employee engagement and career development.
- To determine the effect of age, experience, income, qualification and gender on employee engagement predictor.
- To determine the effect of age, experience, income, qualification and gender on criterion of career development.

3.4. Variables of the Study;

All demographic variables such as age, number of years in the organization, income, qualifications and gender were tapped by direct single questionnaire.

3.4.1 Career Development: This dependent variable indicates the extent to which individuals are expected to progress in their career. A questionnaire was developed to measure this variable. This scale has 12 variables, which are indicated in Appendix-1.

Table 3.4.1

Reliability Statistics (Career Development Measure)

Cronbach's Alpha	N of Items
.873	12

Source: Primary data

Interpretation: Career development Cronbach alpha (.873) which are presented in the above table, confirms the reliability of the test for the study.

3.4.2 Employee Engagement: This independent variable was tapped by using scale consisting of 12 variables (Appendix 1). The respondents were required to rate these items using a 5 to 1 (higher to lower) scale.

Table 3.4.2

Reliability Statistics (Employee Engagement Measure)

Cronbach's Alpha	N of Items
.841	12

Source: Primary data

Interpretation: Cronbach alpha for this scale was .841 which confirms the reliability of the test for the study.

3.5. Hypotheses

A hypothesis is an assumption about relations between variables. It is a tentative explanation of the research problem. Hypothesis offers structure and guidance to the research. It facilitates statistical analysis of the problem in terms of hypothesis testing. Seventeen hypotheses were generated for the study. Each hypothesis was tested.

Hypothesis 1: Hypothesis 1 can be stated in the null and alternate as follows:

$H1_0$: There is no significant relationship between employee engagement and Career Development.

$H1_A$: There is a significant relationship between employee engagement and career development.

Hypothesis 2*:* Hypothesis 2 can be stated in the null and alternate as follows:

$H2_0$: Employee engagement in organizations will not result in employees' career development.

$H2_A$: Employee engagement in organizations will result in the career development of employees.

Hypothesis 3*:* Hypothesis 3 can be stated in the null and alternate as follows:

$H3_0$: There is no moderation effect of employees' experience on the relationship between employee engagement and career development.

$H3_A$: There is a moderation effect of employees' experience on the relationship between employee engagement and career development.

Hypothesis 4*:* Hypothesis 4 can be stated in the null and alternate as follows:

$H4_0$: There is no moderation effect of employees' age on the relationship between employee engagement and career development.

$H4_A$: There is a moderation effect of employees' age on the relationship between employee engagement and career development.

Hypothesis 5*:* Hypothesis 5 can be stated in the null and alternate as follows:

$H5_0$: There is no moderation effect of employees' income on the relationship between employee engagement and career development.

$H5_A$: There is a moderation effect of employees' income on the relationship between employee engagement and career development.

Hypothesis 6*:* Hypothesis 6 can be stated in the null and alternate as follows:

$H6_0$: There is no moderation effect of employees' qualification on the relationship between employee engagement and career development.

$H6_A$: There is a moderation effect of employees' qualification on the relationship between employee engagement and career development.

Hypothesis 7*:* Hypothesis 7 can be stated in the null and alternate as follows:

$H7_0$: There is no moderation effect of employees' gender on the relationship between employee engagement and career development.

$H7_A$: There is a moderation effect of employees' gender on the relationship between employee engagement and career development.

Hypothesis 8*:* Hypothesis 8 can be stated in the null and alternate as follows:

$H8_0$: Employee engagement in organizations is not influenced by the age of the employees.

$H8_A$: Employee engagement in organizations is influenced by the age of the employees.

Hypothesis 9*:* Hypothesis 9 can be stated in the null and alternate as follows:

$H9_0$: Employee engagement in organizations is not influenced by the experience of the employees. .

$H9_A$: Employee engagement in organizations is influenced by the experience of the employees.

Hypothesis 10*:* Hypothesis 10 can be stated in the null and alternate as follows:

$H10_0$: Employee engagement in organizations is not affected by the income-levels of the employees.

$H10_A$: Employee engagement in organizations is affected by the income-levels of the employees.

Hypothesis 11*:* Hypothesis 11 can be stated in the null and alternate as follows:

$H11_0$: Employee engagement in organizations is not affected by the qualification of the employees.

$H11_A$: Employee engagement in organizations is affected by the qualification of the employees.

Hypothesis 12*:* Hypothesis 12 can be stated in the null and alternate as follows:

$H12_0$: Employee engagement in organizations is not influenced by the gender of the employees.

$H12_A$: Employee engagement in organizations is influenced by the gender of the employees.

Hypothesis 13*:* Hypothesis 13 can be stated in the null and alternate as follows:

$H13_0$: Career development in organizations is not influenced by the age of the employees.

$H13_A$: Career development in organizations is influenced by the age of the employees.

Hypothesis 14*:* Hypothesis 14 can be stated in the null and alternate as follows:

$H14_0$: Career development in organization is not influenced by the experience of the employees.

$H14_A$: Career development in organization is influenced by the experience of the employees.

.**Hypothesis 15:** Hypothesis 15 can be stated in the null and alternate as follows:

$H15_0$: Career development experience in organization is not affected by the income- levels of the employees.

$H15_A$: Career development experience in organization is affected by the income- levels of the employees.

Hypothesis 16*:* Hypothesis 16 can be stated in the null and alternate as follows:

$H16_0$: Career development in organizations is not influenced by the qualification of the employees.

$H16_A$: Career development in organizations is influenced by the qualification of the employees.

Hypothesis 17*:* Hypothesis 17 can be stated in the null and alternate as follows:

$H17_0$: Career development experience in organization is not affected by the gender of the employees.

$H17_A$: Career development experience in organization is affected by the gender of the employees.

3.6 The Research Design & Methods

Research design concern the overall research strategy employed. This strategy depends on the nature of the phenomena being researched.

3.6.1 The Research Design

The research design is a working plan of the research study, involving collection, measurement and analysis of data. It answers the important question raised in the research. The research design used for the study is descriptive and quantitative. As it is a quantitative research, hypothesis have been formulated, a representative sample is selected to collect data an analysis and finding have been derived using suitable statistical tools. Descriptive studies are those which aim at describing or predicting certain characteristics of a group of people.

3.6.2 Research Method

Research methods are the specific ways in which information is gathered within the overall research strategy (Aamodt, 2016). Questionnaire has been used as a information collection tool. Questionnaires and tests normally require a person to answer a series of written questions presented on paper. They have the advantage of providing large quantities of data for researcher.

3.6.3 Population

The population is the total group of people or items about which information is required. A full survey of population is not possible, so a limited number of items must be selected; the group selected is known as sample. The population consists of 2772 number of employees in the organizations where studies were undertaken. The break-up of employees organizations-wise are as follows; L&T Limited Kansbahal- 750; OCL India Limited, Rajgangpur- 1630; IFGL, Kalunga- 392. The database was provided by the human resource department of the organizations.

3.6.4 Sampling design

The sample size is selected using a sampling frame where each element of the population was listed. The primary business activity of selected organisations are manufacturing of cement, engineering and refractory. The selected organizations have structured information. The collection of the information serves the purpose of understanding and looking for answers to the research questions. Thus, it is also relevant. Data was collected from varied work backgrounds and different levels of organization; upper, middle and lower level using a structured questionnaire with 5-point rating scale. These individuals were chosen through random sampling technique using random number

tables, where each and every member of the population has an equal chance of being included in the sample.

The sample size is 337. It is determined by using two steps (Cochran, 1977);

Step 1: Calculation of Sample size for infinite population

$$S= Z^2*p*(1-p)/M^2 = 1.96^2 \times 0.5 \times (1-0.5)/0.05^2 = 384.16$$

Step 2: Calculation of the adjusted sample size for required population

$$S = (S) / 1 + [S-1) / population] = (384.16)/ 1+ [384.16-1) / 2772] = 337.$$

Population = 2772

S= sample size for infinite population / adjusted sample size;

Z= Z score (for 95% Confidence Level Z value is 1.96);

p= population proportion (50% or 0.5);

M= Margin of error (5% or 0.05).

3.6.5 Survey Instrument:

The study has been conducted through a questionnaire survey. Section 1 consists of employee engagement measure having 12 statements. The scoring has been on a 5-point likert scale ranging from strongly disagree to strongly agree.

Section 2 deals with career development measure. It consists of 12 statements and the scoring has been on a 5-point likert scale ranging from strongly disagree to strongly agree. Section 3 of the questionnaire consists of personal data of the respondent.

Table 3.6.1 Literature Referred for identifying statements/variables

Statements	Author	Year
Q1. Excellent Work Place	Macey et al.	2009
	Mcleod and Clarke	2009
Q2. Attachment and dedication	Bakker et al.	2011
	Schaufeli et al.	2002
	Schaufeli and Salanova	2010
Q3. Involvement	Reilly and Brown	2008
Q4. Understanding Mission	Balain and Sparrow	2009
Q5. Participation	Parker, S. K., Williams, H. M., & Turner, N.	2006
Q6. Contribution	Schein	1996
Q7. Feeling of Pride	Bakker et al.	2011
Q8. Discretionary effort	Kahn, W.	1990
Q9. Care for organization	Bakker, A., B. and Demerouti	2008
Q10. Personal accomplishment	Vance	2006
Q11. Goal achievement	Harter, J.K.,	2002
Q12. Excitement in the job	Kahn, W.	1990
Q13. Career Development	Gaffney, S.	2005
	Barnett, R. B., & Bradley, L.	2007
Q14. Potential Development	Parrey, Donna.	2014
Q15. Career prospects	Holland	1997
Q16. Advancement	Dalton, Thompson and Price	1979

Q17. Performance	Boswell, W. R., & Boudreau,	2002
Q18. Learning & development	Collin and Watts	1996
Q19. Counseling	Weick and Berlinger	1989
Q20. Appraisal	Boswell, W. R., & Boudreau,	2002
Q21. Cross-functional transfers	Bakker, A.	2008
Q22. Job rotation	Schein	1996
	Williams	1984
Q23. Mentoring	Eby, L. T., Allen, T. D.,	2008
Q24. Work Flexibility	Weick and Berlinger	1989

Source: Table framed by Researcher

3.6.6 Pilot Study

A pilot study is a small scale replica of the main study. The testing of research instrument in the pilot study is to find out whether the questions framed in questionnaire are accurately understood by the respondents or they need to be modified. There are researchers who include 1 percent of the respondents in the study, but others include more (Ahuja, 2001). For the pilot study, a structured questionnaire was framed and distributed among fifty numbers of employees of the organizations. Based on the views of the respondents, experience gathered during pilot survey and analysis of data obtained from the pilot study, the questionnaire was improved in order to collect data during the final survey with maximum factual accuracy. The changes made in the questionnaire are summarized below:

1. Some questions were rephrased to make it understandable to the respondents.

2. In the career development sections some replacements of words with suitable practically relevant words were done.
3. The questionnaire was simplified in form by keeping the demographic profile at the end.
4. Response Rate was 100 % of the questionnaire.
5. Time taken for responses to questions varied from 15 minute to 20 minutes.
6. Reliability testing for internal consistency indicated the reliability of the instrument to be 0.92 overall in pilot testing. Reliability refers to ability of a tool to produce a consistent result.

3.6.7 Data Collection

The respondents were individually contacted at their natural work setting. Each respondent was individually given a set of questionnaire and also they were given a clear description of how to complete the questionnaire. All the doubts raised by the respondents were cleared by the researchers. The questionnaire was collected after they had been filled in by each subject. In addition to primary information, secondary data were collected from journals, books, relevant documents and booklets and company reports.

3.6.8 Data Analysis Framework

The following research tools have been used to analyze the data;

1) Pearson's correlation coefficients were used to determine the correlation between the variables.

2) A factor analysis was conducted by extraction and rotation to generate factors with relevant correlates.

3) Multiple regression analysis was carried out to get a predictive value of independent variable. A multiple regression design allows a researcher to examine the relationship between a particular outcome variable and multiple predictors.

4) To determine the interaction effect on the relationship between employee engagement and career development, Preacher and Hayes method was used where demographic variables such as age, income, qualification, gender and experience are taken as moderator variable. Simple plots were drawn to study the interaction effect.

5) Descriptive analysis of means and standard deviation was done to know the dispersion of data.

6) Frequency charts and diagrams were constructed to highlight the distribution of data.

7) Analysis of variance (ANOVA) has been used to indicate the relationship of demographic variable with predictor and criterion variable independently.

8) Independent sample t test has been used determine the relationship between predictor, criterion and gender.

3.7 Summary

The study took the hypothesized assumption based on the objectives and research problem studied. The study involves collection of data through administration of structured questionnaire. The research methodology has used correlation coefficients to measure the association of variable. The effect of independent variable was measured through multiple regression analysis. The moderation analysis was carried out to know the interaction effect. Analysis of variance tool was utilized to assess the relationship predictor and criterion variable and demographic variable. Description statistics of mean, standard deviation and variance was calculated alongside frequency distribution and diagrams.

CHAPTER – IV: DATA ANALYSIS AND INTERPRETATION

CHAPTER – IV: DATA ANALYSIS AND INTERPRETATION

4.1 Coding and Analysis

Before putting the data into computer, questionnaire was coded numerically by using 1 digit. Just to illustrate employee's experience have been coded as follows: Experience of 18-25 years as 01, 26-35 years as 02, 36-45 years as 03, and > 46 years as 05. Income level of 15000-30000 as 01, 30000-450000 as 02, 45000-60000 as 03, > 60000 as 05. Similarly, work experience of 00-05 years as 01, 05-10 years as 02, 10-15 years as 03, > 15 years as 04 and so on.

Scales having 5 point were also coded numerically by using 1 digit, which are as follows;

Table 4.1.1 Questionnaire Scale

Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree
1	2	3	4	5

All 24 statements were identified as 24 variables and given identification names, which capture the essence of that question. These names are;

Table 4.1.2 list of Variables

Q1. Excellent work place	Q9. Care for Organization	Q17. Performance
Q2. Attachment and dedication	Q10. Personal accomplishment	Q18. Learning & Development
Q3. Involvement	Q11. Goal achievement	Q19. Counseling
Q4. Understanding Mission	Q12. Excitement in the job	Q20. Appraisal
Q5. Participation	Q13. Career Development	Q21. Cross-functional transfers
Q6. Contribution.	Q14. Potential development	Q22. Job rotation
Q7. Feeling of pride.	Q15. Career prospects	Q23. Mentoring
Q8. Discretionary effort	Q16. Advancement	Q24. Work flexibility

Data analysis

Based on the type of scaled response, appropriate statistical methods have been used and inferences made. A substantial part of analysis will focus on frequencies, descriptive statistics such as mean, standard deviation, factor analysis, multiple linear regression and analysis of moderator variable through Preacher & Hayes method, analysis of variance, t test and correlation.

4.2. Obtaining Descriptive Statistics: Frequency Distributions

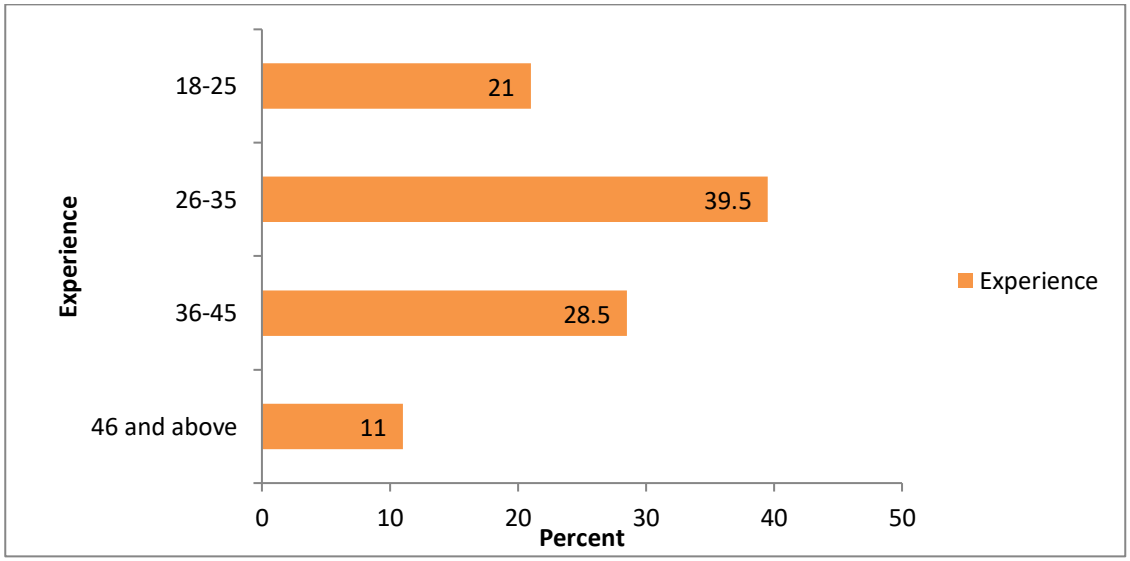
Frequency distributions were obtained for all the classification variables.

Table 4.2.1 Experience

Experience	Frequency	Percentage
>15 years	37	11.0
10-15 years	96	28.5
05-10 years	133	39.5
00-05 years	71	21.0
Total	**337**	**100**

Source: Primary Data

Figure 4.2.1 Experience



Source: Primary Data

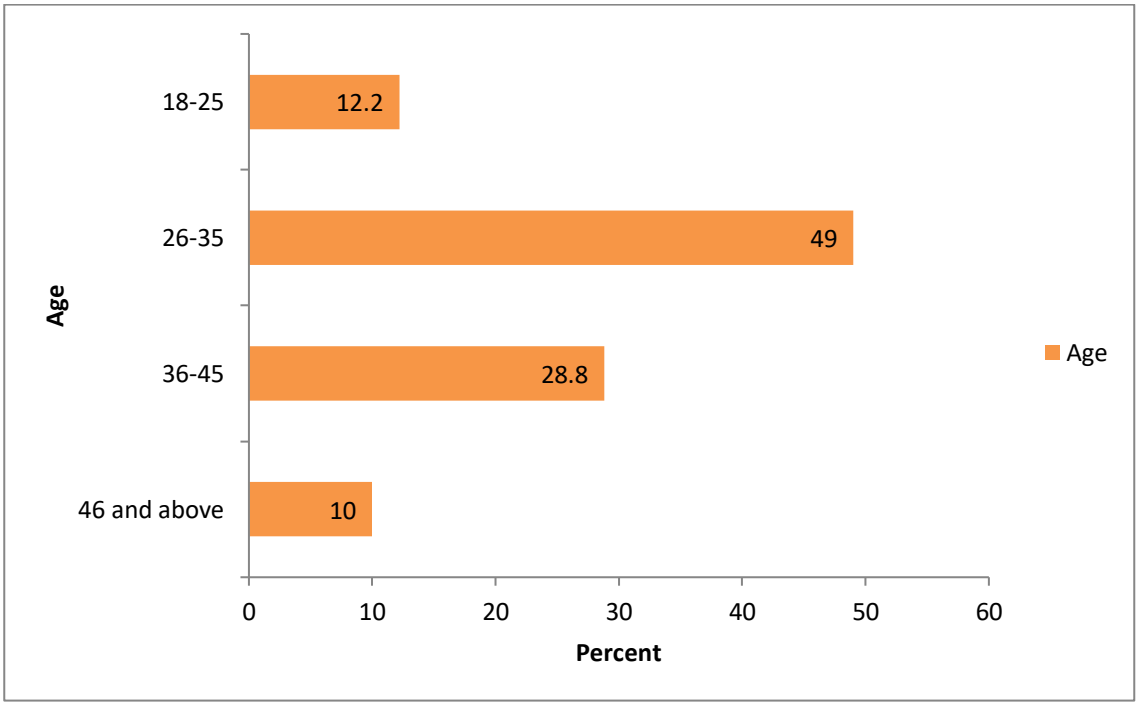
Interpretation: It was found that about 39.5%, of the respondents had worked for 5 to 10 years, 28.5% 10 to 15 years, 21.1% less than five year, the balance 11% over 15 years.

Table 4.2.2 Age

Age	Frequency	Percentage
46 and above	34	10.0
36-45	97	28.8
26-35	165	49.0
18-25	41	12.2
Total	**337**	**100.0**

Source: Primary Data

Figure 4.2.2 Age



Source: Primary Data

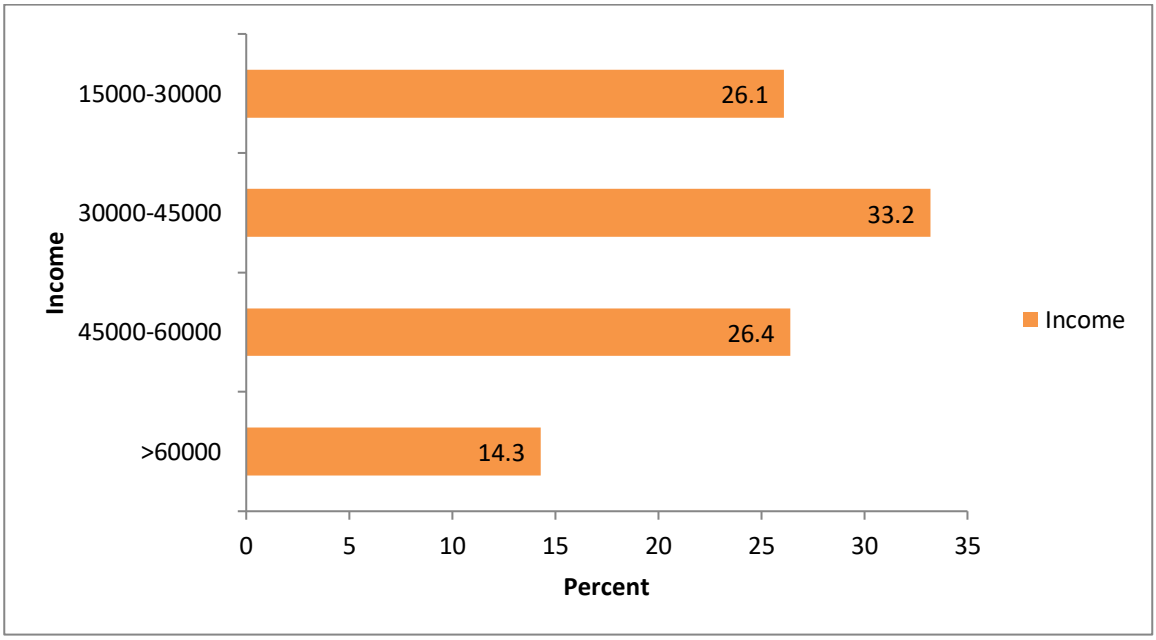
Interpretation: It was found that 49% respondents were having ages between 26-35, 28.8% between 36 to 45 years, 12.2% between 18-25 years, and 10% over 46 years of age.

Table 4.2.3 Income

Income	Frequency	Percentage
>60000	48	14.3
45000-60000	89	26.4
30000-45000	112	33.2
15000-30000	88	26.1
Total	**337**	**100.0**

Source: Primary Data

Figure 4.2.3 Income



Source: Primary Data

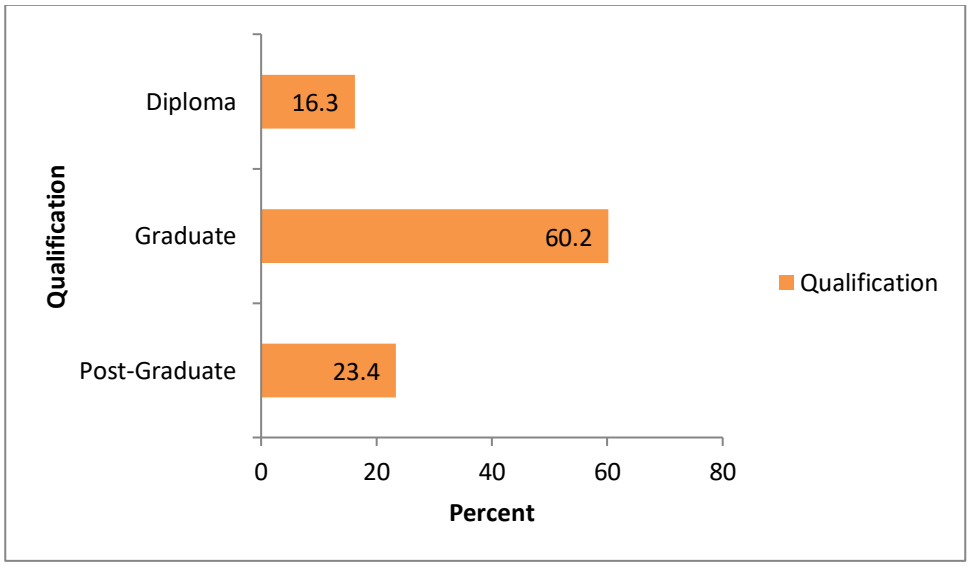
Interpretation: About 33.2% had income between 30K-45K, 26.4% between 45K-60K, 26.1% between 15K-30K and 14.3% had income over 60K.

Table 4.2.4 Qualification

Qualification	Frequency	Percentage
Post-Graduate	79	23.4
Graduate	203	60.2
Diploma	55	16.4
Total	**337**	**100.0**

Source: Primary Data

Figure 4.2.4 Qualification



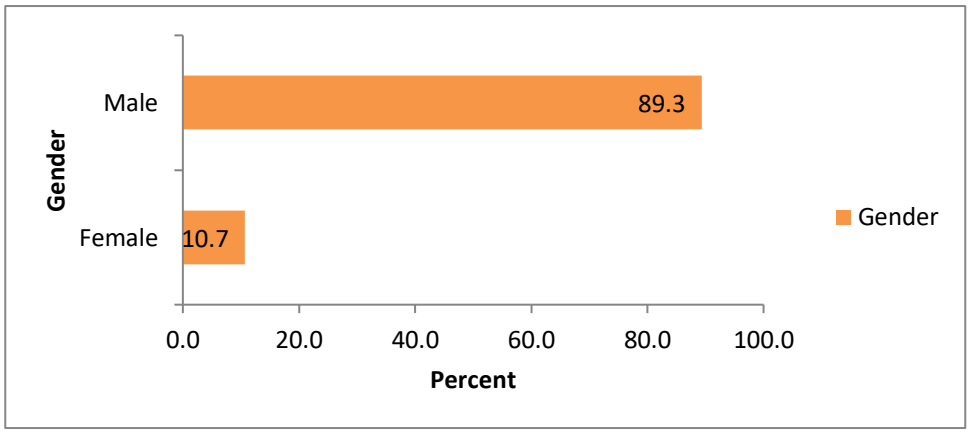
Source: Primary Data

Interpretation: About 60.2% had a graduate degree, 23.4 % had Post Graduate degree while 16.3% had diploma education.

Table 4.2.5 Gender

Gender	Frequency	Percent
Male	301	89.3
Female	36	10.7
Total	**337**	**100.0**

Figure 4.2.5 Gender



Source: Primary Data

Interpretation: It was found that 89.3% respondents were male and 10.7 % were female respondents.

4.3. Measures of Central Tendencies and Dispersion

Descriptive statistics such as means, standard deviations, and variance were obtained for the interval-scaled independent and dependent variables. The results are shown in Table 4.3.1 and Table 4.3.2. It may be mentioned that all the variables were tapped on a 5-point scale. The mean represents all of the scores of the variable, and as such gives a concise description of the performance of the variable as whole. The standard deviation is the most stable index of variability and is employed in research studies. Standard deviation is the square root of the variance. The standard deviation describes how much dispersion (spread) is there in the distribution of scores in a sample. The standard deviation is usually used for comparison purposes (Neuman & Lawrence, 1992).

Table 4.3.1: Descriptive Statistics

	N	Min.	Max.	Mean	Std. Dev.	Variance
Excellent work place	337	1	5	3.75	.951	.903
Attachment and dedication	337	1	5	3.91	.877	.769
Involvement	337	1	5	3.86	.934	.873
Understanding mission	337	1	5	3.86	.938	.880
Participation	337	1	5	3.59	1.020	1.040
Contributions	337	1	5	4.00	.927	.860
Feeling of pride	337	2	5	3.52	1.225	1.500
Discretionary effort	337	1	5	3.94	.834	.696
Care for Organization	337	1	5	4.15	.671	.450
Personal accomplishment	337	2	5	4.00	.800	.640
Goal achievement	337	2	5	4.01	.822	.676
Excitement in the job	337	1	5	3.47	1.210	1.464
Valid N (listwise)	337					

Source: Primary Data

Interpretation: From the results, it may be seen that that the most responses are clustered around the mean. The mean on attachment and dedication (3.91 on a 5-point scale) with *SD* of .877, as was the mean on discretionary effort (3.94) with *SD* of .834 and the mean on care for organization is rather high (4.15) with *SD* of .934. Similarly, Excellent work place has mean of 3.75 with *SD* of .951, Involvement 3.86 with *SD* of .934, Understanding mission 3.86 with *SD* of .938, Participation 3.59 with *SD* of 1.020, Feeling of pride 3.52 with *SD* of 1.225, and Excitement in the job 3.47 with *SD* of 1.210. It indicates that the most of the respondents are having moderate to high level of engagement at the work place. The variance on all the variables is high, indicating that the most respondents are very close to the mean on all the variables. Overall, most of the respondent perceives themselves to be engaged at the workplace.

Table 4.3.2: Descriptive Statistics

	N	Min.	Max.	Mean	Std. Dev.	Variance
Career Development	337	1	5	3.38	1.187	1.410
Potential development.	337	2	5	3.22	1.126	1.269
Career prospects	337	1	5	3.43	.962	.925
Advancement	337	1	5	3.46	1.032	1.064
Performance	337	1	5	3.27	1.038	1.077
Learning & Development	337	2	4	3.38	.925	.856
Counseling.	337	1	5	3.28	1.179	1.391
Appraisal	337	1	5	3.40	.918	.843
Cross-functional transfers.	337	1	5	3.40	.995	.990
Job rotation	337	1	5	3.12	1.144	1.310
Mentoring	337	1	5	2.91	1.317	1.735
Work flexibility	337	1	5	3.33	1.006	1.012
Valid N (listwise)	337					

Source: Primary Data

Interpretation: From the results, it may be seen that the mean on career prospects is slightly higher (3.43 on a 5-point scale) with *SD* of .962 , as was the mean on learning and development (3.38) with *SD* of .925. Potential development is about average (3.22 on a 5-point scale) with *SD* of 1.126, and the career development is perceived as somewhat decent (3.38) with *SD* of 1.187. Similarly, Appraisal has mean of 3.40 with an *SD* of .918, Cross-functional transfers 3.40 with *SD* of .995, Performance 3.27 with *SD* of 1.038, Counselling 3.28 with *SD* of 1.179, and Job rotation 3.12 on a 5-point scale with *SD* of 1.144. The mean of 3.46 with *SD* of 1.032 for advancement indicates that most of the respondents have positive view of the career development climate. The variance of the variables is on higher side, indicating that the most of the respondents are very close to the mean on all the variables. In sum, the respondent perceives that organizations have career development programme in place for the employees.

4.4. *Hypothesis testing*

4.4.1 Hypothesis 1: Hypothesis 1 can be stated in the null and alternate as follows:

$H1_0$: There is no significant relationship between employee engagement and Career Development.

$H1_A$: There is a significant relationship between employee engagement and career development.

Correlation coefficients (*r*) can be used as a test of significance by testing the null hypothesis that the value of '*r* 'in the population is 0 (zero). If '*r*' is substantially different from 0 (zero), then the null hypothesis can be rejected and we can conclude that the two variables are not independent but are related at a statistically significant level. Pearson correlation coefficient

for all characteristics is presented in Table 4.4.1. Most of the correlation coefficients among variables are significant ($P<.01$ or $P<.05$). From the results, It can be seen that career development is significantly positively correlated to the variables of excellent work place, attachment and dedication, involvement, understanding mission , participation, contribution , feeling of pride, discretionary effort, care for the organization, personal accomplishment, goal achievement , excitement in the job; all the constructs of employee engagement. Therefore, hypothesis 1 is substantiated.

Table 4.4.1 Correlation Table: Employee Engagement constructs and Career Development

Variables	Excellent work place	Attachment and dedication	Involvement	Understanding mission	Participation	Contributions	Feeling of pride	Discretionary effort	Care for Organization	Personal accomplishment	Goal achievement	excitement in the job
Excellent work place	1											
Attachment and dedication	.627*	1										
	.000											
Involvement	.553*	.741*	1									
	.000	.000										
Understanding mission	.625*	.611*	.569*	1								
	.000	.000	.000									
Participation	.243*	.220*	.270*	.358*	1							
	.000	.000	.000	.000								
Contribution	.244*	.117*	.066	.274*	.376*	1						
	.000	.031	.229	.000	.000							
Feeling of pride	.647*	.551*	.525*	.582*	.218*	.164*	1					
	.000	.000	.000	.000	.000	.003						
Discretionary effort	.412*	.400*	.371*	.457*	.187*	.208*	.486*	1				
	.000	.000	.000	.000	.001	.000	.000					
Care for Organization	.359*	.260*	.210*	.331*	.113*	.238*	.382*	.395*	1			
	.000	.000	.000	.000	.039	.000	.000	.000				
Personal accomplishment	.218*	.068	.035	.233*	.487*	.445*	.211*	.236*	.350*	1		
	.000	.216	.519	.000	.000	.000	.000	.000	.000			
Goal achievement	.353*	.282*	.296*	.407*	.469*	.418*	.344*	.318*	.262*	.503*	1	
	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000		

Excitement in the job	.544*	.482*	.526*	.527*	.252*	.153*	.626*	.428*	.410*	.318*	.457*	1
	.000	.000	.000	.000	.000	.005	.000	.000	.000	.000	.000	
CAREER_DEVELOPMENT	.522*	.408*	.397*	.557*	.456*	.282*	.520*	.372*	.428*	.395*	.473*	.554*
	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
**. Significant at the 0.01 level (2-tailed).												
*. Significant at the 0.05 level (2-tailed).												
a. List wise N=337												

Source: Primary Data

Interpretation: From the results, we see that there is statistically positive relationship between career development and respondent views of organization as an excellent work place (r= .52, p < .05) , attachment and dedication (r= .40 , p < .05), understanding of the mission of the organization(r= .55 , p < .05) , feeling of pride (r= .52 , p < .05), excitement in the job (r= .54 , p < .05). Career development is also having sizeable correlation with involvement, participation, contribution, discretionary effort, care for organization, personal accomplishment, and goal achievement. It is significant to note that highest correlation is .62 for the sample, thereby confirming that variables are distinct.

The obtained value indicates substantial relationship between the two variables, i.e. large amounts of employee engagement variable tend to accompany large amounts of career development.

4.5. Results of Factor Analysis

Factor analysis is useful to examine the underlying structure of the variables or bring together related variables to reduce their number for later analysis. Factor analysis starts with a set of coefficient of correlations between every pair of variables under study. The final result is a set of

factors, or least common denominators, which explain all the correlations. The factor summarizes the pattern of correlation in the observed data.

Table 4.5.1 Test of MSA and Sphericity

Bartlett's Test Apprx. Chi-square=1818.94, df=66, Significance=0.00 Kaiser-Meyer-Olkin MSA=0.883

Source: Primary Data

Interpretation - KMO and Bartlett values more than 0.7 implies that the sampling is adequate and acceptable. Bartlett's Test of Sphericity is significant at less than .001. It indicates the factor analysis results would be useful for analysis.

Table 4.5.2 Initial Eigen Values

Factor	Eigen value	% of Variance	Cumulat. %
1	**5.158**	**42.985**	**42.985**
2	**1.808**	**15.069**	**58.054**
3	**1.017**	**8.476**	**66.530**
4	.693	5.776	72.306
5	.606	5.049	77.354
6	.552	4.602	81.957
7	.494	4.118	86.074
8	.398	3.319	89.394
9	.390	3.247	92.640
10	.352	2.936	95.576
11	.300	2.497	98.073
12	.231	1.927	100.000

Source: Primary data

Interpretation: Extraction and rotation resulted in reduction of 12 variables of employee engagement into three factors. The three factors demonstrate a simpler explanation of original

data. The three factors accounted for 66.53 per cent of the variability. Therefore, it is preferable to keep them as independent variables.

The Rotated Component matrix of employee engagement variables are shown in Table 4.5.3. Varimax rotation was used to facilitate interpretation of factor loadings. For the selected three factors, factor loading are presented.

Table 4.5.3 **Rotated Component Matrix**[a]

	Component		
	1	2	3
V1. Excellent work place	**.735**	.173	.300
V2. Attachment and dedication	**.867**	.040	.071
V3. Involvement	**.874**	.049	-.012
V4. Understanding mission	**.739**	.284	.201
V5. Participation	.276	**.779**	-.189
V6. Contributions	.021	**.711**	.172
V7. Feeling of pride	**.691**	.109	.430
V8. Discretionary effort	.424	.143	**.564**
V9. Care for Organization	.146	.158	**.834**
V10. Personal accomplishment	-.042	**.773**	.347
V11. Goal achievement	.307	**.703**	.162
V12. Excitement in the job	**.606**	.220	.439

Extraction Method: Principal Component Analysis.
Rotation Method: Varimax with Kaiser Normalization.

Interpretation of Exploratory Factor Analysis:

From the results, it may be seen that;

- Involvement , attachment and dedication , understanding mission, excellent work place, feeling of pride , excitement in the job possessed the highest loads in Factor 1
- Participation , personal accomplishment , contributions, and goal achievement in Factor 2
- Care for organization and discretionary effort in Factor 3.

After varimax rotation, the values of loading are correlations between variables and corresponding factors. The bold marked loads indicate the highest correlations between variables and corresponding factors. The greater loading, the more the variables is pure measure of factor.

- From the above table, it is found that V3, V2, V4, V1, V7 and V12 show more loadings under the first component and hence it can be named as Drive factors. Drive is an innate and determined urge to attain a goal or satisfy a need.
- Similarly, it is found that V5, V10, V6, and V11 show more loadings under the second component and hence it can be named as Commitment Factors. Commitment is conceived as willingness to give time and energy to a job.
- From the above table, it is found that V9 and V8 show more loadings under the third component and hence it can be named as proactive behavior factors. The proactive behavior describes a person who takes initiative to get things done and makes things happen.

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Table 4.5.4 Communalities

	Initial	Extraction
Excellent work place	1.000	.659
Attachment and dedication	1.000	.759
Involvement	1.000	.766
Commitment	1.000	.667
Participation	1.000	.719
Contributions	1.000	.535
Feeling of pride	1.000	.675
Discretionary effort	1.000	.519
Care for Organization	1.000	.741
Personal accomplishment	1.000	.719
Goal achievement	1.000	.614
Excitement in the job	1.000	.608

Source: Extraction Method: Principal Component Analysis.

Interpretation: Communalities values of variables are very high. For example, communality for attachment and dedication is 75.90% indicating that 75.90% of variance in attachment and dedication is accounted for by Factor 1, 2 and 3.

4.6. ***Hypothesis 2:*** Hypothesis 2 can be stated in the null and alternate as follows:

$H2_0$: Employee engagement in organizations will not result in employees' career development.

$H2_A$: Employee engagement in organizations will result in the career development of employees.

The main objective of the present study is; using a multivariate statistical approach to explain and predict career development in organizations. Exploratory factor analysis of the components which has Eigen values greater than 1 (Drive, Commitment, Proactive behavior) out of 12 variables were employed as independent variables in multiple regression analysis. The high values of communalities indicated that the variances of variables were efficiently reflected in multiple regression analysis. Regression coefficients were tested by using t test. Coefficient of determination (R^2) was used as predictive success criteria of regression model.

Accordingly, to test the second hypothesis, factor score values for selected three factors were used as independent variables in multiple linear regression analysis to determine significant factors for career development.

Table 4.6.1 Model[b] 1

Model	Sample R	Sample R^2	Adjusted R^2	Std. Error of the Estimate
1	.695[a]	.483	.478	5.62777

a. IV: (Constant), Drive, Commitment, Proactive behavior

b. DV: CAREER_DEVELOPMENT
Source: Primary Data
Interpretation: The coefficient of multiple determination R^2 (.483) is highly significant and explained by Drive, Commitment and Proactive behavior.

Table 4.6.2 ANOVA[b] Output 1

	Sources of Variation	SS	df	Variance	F ratio	Level of Significance
1	Regression	9849.597	3	3283.199	103.663	.000[a]
	Residual	10546.723	333	31.672		
	Total	20396.320	336			

a. IV: Drive, Commitment, Proactive behavior
b. DV: CAREER_DEVELOPMENT
Source: Primary Data

Interpretation: The *F* ratio of 103.633 with 3 degrees of freedom is significant at the level of 0.001. Therefore, null hypothesis is rejected and the overall regression equation is statistically significant. Thus, hypothesis 2 is substantiated i.e. Employee engagement in organizations will significantly result in the career development of employees.

Table 4. 6.3 Regression Analysis[a] 1

Variables in the Equation		B	SE	Beta	Computed t Value	Level of Significance
1	(Cons.)	4.778	2.284		2.092	.037
	Drive	4.036	.467	.427	8.634	.000
	Commitment	3.569	.497	.313	7.175	.000
	Proactive behavior	1.440	.604	.116	2.384	.018

a. DV: CAREER_DEVELOPMENT

Source: Primary Data

Interpretation: All of the selected factors (Drive, Commitment, Proactive behavior) were found to have significant linear relationships with career development.

Drive is to account for most of the variance in career development, since it has the highest Beta value (.427) under standardized coefficients, which is significant at .0001 levels. The beta weight indicates that increase in significant variables of Drive, namely, involvement, attachment and dedication, understanding mission, excellent work place, feeling of pride, and excitement in the job results in career development of employees.

Regression coefficients for the models are shown in the above table. The column headed "B" shows the unstandardized regression coefficients for the equation. The equation may now be constructed as;

$$Y = 4.778 + 4.036\ X_1 + 3.569\ X_2 + 1.440\ X_3$$

4.7. Moderators

One of the objectives of this research studies is to assess if demographic variables such as age, experience, qualification, gender and income act as a moderator on the relationship between

employee engagement and career development. A moderator variable may be viewed as any variable which, when varies systematically, has an effect upon the magnitude of the relationship between two or more other variables. In other words, it is a secondary independent variable which is chosen to determine whether it affects the relationship between primary independent variable and the dependent variable. In the relationship between Independent variable 'X' and dependent variable 'Y' , if Y is altered by the third factor Z, then Z will be a moderator variable.

4.8. Hypothesis 3: Hypothesis 3 can be stated in the null and alternate as follows:

$H3_0$: There is no moderation effect of employees' experience on the relationship between employee engagement and career development.

$H3_A$: There is a moderation effect of employees' experience on the relationship between employee engagement and career development.

To test hypothesis 3 which deals with the interaction effect, the researcher has used multiple regression to evaluate the effect on Career Development (Y variable) of a combination of moderator variable of experience and original independent variables (1) Drive (2) Commitment (3) Proactive behavior. The Process v3.5 Andrew F. Hayes method has been used to compute the model 1 and the regression coefficients. In model 1, all the variable Drive, Commitment and Proactive behavior has been entered as predictor (X variable), while experience has been entered as multi-categorical W (moderator) variable.

Regression coefficients for the entire three predictor variables of drive, commitment and proactive behavior are shown in the table below. Jointly, the regression coefficients are not statistically significant, but at least one beta coefficient for predictor variable is having

significant interaction which shows the relative contribution of the three predictor variables to the explanatory power of equation. The *F* value of 32.75 with R^2 of .41 is significant (p<.001), i.e. 41% variance is due to predictor Drive and levels of experience. Similarly, 39% of variance is due to predictor Commitment and levels of experience, with *F* value of 30.30 at P<0.001. *F* value of 14.24 at P<0.001 with an R^2 = .23 indicates a 23% of variance is due to predictor proactive behavior and levels of experience. Therefore, null hypothesis is rejected and the overall regression equation is statistically significant. Thus, hypothesis 3 is substantiated i.e. the relationship between employee engagement and career development is affected by the experience of the employees.

Model: 1
Y : CAR_DEV
X : DRIVE
W : EXP
Sample Size: 337

Table 4.8.1 Coding of categorical W variable for analysis:

INCOME	W1	W2	W3
1	0	0	0
2	1	0	0
3	0	1	0
4	0	0	1

OUTCOME VARIABLE: CAR_DEV
W 1: 05-10 yrs Exp. Vs 00-05 yrs. Exp.
W2: 10-15 yrs. Exp. Vs 00-05 yrs. Exp.
W3: >15 yrs. Exp Vs. 00-05 yrs. Exp.

Table 4.8.2 Model Summary

R	R^2	MSE	F	df1	df2	Level of Significance
0.6409	0.4107	36.533	32.7569	7	329	.0000

Overall model: F (7,329) = 32.75, P<0.001, R^2 = .41 (41% of variance is due to predictor Drive and levels of experience.

Table 4.8.3 Model

	B	Std.error	Computed t Value	Level of Significance	CI. Lower	CI. Upper
Cons.	38.1671	0.7422	51.4266	.0000	36.7071	39.6271
DRIVE	5.3533	1.0781	4.9653	.0000	3.2324	7.4742
W1	1.0325	0.921	1.121	0.2631	-0.7793	2.8442
W2	1.5742	0.9651	1.6312	0.1038	-0.3243	3.4728
W3	4.2022	1.687	2.4909	0.0132	0.8835	7.5209
Int_1	2.2445	1.3146	1.7074	0.0887	-0.3416	4.8306
Int_2	0.6386	1.3524	0.4722	0.6371	-2.0217	3.299
Int_3	0.7434	1.5398	0.4828	0.6295	-2.2856	3.7724

Int_1: DRIVExW1
Int_2: DRIVExW2
Int_3: DRIVExW3

Interpretation:
Predictors:

- Drive b=5.35, t (329) = 4.96, P<0.001, significant, so as Drive increases, Career Development also increases.
- W1 (05-10 yrs Exp. Vs 00-05 yrs. Exp.) b = 1.0325, t (329) = 1.121, P=0.26, differences in Career development between 05-10 yrs experience and 00-05 yrs. experience employee is not significant.
- W2 (10-15 yrs exp Vs 00-05 yrs exp.) b= 1.5742, t (329) = 1.6312, P= 0.1038, differences in career development between (10-15 yrs exp Vs 00-05 yrs exp.) employee is not significant.
- W3 (>15 yrs exp Vs 00-05 yrs exp.) b = 4.2022, t (329) = 2.4909, P=0.0132, differences in career development between (>15 yrs exp Vs 00-05 yrs exp.) employee is significant.
- Int_1 (05-10 yrs Exp. Vs 00-05 yrs. Exp) BY Drive b = 2.2445. . . . . No interaction.
- Int_2 (10-15 yrs exp Vs 00-05 yrs exp.) BY Drive b = 0.6386…….. No interaction.

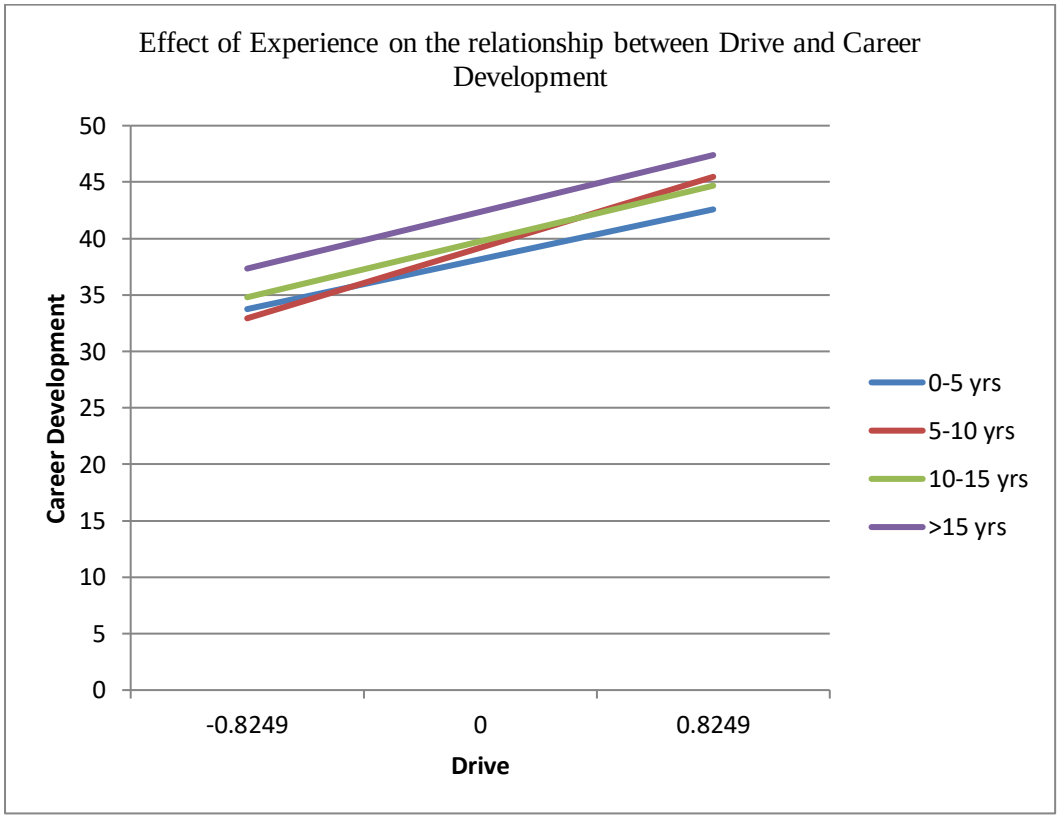
- Int_3 (>15 yrs exp Vs 00-05 yrs exp.) BY Drive *b* = 0.7434…….. No interaction.

Table 4.8.4 **I**nteraction(s) Table:

	R^2-change	F	df1	df2	Level of Significance
X*W	0.0068	1.2597	3	329	0.2882

X: DRIVE
W: EXP
Interpretation: Overall interaction with R^2 change of 0.68 % is statistically not significant.

Figure 4.8.1



Model: 1
Y : CAR_DEV
X : COMMITMENT
W : EXP
Sample Size: 337

Table 4.8.5 Coding of categorical W variable for analysis:

INCOME	W1	W2	W3
1	0	0	0
2	1	0	0
3	0	1	0
4	0	0	1

OUTCOME VARIABLE: CAR_DEV

W 1: 05-10 yrs Exp. Vs 00-05 yrs. Exp.
W2: 10-15 yrs. Exp. Vs 00-05 yrs. Exp.
W3: >15 yrs. Exp Vs. 00-05 yrs. Exp.

Table 4.8.6 Model Summary

R	R^2	MSE	F	df1	df2	Level of Significance
0.6261	0.392	37.6912	30.3061	7	329	.0000

Interpretation: Overall model: F (7,329) = 30.30, $P<0.001$, $R^2 = .39$ (39% of variance is due to predictor Commitment and levels of experience.

Table 4.8.7 Model

	B	Std.error	Computed t Value	Level of Significance	CI. Lower	CI. Upper
Cons.	39.4377	0.7812	50.4833	.0000	37.901	40.9745
COMMIT	1.0918	0.9465	1.1535	0.2496	-0.7702	2.9537
W1	0.2565	0.9506	0.2698	0.7875	-1.6135	2.1265
W2	-0.1297	1.0031	-0.1293	0.8972	-2.1031	1.8437
W3	-3.7812	1.2776	-2.9597	0.0033	-6.2944	-1.268
Int_1	8.6217	1.3367	6.45	.0000	5.9921	11.2512
Int_2	6.2263	1.4476	4.301	.0000	3.3785	9.0741
Int_3	5.9178	1.4294	4.1402	.0000	3.106	8.7296

Int_1: DRIVExW1
Int_2: DRIVExW2
Int_3: DRIVExW3

Interpretation:

Predictors:

- Commitment $b= 1.09$, t (329) = 1.15, not significant.
- W1 (05-10 yrs Exp. Vs 00-05 yrs. Exp.) $b = 0.256$, t (329) = 0.269, $P=0.787$,

differences in Career development between employees having 05-10 yrs and 00-05 yrs. experience is not significant.

- W2 (10-15 yrs exp Vs 00-05 yrs exp.) *b*= -0.1297, *t* (329) = -0.1293, *P*= 0.8972, differences in career development between employees having 10-15 yrs exp. and 00-05 yrs. experience employee is not significant.
- W3 (>15 yrs exp Vs 00-05 yrs exp.) *b* = -3.7812, *t* (329) = -2.9597, *P*=0.0033, differences in career development between employees having >15 yrs exp. and 00-05 yrs exp. employee is significant.
- Int_1 (05-10 yrs Exp. Vs 00-05 yrs. Exp) BY Commitment *b* = 8.6127, significant and yes interaction.
- Int_2 (10-15 yrs exp Vs 00-05 yrs exp.) BY Commitment *b* = 6.2263 significant and yes interaction.
- Int_3 (>15 yrs exp Vs 00-05 yrs exp.) BY Commitment *b* =5.9178 significant and yes interaction.

Table 4.8.8 **I**nteraction(s) Table:

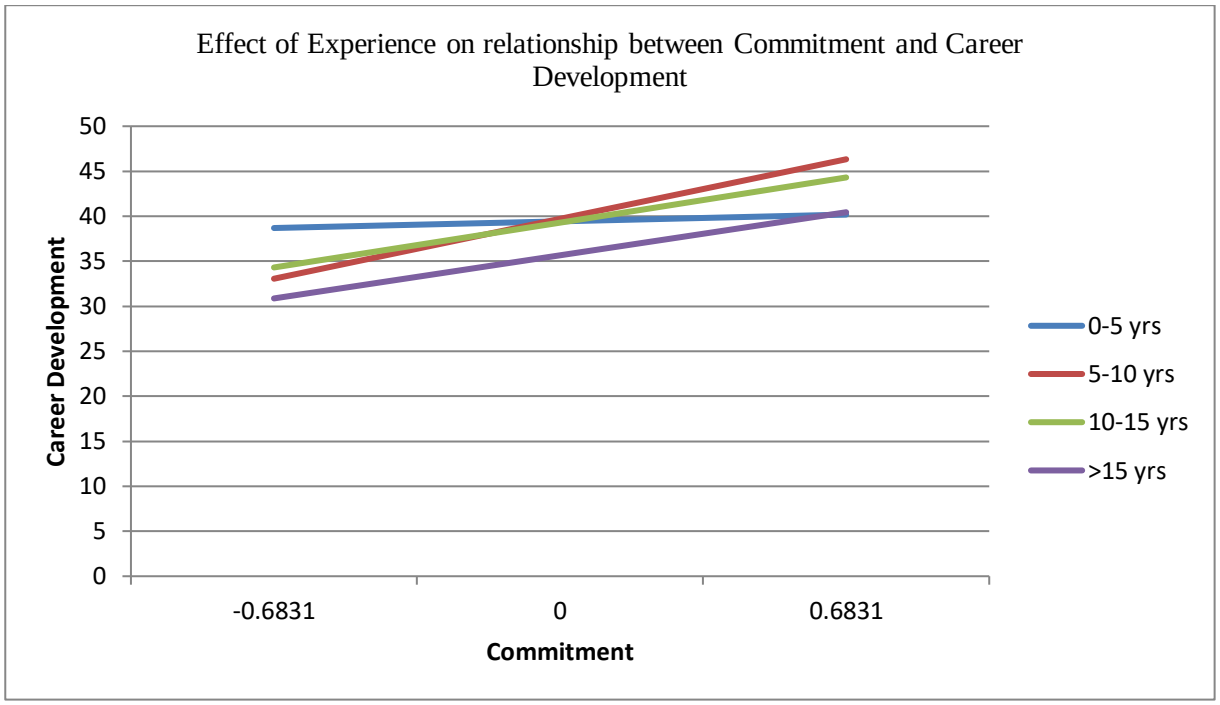
	R^2-change	F	df1	df2	Level of Significance
X*W	0.0824	14.8643	3	329	.0000

X: COMMIT
W: EXP
Interpretation: Overall interaction with R^2 change of 8.24 % is statistically significant.

Table 4.8.9 **E**ffects of X (Commit.) at values of EXP (W):

EXP	Effect	Std.error	Computed t Value	Level of Significance	CI. Lower	CI.Upper
1	1.0918	0.9465	1.1535	0.2496	-0.7702	2.9537
2	9.7134	0.9439	10.2912	.0000	7.8567	11.5702
3	7.3181	1.0954	6.681	.0000	5.1633	9.4729
4	7.0096	1.0711	6.5444	.0000	4.9025	9.1166

Figure 4.8.2



Interpretation:

Simple Slopes: slopes for X to Y given a level of experience.

- 1 (00-05 yrs. exp. level) commitment factors predicting career development *b*=1.0918….. not significant.
- 2 (05-10 yrs. exp. level) commitment factors predicting career development *b*= 9.7134…. is significant; for employees having 05 -10 yrs. experience, commitment factors predict increase in career development by 9.72 points.
- 3 (10-15 yrs. exp. level) commitment factors predicting career development *b* = 7.3181 …. is significant; employees having 10-15 yrs. experience, commitment factors predict increase in career development by 7.32 points.
- (>15 yrs. exp. level) commitment factors predicting career development *b* = 7.0096….. is significant; for employees having more than 15 yrs. experience, commitment factors predict increase in career development by 7 points.

Model: 1
Y : CAR_DEV
X : P_BEHAV
W : EXP
Sample Size: 337

Table 4.8.10 Coding of categorical W variable for analysis:

INCOME	W1	W2	W3
1	0	0	0
2	1	0	0
3	0	1	0
4	0	0	1

OUTCOME VARIABLE: CAR_DEV

W 1: 05-10 yrs Exp. Vs 00-05 yrs. Exp.
W2: 10-15 yrs. Exp. Vs 00-05 yrs. Exp.
W3: >15 yrs. Exp Vs. 00-05 yrs. Exp.

Table 4.8.11 Model Summary

R	R^2	MSE	F	df1	df2	Level of Significance
0.4823	0.2326	47.5764	14.2438	7	329	.0000

Interpretation: Overall model: F (7,329) = 14.24, $P<0.001$, $R^2 = .23$ (23% of variance is due to predictor proactive behavior and levels of experience.

Table 4.8.12 Model

	B	Std.error	Computed t Value	Level of Significance	CI. Lower	CI. Upper
Cons.	39.5137	0.8244	47.9301	.0000	37.892	41.1355
P_BEHAV	5.0307	1.2258	4.1039	.0000	2.6193	7.4421
W1	0.4458	1.0306	0.4326	0.6656	-1.5815	2.4731
W2	-0.374	1.0882	-0.3436	0.7313	-2.5147	1.7668
W3	0.5154	1.8496	0.2787	0.7807	-3.1231	4.1538
Int_1	0.0182	1.6081	0.0113	0.991	-3.1453	3.1816
Int_2	2.3833	1.7593	1.3547	0.1765	-1.0777	5.8443
Int_3	1.8099	2.3989	0.7545	0.4511	-2.9092	6.529

Int_1: P_BEHAV xW1
Int_2: P_BEHAV xW2
Int_3: P_BEHAV xW3

Interpretation:
Predictors:

- Proactive behavior *b*= 5.03, *t* (329) = 4.103, significant, so as Proactive behavior increases, Career Development also increases.
- W1 (05-10 yrs Exp. Vs 00-05 yrs. Exp.) *b* = 0.4458, *t* (329) = 0.4326, *P*=0.6656, differences in Career development between employees having 05-10 yrs and 00-05 yrs. experience is not significant.
- W2 (10-15 yrs exp Vs 00-05 yrs exp.) *b*= -0.374, *t* (329) = -0.3436, *P*= 0.7313, differences in career development between employees having 10-15 yrs exp. and 00-05 yrs. experience employee is not significant.
- W3 (>15 yrs exp Vs 00-05 yrs exp.) *b* = 0.5154, *t* (329) = 0.2787, *P*=0.7807, differences in career development between employees having >15 yrs exp. and 00-05 yrs exp. employee is not significant.

- Int_1 (05-10 yrs Exp. Vs 00-05 yrs. Exp) BY Proactive behavior *b* = 0.0182, ….. No interaction.
- Int_2 (10-15 yrs exp Vs 00-05 yrs exp.) BY Proactive behavior *b* = 2.3833….. No interaction.
- Int_3 (>15 yrs exp Vs 00-05 yrs exp.) BY Proactive behavior *b* =1.8099…. No interaction.

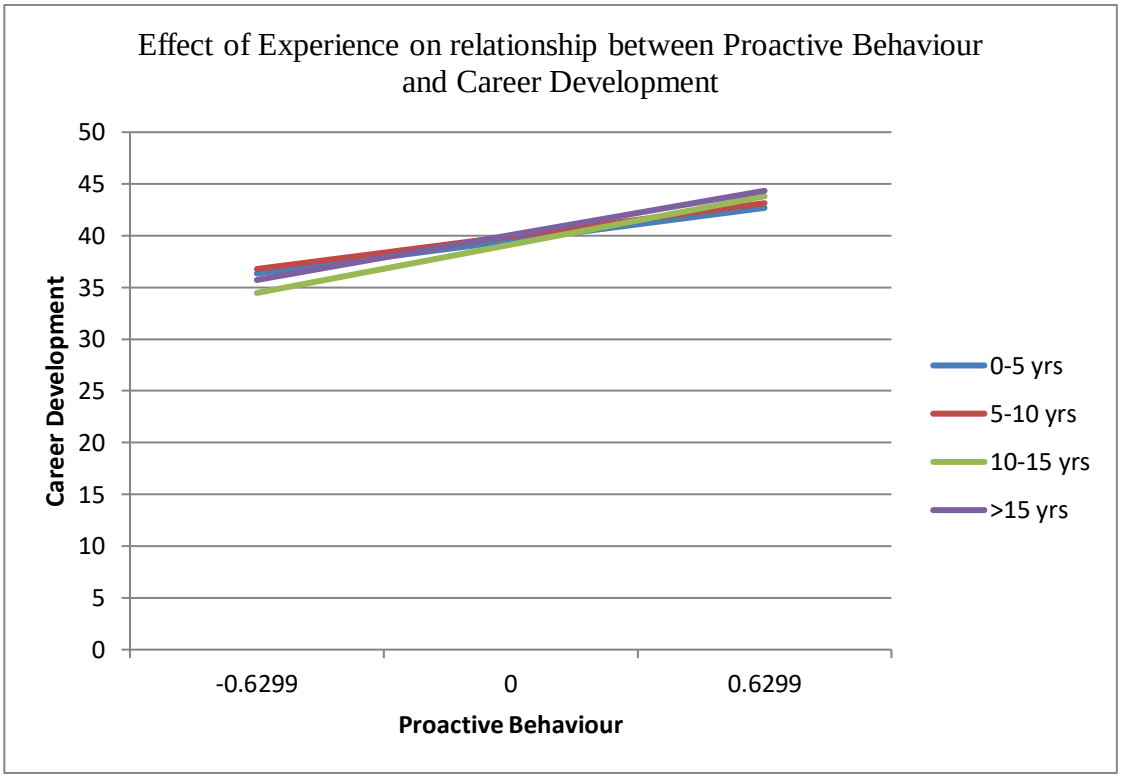
Table 4.8.13 **I**nteraction(s) Table:

	R^2-change	F	df1	df2	Level of Significance
X*W	0.0065	0.9346	3	329	0.4241

X: P_BEHAV.
W: EXP

Interpretation: Overall interaction with R^2 change of 0.65 % is statistically not significant.

Figure 4.8.3



4.9. Hypothesis 4: Hypothesis 4 can be stated in the null and alternate as follows:

$H4_0$: There is no moderation effect of employees' age on the relationship between employee engagement and career development.

$H4_A$: There is a moderation effect of employees' age on the relationship between employee engagement and career development.

To test hypothesis 4 which deals with the interaction effect, the researcher has used multiple regression to evaluate the effect on Career Development (Y variable) of a combination of moderator variable of and original independent variables (1) Drive (2) Commitment (3) Proactive behavior. The Process v3.5 Andrew F. Hayes method has been used to compute the

model 1 and the regression coefficients. In model 1, all the variable Drive, Commitment and Proactive behavior has been entered as predictor (X variable), while age has been entered as multi-categorical W (moderator) variable.

Regression coefficients for the entire three predictor variables of drive, commitment and proactive behavior are shown in the table below. Jointly, the regression coefficients are not statistically significant, but at least one beta coefficient for predictor variable is having significant interaction which shows the relative contribution of the three predictor variables to the explanatory power of equation. Moderator variables are appropriate when there is a weak or inconsistent relation between a predictor and a criterion variable (Baron & Kenny, 1986). The *F* value of 33.32 with R^2 of .4149 is significant ($p<.001$), i.e. 41% variance is due to predictor Drive and age. Similarly, 36% of variance is due to predictor Commitment and age, with *F* value of 26.81 at $P<0.001$. *F* value of 14.55 at $P<0.001$ with an $R^2 = .23$ indicates a 23% of variance is due to predictor proactive behavior and age. Therefore, null hypothesis is rejected and the overall regression equation is statistically significant. Thus, hypothesis 4 is substantiated i.e. the relationship between employee engagement and career development is affected by the age of the employees.

Model: 1
Y :CAR_DEV
X :DRIVE
W :AGE
Sample Size: 337

Table 4.9.1 Coding of categorical W variable for analysis:

AGE	W1	W2	W3
1	0	0	0
2	1	0	0
3	0	1	0
4	0	0	1

OUTCOME VARIABLE: CAR_DEV

W 1: 26-35 yrs. Vs 18-25 yrs. Age
W2: 36-45 yrs. Vs 18-25 yrs. Age
W3: >46 yrs Vs. 18-25 yrs. Age

Table 4.9.2 Model Summary

R	R^2	MSE	F	df1	df2	Level of Significance
0.6441	0.4149	36.2745	33.3253	7	329	.0000

Interpretation: Overall model: F (7,329) = 33.32, $P<0.001$, $R^2 = .4149$ (41.49% of variance is due to predictor Drive and Age.

Table 4.9.3 Model

	B	Std.error	Computed t Value	Level of Significance	CI. Lower	CI. Upper
Cons.	38.316	0.9616	39.8478	.0000	36.4245	40.2076
DRIVE	5.328	1.3941	3.8218	0.0002	2.5855	8.0705
W1	0.5214	1.0785	0.4834	0.6291	-1.6002	2.6429
W2	1.3371	1.1449	1.1679	0.2437	-0.9151	3.5893
W3	3.0619	1.875	1.633	0.1034	-0.6266	6.7504
Int_1	2.636	1.5564	1.6936	0.0913	-0.4259	5.6978
Int_2	0.1322	1.5847	0.0834	0.9336	-2.9853	3.2497
Int_3	-0.2435	1.8534	-0.1314	0.8955	-3.8895	3.4024

Int_1: DRIVE xW1
Int_2: DRIVE xW2
Int_3: DRIVE xW3

Interpretation:
Predictors:

- Drive $b=5.328$, t (329) = 3.8218, $P<0.0002$, significant, so as Drive increases, Career Development also increases.
- W1 (26-35 yrs. Vs 18-25 yrs) b = 0.5214, t (329) = 0.4834, $P=0.6291$, differences in Career development between 26-35 yrs. and 18-25 yrs. age employee is not significant.
- W2 (36-45 yrs Vs 18-25 yrs.) b= 1.3371, t (329) = 1.1679, P= 0.2437, differences in career development between (36-45 yrs Vs 18-25 yrs) age employee is not significant.

- W3 (>46 yrs Vs 18-25 yrs) *b* = 3.0619, *t* (329) = 1.633, *P*=0.1034, differences in career development between (>46 yrs Vs 18-25 yrs) age employee is not significant.
- Int_1 (26-35 yrs. Vs 18-25 yrs) BY Drive *b* = 2.636 ……. No interaction.
- Int_2 (36-45 yrs Vs 18-25 yrs.) BY Drive *b* = 0.1322…….. No interaction.
- Int_3 (>46 yrs Vs 18-25 yrs) BY Drive *b* = -0.2435…….. No interaction.

Table 4.9.4 **I**nteraction(s) Table:

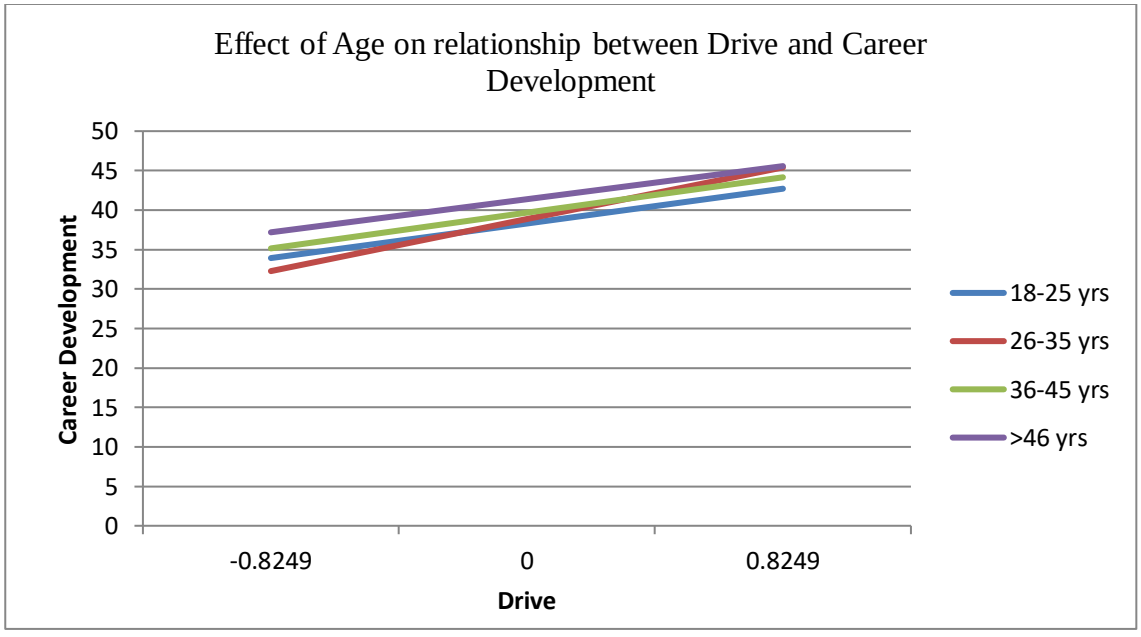
	R^2-change	F	df1	df2	Level of Significance
X*W	0.015	2.8026	3	329	0.0399

X: DRIVE
W: AGE
Interpretation: Overall interaction with R^2 change of 1.5 % is statistically significant.

Table 4.9.5 **E**ffects of X (Drive) at values of AGE (W):

AGE	Effect	Std.error	Computed t Value	Level of Significance	CI. Lower	CI.Upper
1	5.328	1.3941	3.8218	0.0002	2.5855	8.0705
2	7.964	0.6921	11.5074	.0000	6.6025	9.3255
3	5.4602	0.7535	7.2462	.0000	3.9779	6.9426
4	5.0845	1.2212	4.1635	.0000	2.6821	7.4868

Figure 4.9.1



Interpretation:
Simple Slopes: slopes for X to Y given Age group.

- 1 (18-25 yrs. Age) Drive factors predicting career development *b*=5.328….. is significant; for employees having age group 18-25 yrs., drive factors predict increase in career development by 5.32 points.
- 2 (26-35 yrs. Age) Drive factors predicting career development *b*= 7.964…. is significant; for employees having age group 26-35 yrs., drive factors predict increase in career development by 7.96 points.
- 3 (36-45 yrs. Age) Drive factors predicting career development *b* = 5.4602…. is significant ; employees having age group 36-45 yrs. , drive factors predict increase in career development by 5.46 points.
- (>46 yrs. Age) Drive factors predicting career development *b* = 5.0845….. is significant ; for employees of age group more than 46 years age , drive factors predict increase in career development by 5.08 points.

Model: 1
Y :CAR_DEV
X :COMMITMENT
W :AGE
Sample Size: 337

Table 4.9.6 Coding of categorical W variable for analysis:

INCOME	W1	W2	W3
1	0	0	0
2	1	0	0
3	0	1	0
4	0	0	1

OUTCOME VARIABLE: CAR_DEV
W 1: 26-35 yrs. Vs 18-25 yrs. Age
W2: 36-45 yrs. Vs 18-25 yrs. Age
W3: >46 yrs Vs. 18-25 yrs. Age

Table 4.9.7 Model Summary

R	R^2	MSE	F	df1	df2	Level of Significance
0.6027	0.3633	39.4727	26.8171	7	329	.0000

Interpretation: Interpretation: Overall model: F (7,329) = 26.81, $P<0.001$, $R^2 = .3633$ (36.33 % of variance is due to predictor Commitment and Age.

Table 4.9.8 Model

	B	Std.error	Computed t Value	Level of Significance	CI. Lower	CI. Upper
Cons.	39.1343	1.0386	37.6782	.0000	37.0911	41.1775
COMMIT	1.3384	1.3122	1.02	0.3085	-1.243	3.9198
W1	0.449	1.15	0.3904	0.6965	-1.8132	2.7112
W2	0.8415	1.2272	0.6857	0.4934	-1.5727	3.2557
W3	-3.3202	1.4762	-2.2491	0.0252	-6.2242	-0.4162
Int_1	8.1058	1.5703	5.1619	0.0001	5.0167	11.1949
Int_2	3.1438	1.5848	1.9837	0.0481	0.0261	6.2614
Int_3	4.9634	1.7984	2.7599	0.0061	1.4256	8.5012

Int_1: COMMIT xW1
Int_2: COMMIT xW2
Int_3: COMMIT xW3

Interpretation:
Predictors:

- Commitment b=1.3384, t (329) = 1.02, not significant.
- W1 (26-35 yrs. Vs 18-25 yrs) b = 0.449, t (329) = 0.3904, P=0.6965, differences in Career development between 26-35 yrs. and 18-25 yrs. age employee is not significant.
- W2 (36-45 yrs Vs 18-25 yrs.) b= .8415, t (329) =.6857, P= 0.4934, differences in career development between (36-45 yrs Vs 18-25 yrs) age employee is not significant.
- W3 (>46 yrs Vs 18-25 yrs) b = -3.3202, t (329) = -2.2491, $P<0.05$, differences in career development between (>46 yrs Vs 18-25 yrs) age employee is significant.

- Int_1 (26-35 yrs. Vs 18-25 yrs) BY Commitment b = 8.1058 , significant and yes interaction.
- Int_2 (36-45 yrs Vs 18-25 yrs.) BY Commitment *b* = 3.1438 significant and yes interaction.
- Int_3 (>46 yrs Vs 18-25 yrs) BY Commitment *b* = 4.9634 significant and yes interaction.

Table 4.9.9 **I**nteraction(s) Table:

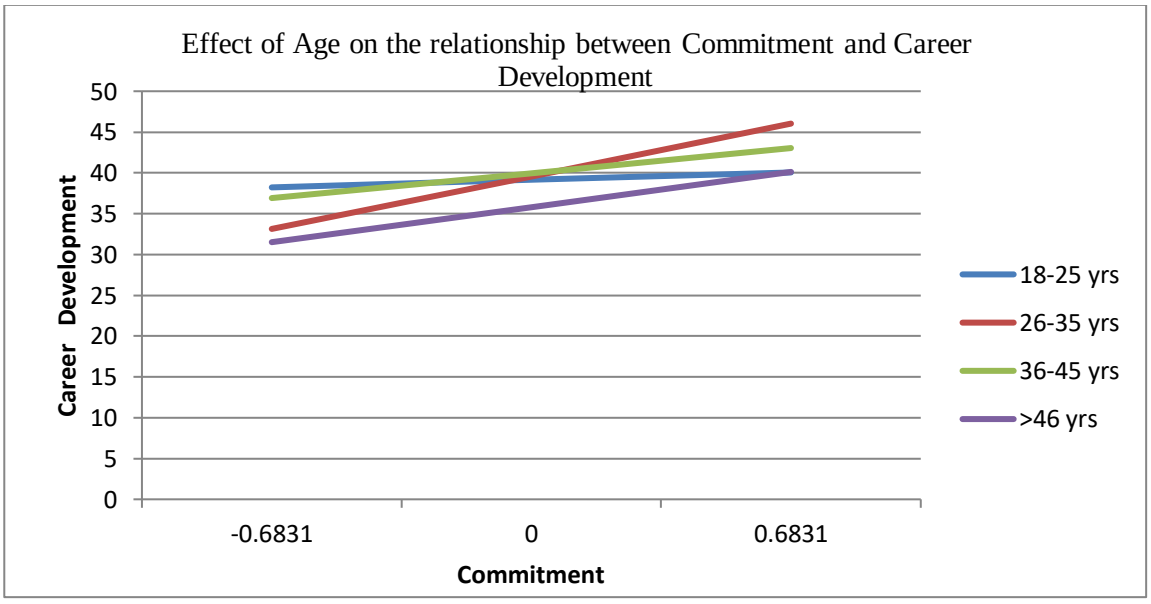
	R^2-change	F	df1	df2	Level of Significance
X*W	0.061	10.511	3	329	.0000

X: COMMIT
W: AGE
Interpretation: Overall interaction with R^2 change of 6.1 % is statistically significant.

Table 4.9.10 **E**ffects of X (Commit.) at values of AGE (W):

AGE	Effect	Std.error	Computed t Value	Level of Significance	CI. Lower	CI.Upper
1	1.3384	1.3122	1.02	0.3085	-1.243	3.9198
2	9.4442	0.8625	10.9499	.0000	7.7475	11.1409
3	4.4822	0.8887	5.0438	.0000	2.734	6.2303
4	6.3018	1.2297	5.1246	.0000	3.8827	8.7209

Figure 4.9.2



Interpretation:
Simple Slopes: slopes for X to Y given Age group.

- 1 (18-25 yrs. Age) Commitment factors predicting career development *b*=1.3384….. is not significant.
- 2 (26-35 yrs. Age) Commitment factors predicting career development *b*= 9.4442…. is significant; for employees having age group 26-35 yrs., commitment factors predict increase in career development by 9.44 points.
- 3 (36-45 yrs. Age) Commitment factors predicting career development *b* = 4.4822…. is significant ; employees having age group 36-45 yrs. , commitment factors predict increase in career development by 4.48 points.
- (>46 yrs. Age) Commitment factors predicting career development *b* = 6.3018….. is significant ; for employees of age group more than 46 years age , commitment factors predict increase in career development by 6.30 points.

Model: 1
Y :CAR_DEV
X : P_BEHAV
W :AGE
Sample Size: 337

Table 4.9.11 Coding of categorical W variable for analysis:

INCOME	W1	W2	W3
1	0	0	0
2	1	0	0
3	0	1	0
4	0	0	1

OUTCOME VARIABLE: CAR_DEV
W 1: 26-35 yrs. Vs 18-25 yrs. Age
W2: 36-45 yrs. Vs 18-25 yrs. Age
W3: >46 yrs Vs. 18-25 yrs. Age

Table 4.9.12 Model Summary

R	R^2	MSE	F	df1	df2	Level of Significance
0.4863	0.2365	47.3336	14.558	7	329	.0000

Interpretation: Overall model: F (7,329) = 14.55, $P<0.001$, R^2 = .2365 (23.65 % of variance is due to predictor Proactive behavior and Age.

Table 4.9.13 Model

	B	Std.error	Computed t Value	Level of Significance	CI. Lower	CI. Upper
Cons.	39.8119	1.1181	35.6075	.0000	37.6124	42.0114
P_BEHAV	5.8221	1.5242	3.8198	0.0002	2.8237	8.8205
W1	0.2153	1.241	0.1735	0.8624	-2.226	2.6567
W2	-1.0996	1.3312	-0.8261	0.4094	-3.7183	1.5191
W3	-2.0163	2.2103	-0.9122	0.3623	-6.3645	2.3318
Int_1	-0.5896	1.7557	-0.3358	0.7372	-4.0434	2.8643
Int_2	1.7435	1.962	0.8886	0.3749	-2.1161	5.6031
Int_3	-2.7	3.2504	-0.8307	0.4068	-9.0941	3.6942

Int_1: P_BEHAV xW1
Int_2: P_BEHAV xW2
Int_3: P_BEHAV xW3

Predictors:

- Proactive behaviour b=5.8221, t (329) = 3.8198, , P<.001 ; significant, so as Proactive behavior increases, Career Development also increases.
- W1 (26-35 yrs. Vs 18-25 yrs) b = 0.2153, t (329) = 0.1735, P=0.8624, differences in Career development between 26-35 yrs. and 18-25 yrs. age employee is not significant.
- W2 (36-45 yrs Vs 18-25 yrs.) b= -1.0996, t (329) = -0.8261, P= 0.4094, differences in career development between (36-45 yrs Vs 18-25 yrs) age employee is not significant.
- W3 (>46 yrs Vs 18-25 yrs) b = -2.0163, t (329) = -0.9122, P=0.3623, differences in

career development between (>46 yrs Vs 18-25 yrs) age employee is not significant.

- Int_1 (26-35 yrs. Vs 18-25 yrs) BY Proactive Behavior b = -0.5896,.. no interaction.
- Int_2 (36-45 yrs Vs 18-25 yrs.) BY Proactive Behaviour *b* = 1.7435 …… no interaction.
- Int_3 (>46 yrs Vs 18-25 yrs) BY Proactive Behaviour *b* = -2.7 …….. no interaction.

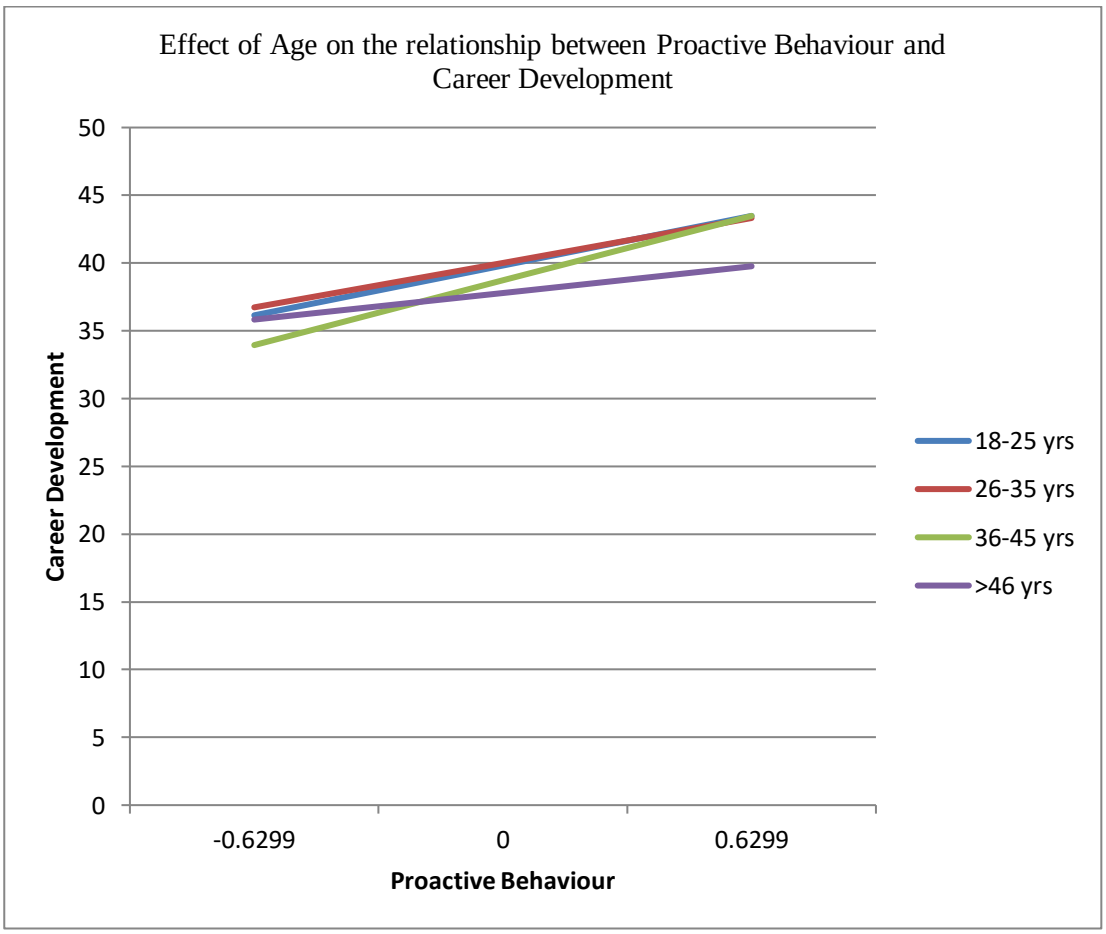
Table 4.9.14 **I**nteraction(s) Table:

	R^2-change	F	df1	df2	Level of Significance
X*W	0.0077	1.1111	3	329	0.3447

X: P_BEHAV
W: AGE

Interpretation: Overall interaction with R^2 change of 0.7 % is statistically not significant..

Figure 4.9.3



4.10. Hypothesis 5: Hypothesis 5 can be stated in the null and alternate as follows:

$H5_0$: There is no moderation effect of employees' income on the relationship between employee engagement and career development.

$H5_A$: There is a moderation effect of employees' income on the relationship between employee engagement and career development.

To test hypothesis 5 which deals with the interaction effect, the researcher has used multiple regression to evaluate the effect on Career Development (Y variable) of a combination of moderator variable of income level and original independent variables (1) Drive (2) Commitment (3) Proactive behavior. The Process v3.5 Andrew F. Hayes method has been used to compute the model 1 and the regression coefficients. In model 1, all the variable Drive, Commitment and Proactive behavior has been entered as predictor (X variable) , while income has been entered as multi-categorical W (moderator) variable.

Regression coefficients for the entire three predictor variables of drive, commitment and proactive behavior are shown in the table below. The regression coefficients for interactions are not statistically significant. Therefore, null hypothesis is accepted. Thus, hypothesis 5 is not substantiated i.e. the relationship between employee engagement and career development is not affected by the income level of the employees.

Model: 1
Y :CAR_DEV
X :DRIVE
W :INCOME
Sample Size: 337

Table 4.10.1 Coding of categorical W variable for analysis:

INCOME	W1	W2	W3
1	0	0	0
2	1	0	0
3	0	1	0
4	0	0	1

OUTCOME VARIABLE: CAR_DEV

W 1: 30K-45K Vs 15K-30K. Income
W2: 45K-60K Vs 15K-30K. Income
W3: >60K Vs. 15K-30K. Income

Table 4.10.2 Model Summary

R	R^2	MSE	F	df1	df2	Level of Significance
0.6496	0.422	35.8351	34.3102	7	329	.0000

Interpretation: Overall model: F (7,329) = 34.31, $P<0.001$, $R^2 = .422$ (42.20% of variance is due to predictor Drive and Income.

Table 4.10.3 Model

	B	Std.error	Computed t Value	Level of Significance	CI. Lower	CI. Upper
Cons.	38.4204	0.6952	55.2632	.0000	37.0528	39.7881
DRIVE	7.488	0.9989	7.4962	.0000	5.5229	9.453
W1	-0.0277	0.8979	-0.0309	0.9754	-1.7941	1.7386
W2	1.9127	0.942	2.0305	0.0431	0.0596	3.7658
W3	2.5103	1.2995	1.9318	0.0542	-0.046	5.0666
Int_1	-0.9785	1.2357	-0.7919	0.429	-3.4093	1.4523
Int_2	-0.181	1.3382	-0.1352	0.8925	-2.8135	2.4516
Int_3	-3.0401	1.3408	-2.2673	0.024	-5.6777	-0.4024

Int_1: DRIVE xW1
Int_2: DRIVE xW2
Int_3: DRIVE xW3

Interpretation:
Predictors:

- Drive $b=7.488$, t (329) = 7.4962, $P<0.001$, significant, so as Drive increases, Career Development also increases.

- W1 (30K-45K Vs 15K-30K) *b* = -0.0277, *t* (329) = -0.0309, *P*=0.9754, differences in Career development between (30K-45K. and 15K-30K) income level employee is not significant.
- W2 (45K-60K Vs 15K-30K) *b*= 1.9127, *t* (329) = 2.0305, *P*<0.5, differences in career development between (45K-60K and 15K-30K) income employee is significant.
- W3 (>60K Vs 15K-30K) *b* = 2.5103, *t* (329) = 1.9318, *P*=0.0542, differences in career development between (>60K Vs 15K-30K) income employee is not significant.
- Int_1 (30K-45K Vs 15K-30K) BY Drive *b* = -0.9785……. No interaction.
- Int_2 (45K-60K Vs 15K-30K) BY Drive *b* = -0.181…….. No interaction.
- Int_3 (>60K Vs 15K-30K) BY Drive *b* = -3.0401, significant, yes interaction.

Table 4.10.4 **I**nteraction(s) Table:

	R^2-change	F	df1	df2	Level of Significance
X*W	0.0123	2.3367	3	329	0.0736

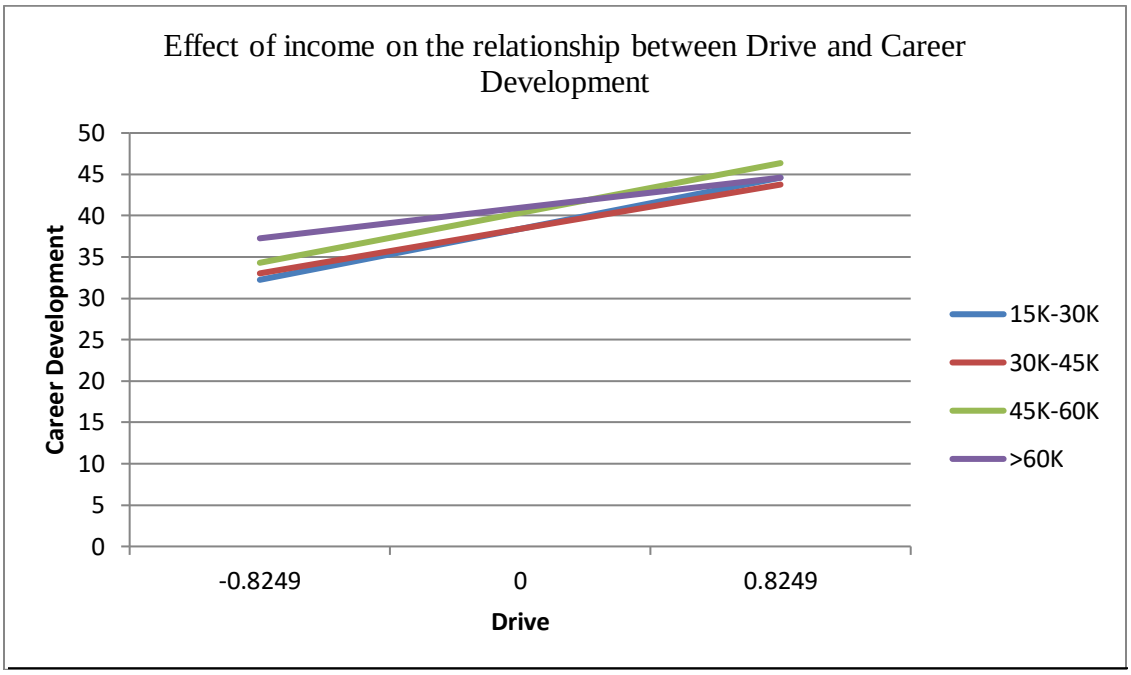
X: DRIVE
W: INCOME

Interpretation: Overall interaction with R^2 change of 1.23 % is statistically not significant.

Table 4.10.5 **E**ffects of X (DRIVE) at values of INCOME (W):

INCOME	Effect	Std.error	Computed t Value	Level of Significance	CI. Lower	CI.Upper
1	7.488	0.9989	7.4962	.0000	5.5229	9.453
2	6.5095	0.7274	8.9495	.0000	5.0787	7.9404
3	7.307	0.8905	8.2054	.0000	5.5552	9.0589
4	4.4479	0.8944	4.9731	.0000	2.6884	6.2074

Figure 4.10.1



Interpretation:
Simple Slopes: slopes for X to Y given Age group.

- 1 (15K-30K income) Drive factors predicting career development *b*=7.488….. is significant; for employees having income level 15K-30K, drive factors predict increase in career development by 7.48 points.
- 2 (30K-45K income) Drive factors predicting career development *b*= 6.5095…. is significant; for employees having income level 30K-45K, drive factors predict increase in career development by 6.50 points.
- 3 (45K-60K income) Drive factors predicting career development *b* = 7.307…. is significant ; employees having income level 45K-60K, drive factors predict increase in career development by 7.30 points.
- 4 (>60K income) Drive factors predicting career development *b* = 4.4479….. is significant ; for employees having income level >60K, drive factors predict increase in career development by 4.44 points.

Model: 1
Y :CAR_DEV
X :COMMIT
W :INCOME
Sample Size: 337

Table 4.10.6 Coding of categorical W variable for analysis:

INCOME	W1	W2	W3
1	0	0	0
2	1	0	0
3	0	1	0
4	0	0	1

OUTCOME VARIABLE: CAR_DEV
W 1: 30K-45K Vs 15K-30K. Income
W2: 45K-60K Vs 15K-30K. Income
W3: >60K Vs. 15K-30K. Income

Table 4.10.7 Model Summary

R	R^2	MSE	F	df1	df2	Level of Significance
0.5649	0.3191	42.2149	22.0221	7	329	.0000

Interpretation: Overall model: F (7,329) = 22.02, $P<0.001$, R^2 = .3191 (31.91 % of variance is due to predictor Commitment and income level.

Table 4.10.8 Model

	B	Std.error	Computed t Value	Level of Significance	CI. Lower	CI. Upper
Cons.	40.7059	0.694	58.6569	.0000	39.3407	42.0711
COMMIT	4.8565	0.9676	5.0192	.0000	2.953	6.7599
W1	-1.8106	0.9266	-1.9541	0.0515	-3.6334	0.0121
W2	0.0495	0.978	0.0507	0.9596	-1.8743	1.9734
W3	-3.8939	1.1759	-3.3114	0.001	-6.2071	-1.5807
Int_1	3.1609	1.3803	2.2901	0.0226	0.4457	5.8762
Int_2	0.716	1.4506	0.4936	0.6219	-2.1377	3.5697
Int_3	1.0909	1.5155	0.7198	0.4721	-1.8904	4.0721

Int_1: COMMITxW1
Int_2: COMMITxW2
Int_3: COMMITxW3

Interpretation:

Predictors:

- Commitment b=4.8565, t (329) = 5.0192, p<0.001; significant, so as Commitment increases, Career Development also increases.
- W1 (30K-45K Vs 15K-30K) b = -1.8106, t (329) = -1.9541, P=0.0515, differences in Career development between (30K-45K. and 15K-30K) income level employee is not significant.
- W2 (45K-60K Vs 15K-30K) b= 0.0495, t (329) =0.0507, P= 0.9596, differences in Career development between (30K-45K. and 15K-30K) income level employee is not significant.
- W3 (>60K Vs 15K-30K) b = -3.8939, t (329) = -3.3114, P<0.001, differences in career development between (>60K Vs 15K-30K) income level employee is significant.
- Int_1 (30K-45K Vs 15K-30K) BY Commitment b = 3.1609, significant and yes interaction.
- Int_2 (45K-60K Vs 15K-30K) BY Commitment b = 0.716, …no interaction.
- Int_3 (>60K Vs 15K-30K) BY Commitment b = 1.0909, ….. no interaction.

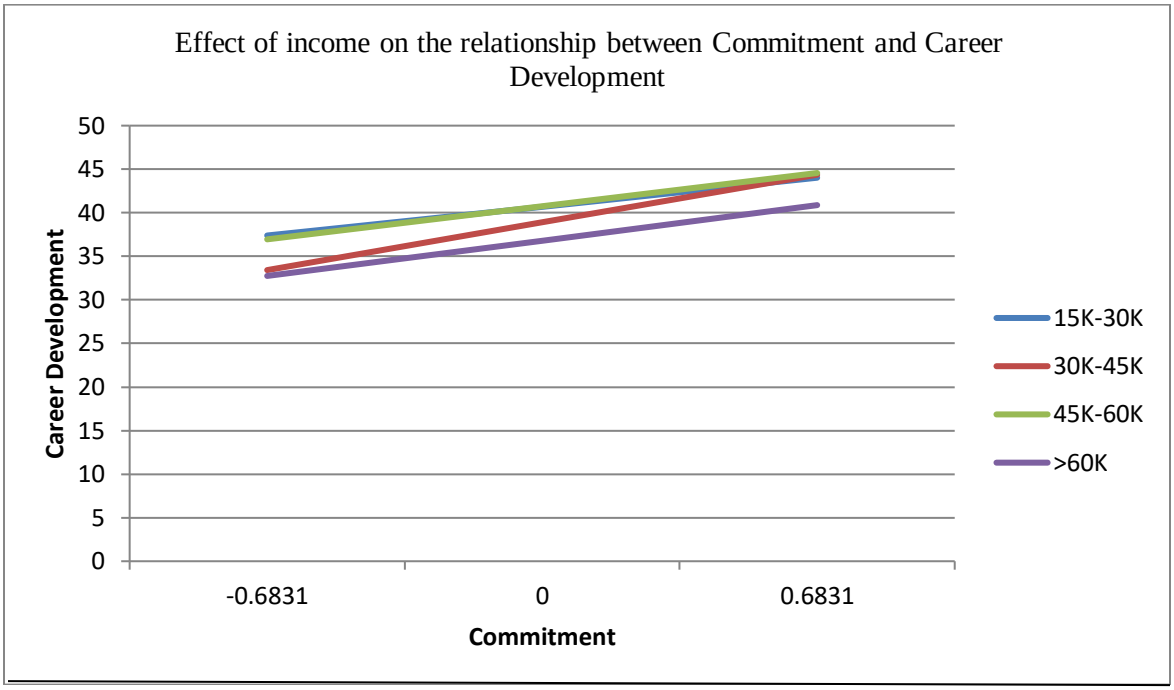
Table 4.10.9 **I**nteraction(s) Table:

	R^2-change	F	df1	df2	Level of Significance
X*W	0.0118	1.8998	3	329	0.1294

X: COMMIT
W: INCOME

Interpretation: Overall interaction with R^2 change of 1.18 % is statistically not significant..

Figure 4.10.2



Model: 1
Y :CAR_DEV
X :P_BEHAV
W :INCOME
Sample Size: 337

Table 4.10.10 Coding of categorical W variable for analysis:

INCOME	W1	W2	W3
1	0	0	0
2	1	0	0
3	0	1	0
4	0	0	1

OUTCOME VARIABLE: CAR_DEV
W 1: 30K-45K Vs 15K-30K. Income
W2: 45K-60K Vs 15K-30K. Income
W3: >60K Vs. 15K-30K. Income

Table 4.10.11 Model Summary

R	R^2	MSE	F	df1	df2	Level of Significance
0.4893	0.2394	47.1533	14.7934	7	329	.0000

Interpretation: Overall model: F (7,329) = 14.80, $P<0.001$, R^2 = .2394 (23.94 % of variance is due to predictor Proactive behavior and income level.

Table 4.10.12 Model

	B	Std.error	Computed t Value	Level of Significance	CI. Lower	CI. Upper
Cons.	40.4239	0.7321	55.214	.0000	38.9837	41.8642
P_BEHAV	5.2577	1.1036	4.7641	.0000	3.0867	7.4287
W1	-1.8708	0.98	-1.9089	0.0571	-3.7987	0.0571
W2	-0.6317	1.0432	-0.6056	0.5452	-2.6839	1.4204
W3	-0.7217	1.4205	-0.5081	0.6117	-3.5162	2.0727
Int_1	0.2754	1.4899	0.1848	0.8535	-2.6555	3.2062
Int_2	2.2628	1.7256	1.3114	0.1906	-1.1317	5.6573
Int_3	0.5658	2.2176	0.2551	0.7988	-3.7967	4.9282

Int_1: P_BEHAVxW1
Int_2: P_BEHAV xW2
Int_3: P_BEHAV xW3

Interpretation:

Predictors:

- Proactive Behaviour b=5.2577, t (329) = 4.7641, p<0.001; significant, so as Proactive Behaviour increases, Career Development also increases.
- W1 (30K-45K Vs 15K-30K) b = -1.8708, t (329) = -1.9089, P=0.0571, differences in Career development between (30K-45K. and 15K-30K) income level employee is not significant.
- W2 (45K-60K Vs 15K-30K) b= -0.6317, t (329) = 0.6056, P= 0.5452, differences in Career development between (30K-45K. and 15K-30K) income level employee is not significant.
- W3 (>60K Vs 15K-30K) b = -0.7217, t (329) = -0.5081, P= 0.6117, differences in career development between (>60K Vs 15K-30K) income level employee is not significant.
- Int_1 (30K-45K Vs 15K-30K) BY Proactive Behavior b = 0.2754, …. No interaction.
- Int_2 (45K-60K Vs 15K-30K) BY Proactive Behavior b = 2.2628, …no interaction.

- Int_3 (>60K Vs 15K-30K) BY Proactive Behavior $b = 0.5658$, ….. no interaction.

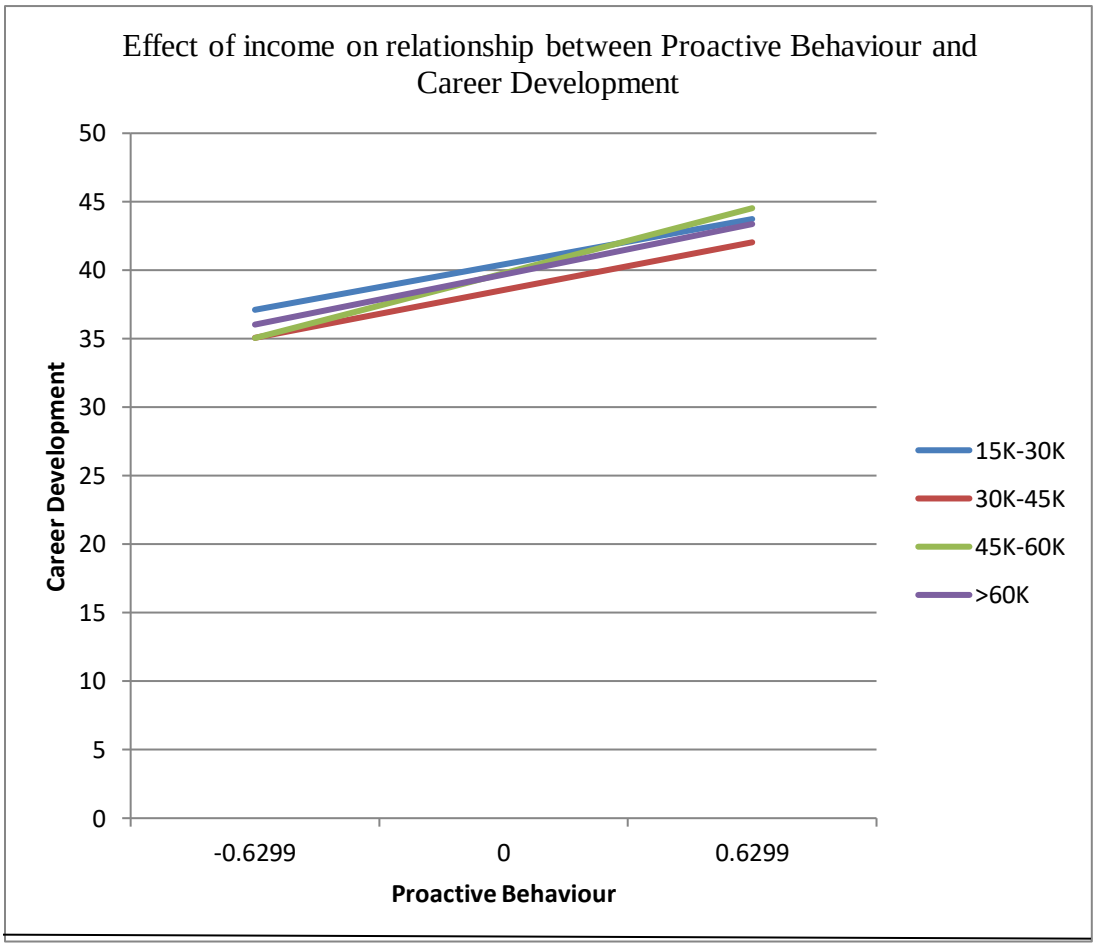
Table 4.10.13 **I**nteraction(s) Table:

	R^2-change	F	df1	df2	Level of Significance
X*W	0.0045	0.6557	3	329	0.5799

X: P_BEHAV
W: INCOME

Interpretation: Overall interaction with R^2 change of 0.45 % is statistically not significant.

Figure 4.10.3



4.11 Hypothesis 6: Hypothesis 6 can be stated in the null and alternate as follows:

$H6_0$: There is no moderation effect of employees' qualification on the relationship between employee engagement and career development.

$H6_A$: There is a moderation effect of employees' qualification on the relationship between employee engagement and career development.

To test hypothesis 6 which deals with the interaction effect, the researcher has used multiple regression to evaluate the effect on Career Development (Y variable) of a combination of moderator variable of qualification and original independent variables (1) Drive (2) Commitment (3) Proactive behavior. The Process v3.5 Andrew F. Hayes method has been used to compute the model 1 and the regression coefficients. In model 1, all the variable Drive, Commitment and Proactive behavior has been entered as predictor (X variable), while qualification has been entered as multi-categorical W (moderator) variable.

Regression coefficients for the entire three predictor variables of drive, commitment and proactive behavior are shown in the table below. Jointly, the regression coefficients are not statistically significant, but at least one beta coefficient for predictor variable is having significant interaction which shows the relative contribution of the three predictor variables to the explanatory power of equation. The F value of 51.75 with R^2 of .4388 is significant (p<.001), i.e. 43.88% variance is due to predictor Drive and qualification. Similarly, 38.15 % of variance is due to predictor Commitment and qualification, with F value of 40.83 at P<0.001. F value of 20.40 at P<0.001 with an R^2 = .2356 indicates a 23.56 % of variance is due to predictor proactive behavior and qualification. Therefore, null hypothesis is rejected and the overall regression equation is statistically significant. Thus, hypothesis 6 is substantiated i.e. the

relationship between employee engagement and career development is affected by the qualification of the employees.

Model :1
Y : CAR_DEV
X : DRIVE
W : QUALIFICATION
Sample Size: 337

Table 4.11.1 Coding of categorical W variable for analysis:

Qualification	W1	W2
1	0	0
2	1	0
3	0	1

OUTCOME VARIABLE:CAR_DEV
W 1: Graduate Vs Diploma Qualification
W2: Post-Grad. Vs Diploma Qualification

Table 4.11.2 Model Summary

R	R^2	MSE	F	df1	df2	Level of Significance
0.6624	0.4388	34.5824	51.7577	5	331	0

Interpretation: Overall model: F (5,331) = 51.75, $P<0.001$, R^2 = .4388 (43.38% of variance is due to predictor Drive and Qualification.

Table 4.11.3 Model

	B	Std.error	Computed t Value	Level of Significance	CI. Lower	CI. Upper
Cons.	36.9394	0.8023	46.0427	0	35.3612	38.5176
DRIVE	5.1367	1.0917	4.705	0	2.9891	7.2843
W1	2.8276	0.901	3.1382	0.0019	1.0552	4.6
W2	3.4385	1.0972	3.1339	0.0019	1.2802	5.5969
Int_1	2.3437	1.2135	1.9314	0.0543	-0.0434	4.7308
Int_2	-1.0984	1.3186	-0.833	0.4055	-3.6923	1.4955

Int_1 : DRIVE x W1
Int_2 : DRIVE x W2

Interpretation:
Predictors:

- Drive b=5.137, t (331) = 4.705, P<0.001, significant, so as Drive increases, Career Development also increases.
- W1 (Graduate Vs Diploma Qualification) b = 2.828, t (331) = 3.138, P<0.5, differences in Career development between (Graduate Vs Diploma Qualification) employee is significant.
- W2 (Post-Grad. Vs Diploma Qualification) b= 3.4385, t (331) = 3.1339, P<0.5, differences in career development between (Post-Grad. Vs Diploma Qualification) employee is significant.
- Int_1 (Graduate Vs Diploma Qualification) BY Drive b = 2.3437……. No interaction.
- Int_2 (Post-Grad. Vs Diploma Qualification) BY Drive b = -1.0984…….. No interaction.

Table 4.11.4 **I**nteraction(s) Table:

	R^2-change	F	df1	df2	Level of Significance
X*W	0.026	7.6616	2	331	0.0006

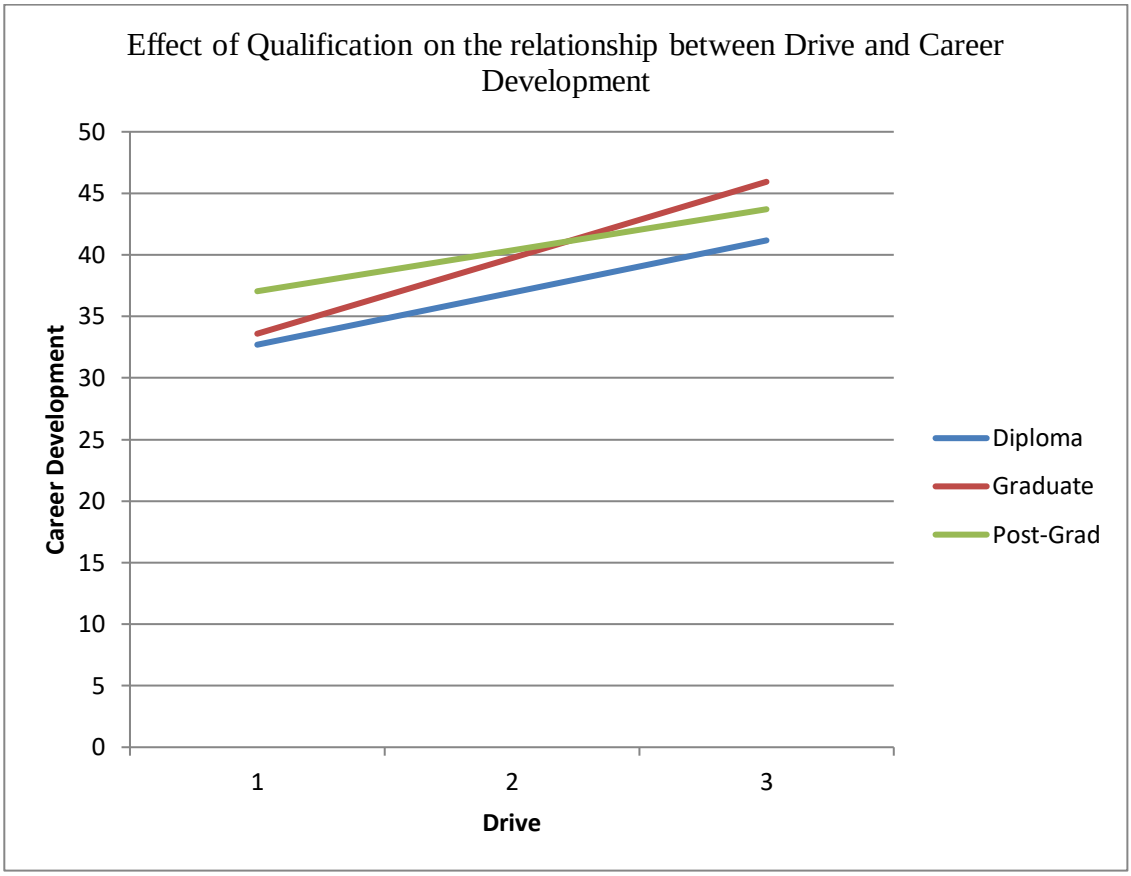
X: DRIVE
W: Qualification

Interpretation: Overall interaction with R^2 change of 2.6 % is statistically significant.

Table 4.11.5 **E**ffects of X (Drive) at values of Qualification (W):

Qualification	Effect	Std.error	Computed t Value	Level of Significance	CI. Lower	CI.Upper
1	5.1367	1.0917	4.705	0	2.9891	7.2843
2	7.4804	0.5297	14.121	0	6.4383	8.5225
3	4.0383	0.7395	5.4609	0	2.5836	5.493

Figure 4.11.1



Interpretation:
Simple Slopes: slopes for X to Y given Qualification group.

- 1 (Diploma) Drive factors predicting career development *b*=5.1367….. is significant; for employees having Diploma Qualification, drive factors predict increase in career development by 5.14 points.
- 2 (Graduate) Drive factors predicting career development *b*= 7.4804…. is significant; for employees having Graduate qualification, drive factors predict increase in career development by 7.48 points.
- 3 (Post-Graduate) Drive factors predicting career development *b* = 4.0383…. is significant; employees having Post-Graduate qualification, drive factors predict increase in career development by 4.039 points.

Model : 1
Y : CAR_DEV
X : COMMIT
W : QUALIFICATION
Sample Size: 337

Table 4.11.6 Coding of categorical W variable for analysis:

Qualification	W1	W2
1	0	0
2	1	0
3	0	1

OUTCOME VARIABLE:CAR_DEV
W 1: Graduate Vs Diploma Qualification
W2: Post-Grad. Vs Diploma Qualification

Table 4.11.7 Model Summary

R	R^2	MSE	F	df1	df2	Level of Significance
0.6177	0.3815	38.1101	40.839	5	331	0

Interpretation: Overall model: F (5, 331) = 40.839, $P<0.001$, $R^2 = 0.3815$ (38.15 % of variance is due to predictor Commitment and Qualification.

Table 4.11.8 Model

	B	Std.error	Computed t Value	Level of Significance	CI. Lower	CI. Upper
Cons.	38.4255	0.9305	41.2976	0	36.5951	40.2558
COMMIT	0.8011	1.0501	0.7629	0.4461	-1.2646	2.8669
W1	1.0488	1.0262	1.022	0.3075	-0.9699	3.0676
W2	-0.1721	1.1933	-0.1442	0.8854	-2.5196	2.1754
Int_1	8.7751	1.2727	6.895	0	6.2715	11.2786
Int_2	3.8648	1.4903	2.5934	0.0099	0.9332	6.7965

Int_1 : COMMIT x W1
Int_2 : COMMIT x W2

Interpretation:
Predictors:

- Commitment $b=0.8011$, t (331) = 0.7629, $P=0.4461$; not significant.
- W1 (Graduate Vs Diploma Qualification) b = 1.0488, t (331) = 1.022, $P=0.3075$,

differences in Career development between (Graduate Vs Diploma Qualification) employee is not significant.

- W2 (Post-Grad. Vs Diploma Qualification) *b*= -0.1721, *t* (331) = -0.1442, *P*=0.8854, differences in career development between (Post-Grad. Vs Diploma Qualification) employee is not significant.
- Int_1 (Graduate Vs Diploma Qualification) BY Drive *b* = 8.7751; *P*<.05……. Yes interaction.
- Int_2 (Post-Grad. Vs Diploma Qualification) BY Drive *b* = 3.8648; *P*<.05…….. Yes interaction.

Table 4.11.9 **I**nteraction(s) Table:

	R^2-change	F	df1	df2	Level of Significance
X*W	0.0945	25.2844	2	331	0

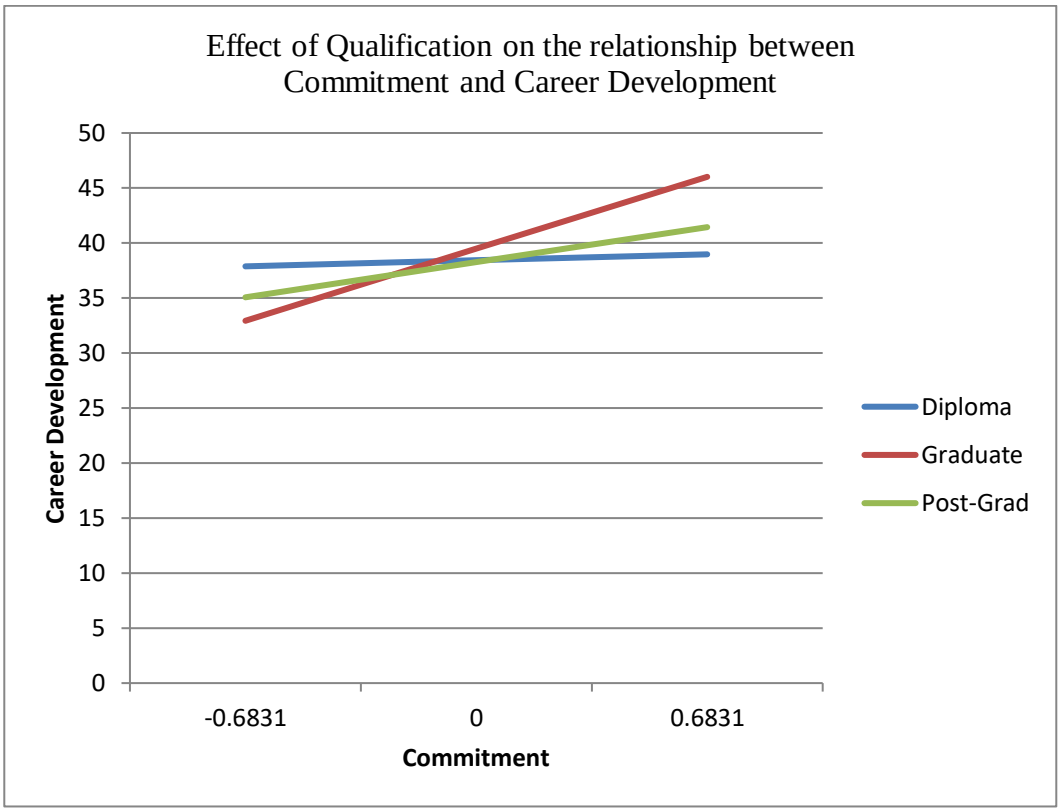
X: COMMIT
W: Qualification

Interpretation: Overall interaction with R^2 change of 9.45 % is statistically significant

Table 4.11.10 **E**ffects of X (Commit.) at values of Qualification (W):

Qualification	Effect	Std.error	Computed t Value	Level of Significance	CI. Lower	CI.Upper
1	0.8011	1.0501	0.7629	0.4461	-1.2646	2.8669
2	9.5762	0.719	13.3193	0	8.1618	10.9905
3	4.666	1.0575	4.4124	0	2.5858	6.7462

Figure 4.11.2



Interpretation:

Simple Slopes: slopes for X to Y given Qualification group.

- 1 (Diploma) Commitment factors predicting career development *b*=0.8011….. is not significant.
- 2 (Graduate) Commitment factors predicting career development *b*= 9.5762…. is significant; for employees having Graduate qualification, commitment factors predict increase in career development by 9.5762 points.
- 3 (Post-Graduate) Commitment factors predicting career development *b* = 4.666…. is significant; employees having Post-Graduate qualification, commitment factors predict increase in career development by 4.666 points.

Model : 1
Y : CAR_DEV
X : P_BEHAV
W : Qualification
Sample Size: 337

Table 4.11.11 Coding of categorical W variable for analysis:

Qualification	W1	W2
1	0	0
2	1	0
3	0	1

OUTCOME VARIABLE: CAR_DEV

W 1: Graduate Vs Diploma Qualification
W2: Post-Grad. Vs Diploma Qualification

Table 4.11.12 Model Summary

R	R^2	MSE	F	df1	df2	Level of Significance
0.4854	0.2356	47.1029	20.4033	5	331	0

Interpretation: Overall model: F (5,331) = 20.40, $P<0.001$, $R^2 = .2356$ (23.56% of variance is due to predictor Proactive Behavior and Qualification.

Table 4.11.13 Model

	B	Std.error	Computed t Value	Level of Significance	CI. Lower	CI. Upper
Cons.	38.2938	0.8968	42.7027	0	36.5298	40.0579
P_BEHAV	4.266	1.439	2.9645	0.0033	1.4352	7.0968
W1	1.5057	1.0171	1.4805	0.1397	-0.495	3.5065
W2	1.38	1.2255	1.126	0.261	-1.0308	3.7908
Int_1	2.2979	1.638	1.4029	0.1616	-0.9243	5.5201
Int_2	0.8784	1.8954	0.4635	0.6433	-2.85	4.6069

Int_1 : P_BEHAV x W1
Int_2 : P_BEHAV x W2

Interpretation:
Predictors:

- Proactive Behavior $b=4.266$, t (331) = 2.9645, $P<.05$; is significant, so as Proactive Behavior increases, Career Development also increases.
- W1 (Graduate Vs Diploma Qualification) b = 1.5057, t (331) = 1.4805, $P=0.1397$, differences in Career development between (Graduate Vs Diploma Qualification)

employee is not significant.

- W2 (Post-Grad. Vs Diploma Qualification) *b*= 1.38, *t* (331) = 1.126, *P*=0.261, differences in career development between (Post-Grad. Vs Diploma Qualification) employee is not significant.
- Int_1 (Graduate Vs Diploma Qualification) BY Proactive Behavior *b* = 2.2979; *P*=0.1616……. No interaction.
- Int_2 (Post-Grad. Vs Diploma Qualification) BY Proactive Behavior *b* = 0.8784; *P*=0.6433…….. No interaction.

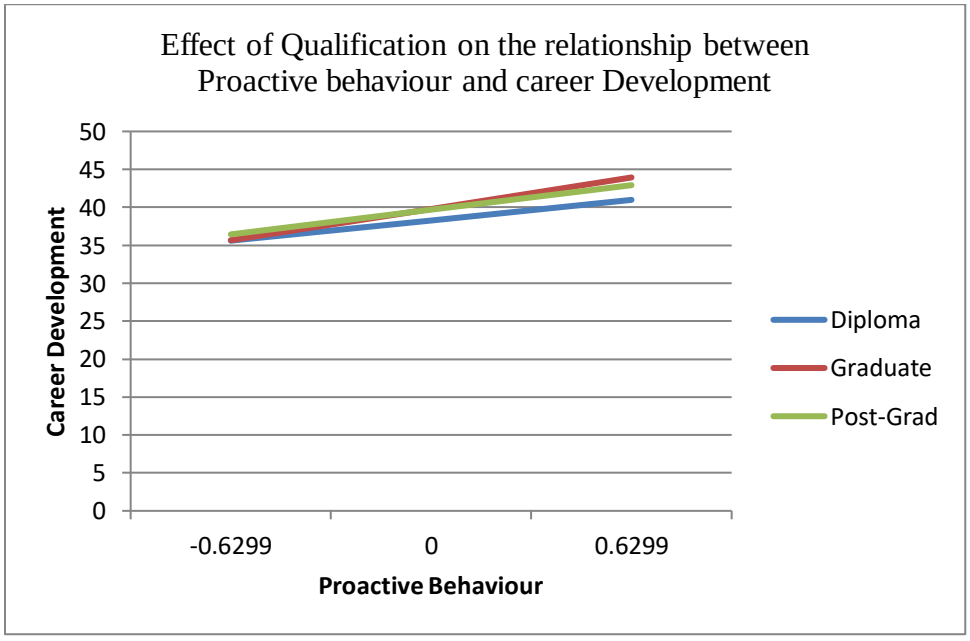
Table 4.11.14 **I**nteraction(s) Table:

	R^2-change	F	df1	df2	Level of Significance
X*W	0.0055	1.1849	2	331	0.3071

X: P_BEHAV
W: Qualification

Interpretation: Overall interaction with R^2 change of 0.55 % is statistically not significant

Figure 4.11.3



4.12. Hypothesis 7: Hypothesis 7 can be stated in the null and alternate as follows:

$H7_0$: There is no moderation effect of employees' gender on the relationship between employee engagement and career development.

$H7_A$: There is a moderation effect of employees' gender on the relationship between employee engagement and career development.

To test hypothesis 7 which deals with the interaction effect, the researcher has used multiple regression to evaluate the effect on Career Development (Y variable) of a combination of moderator variable of gender and original independent variables (1) Drive (2) Commitment (3) Proactive behavior. The Process v3.5 Andrew F. Hayes method has been used to compute the model 1 and the regression coefficients. In model 1, all the variable Drive, Commitment and Proactive behavior has been entered as predictor (X variable).

Regression coefficients for the entire three predictor variables of drive, commitment and proactive behavior are shown in the table below. Jointly, the regression coefficients are not statistically significant, but at least one beta coefficient for predictor variable is having significant interaction which shows the relative contribution of the three predictor variables to the explanatory power of equation. The F value of 69.10 with R^2 of 0.3837 is significant (p<.001), i.e. 38.37 % variance is due to predictor Drive and gender. Similarly, 29.26 % of variance is due to predictor Commitment and gender, with F value of 45.91 at P<0.001. F value of 32.27 at P<0.001 with an R^2 = 0.2253 indicates a 22.53% of variance is due to predictor proactive behavior and gender. Therefore, null hypothesis is rejected and the overall regression equation is statistically significant. Thus, hypothesis 7 is substantiated i.e. the relationship between employee engagement and career development is affected by the gender of the

employees.

Model: 1
Y : CAR_DEV
X : DRIVE
W : Gender
Sample Size: 337

OUTCOME VARIABLE: CAR_DEV

4.12.1 Model Summary

R	R^2	MSE	F	df1	df2	Level of Significance
0.6194	0.3837	37.7495	69.1025	3	333	0

Interpretation: Overall model: F (3,333) = 69.10, $P<0.001$, R^2 = 0.3837 (38.37% of variance is due to predictor Drive and Qualification.

4.12.2 Model

	B	Std.error	Computed t Value	Level of Significance	CI. Lower	CI. Upper
Cons.	38.4051	1.0376	37.0133	0	36.364	40.4462
DRIVE	6.434	1.318	4.8816	0	3.8413	9.0266
Gender	1.3009	1.0964	1.1865	0.2363	-0.8559	3.4576
Int_1	-0.6413	1.3857	-0.4628	0.6438	-3.3671	2.0845

Int_1 : DRIVE x Gender

Interpretation:
Predictors:

- Drive b=6.434, t (333) = 4.8816, $P<0.001$, is significant, so as Drive increases, Career Development also increases.
- Gender b = 1.3009, t (333) = 1.1865, P=0.2363, is not significant.
- Int_1 Gender BY Drive b = -0.6413……. No interaction.

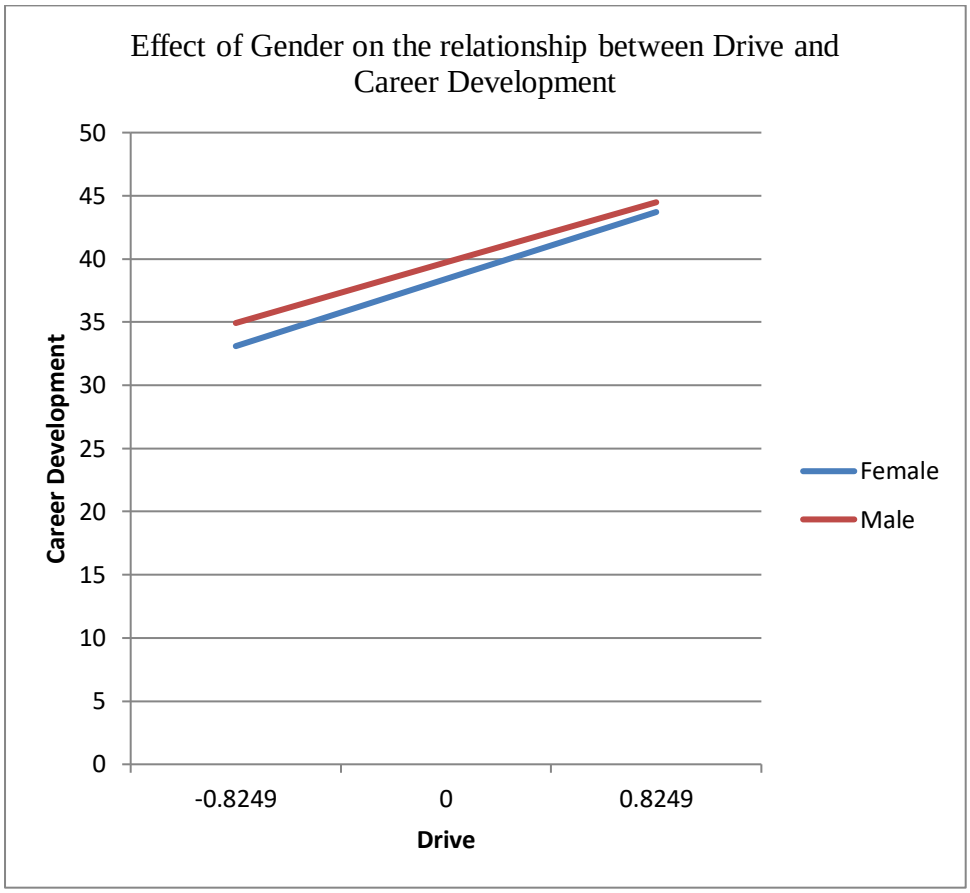
4.12.3 **I**nteraction(s) Table:

	R^2-change	F	df1	df2	Level of Significance
X*W	0.0004	0.2142	1	333	0.6438

X: DRIVE
W: Gender

Interpretation: Overall interaction with R^2 change of 0.04 % is statistically not significant.

Figure 4.12.1



Model : 1
Y : CAR_DEV
X : COMMIT
W : Gender
Sample Size: 337

OUTCOME VARIABLE: CAR_DEV

4.12.4 Model Summary

R	R^2	MSE	F	df1	df2	Level of Significance
0.5409	0.2926	43.3271	45.9175	3	333	0

Interpretation: Overall model: F (3,333) = 45.9175, $P<0.001$, R^2 = 0.2926 (29.26% of variance is due to predictor commitment and gender.

4.12.5 Model

	B	Std.error	Computed t Value	Level of Significance	CI. Lower	CI. Upper
Cons.	40.3404	1.2397	32.5402	0	37.9017	42.779
COMMIT	2.9501	1.5233	1.9366	0.0536	-0.0464	5.9466
Gender	-1.0225	1.2967	-0.7885	0.4309	-3.5733	1.5283
Int_1	3.6704	1.6272	2.2557	0.0247	0.4695	6.8714

Int_1 : COMMIT x Gender

Interpretation:
Predictors:

- Commitment *b*=2.9501, *t* (333) = 1.9366, *P*=0.0536, is not significant.
- Gender *b* = -1.0225, *t* (333) = -0.7885, *P*=0.4309, is not significant.
- Int_1 Gender BY Commitment *b* = 3.6704……. Yes interaction.

4.12.6 **I**nteraction(s) Table:

	R^2-change	F	df1	df2	Level of Significance
X*W	0.0108	5.088	1	333	0.0247

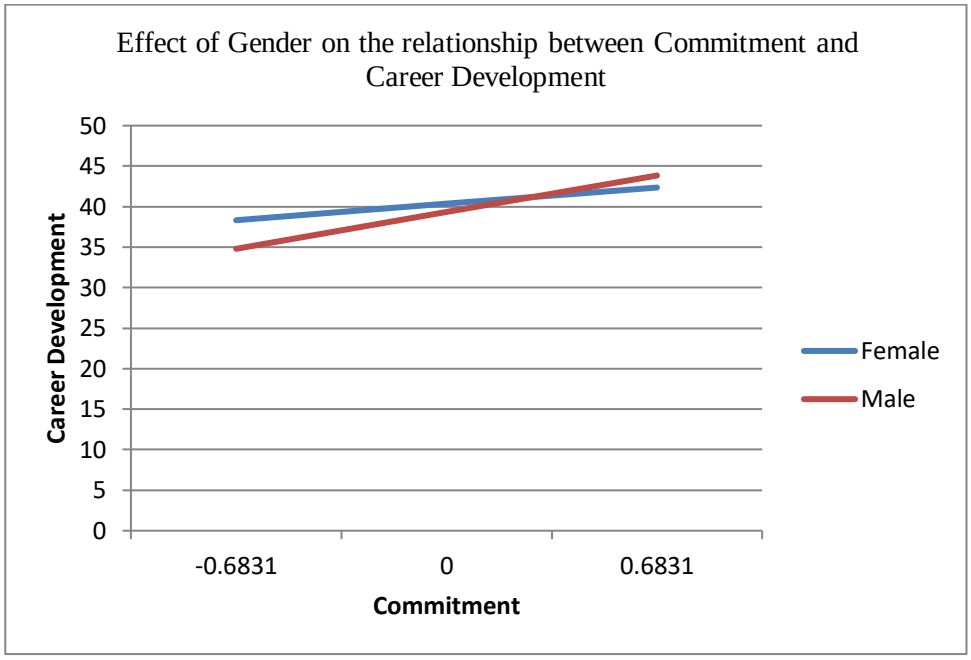
X: COMMIT
W: Gender

Interpretation: Overall interaction with R^2 change of 1.08 % is statistically significant

4.12. 7 **E**ffects of X (Commit.) at values of Gender (W):

Gender	Effect	Std.error	Computed t Value	Level of Significance	CI. Lower	CI.Upper
0	2.9501	1.5233	1.9366	0.0536	-0.0464	5.9466
1	6.6205	0.5722	11.5709	0	5.495	7.746

Figure 4.12.2



Interpretation:
Simple Slopes: slopes for X to Y given Gender.

- 0 (Female) Commitment factors predicting career development …… is not significant.
- 1 (Male) Commitment factors predicting career development *b*= 6.6205…. is significant; for male employees, commitment factors predict increase in career development by 6.62 points.

Model: 1
Y : CAR_DEV
X : P_BEHAV
W : Gender
Sample Size: 337

OUTCOME VARIABLE: CAR_DEV

4.12.8 Model Summary

R	R^2	MSE	F	df1	df2	Level of Significance
0.4746	0.2253	47.4522	32.2764	3	333	0

Interpretation: Overall model: F (3,333) = 32.27, $P<0.001$, R^2 = 0.2253 (22.53% of variance is due to predictor Proactive Behavior and Gender.

4.12.9 Model

	B	Std.error	Computed t Value	Level of Significance	CI. Lower	CI. Upper
Cons.	39.3907	1.1492	34.278	0	37.1302	41.6512
P_BEHAV	5.5029	1.6128	3.412	0.0007	2.3303	8.6754
Gender	0.2055	1.2158	0.169	0.8659	-2.1861	2.5972
Int_1	0.4209	1.736	0.2425	0.8086	-2.9939	3.8358

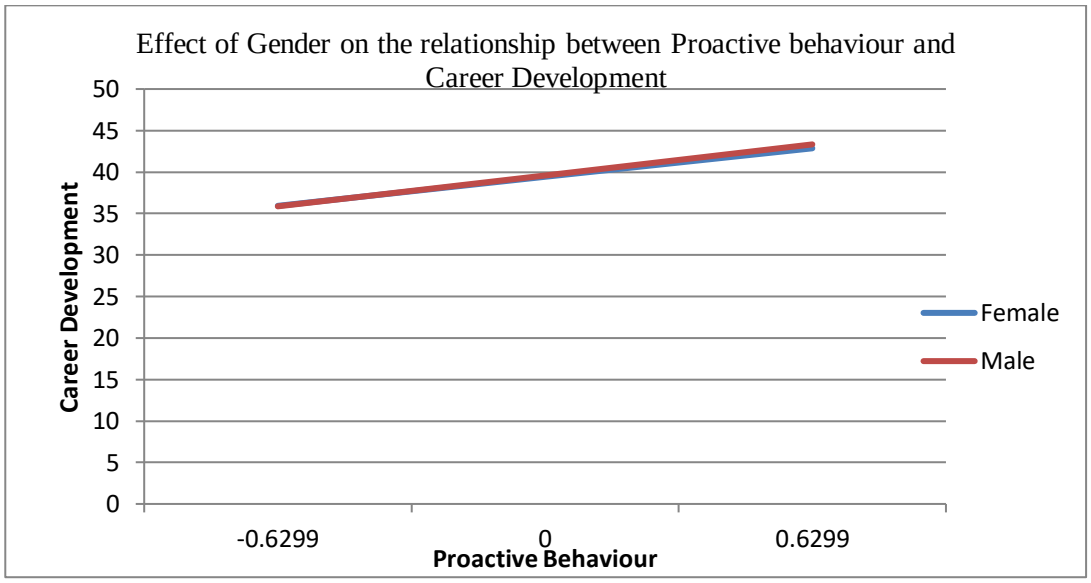
Int_1 : P_BEHAV x Gender
Interpretation:
Predictors:

- Proactive Behavior b=5.5029, t (333) = 3.412, P<0.0007, is significant, so as Proactive Behavior increases, Career Development also increases.
- Gender b = 0.2055, t (333) = 0.169, P=0.8659, is not significant.
- Int_1 Gender BY Proactive Behavior b = 0.4209……. No interaction.

4.12.10 **I**nteraction(s) Table:

	R^2-change	F	df1	df2	Level of Significance
X*W	0.0001	0.0588	1	333	0.8086

X: P_BEHAV
W: Gender
Interpretation: Overall interaction with R^2 change of 0.01 % is statistically not significant.
Figure 4.12.3



4.13. Hypothesis 8: Hypothesis 8 can be stated in the null and alternate as follows:

$H8_0$: Employee engagement in organizations is not influenced by the age of the employees. .

$H8_A$: Employee engagement in organizations is influenced by the age of the employees. .

Since there are more than two groups and employee engagement is measured on an interval scale, ANOVA is appropriate to test the hypothesis. The results of ANOVA, testing this hypothesis are shown in the SPSS output in table 4.13.3.

Table 4.13.1 Descriptive statistics

EMPLOYEE_ENGAGEMENT

Age	N	Mean	SD	Std.error
18-25	40	**45.3750**	**6.33544**	1.00172
26-35	167	**47.9102**	**6.62400**	.51258
36-45	94	**45.7766**	**7.50076**	.77364
46 and above	36	**39.0278**	**6.82636**	1.13773
Total	337	**46.0653**	**7.33764**	.39971

Source: Primary data

Interpretation: The descriptive table shows the differences between the means of the age group. The mean of 18-25 years age group is 45.37 with a *SD* of 6.33, whereas the mean of 26-35 age groups is 47.91 with a *SD* of 6.62. The mean of 36-45 age groups is 45.77 with a *SD* of 7.50, whereas the mean for 46 and above age group is 39.02 with a *SD* of 6.82.

Table 4.13.2 Test of Homogeneity of Variances

EMPLOYEE_ENGAGEMENT

Levene Statistic	df1	df2	Sig.
.482	3	333	.695

Source: Primary data

Interpretation: The equality of variances assumption or test of homoscedasticity is tenable, because the sig value of .695 is not significant.

Table 4.13.3 ANOVA

EMPLOYEE_ENGAGEMENT

Sources of Variation	SS	df	Variance	F Ratio	Level of Significance
Among Groups	2591.668	3	863.889	18.561	.000
Within Groups	15498.896	333	46.543		
Total	18090.564	336			

Source: Primary data

Interpretation: The *F* value is significant at .0001 level. This implies that hypothesis 6 is substantiated. There is significant difference in the mean employee engagement level in the four age groups, and the null hypothesis is rejected.

To determine among which age groups the true difference lie, the Scheffe test was performed by the researcher, the SPSS output of which are shown below;

Table 4.13.4 Multiple Comparisons

Dependent Variable: EMPLOYEE_ENGAGEMENT

Scheffe

Age	Vs.	Difference	Std.error	Level of Significance
18-25	26-35	-2.60990	1.19050	.189
	36-45	-.40734	1.27084	.991
	46 and above	6.89527*	1.58244	.000
26-35	18-25	2.60990	1.19050	.189
	36-45	2.20256	.87287	.097
	46 and above	9.50517*	1.28491	.000
36-45	18-25	.40734	1.27084	.991
	26-35	-2.20256	.87287	.097
	46 and above	7.30261*	1.35969	.000
46 and above	18-25	-6.89527*	1.58244	.000
	26-35	-9.50517*	1.28491	.000
	36-45	-7.30261*	1.35969	.000

*Significant difference at the 0.05 level.

Source: Primary data

Interpretation : The multiple comparison showed that the age group 46 years and above with low employee engagement is the one which is significantly different from Age group 18-25 years, 26-35 years, 36-45 years at the $P \leq .05$ level.

4.14. Hypothesis 9: Hypothesis 9 can be stated in the null and alternate as follows:

$H9_0$: Employee engagement in organizations is not influenced by the experience of the employees. .

$H9_A$: Employee engagement in organizations is influenced by the experience of the employees.

Since there are more than two groups and employee engagement is measured on an interval scale, ANOVA is appropriate to test the hypothesis. The results of ANOVA, testing this hypothesis are shown in the SPSS output in table 4.14.3.

Table 4.14.1 Descriptive statistics

EXP.	N	Mean	SD	Std.error
00-05 yrs	71	**45.7746**	**5.68003**	.67410
05-10 yrs	133	**47.9925**	**6.77171**	.58718
10-15 yrs	96	**46.3854**	**7.19118**	.73395
>15 yrs	37	**38.8649**	**8.22990**	1.35299
Total	337	**46.0653**	**7.33764**	.39971

Source: Primary data

Interpretation: The descriptive table shows the differences between the means of the experience. The mean of 00-05 years experience is 45.77 with a *SD* of 5.68, whereas the mean of 05-10 years experience is 47.99 with a *SD* of 6.77. The mean of 10-15 years is 46.38 with a *SD* of 7.19, whereas the mean for >15 years is 38.86 with a *SD* of 8.22.

Table 4.14.2 Test of Homogeneity of Variances

EMPLOYEE_ENGAGEMENT

Levene Statistic	df1	df2	Sig.
2.596	3	333	.052

Source: Primary data

Interpretation: The equality of variances assumption or test of homoscedasticity is tenable, because the sig value of .052 is not significant.

Table 4.14.3 ANOVA

EMPLOYEE_ENGAGEMENT

	Sources of Variation	SS	df	Variance	F Ratio
Among Groups	2428.113	3	809.371	17.208	.000
Within Groups	15662.451	333	47.034		
Total	18090.564	336			

Source : Primary data

Interpretation: The *F* value is significant at .0001 level. This implies that hypothesis 7 is substantiated. There is significant difference in the mean employee engagement level in the four experience groups, and the null hypothesis is rejected.

To determine among which experience groups the true difference lie, the Scheffe test was performed by the researcher, the SPSS output of which are shown below;

Table 4.14.4 Multiple Comparisons

Experience	Vs.	Difference	Std.error	Level of Significance
00-05 years	05-10 years	-2.21783	1.00802	.186
	10-15 years	-.61077	1.07350	.955
	>15 years	6.90978*	1.39056	.000
05-10 years	00-05 years	2.21783	1.00802	.186
	10-15 years	1.60706	.91847	.384
	>15 years	9.12762*	1.27469	.000
10-15 years	00-05 years	.61077	1.07350	.955
	05-10 years	-1.60706	.91847	.384
	>15 years	7.52055*	1.32708	.000
>15 years	00-05 years	-6.90978*	1.39056	.000
	05-10 years	-9.12762*	1.27469	.000
	10-15 years	-7.52055*	1.32708	.000

*Significant difference at the 0.05 level

Source: Primary data

Interpretation : The multiple comparisons showed that the employees having more than 15 years of experience with low employee engagement is the one which is significantly different from employees having 00-05 years, 05-10 years, 10-15 years experience at the $P \leq .05$ level.

4.15. Hypothesis 10: Hypothesis 10 can be stated in the null and alternate as follows:

$H10_0$: Employee engagement in organizations is not affected by the income-levels of the employees. .

$H10_A$: Employee engagement in organizations is affected by the income-levels of the employees.

Since there are more than two groups and employee engagement is measured on an interval scale, ANOVA is appropriate to test the hypothesis. The results of ANOVA, testing this hypothesis are shown in the SPSS output in table 4.15.2.

Table 4.15.1 Descriptive statistics

EMPLOYEE_ENGAGEMENT

Income	N	Mean	SD	Std.error
15000-30000	88	**47.5682**	**6.52633**	.69571
30000-45000	112	**46.6161**	**7.41832**	.70097
45000-60000	89	**46.4607**	**6.59899**	.69949
>60000	48	**41.2917**	**8.12655**	1.17297
Total	337	**46.0653**	**7.33764**	.39971

Source: Primary data

Interpretation: The descriptive table shows the differences between the means of the income. The mean of income between 15K-30K is 47.56 with a *SD* of 6.52, whereas the mean of income between 30K-45K is 46.61 with a *SD* of 7.41. The mean of income between 45K-60K is 46.46 with a *SD* of 6.59, whereas the mean for >60K is 41.29 with a *SD* of 8.12.

Table 4.15.2 Test of Homogeneity of Variances

EMPLOYEE_ENGAGEMENT

Levene Statistic	df1	df2	Sig.
1.504	3	333	.213

Source: Primary data

Interpretation: The equality of variances assumption or test of homoscedasticity is tenable, because the sig value of .213 is not significant.

Table 4.15.3 ANOVA

EMPLOYEE_ENGAGEMENT

	Sources of Variation	SS	df	Variance	F Ratio
Among Groups	1340.453	3	446.818	8.883	.000
Within Groups	16750.111	333	50.301		
Total	18090.564	336			

Source: Primary data

Interpretation: The *F* value is significant at .0001 level. This implies that hypothesis 8 is substantiated. There is significant difference in the mean employee engagement level in the four income groups, and the null hypothesis is rejected.

To determine among which income groups the true difference lie, the Scheffe test was performed by the researcher, the SPSS output of which are shown below;

Table 4.15.4 Multiple Comparisons

EMPLOYEE_ENGAGEMENT
Scheffe

Income	Vs.	Difference	Std.error	Level of Significance
15000-30000	30000-45000	.95211	1.01030	.828
	45000-60000	1.10751	1.06620	.782
	>60000	6.27652*	1.27261	.000
30000-45000	15000-30000	-.95211	1.01030	.828
	45000-60000	.15540	1.00712	.999
	>60000	5.32440*	1.22354	.000
45000-60000	15000-30000	-1.10751	1.06620	.782
	30000-45000	-.15540	1.00712	.999
	>60000	5.16901*	1.27008	.001
>60000	15000-30000	-6.27652*	1.27261	.000
	30000-45000	-5.32440*	1.22354	.000
	45000-60000	-5.16901*	1.27008	.001

*Significant difference at the 0.05 level.

Source: Primary data

Interpretation : The multiple comparison showed that the income group 60000 and above with low employee engagement is the one which is significantly different from income group 15000-30000, 30000-45000, 45000-60000 at the $P \leq .05$ level.

4.16 . Hypothesis 11: Hypothesis 11 can be stated in the null and alternate as follows:

$H11_0$: Employee engagement in organizations is not affected by the qualification of the employees.

$H11_A$: Employee engagement in organizations is affected by the qualification of the employees.

Since there are more than two groups and employee engagement is measured on an interval scale, ANOVA is appropriate to test the hypothesis. The results of ANOVA, testing this hypothesis are shown in the SPSS output in table 4.16.3.

Table 4.16.1 Descriptive Statistics

EMPLOYEE_ENGAGEMENT

Qualification	N	Mean	SD	Std.error
Diploma	55	**45.0000**	**7.03957**	.94922
Graduate	203	**47.0000**	**7.32823**	.51434
Post-Graduate	79	**44.4051**	**7.25810**	.81660
Total	337	**46.0653**	**7.33764**	.39971

Source: Primary data

Interpretation: The descriptive table shows the differences between the means of the qualification group. The mean of employees having diploma is 45.00 with a *SD* of 7.03, whereas the mean of employees having Graduate qualification is 47 with a *SD* of 7.32. The mean of employees having Post-Graduation is 44.40 with a *SD* of 7.25.

Table 4.16.2 Test of Homogeneity of Variances

EMPLOYEE_ENGAGEMENT

Levene Statistic	df1	df2	Sig.
.096	2	334	.909

Source: Primary data

Interpretation: The equality of variances assumption or test of homoscedasticity is tenable, because the sig value of .909 is not significant.

Table 4.16.3 ANOVA

EMPLOYEE_ENGAGEMENT

	Sources of Variation	SS	df	Variance	F Ratio
Among Groups	457.526	2	228.763	4.333	.014
Within Groups	17633.038	334	52.794		
Total	18090.564	336			

Source: Primary data

Interpretation: The *F* value is significant,(*P*<.05). This implies that hypothesis 11 is substantiated. There is significant difference in the mean employee engagement in the three qualification groups, and the null hypothesis is rejected.

To determine among which employees' qualification groups the true difference lie, the Scheffe test was performed by the researcher, the SPSS output of which are shown below;

Table 4.16.4 Multiple Comparisons

EMPLOYEE_ENGAGEMENT
Scheffe

Qualification	Vs	Difference	Std.error	Level of Significance
Diploma	Graduate	-2.00000	1.10451	.196
	Post-Graduate	.59494	1.27599	.897
Graduate	Diploma	2.00000	1.10451	.196
	Post-Graduate	2.59494*	.96350	.028
Post-Graduate	Diploma	-.59494	1.27599	.897
	Graduate	-2.59494*	.96350	.028

*Significant difference at the 0.05 level.

Source: Primary data

Interpretation: The multiple comparisons showed that there is significant difference in employee engagement between employees with Graduate qualification and employees with Post-Graduation at the $P \leq .05$ levels.

4.17. Hypothesis 12: Hypothesis 12 can be stated in the null and alternate as follows:

$H12_0$: Employee engagement in organizations is not influenced by the gender of the employees.

$H12_A$: Employee engagement in organizations is influenced by the gender of the employees.

Since there are only two groups and employee engagement is measured on an interval scale, independent sample 't' test is appropriate to test the hypothesis. The results of t test, testing this hypothesis are shown in the SPSS output in table 4.17.2.

Table 4.17.1 Group Statistics

	Gender	N	Mean	Std. Deviation
EMPLOYEE_ENGAGEMENT	Female	36	45.2500	6.77970
	Male	301	46.1628	7.40608

Homogeneity of Variances: F= .653, p= .420

Source: Primary data

Interpretation: The table indicates that there are 36 female employees with mean value of 45.25 with SD of 6.77 and 301 male employees with mean value of 46.16 with SD of 7.40.

Table 4.17. 2 T- test for Independent Samples of Male (N=301) and Female (N=36) Employees

T-value	Df	Level of Significance
.705	335	.481

Source: Primary data

Interpretation: The t- value is -.705 is not significant, which means the two groups' mean scores are not significantly different. This implies that hypothesis 12 is not substantiated. There

are no significant differences between male and female employees with respect to employee engagement, and the null hypothesis is accepted.

4.18 . Hypothesis 13: Hypothesis 13 can be stated in the null and alternate as follows:

$H13_0$: Career development in organizations is not influenced by the age of the employees.

$H13_A$: Career development in organizations is influenced by the age of the employees.

Since there are more than two groups and career development is measured on an interval scale, ANOVA is appropriate to test the hypothesis. The results of ANOVA, testing this hypothesis are shown in the SPSS output in table 4.18.2.

Table 4.18.1 Descriptive statistics

CAR_DEV

Age	N	Mean	SD	Std.error
18-25	40	**38.8250**	**6.85710**	1.08420
26-35	167	**40.5150**	**8.19407**	.63408
36-45	94	**39.5426**	**7.24185**	.74694
46 and above	36	**36.1389**	**7.45329**	1.24222
Total	337	**39.5757**	**7.79123**	.42442

Source: Primary data

Interpretation: The descriptive table shows the differences between the means of the age group. The mean of 18-25 years age group is 38.83 with a *SD* of 6.85, whereas the mean of 26-35 age groups is 40.51 with a *SD* of 8.19. The mean of 36-45 age groups is 39.54 with a *SD* of 7.24, whereas the mean for 46 and above age group is 36.13 with a *SD* of 7.45.

Table 4.18.2 Test of Homogeneity of Variances

CAREER_DEVELOPMENT

Levene Statistic	df1	df2	Sig.
2.497	3	333	.060

Source: Primary data

Interpretation: The equality of variances assumption or test of homoscedasticity is tenable, because the sig value of .060 is not significant.

Table 4.18.3 ANOVA

CAREER_DEVELOPMENT

	Sources of Variation	SS	df	Variance	F Ratio
Among Groups	692.798	3	230.933	3.903	.009
Within Groups	19703.522	333	59.170		
Total	20396.320	336			

Source: Primary data

Interpretation: The *F* value is significant at .0001 level. This implies that hypothesis 13 is substantiated. There is significant difference in the mean career development in the four age groups, and the null hypothesis is rejected.

To determine among which age groups the true difference lie, the Scheffe test was performed by the researcher, the SPSS output of which are shown below;

Table 4.18.4 Multiple Comparisons

CAREER_DEVELOPMENT
Scheffe

Age	Vs.	Difference	Std.error	Level of Significance
18-25	26-35	-1.71648	1.34230	.652
	36-45	-.94116	1.43289	.934
	46 and above	3.13343	1.78422	.380
26-35	18-25	1.71648	1.34230	.652
	36-45	.77532	.98418	.892
	46 and above	4.84991*	1.44875	.012
36-45	18-25	.94116	1.43289	.934
	26-35	-.77532	.98418	.892
	46 and above	4.07459	1.53306	.072
46 and above	18-25	-3.13343	1.78422	.380
	26-35	-4.84991*	1.44875	.012
	36-45	-4.07459	1.53306	.072

*Significant difference at the 0.05 level.

Source: Primary data

Interpretation: The multiple comparisons showed that there is significant difference between the age group 46 years and above and age group 26-35 years at the $P \leq .05$ level.

4.19. Hypothesis 14: Hypothesis 14 can be stated in the null and alternate as follows:

$H14_0$: Career development in organization is not influenced by the experience of the employees.

$H14_A$: Career development in organization is influenced by the experience of the employees.

Since there are more than two groups and career development is measured on an interval scale, ANOVA is appropriate to test the hypothesis. The results of ANOVA, testing this hypothesis are shown in the SPSS output in table 4.19.3.

Table 4.19.1 Descriptive statistics

CAR_DEV

EXP.	N	Mean	SD	Std.error
00-05 yrs	71	**39.1127**	**6.88175**	.81671
05-10 yrs	133	**40.7218**	**8.16993**	.70842
10-15 yrs	96	**39.6979**	**7.24332**	.73927
>15 yrs	37	**36.0270**	**8.54559**	1.40489
Total	337	**39.5757**	**7.79123**	.42442

Source: Primary data

Interpretation: The descriptive table shows the differences between the means of the experience. The mean of 00-05 years experience is 39.11 with a *SD* of 6.88, whereas the mean of 05-10 years experience is 40.72 with a *SD* of 8.16. The mean of 10-15 years is 39.69 with a *SD* of 7.24, whereas the mean for >15 years is 36.02 with a *SD* of 8.54.

Table 4.19.2 Test of Homogeneity of Variances

CAREER_DEVELOPMENT

Levene Statistic	df1	df2	Sig.
1.679	3	333	.171

Source: Primary data

Interpretation: The equality of variances assumption or test of homoscedasticity is tenable, because the sig value of .171 is not significant.

Table 4.19.3 ANOVA

CAREER_DEVELOPMENT

	Sources of Variation	SS	df	Variance	F Ratio
Among Groups	657.303	3	219.101	3.696	.012
Within Groups	19739.018	333	59.276		
Total	20396.320	336			

Source: Primary data

Interpretation: The *F* value is significant at .0001 level. This implies that hypothesis 14 is substantiated. There is significant difference in the mean career development experiences of the four experience groups, and the null hypothesis is rejected.

To determine among which experience groups the true difference lie, the Scheffe test was performed by the researcher, the SPSS output of which are shown below;

Table 4.19.4 Multiple Comparisons

CAREER_DEVELOPMENT
Scheffe

Experience	Vs.	Difference	Std.error	Level of Significance
00-05 years	05-10 years	-1.60913	1.13162	.568
	10-15 years	-.58524	1.20513	.972
	>15 years	3.08565	1.56107	.274
05-10 years	00-05 years	1.60913	1.13162	.568
	10-15 years	1.02389	1.03109	.805
	>15 years	4.69478*	1.43100	.014
10-15 years	00-05 years	.58524	1.20513	.972
	05-10 years	-1.02389	1.03109	.805
	>15 years	3.67089	1.48981	.110
>15 years	00-05 years	-3.08565	1.56107	.274
	05-10 years	-4.69478*	1.43100	.014
	10-15 years	-3.67089	1.48981	.110

*Significant difference at the 0.05 level.

Source: Primary data

Interpretation: The multiple comparisons showed that there is significant difference between the employees having experience of more than 15 years and 05-10 years at the $P \leq .05$ level.

4.20 . Hypothesis 15: Hypothesis 15 can be stated in the null and alternate as follows:

$H15_0$: Career development experience in organization is not affected by the income- levels of the employees.

$H15_A$: Career development experience in organization is affected by the income- levels of the employees.

Since there are more than two groups and career development is measured on an interval scale, ANOVA is appropriate to test the hypothesis. The results of ANOVA, testing this hypothesis are shown in the SPSS output in table 4.20.3.

Table 4.20.1 Descriptive statistics

CAR_DEV

Income	N	Mean	SD	Std.error
15000-30000	88	**40.4886**	**7.98129**	.85081
30000-45000	112	**38.8750**	**7.91182**	.74760
45000-60000	89	**40.6404**	**7.07789**	.75025
>60000	48	**37.5625**	**8.08704**	1.16726
Total	337	**39.5757**	**7.79123**	.42442

Source: Primary data

Interpretation: The descriptive table shows the differences between the means of the income. The mean of income between 15K-30K is 40.48 with a *SD* of 7.98, whereas the mean of income

between 30K-45K is 38.87 with a *SD* of 7.91. The mean of income between 45K-60K is 40.64 with a *SD* of 7.07, whereas the mean for >60K is 37.56 with a *SD* of 8.08.

Table 4.20.2 Test of Homogeneity of Variances

CAREER_DEVELOPMENT

Levene Statistic	df1	df2	Sig.
.648	3	333	.585

Source: Primary data

Interpretation: The equality of variances assumption or test of homoscedasticity is tenable, because the sig value of .585 is not significant.

Table 4.20.3 ANOVA

CAREER_DEVELOPMENT

	Sources of Variation	SS	df	Variance	F Ratio
Among Groups	423.775	3	141.258	2.355	.072
Within Groups	19972.546	333	59.978		
Total	20396.320	336			

Source: Primary data

Interpretation: The *F* value is not significant. This implies that hypothesis 15 is not substantiated. There are no significant differences in the mean career development experiences of the employees in the four income groups, and the null hypothesis is accepted.

4.21. Hypothesis 16: Hypothesis 16 can be stated in the null and alternate as follows:

$H16_0$: Career development in organizations is not influenced by the qualification of the employees.

$H16_A$: Career development in organizations is influenced by the qualification of the employees.

Since there are more than two groups and career development is measured on an interval scale, ANOVA is appropriate to test the hypothesis. The results of ANOVA, testing this hypothesis are shown in the SPSS output in table 4.21.3.

Table 4.21.1 Descriptive statistics

CAR_DEV

Qualification	N	Mean	SD	Std.error
Diploma	55	**37.1636**	**6.42266**	.86603
Graduate	203	**40.3202**	**8.36074**	.58681
Post-Graduate	79	**39.3418**	**6.80476**	.76560
Total	337	**39.5757**	**7.79123**	.42442

Source: Primary data

Interpretation: The descriptive table shows the differences between the means of the qualification group. The mean of employees having diploma is 37.16 with a *SD* of 6.42, whereas the mean of employees having Graduate qualification is 40.32 with a *SD* of 8.36. The mean of employees having Post-Graduation is 39.34 with a *SD* of 6.80.

Table 4.21.2 Test of Homogeneity of Variances

CAR_DEV

Levene Statistic	df1	df2	Sig.
2.719	2	334	.067

Source: Primary data

Interpretation: The equality of variances assumption or test of homoscedasticity is tenable, because the sig value of .67 is not significant.

Table 4.21.3 ANOVA

CAR_DEV

	Sources of Variation	SS	df	Variance	F Ratio
Among Groups	436.834	2	218.417	3.655	.027
Within Groups	19959.487	334	59.759		
Total	20396.320	336			

Source: Primary data

Interpretation: The *F* value is significant, (*P*<.05). This implies that hypothesis 16 is substantiated. There is significant difference in the mean career development in the three qualification groups, and the null hypothesis is rejected.

Table 4.21.4 Multiple Comparisons

CAR_DEV
Scheffe

Qualification	Vs	Difference	Std.error	Level of Significance
Diploma	Graduate	-3.15656*	1.17512	.028
	Post-Graduate	-2.17814	1.35756	.277
Graduate	Diploma	3.15656*	1.17512	.028
	Post-Graduate	.97842	1.02510	.635
Post-Graduate	Diploma	2.17814	1.35756	.277
	Graduate	-.97842	1.02510	.635

*Significant difference at the 0.05 level.

Source: Primary data

Interpretation: The multiple comparisons showed that there is significant difference in career development between employees with Graduate qualification and employees with a Diploma at the $P \leq .05$ levels.

4.22. Hypothesis 17: Hypothesis 17 can be stated in the null and alternate as follows:

$H17_0$: Career development experience in organization is not affected by the gender of the employees.

$H17_A$: Career development experience in organization is affected by the gender of the employees.

Since there are only two groups and career development is measured on an interval scale, independent sample 't' test is appropriate to test the hypothesis. The results of t test, testing this hypothesis are shown in the SPSS output in table 4.22.2.

Table 4.22.1 Group Statistics

	Gender	N	Mean	Std. Deviation
CAR_DEV	Female	36	39.2222	7.56726
	Male	301	39.6179	7.82881

Homogeneity of Variances: F= .075, p= .784

Interpretation: The table indicates that there are 36 female employees with mean value of 39.22 with SD of 7.56 and 301 male employees with mean value of 39.61 with SD of 7.82.

Table 4.22.2 T- test for Independent Samples of Male (N=301) and Female (N=36) Employees

T-value	Df	Level of Significance
.-288	335	.774

Source: Primary data

Interpretation: The t- value is -.288 is not significant, which means the two groups' mean scores are not significantly different. This implies that hypothesis 17 is not substantiated. There

are no significant differences between male and female employees with respect to career development, and the null hypothesis is accepted.

Table 4.23: Table showing summary of results of testing of hypotheses

S.No	Tag	Null Hypothesis	Accepted/Rejected
1.	$H1_0$	There is no significant relationship between employee engagement and Career Development.	Rejected
2.	$H2_0$	Employee engagement in organizations will not result in employees' career development.	Rejected
3.	$H3_0$	There is no moderation effect of employees' experience on the relationship between employee engagement and career development.	Rejected
4.	$H4_0$	There is no moderation effect of employees' age on the relationship between employee engagement and career development.	Rejected
5.	$H5_0$	There is no moderation effect of employees' income on the relationship between employee engagement and career development.	Accepted
6.	$H6_0$	There is no moderation effect of employees' qualification on the relationship between employee engagement and career development.	Rejected
7.	$H7_0$	There is no moderation effect of employees' gender on the relationship between employee engagement and career development.	Rejected
8.	$H8_0$	Employee engagement in organizations is not influenced by the age of the employees.	Rejected
9.	$H9_0$	Employee engagement in organizations is not influenced by the experience of the employees.	Rejected

S.No	Tag	Null Hypothesis	Accepted/Rejected
10	$H10_0$	Employee engagement in organizations is not affected by the income-levels of the employees.	Rejected
11	$H11_0$	Employee engagement in organizations is not affected by the qualification of the employees.	Rejected
12	$H12_0$	Employee engagement in organizations is not influenced by the gender of the employees.	Accepted
13	$H13_0$	Career development in organizations is not influenced by the age of the employees.	Rejected
14	$H14_0$	Career development in organization is not influenced by the experience of the employees.	Rejected
15	$H15_0$	Career development experience in organization is not affected by the income- levels of the employees.	Accepted
16	$H16_0$	Career development in organizations is not influenced by the qualification of the employees.	Rejected
17	$H17_0$	Career development experience in organization is not affected by the gender of the employees.	Accepted

CHAPTER – V: RESULTS, DISCUSSION AND CONCLUSIONS

CHAPTER – V: RESULTS, DISCUSSION AND CONCLUSIONS

5.1. RESULTS

The findings of the background of the respondents are as follows;

5.1.1 BACKGROUND FACTORS

1) Age Group

The largest number of the respondents are found in the age-group of 26 to 35, with second highest in the age group 36 to 45 year. This is on expected lines as the mentioned age groups are the most agile and aspiring work groups in the industry.

2) Experience

The experience analysis shows that the distribution is more or less uniform with majority having an experience of 05 to 10 years followed by 10 to 15 years of experience.

3) Income

The analysis of the income-levels of the respondent's shows that majority of them fall between 30K to 45K range followed by 45K to 60K ranges. It throws light on the compensation being standard on region-cum-industry basis.

4) Qualification

The largest number of the respondents has graduate qualification followed by diploma, i.e. technical knowledge.

5) Gender

The analysis of gender data reveals that the male employees constituted the largest group of respondents.

5.1.2 PREDICTOR VARIABLES

1) Excellent work place

The variable was tapped by the question no.1. Excellent work place represents the creation of a stimulating physical and intellectual climate within the organization. The mean for the variable is 3.75 with a variance of .903.

2) Attachment and dedication

Attachment and dedication is a process of a continuously finding worthwhile work goals and achieving it. It was highlighted in the question no. 2. The mean for the variable is 3.91 with a variance of .769.

3) Involvement

Involvement refers to a climate of full range of inclusion in the workplace matters. This question was tapped by question no. 3. The mean for the variable is 3.86 with a variance of .873.

4) Understanding mission

Understanding of mission refers to exerting high level of efforts in achieving the task-related goals. It was highlighted in the question no. 4. The mean for the variable is 3.86 with a variance of .880.

5) Participation

A participative climate involve people in the decision making process. This question was tapped in the question no. 5. The mean for the variable is 3.59 with a variance of 1.040

6) Contribution

Contribution is performance delivered by employee in reaching individual, group and organizational goals. This was highlighted in the question no. 6. The mean for the variable is 4.00 with a variance of .860.

7) Feeling of Pride

A feeling of pride indicates ownership feeling by employees in the success of the organization. This question was tapped by question no. 7. The mean for the variable is 3.52 with a variance of 1.50.

8) Discretionary behavior

Discretionary behavior refers to the employee working beyond the normal task requirements. It was highlighted in the question no. 8. The mean for the variable is 3.94 with a variance of .696.

9) Care for Organization

Care for the organization refers to preserving the reputation of the organization. It was highlighted in the question no. 9. The mean for the variable is 4.15 with a variance of .450.

10) Personal accomplishment

Personal accomplishment means control over the work environment by the employees of an organization. This was tapped by the question no. 10. The mean for the variable is 4.00 with a variance of .640.

11) Goal achievement

Goal achievement means realizing the output of the job. This was highlighted in the question no. 11. The mean for the variable is 4.01 with a variance of .676.

12) Excitement in the job

Excitement in the job is engaging in energetic work related behavior and vigor. It was tapped by the question no. 12. The mean for the variable is 3.47 with a variance of 1.464.

5.1.3 CRITERION VARIABLE

13) Career Development

Career development (CD) program is an integral part of any comprehensive employee development system. This was measured by the question no. 13. The mean for the variable is 3.38 with a variance of 1.410.

14) Potential development

Potential development engages employees with learning opportunities to shoulder future challenging responsibilities. This was tapped by question no. 14. The mean for the variable is 3.22 with a variance of 1.269.

15) Career prospects

Career prospects means opportunities to advance in objective and subjective way in the organization. It was highlighted in the question no. 15. The mean for the variable is 3.43 with a variance of .925.

16) Advancement

Advancement was highlighted in the question no. 16. It means moving through organizational hierarchy. The mean for the variable is 3.46 with a variance of 1.064.

17) Performance

Performance is a criterion for developing career in organizations. It was tapped by question no. 17. The mean for the variable is 3.27 with a variance of 1.077.

18) Learning & Development

It means adequacy of learning and development culture to develop career prospects. This was measured through question no. 18. The mean for the variable is 3.38 with a variance of .856.

19) Counseling

A climate of senior manager providing career related guidance and counseling was highlighted in the question no. 19. The mean for the variable is 3.28 with a variance of 1.391.

20) Appraisal

The linkage of appraisal process career development of employees was tapped by question no. 20. The mean for the variable is 3.40 with a variance of .843.

21) Cross-functional transfers

Cross-functional transfers are considered as a developmental tool to broaden the employees' perspective. This was highlighted in the question no. 21. The mean for the variable is 3.40 with a variance of .990.

22) Job rotation

The importance of job rotation as a learning experience was tapped by the question no. 22. The mean for the variable is 3.12 with a variance of 1.310.

23) Mentoring

The availability of mentoring system in organizations caters to the development needs of the employee. This was highlighted in the question no. 23. The mean for the variable is 2.91 with a variance of 1.735.

24) Work flexibility

Flexibility is the core of work-life balance of people working in organizations. This was tapped by question no. 24. The mean for the variable is 3.33 with a variance of 1.012.

5.2. Variables and their Dispersion

In the measure of Employee Engagement, the mean value ranges from 3.52 to 4.15. There is relatively more variation in the responses to participation (*Variance* 1.040), employees feeling

of pride (*Variance* 1.500) and excitement in the job (*Variance* 1.464). While responding to Personal accomplishment (*Variance* .640), goal achievement (*Variance* .676), care for the organization (*Variance* .450) and discretionary behavior (*Variance* .696) there is relatively less spread about the mean.

In the measure of Career Development, the mean value ranges from 2.91 to 3.46. The table also indicates that, in general, variance for the career development measure is larger than employee engagement measure. It means there are more variation in the responses to career development constructs than employee engagement.

5.3. Strength of relationship between pairs of variables

Pearson correlation coefficients of all variables of employee engagement measure are shown in Table 4.13. Since most of the correlation coefficients among independent variables are significant at (p<.01 or p<.05), there is statistically significant positive relationship between employee engagement and career development.

5.4. Explaining dependent variable

Factor analysis is applied to a single set of employee engagement variables to discover which variables are relatively independent of one another and that reduces the variables into three factors. All of the selected factors (drive, commitment and proactive behavior) were found to have significant linear relationships with career development (p<.01). The 48.3 % of variance in career development was explained by drive, commitment and proactive behavior (Table-4.21).

5.5. Results of Interaction effects

5.5.1 Experience

The results indicates that the F value of 32.75 with R^2 of .41 is significant (p<.001), i.e. 41% variance is due to predictor Drive and levels of experience. Similarly, 39% of variance is due to

predictor Commitment and levels of experience , with *F* value of 30.30 at *P*<0.001. *F* value of 14.24 at *P*<0.001 with an R^2 = .23 indicates a 23% of variance is due to predictor proactive behavior and levels of experience. Simple Slopes for X to Y given a level of experience indicate that for employees having 05 -10 yrs. experience, commitment factors predict increase in career development by 9.72 points; employees having 10-15 yrs. experience, commitment factors predict increase in career development by 7.32 points; employees having more than 15 yrs. experience, commitment factors predict increase in career development by 7 points.

5.5.2 Age

The result indicates that the *F* value of 33.32 with R^2 of .4149 is significant (*p*<.001), i.e. 41% variance is due to predictor Drive and age. Similarly, 36% of variance is due to predictor Commitment and age , with *F* value of 26.81 at *P*<0.001. *F* value of 14.55 at *P*<0.001 with an R^2 = .23 indicates a 23% of variance is due to predictor proactive behavior and age. Simple Slopes for X to Y given age indicate that for employees having age group 18-25 yrs., drive factors predict increase in career development by 5.32 points; for employees having age group 26-35 yrs., drive factors predict increase in career development by 7.96 points; employees having age group 36-45 yrs. , drive factors predict increase in career development by 5.46 points; for employees of age group more than 46 years age , drive factors predict increase in career development by 5.08 points.

5.5.3 Income-level

The regression coefficients for interactions are not statistically significant. There is no moderation effect of demographic variable of income on relationship between employee engagement factors and career development.

5.5.4 Qualification

The result indicates that the F value of 51.75 with R^2 of .4388 is significant (p<.001), i.e. 43.88% variance is due to predictor Drive and qualification. Similarly, 38.15 % of variance is due to predictor Commitment and qualification, with F value of 40.83 at P<0.001. F value of 20.40 at P<0.001 with an R^2 = .2356 indicates a 23.56 % of variance is due to predictor proactive behavior and qualification. Simple Slopes for X to Y given qualification indicate that for employees having Diploma Qualification, drive factors predict increase in career development by 5.14 points; for employees having Graduate qualification, drive factors predict increase in career development by 7.48 points; employees having Post-Graduate qualification, drive factors predict increase in career development by 4.039 points. ; for employees having Graduate qualification, commitment factors predict increase in career development by 9.5762 points; employees having Post-Graduate qualification, commitment factors predict increase in career development by 4.666 points.

5.5.5 Gender

The results indicate that the F value of 69.10 with R^2 of 0.3837 is significant (p<.001), i.e. 38.37 % variance is due to predictor Drive and gender. Similarly, 29.26 % of variance is due to predictor Commitment and gender, with F value of 45.91 at P<0.001. F value of 32.27 at P<0.001 with an R^2 = 0.2253 indicates a 22.53% of variance is due to predictor proactive behavior and gender. Simple Slopes for X to Y given gender indicate that for male employees, commitment factors predict increase in career development by 6.62 points.

5.6. Effects of demographic variables on Predictor and Criterion

5.6.1. Experience

- The relationship between employees' experience with predictor employee engagement is significant at .0001 level. The multiple comparison using Sheffe method showed that the employees having more than 15 years of experience with low employee engagement is the one which is significantly different from employees having 00-05 years, 05-10 years, 10-15 years experience at the $P \leq .05$ level.

- The relationship between employees' experience with criterion variable, career development, is significant at .012 level. The multiple comparisons, using Scheffe method , showed that there is significant difference between the employees having experience of more than 15 years and 05-10 years at the $P \leq .05$ level.

5.6.2 Age

- The relationship between employees' age with predictor employee engagement is significant at .0001 level. The multiple comparison, using Scheffe method, showed that the age group 46 years and above with low employee engagement is the one which is significantly different from Age group 18-25 years, 26-35 years, 36-45 years at the $P \leq .05$ level.

- The relationship between employees' age with criterion variable, career development, is significant at .009 levels. The multiple comparisons, using Scheffe method, showed that there is significant difference between the age group 46 years and above and age group 26-35 years at the $P \leq .05$ levels.

5.6.3 Income

- The relationship between employees' income with predictor employee engagement is significant at .0001 levels. The multiple comparison showed that the income group 60000 and above with low employee engagement is the one which is significantly different from income group 15000-30000, 30000-45000, 45000-60000 at the $P \leq .05$ level.
- The relationship between employees' income with criterion variable is not significant at .072 levels.

5.6.4 Qualification

- There is significant difference in the mean employee engagement in the three qualification groups at p<.05 level. The multiple comparisons showed that there is significant difference in employee engagement between employees with Graduate qualification and employees with Post-Graduation at the $P < .05$ levels.
- There is significant difference in the mean career development in the three qualification groups at p<.05 level. The multiple comparisons showed that there is significant difference in career development between employees with Graduate qualification and employees with a Diploma at the $P < .05$ levels.

5.6.5 Gender

- The t- value of -.705 is not significant, which means which means the male and female mean scores on employee engagement are not significantly different. There are no significant differences between male and female employees with respect to employee engagement.

- The t- value of -.288 is not significant, which means the male and female mean scores on career development are not significantly different. There are no significant differences between male and female employees with respect to career development.

5.7. DISCUSSIONS

I. The evidence of this research study puts the employee engagement approach to career development on firm footing. The study supports the view that employee engagement is partly influenced by the work environment and partly influenced by the attitudinal system of the people. The research study has indicated that employee engagement leads to improvement in performance. It induces interest in work. Career development partly is a function of interest in work. It may be mentioned that employee engagement is to be regarded as an important and vital areas of improving performance and thereby realizing career growth. Providing excellent work place, involvement, and participation boost levels of employee engagement.

II. As mentioned previously, career development practices have moved from an external perspective to an internal one. Internal career development is about development of a person's self-efficacy, the context for external career is provided by the organization. A career development policy with opportunities for development, career assessment and feedback system, tangible career moves with added responsibility covers a full range of aspiration management of employees, as this research has indicated.

III. The result of the study has shown (a) significant main effects of Employee Engagement (drive, commitment and proactive behavior) on career development (R^2 .483), (b) significant interaction effect of experience, age, income level, qualification and gender on relationship between independent variable and dependent variable. The dispersion analysis has revealed that dimension of employee engagement and career development score are typical, but still there is scope of improvement where variances are more.

IV. The research has proved that work experience, age, income-level, qualification and gender influence the magnitude of relationship between employee engagement and career development. It turned out that the relationships between employee engagement and career development is conditional when accounted for levels of income, age profile and work experiences, qualification and gender. The study demonstrates that by stratifying people, according to the personal variables, one can improve prediction.

V. Preacher and Hayes test revealed that demographic variable of experience and commitment (employee engagement measure) has significant interaction. It means that the factors of commitment, namely, participation, personal accomplishment, contribution and goal achievement of employee engagement measure need attention. Further analysis through simple plot revealed that it is the employee group having less professional experience of 0 to 5 years, who require more participation, a sense of achievement and a commitment to organizational goal. The finding has been reinforced by the usual conclusions from several researches that people new to the organization need feeling of task significance and initiating structure.

VI. Preacher and Hayes test revealed that demographic variable of age and drive (employee engagement measure) has significant interaction. It means that the factors of drive, namely, involvement, attachment and dedication, understanding of the organization's mission, excellent work place, feeling of pride, and excitement in the job dimension are importance. Further analysis through simple plot revealed that it is the age group 18 to 25 years and more than 46 years , who require more opportunity for involvement , attachment and dedication , understanding of the organization's mission and excitement in the job The finding has been reinforced by the usual conclusions from several researches that younger people and those who are in mid-career stages need task orientation, consideration and more opportunity to employ their skills and knowledge.

VII. Preacher and Hayes test revealed that demographic variable of income and employee engagement factors are not statistically significant. There is no moderation effect of demographic variable of income on relationship between employee engagement factors and career development. The relationship of employee engagement and career development is neither strengthened nor weakened, when we take income of employee into consideration.

VIII. Preacher and Hayes test revealed that variable of qualification and drive (employee engagement measure) has significant interaction. It means that the factors of drive, namely, involvement, attachment and dedication, a clear understanding of the organization's mission, excellent work place, feeling of pride, and excitement in the job dimension are important. A qualification and commitment factor has significant

interaction. The commitment factor has participation, personal accomplishment, contributions, and goal achievement as employee engagement dimensions. Further analysis through simple plot revealed employees having qualifications of diploma, graduation and post-graduation experience have differences in conditional effect of the focal predictor, employee engagement on career development at values of these moderator. The finding indicates that time and effort in attaining qualifications orients the approach of employees to the various dimensions of their involvement in the organizational life.

IX. Preacher and Hayes test revealed that variable of gender and commitment (employee engagement measure) has significant interaction. The commitment factor has participation, personal accomplishment, contributions, and goal achievement as employee engagement dimensions. Further analysis through simple plot revealed the conditional effect of the focal predictor, employee engagement, on career development for male and female employees at values of these moderators are different. The finding indicates that the element of gender has affect on the relationship between predictor and criterion.

X. There is a relationship between demographic variables of age, income, experience, qualification and predictor variable of employee engagement, except gender. It indicates there are differences among employees of specific age, income, experience groups, qualification and their engagement level in the organization. This is reinforced by the fact that the employees at different stages of their life have different relational orientation and expectations from the engagement process in the organization.

XI. There is a relationship between demographic variables of age, experience, qualification and criterion variable of career development. It indicates there are differences among employees of specific age and experience and qualification groups and their career development experiences in the organization. Age and experience of employees are directly related to the maturity level in performance of the job.

However, with respect to income-level of employees and their gender, there is no significant difference among employees of four income groups and male and female employees with respect to career development.

5.8. CONCLUSIONS

In conclusion, it would be worthwhile to mention that employee engagement has many positive outcomes for the organization, especially in developing the career of employee. The factors of psychological engagement, which is an attitude and behavioral engagement which is an overt expression of engagement, both are required to have an effect on people's behavior.

Career development, perspective being either subjective or objective, of the employees of an organization is vital to gain competitive advantage. The study indicates that there is an association between employee engagement and career development. In addition, employee engagement is having predictive validity for future endeavor in career development space for the organization.

The research has affirmed that the employee engagement, being still an evolving concept, has come up as a significant variable influencing career development of employees in the organization, though career development also depends on factors like levels of individual performance and organizational practices.

The analysis of data demonstrates that the additional personal variable of age, income and experience has a moderating effect on the predictive capacity of employee engagement constructs. Therefore, organizations have to suitably modify the employee engagement programmes taking into account the personal variables to achieve the career development objectives for the employee. Besides, employee engagement level independently varies with age, income ,experience and qualification of the employees, except gender. Career development experiences also vary with age, experience, qualification of the employees, except level of income and gender.

As for nature of employee engagement in organization, the emphasis should be on building a climate of psychological engagement by having more inclusion, work engagement programmes and creating an excellent workplace. Alongside, an observable employee engagement behavior should be encouraged and promoted through participation, personal accomplishment, recognizing employees' contribution and goal achievement. This, ultimately, will lead to citizenship behavior on the part of employee and a decent work place.

If achievement of career development goals is desired, an objective and systematic advancement policy for the employees have to be formulated. It may include both substantive and procedural policy with regard to promotion, potential development, and transparency in decision-making. Further, catering to the subjective aspect of career development, a feedback and counseling system, flexibility, appraisal system, and a productive mentoring programme could be undertaken. The option of job rotation and cross-functional transfer would also contribute in building a development climate.

5.9. LIMITATIONS AND FUTURE SCOPE OF THE STUDY

Any kind of generalizations may be inappropriate in the light of the variation in the industry structure, size, organizational climate and maturity of the system and processes. Therefore, it is always appropriate to approach the application of any practice to get a desired outcome by taking into account the conditional factors.

The organizations are not uniform in their processes. The undertaking within a particular type also differs, and sometimes quite significantly, in matters of functional distribution, technology and organizational details, and, for employee engagement practices and their impact on career development, these details become important.

The limitation of the present study is that the results of the study reflect a conditional relationship between employee engagement and career development, therefore, while generalizing these results for future purpose a study of demographic factors have to be made.

However, the findings could be useful in designing employee engagement practices as well as career development programmes in the organization. Secondly, the organizations selected for study were all in the manufacturing sector. Today, the vast majority of organizations are all in the service sector. These organizations are having a distinct set of culture and demographic profile. Therefore, research covering these dimensions will have to be suitably factored the characteristics of the industry.

As the Covid-19 has affected the People dimensions within organizations, the employee engagement and career development approach may evolve and take on new nature and characteristics in the near future, while the log-term stability of these novel concepts of people management may remain intact. The study is not having organizational level as a demographic classification.

Career development perspective in organizations has huge potential to uplift the people management functions to a development –oriented interventions. There is a scope to consider career development as an umbrella functions encompassing other human resource development practices like performance management and learning and development in organizations. This could be an area of exploration by the researchers in order to improve the status and contribution of the people management activities to the growth and development of the organizations.

Employee engagement may be used to supplement motivational programmes undertaken in the organizations to improve the performance of the employees and the

organizations. The need is to enrich its practices with more innovation in its implementations. Since many of the theoretical frameworks of employee engagement is behavioral in nature, the challenge is to transform these into practical frameworks for employees' development.

5.10. IMPLICATIONS OF THE STUDY

5.10.1 Theoretical Implications of the Study

- The evidence of this research study puts the employee engagement approach to career development on firm footing. Employee Engagement has predictive effect on Career development. One of the major results indicates that the main effect of Employee Engagement on career development is qualified by the Age, Experiences and Qualification and gender of employees. Employee engagement independently varies with age, income, experience and qualification of the employees, except gender. Career development experiences also vary with age, experience and qualification of the employees, except level of income and gender.

- Any research findings on career development and its antecedents is going to strengthen the human development system in the organization. Human resource systems, which are subsumed by regulatory approach to manage people in organizations, have to transform itself into a developmental role. Employee engagement with all its practicality and visible signs of employees' energetic behavior and attachment is a tool to mobilize the vast untapped human potential in to engines of growth for the organization. The employees' in turn has extended expectations of organization's meeting their growth

and development needs, both objectively and subjectively. This study has offered an innovative way of linking perceived engagement level of employees to their career development.

- A good place to work for employees is one of the important dimensions emerging from this research. The creation of this element requires a development climate, where career development could be integrated with the other development tools like appraisal and feedback and review system.

- Career development dimensions are one of the important antecedents of the employee engagement, which is an important finding of this research. Earlier, most of the factors considered to contribute to employee engagement have similarity with traditional job satisfaction factors.

5.10.2 Practical Implications of the Study

- As the findings of this research indicates, the emphasis should be on building a climate of psychological engagement by having more inclusion, engagement programmes and creating an excellent workplace conditions. An observable employee engagement behavior should be encouraged and promoted through participation, personal accomplishment, recognizing employees' contribution and goal achievement. To achieve the career development goals of people, an objective and systematic advancement policy for the employees have to be formulated. It may include both substantive and procedural policy with regard to promotion, potential development, and

transparency in decision-making. Further, catering to the subjective aspect of career development, a feedback and counseling system, flexibility, appraisal system, and a productive mentoring programme could be undertaken. The option of job rotation and cross-functional transfer would also contribute in building a development climate.One of the outcomes of employee engagement will be creation of conditions in the organizations where aspiration of employees is fulfilled. This is also one of the important and sound justifications of having engaged and involved employees in the organization.

- One of the outcomes of employee engagement will be creation of conditions in the organizations where aspiration of employees is fulfilled. Career development along with individual development plan will be able to complement the interventions of employee engagement.
- The practical implications of the research are that employee engagement innervations will have an extended role in nurturing and developing people in both subjective and objective way. There are areas such as mentoring system and quality of work-life issues which has to be incorporated in any career development proagramme. An organization has to undertake training and education at many levels to assimilate the new orientation that this research has shown.

- Employee Engagement must be recognized as an integral part of any programme of career development in organization. It is the responsibility of operation managers, employees and the top team of the organization. Career development plan must be stimulating and realistic in all respects and should be available to all eligible employees.

- At regular intervals, employee engagement levels among employees must be assessed. The antecedents required for employee engagement must be maintained and updated periodically. The motivation potential of these factors must be considered before offering to the employees.
- Additionally, organization must be having data related to demographic profile of the people, as it has been found from the study that a close correlation between employee engagement variable and career development is conditional , so far as, personal variables of employee is concerned.
- As for employee engagement, the most suitable interventions should be adopted with provisions of easy accessibility. As for, career development multiple career track could be useful in retention of the talent. The experience, qualification and age group-wise inventory of employees helps is assessing which age group in the organization has career deviations or having advancement potential.
- Organization should bring out a half-yearly report on the kind of employee engagement interventions and career development decisions taken. It is important to emphasize that without these sound human development practices, other people- oriented processes may remain ineffective.

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APPENDICES

Appendix A

QUESTIONNAIRE

Dear Sir/Madam,

The survey/questionnaire on "Impact of Employee Engagement on their Career Development: A study in selected manufacturing industries" is purely academic in nature.

It is divided into 3 sections; Background Information.
Section X - [Employee Engagement Measure].
Section Y - [Career Development Measure].

Rating Scale: A five-point rating scale is used, where
Strongly Agree = 5 Disagree = 2
Agree = 4 Strongly Disagree =1
Undecided = 3

Please give a (√) mark in the box that applies to you for each item.

[SECTION – X]

Particulars	Strongly Disagree [1]	Disagree [2]	Undecided [3]	Agree[4]	Strongly Agree [5]
1] I would say my company is good place to work.					
2] I am engaged with my work in terms of attachment and dedication.					
3] I have a sense of involvement with the people I work with.					
4] I feel engaged with the company's mission and its success.					
5] I feel a sense of involvement in operational decision-making.					
6] I understand how my unit/department contributes to company success.					
7] I feel proud to work for my company.					
8] I am willing to put in a great deal of effort beyond what is normally required.					
9] I care about the future of my organization.					

10] I have a feeling of personal accomplishment from my job.					
11] Engagement with work leads to achievement of organizational and individual goals.					
12] I have a sense of excitement in the job.					

[SECTION – Y]

Particulars	Strongly Disagree [1]	Disagree [2]	Undecided [3]	Agree[4]	Strongly Agree [5]
1] Career Development is enshrined in the company's HR policy.					
2] The company invests in my career development with an objective to promote upward mobility.					
3] I can map my future in this organization.					
4] The company has clearly defined ladders of promotions which are known to me.					
5] Promotion decisions are based on suitability of promotee.					
6] The company gives me adequate development opportunity to improve my career prospects.					
7] My Senior /Reporting manager often provide counseling on career growth opportunities.					
8] The company implements an objective appraisal system for me as one of the basis of career development.					
9] The company encourages cross-functional transfers.					
10] The company promotes job rotation of employees.					
11] The company supports me by creating mentoring relationship to cultivate leadership potential.					
12] Career development programme in this organization include the notion of work-life balance.					

[BACKGROUND INFORMATION]

The background information deals with the demographic details pertaining to the respondent.

Occupational Category: Technical / Non-Technical **Gender:** Male / Female

Age Group	18-25 years	☐
	26-35 years	☐
	36-45 years	☐
	>46 years	☐
Qualifications	Diploma	☐
	Graduate	☐
	Post-Graduate	☐
	Doctorate	☐
Work experience	00-05 years	☐
	05-10 years	☐
	10-15 years	☐
	>15 years	☐
Income (monthly)	15000-30000	☐
	30000-45000	☐
	45000-60000	☐
	>60000	☐

Thank you for your kind participation.

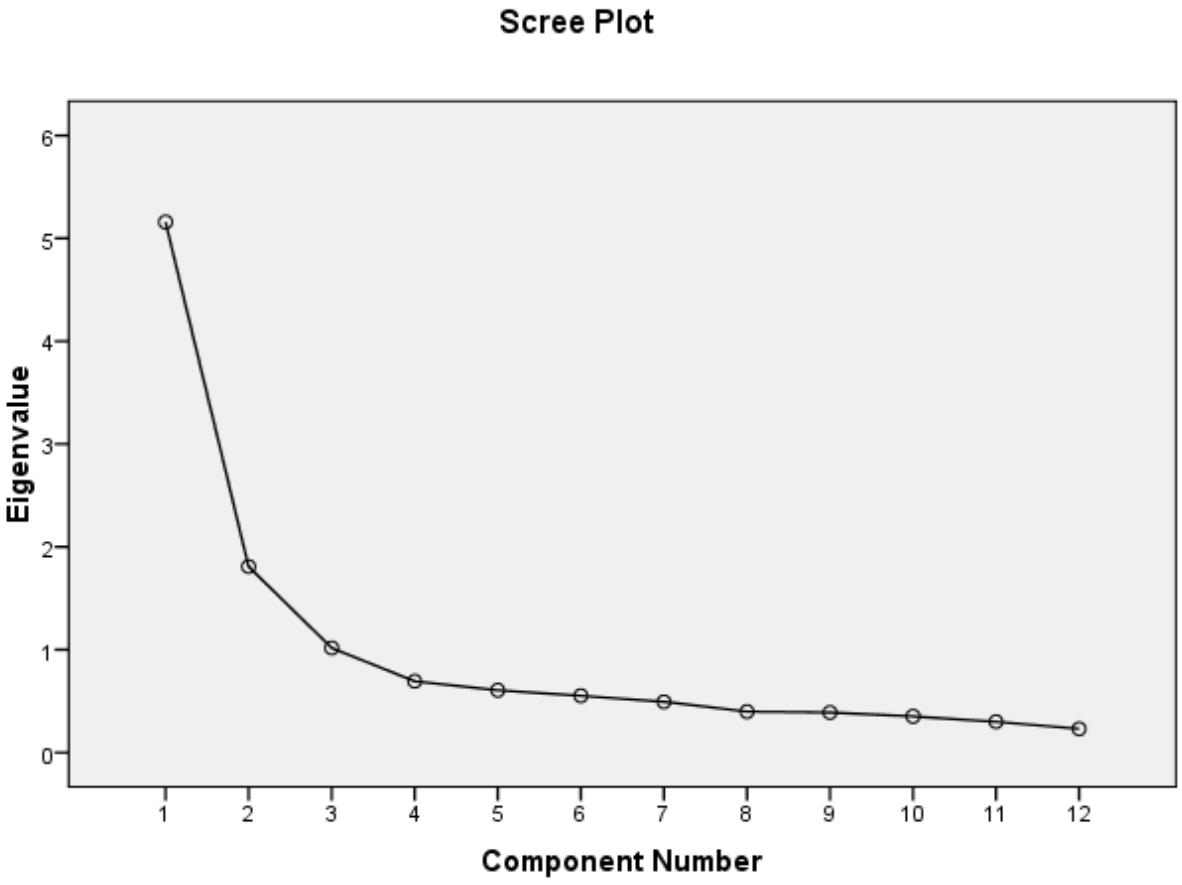
Appendix B

Factor Analysis output

Table 4.5.1 Test of MSA and Sphericity

Bartlett's Test Apprx. Chi-square=1818.94, df=66, Significance=0.00 Kaiser-Meyer-Olkin MSA=0.883

Source: Primary Data



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2. Conference on "Rural India: Strategizing Business"; Jan.21-22, 2017 at Asian School of Business Management, Bhubaneswar.
3. National Conference on "Start-up & Stand up India for the Socio-Economic Transformation of Jharkhand"; SepT.27, 2016 at The ICFAI University Jharkhand.
4. Conference on "Achieving Organizational Excellence through Innovation and Motivation"; Feb. 5-6, 2016 at the Institute of Science and Management, Ranchi.
5. National Conference on "People Management: Emerging trends in the Current Millennium" at The ICFAI University, Jharkhand; 3 September, 2105.
6. 4th International Seminar on "Skill India-2015" at IIPM School of Management; 17 Jan.2015.
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