



## THE IMPLEMENTATION OF HUMAN CAPITAL MANAGEMENT IN THE AVIATION SECTOR: AN EMPIRICAL STUDY IN UAE

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### Abstract:

On the employees' perspective in the UAE aviation sector, this research has been conducted to evaluate the execution of human capital management. The subsequent growths in the global financial framework have driven the rise of competitions among organizations, and survival of success has turned into a vital goal of these organizations. This study intends to measure the degree of applying the HCM practices on employees in a standout amongst the most advanced and developed sectors in the UAE - the civil aviation sector. Following the literatures, three variables have been parted which were leadership practices, employee engagement and talent management. Researcher has checked the effect of these variables on human capital management in her area of expertise. Henceforth, this research explores the effect of leadership practices, talent management, and employee engagement on human capital management. Lastly, after carefully analyzing the results, it has been found that leadership practices and talent management are insignificant to HCM and only employee engagement has noteworthy effect on human capital management.

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## 1. Introduction

These days, the current era can be characterized as the age of the economy, learning, globalization and contemporary creation which is seeing a serious competition and distress in information and trades systems. Business elements have a place today with an area that is represented with change and outrageous dynamic. With the essential decade of the twenty-first century, a movement of events have delivered, which made difficulties for relationship to keep pace with these advancements (Louisa, 2016). As a result of burdens constrained by these events, business organizations were compelled to change to other versatile legitimate models and to focus on the data and the intangible assets or what called "human capital" to make regard. Physical capital was the basic source in industrialized social demands, however today the condition in the time of information, data and knowledge has changed, and the business organizations which guarantee the learning are the overwhelming ones, while all organizations which don't have this learning leaves the market competition (Siddique, 2012). The use of the human capital term began since the mid-sixties of the twentieth century, and this is appeared by the arrangements of (Schultz, 1961), and crafted by (Becker & Gary, 1964) (Woodhall, 1987).

Human capital and its interest have been extended with the beginning of the twentieth century, and human capital pushed toward getting to be viewed as the principle marker of the business success, and the correct cause to compete and achieve perfection. Human capital management can be described as a system of upgrading the execution of an organization and its employees and expects to help employee commitment and make a devotion that goes more far off than the lawfully restricting, supervisor relationship to keep in mind, the true objective to drive performance (Kucharcíková, Tokarcíková, & Blašková, 2015). HCM thinks about the skills, aptitudes, capacities and experiences of employees that improve the worth of an organization (Baron & Armstrong, 2007). HCM guides particularly toward advance the profit and performance of the organizations, and this requires numerous works, including giving strong inside selection deals with, enhancing business management programs, giving versatile working-plans, focusing on the employees' guidance and the compensation issues (Siddique, 2012).

High levels of skill and competence are essential to future security and success which have been increasingly recognized by individuals, organizations and nations. It is common knowledge that as individuals acquire more education and training during a lifetime, human capital drives the production of goods and services, as well as new innovations in the marketplace. More precisely the research addresses the following questions: is there any link between talent management and employee engagement,

leadership practices and employee engagement and their ultimate impact on human capital management, which is the core of this research.

In this study, it has been intended to evaluate the level of applying the HCM practices on employees in the one of the most important sectors of UAE, which is Abu Dhabi Civil Aviation. And furthermore, the research will reveal the issues which standing up to this division in executing the HCM practices. Thusly, the results of the study will perceive the delicate focuses and will include the practices that are not being connected in this sector in try to propose the practical proposition that would profit the executives and the managers around there to take the realistic activities to eliminate the weak points.

## **2. Reviewing Literature**

As per the first half of this review, a theoretical foundation for the current study has been provided, and the second half reviews the recent literature, which is mainly focused on talent management, leadership practices, employee engagement and their impact on HCM.

### **2.1 Theoretical Basis**

On the basis of the human capital, it is alluded to the knowledge, aptitudes, potential, capacity, qualities and attributes natural in various people and which have an immediate organization with the financial movement (Alika & Aibieyi, 2014). (Marimuthu, Arokiasamy, & Ismail, 2009) included that human capital isn't just alludes to what is claimed by people from abilities and qualities; however, it likewise alludes to the degree in which people can utilize what they possess profitably and connected to monetary action that prompt accomplish riches straightforwardly or in a roundabout way.

According to (Seleim, Ashour, & Bontis, 2007) human capital is a type of the organization's capital, which comprises through an assortment of impacts and distinctive sources and incorporates the sorted out instructive exercises which take diverse structures, for example, training, learning and knowledge. (Siddique, 2012) Demonstrated that human capital is the knowledge that makes up the value of the organization.

Following (Rappleyewcjr , 1999), human capital incorporates impalpable resources that can be exploited by the organization to be changed over into whatever is valuable, and in this manner human capital is knowledge, aptitude and put away qualities of the staff. (Bontis, Dragonetti, Jacobsen, & Roos, 1999) displayed far reaching meaning of human capital. They pointed that human capital incorporates the reasons which connect employees together in the organization and make them ready to share their understandings of various perspectives, their encounters and their knowledge.

Past studies have indicated that human capital is composed of three key elements, including:

1. **Intellectual Capital:** intellectual capital is the fundamental component of human capital components (Bontis N. , 1998). (Bounfour & Edvinsson, 2005) demonstrated that intellectual capital is the measure of collected knowledge, picked up understanding, and mental limits of the specialists, which can be misused to accomplish the organization's objectives through innovative considering.
2. **Social Capital:** (Burdud & Tumolo, 2004) saw that social capital incorporates the employee's capacity to manage others, and also the capacity to enter a system interchanges and connections and bring collaboration inside and outside the organization. (Putnam, 1996) showed that social capital can be from outside or inside the organization. Social capital is an employee capacity to deal with the connection between the clients, the organization, the supporters and different gatherings, it is along these lines basic for administrators to understand that they are not ready to work in disconnection from different organizations, and they have to client criticism to give better administrations, and this is done through upgrade correspondence between the employee and the client (Erickson, Scott, & Rothberg, 2012).
3. **Organizational Capital:** organizational capital exhibits the supporter structure of human capital (Siddique, 2012). (Tsan & Chang, 2003) pointed that the organizational capital speaks to all the non-human knowledge stores in the organization, for example, databases, organizational outlines, manuals of operations, and methodologies. (Al-Ali, 2003) clarified that organizational knowledge empowers the organization to address the necessities and difficulties of the market.

Human capital with its key components, intellectual capital, organizational capital, and social capital, has turned into an essential asset in most contemporary organizations, and keeping in mind the end goal to guarantee the continuation of the organizations; all organizations must concentrate on human capital. From here, rivalry between organizations progress toward becoming depends vigorously on the development of human capital to accomplish upper hands. (Said, 2011) demonstrated that the human capital comprises from a set of ingredients.

The ability of workers incorporates the key leadership for the organization management, the level of work quality, the likelihood of laborers to learn, and the commitment of specialists in basic leadership. This affirms human capital includes numerous factors, for example, experience, education, knowledge, development, work aptitudes and specialized training, the capacity to tackle issues, managing vulnerability, and work inside a brought together and agreeable group. (Idenyi, Onyekachi, & Ogbonna, 2016) investigated the connection between the human capital development and the financial development of Nigeria. The consequences of the study demonstrated that there is critical long-run connection between human capital development and financial development in Nigeria. It is evident that interest in human capital surpasses in its monetary and social outcomes the interest in physical resources, and in this way the human resources development ended up plainly a standout amongst the most critical

and the most conspicuous issues as it speaks to the fundamental procedure to refine and create capacity and skills human resources in the logical, specialized and behavioral viewpoints. From the other hand, managing the human resources in a decent way and equipping them with science, knowledge and training will guarantee expanding the level of employees' fulfillment and will guarantee the accomplishment of the organization's key targets, and therefore having the capacity to accomplish economical upper hand amidst a quick developing and changing business condition. (Martin & Harris, 2014) have shown to the worldwide HCM best practices, including; standardize complex worldwide procedures while giving adaptability, change benefit conveyance, deal with the workforce in different countries productively, move innovation answers for the cloud, take part in significant worldwide talent management and make an engaging globalized working environment while guaranteeing employee engagement.

## **2.2 Conceptual Framework**

This part of research holds to gauge the degree of applying the HCM practices in public aviation sector in UAE from the employee's viewpoint. Past studies demonstrated that human capital management (HCM) is measured by utilizing diverse procedures yet at the same time the researcher is not ready to have a widespread casing work for the estimation of human capital management. HCM practices are speak to an arrangement of practices connected by firms to oversee human resources by encouraging the development of skills and creating complex social connection and organization knowledge to keep up upper hand (Jamal & Saif, 2011).

Three variables are extracted to examine human capital management practices which are:

- 1) talent management;
- 2) leadership practices;
- 3) employee engagement.

In the following discussion, these variables have been further elaborated.

## **2.3 Link between Human Capital Practices and Leadership**

Because of major societal powers, business conditions are changing. Innovative advances, globalization, deregulation, customer mindfulness and the opposition are release their obligation on organizational performances and making new practices and difficulties. Even though many variables may impact the performance of an organization, there can be little uncertainty that the nature of leadership accessible to it will be a standout amongst the most basic determinants of extreme success. Leadership conduct assumes an imperative part in improving employee work fulfillment, work motivation and work performance. Great leadership conduct quickens the development of most organizations (Ali, Elmi, & Mohamed, 2013). (McSwain, 2010), of Lincoln University additionally characterizes leadership as a capacity, which infers that, the capacity of a leader is to tune in and watch, and to utilize their skill as a beginning stage to energize discourse between all levels of basic leadership, to build up procedures and straightforwardness in basic

leadership, and to express their own particular values and dreams plainly yet not to force them. Besides, (Schermerhorn, et al., 2002) characterize leadership as an instance of relational impact that get people, or gatherings of individuals to do what the leader needs to be finished. Leadership should focus on those fundamental inside operations that engage employees to satisfy customer needs. The inside measures should reflect business frames that have the best impact on customer faithfulness. These as demonstrated by (Northcott, Deryl, Taulapapa, & Tuivaiti, 2012) consolidate components that impact procedure term, agents' capacities, quality and effectiveness. Firms in like manner should recognize and measure the key resources and limits they need to ensure continued with crucial accomplishment (Rompho & Nopadol, 2011). The success of an organization is dependent on the leader's capacity to advance human resources. A decent leader understands the significance of employees in accomplishing the objectives of the organization, and that spurring these employees is of vital significance in accomplishing these objectives. To have a powerful organization the general population inside the organization should be enlivened to put them in the organization's main goal: the employees should be animated so they can be successful; henceforth viable organizations require viable leadership (Wall, Solum, & Sobol, 1992).

#### **2.4 Link between Human Capital Practices and Employee Engagement**

Referring to (Jamal & Saif, 2011) there is a solid and beneficial outcome between Employee engagement and human capital Management; he utilized the model in which he depicted effect of Human Capital Management on Organizational performance, as indicated by the research researcher there is an immediate connection between Human Capital Management and organizational Performance. So, it can be deduced that there will be solid positive connection between Employee engagement and Human Capital Management. Moreover, when employees notice that their employer values them and their contribution, they show positive attitudes and behaviors (Kuvaas, Bard, Dysvik, & Anders, 2010). Specific HCM practices may be regarded as signaling an intention for long-term investment in workforces that help them reciprocate with discretionary role behavior and contributions (Gong, Chang, & Cheung, 2010). Moreover, empirical research has clearly shown an association between high levels of engagement and the same outcomes as the high-performance HCM practices literature. According to (Guest & David, 2014), engagement needs clearly imbedding within an integrated system of HCM practices, procedures and policies to deliver its claimed advantages. Then, (Albrecht, et al., 2015) showed that how four key engagement-focused HCM practices (i.e. personnel selection, socialization, performance management, and training and development) can be employed in order to promote employee engagement and result in positive outcomes that will assist organizations in achieving a competitive advantage.

#### **2.5 Link between Human Capital Practices and Talent Management**

Talent management has been a standout amongst the most wrangled about subjects in human resource management (HRM) hypothesis and practice as of late. Beside

leadership development, value-based enlistment and performance management, talent management is viewed as one of the key human resource subjects and difficulties by driving multinational organizations, for example, IBM and Shell (Paauwe, 2009). Human capital is all around characterized as the mutual accumulation of talents, capacities, qualities, knowledge, ability and capability gained by employees (Bontis & Serenko, 2007) in expanding performance and advancing the profitability of the organization (Omoluabi & Akintunde, 2013). HCM gives a scaffold between human resource and business methodology. Ventures by managers in training and creating individuals is a method for drawing in and holding human capital and also showing signs of improvement comes back from those speculations. Notwithstanding, managers need to recollect that specialists, particularly knowledgeable laborers, may see themselves as free operators who can pick how and where they contribute their talents, time and vitality. As essential as human capital might be, interests ought not occupy consideration from different parts of capital, for example, intellectual capital, social and organizational capital, that are worried about creating and inserting the knowledge controlled by the human capital of an organization (Salau, Falola, Ibidunni, & Igbinoba, 2016).

### **3. Research Methodology**

Diverse researchers have given distinctive point of perspectives to study and break down the issues and inquiries. This research in view of survey which uncover the genuine situation of UAE, after this the instrument will be chosen from the past researchers to execute on the data for the results.

#### **3.1 Design of the Research**

By utilizing the cross-sectional survey research plan strategy, this research is outlined. A cross-sectional survey configuration is a technique in which the researcher gathers data to make derivations about a population of interest at one point in time. It can likewise be portrayed as descriptions of the populations about which they assemble data. Cross-sectional survey configuration is methodology in which the researcher directs a survey to a little gathering of individuals with a specific end goal to distinguish "*ideas in state of mind, sentiments, practices or qualities of a huge gathering of individuals*" which called population (Creswell & John, 2009). The researcher in this study utilized the descriptive research design. It has the advantage of gathering both qualitative and quantitative data and this was considered essential in investigating the HCM.

#### **3.2 Strategy of Sampling**

As per (Trochim, 2006), the purposive sampling has been selected for this research. The purposive sampling is the technique which looks for particular predefined bunches important to a research subject to take an interest in research. The characteristic of purposive (from the word intention) is to guarantee that data important to the research territory are gathered from research subject experts, knowledgeable individuals about

the research and the individuals who are specialists in the branch of knowledge (Trochim, 2006).

### 3.3 Conceptual Framework

Based on the theoretical frameworks in the preceding sections and the literature review (presented in Section 2), the hypothesized research model and the key relationships to be tested in this study is illustrated in Figure 3.1. This general framework summarizes the journey of the study and work in arrows and shapes. The independent variables are closely linked to each other and having a relationship between themselves and with the dependent variable.

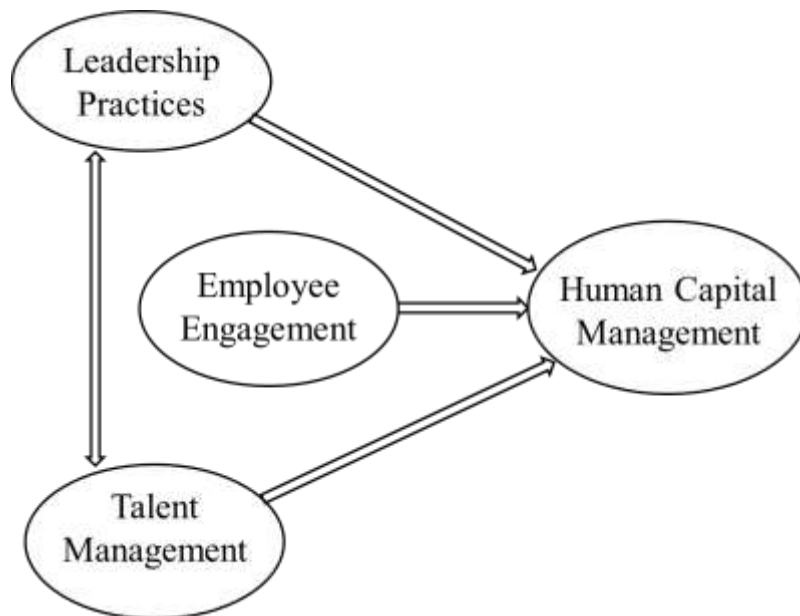


Figure 3.1: The Conceptual Framework

### 3.4 Research Hypothesis

H(x)	Hypothesis
H1	Leadership Practices (LP) is positively related to Human Capital Management Practices (HCM)
H2	Employee Engagement (EE) is positively related to Human Capital Management Practices (HCM)
H3	Talent Management (TM) is positively related to Human Capital Management Practices (HCM)
H4	There is a Reciprocal Relationship between Leadership Practices (LP) and Talent Management (TM)

The concept of human capital has recently received attention from many researchers. They hypothesized that it represents the human factor in the organization, the combined intelligence, skills and expertise that gives the organization its distinctive character. Human capital is the knowledge, skills, competencies and attributes embodied in



individuals that facilitate the creation of personal, social and economic well-being. The aspects of human capital that are of most relevance to the organization's workforce and productivity are: formal learning (learning leading to a qualification); non-certified learning (on-the-job training, work experience, or other learning not leading to a formal qualification); foundation skills; management skills and leadership skills. Employees' knowledge and skills are known as human capital. It is the core of intellectual capital that drives business performance. (Jyotirmayee, Choudhury, Mishra, & Bhusan, 2010) affirmed that people are the greatest asset, providing the intellectual capital that drives differentiation and value added. (Westphalen, 2009) opined that human capital can be defined strictly within an economic context as a production factor and (Koednok, 2011) described it as an economic term used to describe the skills and knowledge that individuals draw upon to generate outputs of value, such as innovation and productivity in job performance. Moreover, (Rephann, Knapp, & Shobe, 2009) defined it as the stock of knowledge and skills embodied in labor as a result of training and education that improves labor productivity.

### **3.5 Population**

Referring to (Blumberg, Cooper, & Schindler, 2011), a population is the total number of elements from which the researcher wishes to use in his study and base conclusions. A population can also be seen as the entire group of elements where the researcher wants to collect data from (Wenger, 2001). The population of 600 employees was selected for analyses out of which 200 responses were returned after screening 140 were selected for further analyses.

### **3.6 Measurement and Instrument**

#### **3.6.1 Research instruments**

Questionnaires were used to gather the required data. (Blumberg, Cooper, & Schindler, 2011) added that it is a survey instrument that the researcher delivers to the respondent through personal or non-personal means with the aim of getting it completed by the respondent without necessarily having any additional contact with the researcher. This research used closed questions in the study. The Likert scale was adopted in constructing the questionnaires. Respondents were asked to select an answer that expresses their agreement or disagreement to a question on a scale as shown below; (Saunders, Mark, Thornhill, & Lewis, 2009).

- 1) Strongly agree;
- 2) Agree;
- 3) Neutral;
- 4) Disagree;
- 5) Strongly disagree.

### 3.7 Data Collection Method

For the motivation behind the study, the researcher utilizes online survey technique since a large number of the employees are exceptionally occupied and they can't be effortlessly gotten to. So, the researcher acquired an endorsement letter from the university, particularly the workplace i.e. Postgraduate and Research office. The survey was sent to the respondents utilizing by means of their messages. The respondent was told to tap on a connection that guides them to the survey page. In the wake of demonstrating their particular idea or recognition by putting a tick, they were required to tap on submit catch which automatically store the survey to the archive data record that were separated from the web later. The period for the survey took about 1month after which the reactions were grouped and the store in a protected place for analysis. Respondents who did not top off the survey on time were follow-up by sending them update messages. For the purposes of this research, data was collected from the targeted population, through self-administered questionnaires. The researcher opted to use primary data as it is related to the problem under study. It gives data that is current problem specific and the data was original and reliable as it was collected from the contributors who are the subjects of evading or complying in terms of social security contributions payment. In as far as it is very important and useful to use primary data in research for quality purposes, this researcher faced some challenges that are usually associated with the gathering of primary data in the form of costs of data collection and the fact that collecting primary data is time consuming.

### 3.8 Data Analysis

The online form in Microsoft Office Excel Format was imported into IBM SPSS version 23 and analyzed accordingly. Later, the software used was SMART PLS; this was especially useful for the preparation of structural equation models for the present study. Prior to the main statistical analysis, the demographic statistics are first presented; the demographic statistics offer important overview of the collected data and the profile of respondents. A data summary of important descriptive statistics is then presented for all the main indicators and variables of the study. Mainly the mean statistics ( $\bar{x}$ ) and standard deviation ( $\sigma\bar{x}$ ) as measures of central tendency. The reliability of the various dimensions is observed by testing key reliability and validity statistics. Reliability is checked with the help of Cronbach Alpha check for internal consistency. The use of Cronbach Alpha as a measure of reliability and internal consistency is recommended by (Gliem & Gliem, 2003). Inter-item correlations were also observed in order to validate the dataset and ensure that no excessive correlations are observed (Gliem & Gliem, 2003). The multiple regression analysis was used to assess the interaction or predictive effect of independent variable elements over the dependent variable elements where:

$$y = a_1(x_1) + a_2(x_2) + a_3(x_3) + a_4(x_4) + \dots + a_n(x_n) + c \quad (1)$$

Where,

$y$  = each stage within the risk management process,

$a_1 \sim a_n$  = the coefficient of the various strategic planning (or independent variables) elements the linear regression model,

$x_1 \sim x_n$  = elements of the independent variables,

and  $c$  = the constant of the regression model.

Same form of analysis will be conducted for all research hypotheses.

#### **4. Results and Discussion**

The analysis addresses three research hypotheses. Through a confirmatory factor analysis (CFA), this study estimated the construct validity of Leadership Practices (LP), Talent Management (TM), Employee Engagement (EE) and Human Capital Management Practices (HCM). The Structural Equation Modelling (SEM) was employed to address the research hypotheses.

To begin with, this study analyzed the dissemination of the demographic variables (Gender, Qualifications, and Experiences) for all respondents. From that point onward, this study talks about the expressive analysis of the variables and the theory testing. This study utilized the SPSS to inspect the external and inward model appraisal and speculations testing.

The decency of the external model related to the constructs of this study specifically Human capital management, talent management, leadership practices and employee Engagement. At that point, the nature of the auxiliary model was analyzed through the construct validity. Next, the discoveries of the speculation testing techniques are accounted for and in addition the impact of independent variables (talent management, leadership practices and employee engagement) on the dependent variable (Human capital management). At long last, this study contrasts the outcomes and past studies in part five.

The chapter comprises of seven sections. Section one outlines the introduction, section two discusses data screening, section three looks at data transformation and section four describes the sample characteristics of respondents from the surveyed data, section five details out the dimensions of Leadership Practices, Talent Management, Employee Engagement and Human capital practices by conducting exploratory and confirmatory factor analyses (EFA and CFA). Section six explains the findings which addressed research hypothesis advanced in this study, while section seven presents the summary of the chapter.

##### **4.1 Data Cleaning and Screening**

The purpose of data screening is to address the issues of missing data and to detect and correct illogical, inconsistent, or illegal data (Broeck, et al., 2005). These issues, if not adequately addressed may have several effects on the accuracy of estimation, especially in multivariate analyses such as SEM. Consequently, population of 600 respondents were selected to study, out of which 140 were taken as a sample after removing missing values and missed data from the respondents of 200 who returned the questionnaires on given time frame. SPSS version 23 were selected for the analyses and screening.

## 4.2 Respondents Profile

Respondents profile is classified according to the gender, age, current position, years of service, rank and department of working as the table below.

**Table 4.1: Gender**

Gender	Frequency	Percent
Male	76	54.3
Female	64	45.7
Total	140	100

The sample size was 140 out of which 76 were males and 64 were females whose percentage is 54.3% for male and 45.7 % for female.

On the other hand, based on the origin of respondents, another set of data has been found. Civil aviation is diversified, and other nationalities are also working there but most of the employees are Arabs whose percentage is 70.7, after this Asians having 19.3 %, European 0.7%, African 6.4 %, American 0.7 %, Pacific 1.4 % and others are 0.7 %. These data are tabulated as below.

**Table 4.2: Origin**

Origin	Frequency	Percent
Arab	99	70.7
Asian	27	19.3
European	1	0.7
African	9	6.4
American	1	0.7
Pacific	2	1.4
Other	1	0.7
Total	140	100

Most of the employees working in this sector are lies in the age of 35 and above which 60.7 % employees are having age of 30-35 are 18.6 % and employees of age 25-30 are 20.7%. Table 4.3 presents these data.

**Table 4.3: Age**

Age	Frequency	Percent
25-30 years	29	20.7
30-35 years	26	18.6
35-40 years	34	24.3
Above 40 years	51	36.4
Total	140	100

Most of the employees in aviation are graduates having bachelor's degree that is of 62.1 % after this master's degree holders are 31.4 % and PhD degree holders are 6.4 %. This is presented in the following table.

**Table 4.4: Education**

Education	Frequency	Percent
Bachelors	87	62.1
Masters	44	31.4
PhD	9	6.4
Total	140	100

Employees who are working more than 10 years are 50.7% of the sample employees having experience of 5-10 years are 23.6 % and the employees who are fresh in this sector are 25.7% means they have less than 5 years of experience. These data have been tabulated as below.

**Table 4.5: Experience**

Work Experience	Frequency	Percent
Less than 5 years	36	25.7
5-10 years	33	23.6
More than 10 years	71	50.7
Total	140	100

Rank is another important factor of respondents' profile. The survey was distributed among all the levels of the sector, from which managerial level is on top having 37.9% of sample after this executive level of 32.1% directors are 6.4% and other like secretaries are 12.9%. So, it was attempted by every rank, it can be deduced it will be a realistic research. The data has been included in Table 4.6.

**Table 4.6: Rank**

Rank	Frequency	Percent
Junior	15	10.7
Executive	45	32.1
Managerial	53	37.9
Director	9	6.4
Other	18	12.9
Total	140	100

Aviation has six major departments almost all the departments have taken part in the research to accomplish; most of the employees work in safety affairs, and other departments such as administration, HR. and management. All of these departments have also effects on the profile of respondents. These effects are related to the percentage of respondents in different departments. This is represented in the following table.

**Table 4.7: Department**

Department	Frequency	Percent
Security affairs	9	6.4
Safety affairs	22	15.7
Strategy and international affairs	17	12.1

Air navigation services	5	3.6
Support services	31	22.1
Air accident investigation	3	2.1
Other	53	37.9
Total	140	100

### 4.3 Dimensions of Variables

It has been aimed to identify the construct validity of Leadership Practices (LP), Talent Management (TM), Employee Engagement (EE) and Human Capital Management Practices on the basis of data collected from the respondents. The dimensionality of the Leadership Practices (LP), Talent Management (TM), Employee Engagement (EE) and Human Capital Management Practices (HCM) were sought through a principal component analysis (PCA) after which a confirmatory factor analysis (CFA) was conducted to confirm the dimensionality obtained through PCA.

#### 4.3.1 Exploratory Factor Analysis (EFA)

PCA was to explore the underlying dimensions of Leadership Practices (LP), Talent Management (TM), Employee Engagement (EE) and Human Capital Management Practices within the UAE Aviation Sector context. First, the statistical assumptions of PCA were tested. The exercise revealed that a substantial number of variables were correlated ( $r \geq .30$ ). In addition, the two measures for inter-correlations among variables supported the use of PCA (Hair, Black, Babin, & Anderson, 2010) (Kline & Rex, 2010) (Kothari, 2004) (Neuman, 2007). Bartlett's Test of Sphericity was statistically significant [4597.487,  $p = .000$ ], while the Kaiser-Meyer-Olkin (KMO) measure of the sampling adequacy (MSA) was .818, indicating that the inter-correlations were sufficient for PCA (Pallant, 2007)

**Table 4.8: KMO and Bartlett's Test**

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.818
	Approx. Chi-Square	4597.487
Bartlett's Test of Sphericity	df	406
	Sig.	.000

PCA with Varimax rotation was performed on the data collected. Four latent factors were extracted with eigenvalues greater than one, explaining 55.70% of total variance (Table 4.9). Thus, the results show that four latent factors were successfully extracted on 29 items. Table 4.5 shows that factor loadings are between .531 and .784 (detail EFA are provided in annexure 2). Following the guideline provided by the scholars (Byrne, 2010) (Hair, Black, Babin, & Anderson, 2010) (Kline & Rex, 2010) (Nunnally & Bernstein, 1994) all four factors were renamed as Leadership Practices (LP), Talent Management (TM), Employee Engagement (EE) and Human Capital Management Practices, respectively.

**Table 4.9: Total Variance Explained**

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	7.818	26.960	26.960	7.818	26.960	26.960	5.845	20.156	20.156
2	3.766	12.987	39.946	3.766	12.987	39.946	3.604	12.427	32.583
3	2.490	8.587	48.533	2.490	8.587	48.533	3.476	11.987	44.571
4	2.078	7.167	55.700	2.078	7.167	55.700	3.227	11.129	55.700
5	.942	3.249	58.948						
6	.914	3.151	62.099						
7	.880	3.034	65.133						
8	.845	2.914	68.047						
9	.785	2.708	70.755						
10	.720	2.484	73.239						
11	.702	2.421	75.660						
12	.646	2.229	77.889						
13	.620	2.140	80.029						
14	.548	1.888	81.917						
15	.518	1.785	83.702						
16	.499	1.720	85.423						
17	.464	1.599	87.022						
18	.460	1.588	88.610						
19	.431	1.485	90.094						
20	.405	1.397	91.492						
21	.364	1.256	92.748						
22	.360	1.241	93.989						
23	.342	1.179	95.168						
24	.279	.964	96.132						
25	.270	.929	97.061						
26	.254	.874	97.936						
27	.227	.782	98.718						
28	.205	.709	99.427						
29	.166	.573	100.000						

The internal consistency of all the factors were obtained by computing the Cronbach's Alpha coefficient on the four extracted factors was retained by PCA. In view of the guidelines by researchers (Cronbach, 1951) (Sekaran & Bougie, 2010), Cronbach's Alpha was employed to estimate the reliability of the extracted factors as presented in Table 4.11. All four factors [Leadership Practices (LP), Talent Management (TM), Employee Engagement (EE) and Human Capital Management Practices (HCM)] had good reliability indices of .882, .819, .827 and .819, respectively.

**Table 4.10: Reliability Statistics**

Variable	Cronbach's Alpha	N of Items
Leadership Practices (LP)	.882	11
Talent Management (TM)	.819	5
Employee Engagement (EE)	.827	7
Human Capital Management Practices (HCM)	.819	6
Overall	.897	29

### 4.3.2 Construct Validity

Results of CFA have been presented here to support the construct validity of Leadership Practices (LP), Talent Management (TM), Employee Engagement (EE) and Human

Capital Management Practices (HCM). The factors derived from the results of the PCA contain the four variables. The first variable is Leadership Practices (LP), second variable is Talent Management (TM), third variable is Employee Engagement (EE) and the variable is Human Capital Management Practices (HCM).

The interrelationships among the item measures of Leadership Practices (LP), Talent Management (TM), Employee Engagement (EE) and Human Capital Management Practices were checked at the estimates section of the AMOS (version 21.0) text output and it showed that the indices were statistically significant. For normality, the use of AMOS showed through the indices of skewness and kurtosis that there was no serious violation of the assumption of normality as all values of skewness were negative and less than 3 (Anderson & Gerbing, 1988) (Barrett, 2007) (Bollen, 1989) (Byrne B. , 2010) (Tabachnick & Fidell, 2007)

This is the justification for the researcher's adoption of CFA for further data analysis.

#### 4.3.3 Discriminant Validity

In this section, results of CFA are presented to support the discriminant validity of Leadership Practices (LP), Talent Management (TM), Employee Engagement (EE) and Human Capital Management Practices (HCM). To achieve the discriminant validity, this study also runs CFA by linking all the constructs together to examine whether these constructs are highly correlated. In the case where the measure of correlation between two constructs is higher than 0.85, one could conclude that the discriminant validity is not achieved (Byrne B. , 2010) (Zainudin, 2012) If the discriminant validity is not achieved, then the researcher needs to drop one of those two constructs for further analysis since it is like the mirror of the other (Byrne, 2010) (Hair, Black, Babin, & Anderson, 2010) (Kline & Rex, 2010).

Table 4.11 indicates that none of the constructs' correlation is higher than 0.85. Thus, it is assumed that the discriminant validity is achieved.

**Table 4.11:** Correlations among the Constructs

Construct	Correlation	Construct	Estimate
Leadership Practices	↔	Employee Engagement	.361
Talent Management	↔	Employee Engagement	.487
Employee Engagement	↔	Human Capital Management Practices	.487

#### The CFA Results Reporting

Construct	Item	Factor Loading	Cronbach alpha	CR	AVE
Leadership Practices (LP)	Q14	.551	.882	.904	.508
	Q12	.677			
	Q11	.753			
	Q10	.657			
	Q8	.733			
	Q7	.786			
	Q4	.681			



Construct	Item	Factor Loading	Cronbach alpha	CR	AVE
	Q3	.738			
	Q2	.711			
	Q1	.669			
Talent Management (TM)	Q22	.646	.819	.835	.504
	Q21	.737			
	Q18	.759			
	Q17	.714			
	Q16	.690			
Employee Engagement (EE)	Q34	.563	.827	.829	.513
	Q33	.585			
	Q32	.535			
	Q30	.637			
	Q29	.661			
	Q28	.801			
	Q27	.679			
Human Capital Management Practices (HCM)	Q43	.629	.819	.819	.515
	Q42	.636			
	Q41	.663			
	Q40	.698			
	Q39	.732			
	Q38	.679			

#### 4.3.4 Undimensionality, Validity and Reliability

The CFA has been performed on the data collected from 302 respondents through AMOS (Version 16.0), using Maximum Likelihood (ML) estimation (Byrne B. , 2010). The measurement model of the four extracted variables showed that the overall fit of the model was statistically significant, indicating an inadequate fit between the covariance matrix of the observed data and the implied covariance matrix of the model. Other indices of model fit were also used following the guideline by the scholars (Byrne, 2010) (Hair, Black, Babin, & Anderson, 2010) whereby at least one absolute fit index and one incremental fit index be used in addition to the  $\chi^2$  statistic and the associated degree of freedom. Following this guideline, the Normed chi-square (i.e. CMIN/DF), the Comparative Fit Index (CFI) and the Root Mean Square Error of Approximation (RMSEA) were adopted in estimating the model in addition to the  $\chi^2$  associated degree of freedom.

(Zainudin, 2012) suggested that before modelling the structural model, the researcher needs to address the issues of unidimensionality, validity and reliability. As per his suggestion, the followings are discussed (Table 4.12).

**Table 4.12:** CFA Results for the Measurement Models

Name of Category	Required Value	Comments
Unidimensionality	Factor loading for each item $\geq 0.50$	The required level is achieved
Validity		
Convergent Validity	Average Variance Extracted (AVE) $\geq 0.50$	The required level is achieved
Construct Validity	All fitness indexes for the models meets the required level	The required level is achieved
Discriminant Validity	Correlation between exogenous constructs is $\leq 0.85$	The required level is achieved (refer to table 4.10)
Reliability		
Internal Reliability	Cronbach alpha $\geq 0.70$	The required level is achieved
Construct Reliability	CR $\geq 0.60$	The required level is achieved
Average Variance Explained (AVE)	AVE $\geq 0.50$	The required level is achieved

#### 4.4 Hypothesis Testing

A statistical hypothesis test is a method of statistical inference. Commonly, two statistical data sets are compared, or a data set obtained by sampling is compared against a synthetic data set from an idealized model. A hypothesis is proposed for the statistical relationship between the two data sets, and this is compared as an alternative to an idealized null hypothesis that proposes no relationship between two data sets. The comparison is deemed statistically significant if the relationship between the data sets would be an unlikely realization of the null hypothesis according to a threshold probability, the significance level. Hypothesis tests are used in determining what outcomes of a study would lead to a rejection of the null hypothesis for a pre-specified level of significance.

**Table 4.13:** Hypothesis Testing (Maximum Likelihood Estimates)

Variables		Estimate	S.E.	C.R.	P
Human Capital Management Practices	← Leadership Practices	.176	.096	1.831	.067
Human Capital Management Practices	← Employee Engagement	.286	.075	3.823	***
Human Capital Management Practices	← Talent Management	.129	.070	1.842	.065
Leadership Practices	↔ Talent Management	.045	.015	3.052	.002

**Table 4.14:** Standardized Regression Weights: (Default model)

Variable	Relationship	Variable	Estimate
Human Capital Management Practices	←	Leadership Practices	.122
Human Capital Management Practices	←	Employee Engagement	.350
Human Capital Management Practices	←	Talent Management	.141
Leadership Practices	↔	Talent Management	.220

**H1:** Leadership Practices (LP) is positively related to Human Capital Management Practices (HCM).

The probability of getting a critical ratio as large as 1.831 in absolute value is .067 (Table 4.14), the regression weight for Leadership Practices in the prediction of Human Capital Management Practices is not significantly different from zero at the 0.05 level (two-tailed). Therefore, H1 is rejected.

**H2:** Employee Engagement (EE) is positively related to Human Capital Management Practices (HCM)

The probability of getting a critical ratio as large as 3.823 in absolute value is less than 0.001 (Table 4.14), the regression weight for Employee Engagement in the prediction of Human Capital Management Practices is significantly different from zero at the 0.001 level (two-tailed). Thus, H2 is accepted.

**H3:** Talent Management (TM) is positively related to Human Capital Management Practices (HCM)

The probability of getting a critical ratio as large as 1.842 in absolute value is .065 (Table 4.14), the regression weight for Talent Management in the prediction of Human Capital Management Practices is not significantly different from zero at the 0.05 level (two-tailed). However, the parameter estimates did not support the adequacy of the revised model. As shown in Table 4.15, the path coefficient between Talent Management and Human Capital Management Practices was quite low (.141) and statistically insignificant. This indicates that Talent Management do not have significant influence on Human Capital Management Practices in the UAE AI perspectives. Thus, H3 is rejected.

**H4:** There is a Reciprocal Relationship between Leadership Practices (LP) and Talent Management (TM)

The probability of getting a critical ratio as large as 3.052 in absolute value is .002 (Table 4.14), the covariance between Leadership Practices and Talent Management is significantly different from zero at the 0.01 level (two-tailed). Besides, from Table 4.15, it can be seen that the estimated beta between Leadership Practices and Talent Management is positive 0.220. Thus, this study confirms that the relationship between Leadership Practices and Talent Management is statistically significant.

Furthermore, from Table 4.14, it is also observed that the p-value is less than 0.05 (0.002) with a standard estimate value of 0.045. This indicates that the relationship between Leadership Practices and Talent Management is reciprocal. Therefore, this study accepts H4 that there is a reciprocal relationship between Leadership Practices and Talent Management in the UAE AI perspectives.

**Table 4.15:** Summary of the Main Findings of the Study

H(x)	Hypothesis	Finding
H1	Leadership Practices (LP) is positively related to Human Capital Management Practices (HCM)	Rejected
H2	Employee Engagement (EE) is positively related to Human Capital Management Practices (HCM)	Accepted

H3	Talent Management (TM) is positively related to Human Capital Management Practices (HCM)	Rejected
H4	There is a Reciprocal Relationship between Leadership Practices (LP) and Talent Management (TM)	Accepted

## 5. Discussion, Recommendations and Conclusion

### 5.1 Discussion

The impact of different key variables, including Talent Management, Leadership practices and Employee engagement on Human Capital Management has been investigate in this research. The primary motivation behind this study is to look at the association of employees in the organization and how the employees' impact on the development of the organization, which is the civil aviation of Abu Dhabi UAE. The present study plans to gauge the degree of applying the HCM practices on employees in Civil Aviation. Two out of four hypotheses are rejected that is leadership and talent management towards HCM (H1 & H3) in this scenario because their critical ratio does not lie in the critical region which is in this case is (+ - 1.96) for the significance level of 0.005 and two hypotheses are accepted that employee engagement towards HCM and reciprocity of talent management and leadership practices (H2 & H4) because these lie in the critical region of significance level 0.001 . To date, the present study is one of the not very many studies led in the Arab world to look at such connections. Henceforth, this study is an endeavored to add to the current knowledge by analyzing and understanding the effect of these independent variables on Human capital management as the dependent variable. From reviewed literature, it gave a hypothetical understanding and the results found out the positive connection between employee engagement and human capital practices and proved the reciprocity of relationship between leaders and talent management in UAE, the current research has given experimental confirmation about the relationship of all study variables relating to the research structure drawn on the premise of previous literature. This study showed the significance of employee engagement and human capital management.

The present study's outcomes have suggestions for civil aviation, leaders and strategy organizers. Right off the bat, this study raises the issue of human capital management who are the most critical resource of any organization in UAE what's more, effects of different variables have likewise been analyzed, including Leadership practices, talent management and employee engagement, as mentioned by Mohammad bin Rashid al Maktoum foundation, 2015 UAE is not good enough to manage human capital practices, so this study is the answer on this issue and provides empirically accepted variables for HCM to make it strong and practical. At long last, the present study's outcomes have critical commitments and suggestions for administrators, professionals, and strategy producers. Again, arrangement creators and leaders of civil aviation in UAE should concentrate on the most imperative variables.

## 5.2 Recommendations

This study focuses just on civil aviation in UAE without thought of other sectors so maybe the private organizations will give different results. The flow of the study offers a few future research openings. Although the above recommendations are the best way to address the restrictions of the present study, future research may likewise think about different potential outcomes and sectors. Right off the bat, to better understand the procedure and components of how and why human capital management is accomplished, a contextual analysis approach could be considered later on. This approach empowers researchers to fathom the perplexing relations between the variables.

Likewise, future studies may consider analyzing the research display in different settings as examined above and testing its validity and pertinence in different countries. Thusly, the generalizability of the model can be found out.

## 5.3 Conclusion

In a nutshell, human capital management is one of the significant concerns in UAE. Past studies featured this issue in different sectors or enterprises, yet this study, especially, centers on the civil aviation of UAE. This study expected to research the essential factors that impact human capital management in the aviation sector of UAE. There are still a few issues confronted in the civil aviation in UAE. Accordingly, this research explored the effect of leadership practices, talent management, and employee engagement on human capital management. Finally, the outcomes found that leadership practices and talent management are insignificant to HCM and only employee engagement has a noteworthy effect on human capital management and there is a reciprocal relationship between leadership practices and talent management.

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