



# The Impact of Transformational Leadership in Relation to Job Performance in the Aviation Industry of Albania

Dea Çopani<sup>1,\*</sup>, Vehap Kola<sup>2</sup>

<sup>1</sup> Department of Business Administration, University of New York Tirana, Albania

<sup>2</sup> Department of Business Administration, University of New York Tirana, Albania

\*Corresponding author. Email: [deacopani@unyt.edu.al](mailto:deacopani@unyt.edu.al)

## ABSTRACT

This study investigates the impact that transformational leadership has on job performance in the Albanian aviation industry. Existing literature has viewed that transformational leadership has generally a high impact on the performance of the workforce. With the help of quantitative research methodology, an online survey questionnaire provided essential data from 53 participants. This survey measured the possibility of an existing relationship between two main variables. Statistical findings revealed that there is a weak linear relationship between transformational leadership and job performance, but this cannot be considered statistically significant since the p-value (0.616) from the regression analysis is greater than the predetermined level of significance (0.05). These findings are a result of limitations in the sample size (N=53) and the methodology approach. This research paper can contribute to the existing literature on this topic of matter and serve as a guide for further study analysis.

**Keywords:** Transformational Leadership, Job Performance, Aviation Industry, Relationship.

## 1. INTRODUCTION

It is essential for any business and organization to have an understanding about the importance and impact that leadership has to make the company thrive in the competitive market. Due to the fast expansion and development of the economy and the acceleration of the trends toward globalization, the aviation industry is serving the Albanian market a further economic development that would be significant not only for the government and the private sector, but for everyone in the country. Examining the leadership techniques that might improve the performance of employees and support overall organizational success is of the highest value as the sector grows and encounters new difficulties. Employee job performance is crucial at determining whether the company is going through success, or it is facing obstacles in managing the work-related occurrences (Opatha & Rathnayake, 2018).

The behavior that an employee has in the working environment indicates whether or not that individual has a good attitude toward his or her organization. It is of great importance to know that leaders are one of the biggest influencers in the organization, from which

employees can learn, and adapt, and have positive outcomes. The aviation industry is very diverse and critical, since it encompasses a wide range of air transportation-related operations, including those of airlines, airports, aircraft manufacturers, and service providers. Consequently, leaders, their leadership style, and their commitment to their significant roles become paramount in describing the flourishing of this sector.

It has been demonstrated that, in a variety of industries, transformational leadership, defined as a style of leadership that includes both inspirational and visionary behaviors, has a significant impact on employee engagement, work satisfaction, and overall job performance. However, despite the rich literature on transformational leadership and its effect on job performance, there is an absence of extensive studies especially concentrating on the aviation sector in Albania.

Thus, this study aims to help fill the existing gap while further analyzing the crucial characteristics of transformational leadership and investigating if there is a relationship with job performance while determining how well the potential relationship applies to the aviation

sector in the Albanian context. By examining the perspectives of both employees and their managers, this study seeks to identify if there is a potential positive correlation between transformational leadership and job performance key competences such as task performance, contextual performance, and counterproductive work behavior.

The thesis' main purpose is to have a clear viewpoint of transformational leadership, altogether with job performance, to further analyze the existing relationship between them. Hence, the main objectives of this paper are as the following:

1. To demonstrate the importance of determining the correlation between transformational leadership and job performance.
2. To evaluate the relationship between transformational leadership and job performance through a quantitative explanatory approach

To accomplish these objectives, quantitative explanatory method of collecting data will be adopted. A thorough assessment of the literature will be done first in order to develop a theoretical framework and collect knowledge from research that has already been done on transformational leadership and job performance in diverse circumstances. This review will help formulate the research hypotheses and point out the gap in the existing body of knowledge.

Subsequently, through a quantitative explanatory approach, primary data will be collected through questionnaires that its findings can be analysed and provide significant results that might serve as a guidance for future studies for researchers that will consider the Albanian aviation context. Moreover, the outcomes of this study can contribute to further extend the literature on transformational leadership by offering various viewpoints that will be extracted from the correlation and regression model of analysis. Consequently, the level of job performance as a dependent variable will be defined considering that transformational leadership is the significant independent variable known.

## 2. LITERATURE REVIEW

### 2.1. Transformational Leadership

One of the most prevalent and current leadership approaches, that has been the field of extensive research since the early 1980s, is the transformational approach. As the name suggests, transformational leadership is a process that involves changing and transforming others. The concept of transformational leadership initially originated from Burns (1978), who describes it as the act of interacting with people to establish a bond that would significantly enhance morale and motivation respectively in both the leader and the followers (Krishnan, 2005). This approach was later developed by Bass (1985) which

elucidated transformational leadership in terms of the impact that it leaves on its followers; followers have a sense of loyalty, devotion, and admiration in their leader (Krishnan, 2005). The "New Leadership" framework, which emphasizes the charismatic and emotive aspects of leadership, includes transformational leadership as one of its tenets (Bryman, 1992). Lim and Polyhart (2004) argue that transformational leadership apparently has become considerably important for the coherent and modern work (Lim & Ployhart, 2004). In the recent years, researchers referred transformational leadership as a leader-member exchange theory since it is formulated in the framework that leaders communicate and exchange their time, support, and duties with their followers, who reciprocate by offering their performance and compliance (Gottfredson, Wright, & Heaphy). Bakker *et. al* (2022) assert that there is a need to investigate in more detail what make the followers engage and be inspired by their leaders who rigorously use the approach that falls under transformational leadership theory (Bakker, Olsen, Hetland, & Espevik, 2022).

Bass' interpretation of transformational leadership represented four important separate elements: idealized influence (II), Intellectual Stimulation (IS), Inspirational Motivation (IM), and Individualized Consideration (IC) (Bass & Riggio, 2005). **Idealized influence** is described as the extent to which leaders are viewed as inspirational role models based on their individual achievements, behavior, and attributes (Moss & Ritossa, 2007). This dimension is part of what makes a leader charismatic (Bass & Riggio, 2005), which refers to the respect that followers demonstrate for their leader, who rigorously sets clear directions, goals, and acts as an excellent example (Bakker *et. al.*, 2022; Antonakis, 2012). **Inspirational Motivation** is the other key element of transformational approach, which involves the leader's behaviors to transmit motivation and inspiration to followers to make it possible for them to be able to attain their full potential and achieve their desired goals (Cavazotte, Moreno, & Bernardo, 2013) Through IM the team spirit is enhanced, from which enthusiasm and optimism are both prominent (Bass & Riggio, 2005). **Intellectual Stimulation** entails questioning follower's presumptions and encouraging them to contribute ideas without passing judgement (Bakker *et. al.*, 2022). Through IS leaders encourage creativity out of their followers, which in certain circumstances is solicited from them to help in problem-solving situations (Bass & Riggio, 2005). **Individual consideration** is operationalized when fresh learning opportunities and a friendly environment are developed (Bass & Riggio, 2005). It refers to the support that is offered by the leader to his/her followers which encourages their growth and empowerment (Cavazotte, Moreno, & Bernardo, 2013). Over the past decades, researchers have studied and

contributed to the literature of transformational leadership by providing significant information of certain situations in various environments. The assessment of transformational leadership is done through the 'Multifactor Leadership Questionnaire (MLQ), designed from Bernard Bass in 1985, which is the standard instrument for this assessment and evaluation to identify the characteristics of a leader under transformational approach for the instance (Hay, 2006). Through the help of this questionnaire, all the above-mentioned dimensions of transformational leadership have their own separate questions, validating the results to help identify the characteristics of a leader.

## 2.2. Job Performance

Referring to not only transformational leadership but also any other style, a well-studied and analyzed concept is that of job performance. Early studies and literature of Campbell (1990) have put job performance in a stage where they identify it as a central construct and important element of industrial/organizational psychology (Viswesvaran & Ones, 2000). The author further argues how job performance refers to repeatable employee activities, behaviors, and results that are connected to and advance the company's goals, which is in accordance with other studies that also define the job performance as an involvement of employees to increase productivity of the company to some certain extent (Kaveri & Prabakaran, 2013; Campbell & Wiernik, 2015; Viswesvaran & Ones, 2000). Every employee is expected to have a dependable way of his/her performance and have the sense of responsibility for doing the tasks appropriately (Darmawan & Tanuwijaya, 2023). Job performance has always been a topic of interest for scholars and researchers to analyze its impact with the organization and what are the disciplines and factors that affect this relationship (Pandey, 2018).

Researchers show that there are many contributing factors affecting employee performance in the workplace. **Task Performance** is one of the first contributing factors which refers to the extent someone does the fundamental, technical, or expert duties that are essential to their employment. **Conceptual Performance** which includes things such as putting out effort, promoting peer and team success, collaborating, and communicating. Also, **Counterproductive Work Behavior** that can be explained as behaviors and manners that would cause harmful environment and damage the wellbeing of the organization (Koopmans *et al.*, 2013). There is no clear cut for the list of these factors; however, there exist a division that groups them into three categories: Job-related factors, employee-related factors, and firm/management-related factors (Diamantidis & Chatzoglou, 2018). Researchers (Darmawan *et al.*, 2023; Thangaswamy & Thiyagaraj, 2017) have shown that

among the list of factors that influence in the job performance, satisfaction is stated to lead to better performance and commitment of employees in their job and work environments.

Another important factor, stated by Idris *et al.*, (2020) in the literature review of Darmawan & Tanuwijaya, (2023), suggests that there exists a link between job satisfaction and motivation, that explains when an employee is happy and motivated would have a better performance in his/her job and in the overall work environment (Darmawan & Tanuwijaya, 2023). Considering all other factors, one of the most remarkable ones is the type of leadership since there exists a link that propels employees to have higher performance in the organization. (Donkor, Dongmei, & Sekyere, 2021). This serves as a mechanism that creates a bond and communication between employees and their leaders.

## 2.3. Transformational Leadership and Job performance

Leadership style is an essential factor for the overall organization, particularly in building and affecting predominantly employee performance. Numerous studies have shown that leadership style affects the overall growth of the organization and serves as a predictor of job performance (Manzoor *et al.*, 2019). Prior literature has consistently confirmed a positive association between transformational leadership and job performance (Lowe *et al.*, 2015), while researchers have made significant efforts to figure out the mechanism underlying this association (Avolio, Lawler, & Walumbwa, 2005). Employees, who are led by transformational leaders, tend to promote higher levels of cooperation in the workplace (Cavazotte, Moreno, & Bernardo, 2013). Deeply emotive attitudes appear to be particularly effective at encouraging supportive behaviors toward others in companies (Carmeli, 2005).

As previously discussed, transformational leadership has gained a worldwide interest in the philosophy of leadership and business context. The competency of a transformational leader to achieve the desired levels of performance for his/her employees is implied by the definition of this term, which is defined as a style of leadership in which a leader transforms his people, motivates them, stimulates them, earns their trust, inspires them, supports them, and develops them (Khan *et al.*, 2020).

Furthermore, high levels of performance of employees are also a contributing factor to reaching increased levels of task performance; therefore, motivation is viewed to be a leading index indicating job performance in this leadership approach (Pongpearchan, 2016). One research study investigated and evaluated 87 samples to see how transformational leadership is related to several job

performance key metrics (Judge & Piccolo, 2004). The findings showed a significant beneficial relationship between transformational leadership and these metrics of job performance, including task performance and contextual performance. (Judge & Piccolo, 2004).

Based on previous literature, another research found that job performance is positively correlated with transformational leadership, and that this approach could completely predict how well employees are going to perform in the work environment, with one another, and with their leaders (Manzoor, Manzoor, Wei, Nurunnabi, & Subhan, 2019).

#### **2.4. Albanian Aviation Industry**

For nations with geographically dispersed communities, where land transportation can be time-consuming, air travel is especially crucial. Albania is a country located in Balkan's Peninsula, which is one of the first places in this geographic area to have experienced air transportation since the last century. First planes appeared in Tirana in 1916, during the First World War, and belonged to the Austro-Hungarian military forces (Opinion, 2019). Years after, after a proposal by the German airline Lufthansa, the government of Fan Noli in Albania decided to issue a concession for domestic flights in the nation in the second part of 1924 (Zholi, 2022).

First Albanian public airport, Albtransport, started its construction in 1954 until 1957 (Zholi, 2022) with an aim of fostering Albanian land development and creating a global community for the air movement of people, mail, and products. Referring to previous literature, the importance of airports and aviation in a country is extremely high since they have the ability to promote and develop various significant activities including tourism, enhancing development in a business operations and productivity context, also, regional accessibility becomes easier and creates new opportunities for residents to travel (Halpern & Bråthen, 2011).

However, even in our nation, where the economic crisis was particularly bad, the democratic revolutions of the late 1980s in Eastern Europe had an impact. As domestic pressure aimed to democratize Albania's political system and open the nation to the West, external pressure for political reforms was growing. During that time, Albania's absence from the network of European air routes and utter isolation under communism were mirrored in Albania's airspace for civil aviation operators. The negotiations for allowing the airspace of Albania to open began at the beginning of 1988, when Mr. Kejll Nilsson, who represented IATA (International Air Transport Association), organized the visit with representatives of ICAO (International Civil Aviation Organization) and Eurocontrol to come to an agreement

of assigning a professional team to administrate the airspace (Zuna, 2014).

After that, the name of the airport was changed and started operating as Tirana International Airport (Nënë Tereza). The airport served roughly 600,000 passengers in 2005, following an increase in numbers of passengers in the upcoming year up to 3.33 million passengers in 2019. After Covid-19, there was seen a reduction in the number of flights and passengers with a corresponding number rounded up to 1.3 million passengers (TIA, 2023). Having in mind all these significant numbers, Tirana International Airport (Nënë Tereza) is currently the biggest international airport in Albania. It required an enormous investment to bring the airport up to par with international standards (TIA, 2023).

##### **2.4.1. Tirana International Airport and Leadership**

As previously discussed, TIA has had a broad history with many challenges and obstacles due to certain reasons and circumstances. With that being said, it needs a strong and excellent team to bring these challenges to a successful end. Leadership, this important concept, has a crucial role in the aviation industry since the main purpose of this last one is to ensure safety. Aviation safety is linked to passenger safety (Bastola, 2020), which in turn has substantial economic repercussions. Any aviation safety breaches or accident may put the life of passengers into direct threat, making it extremely difficult for the organization to handle the situation. Any bad scenario outcome may result in organizational failures due to the financial burdens incurred for the extreme cases of tragic loss of life (Bastola, 2020). Therefore, the role of a leader in any safety related circumstances or to day-to-day operations in aviation is essential.

In recent studies, it is claimed that the majority of aviation accidents occur because of not focusing enough to the priority goal of aviation, which is ensuring safety for passengers and employees (Alam, 2016). Researchers have pointed out that transformational leadership is so far considerably the best leadership style to achieve higher outcomes in the overall organizational performance (Joo, 2012; Bastola, 2020). Referring to the aviation industry, its leadership distinguishes itself from ordinary leadership. Aviation, in contrast to other industries, operates in a dynamic environment characterized by quick mobility and time-sensitive procedures and operations. Therefore, aviation leaders deal with the responsibility of making quick, intelligent choices and decisions that would ensure operations to run smoothly by prioritizing safety and maintaining maximum efficiency (Williamson et al., 1997). Likewise, due to the increase rates of globalization, TIA has faced a boost in

the demand for opening new gateways and to ensure the flights are safely on time.

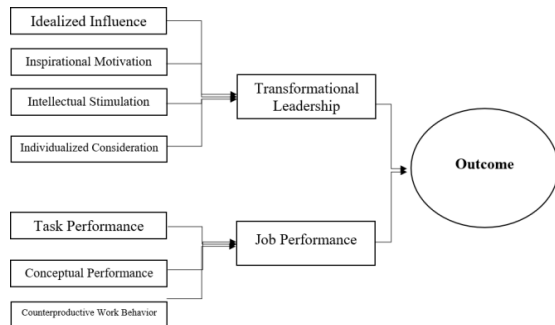
However, there is a lack of research studies conducted on this topic for the aviation industry, especially for Albanian Market. transformational leadership style and job performance are two big concepts that are relatively unexplored with limited resources of information for the Albanian Aviation Industry. Based on the literature above, there is no clear definition and evaluation of the relationship between these two variables; therefore, a more up-close study is required.

### 3. METHODOLOGY

In this section the study will inform about the methodology used to gather the proper information. Since there is a scarcity of data for the topic, primary data gathering was used to collect information using quantitative methods. Depending on the existing literature review in the prior sector of this paper, an online survey using the world-wide known questionnaire models of MLQ and IWPQ were used, respectively for transformational leadership variables and for job performance variables and distributed among employees of Tirana International Airport.

#### 3.1. Theoretical Framework

The theoretical framework of this paper is based on two main variables: transformational leadership and job performance. The relationship between the both of them will define if leadership style has an impact in the way employees perform in the organization. Transformational leadership is an independent variable, while job performance is a dependent variable. This study will give an answer to the above research questions, with an interest to explore in much detail the relationship between transformational leadership and job performance.



**Figure 1.** Conceptual Framework of Transformational Leadership and Job Performance in Aviation of Albania

#### 3.2. Research Design and Hypothesis

The need to further study if there is a relationship between transformational leadership and job performance is essential for drawing conclusions about the aviation industry in Albania. Therefore, for this study, the data will be gathered using a cross-sectional research method at a specific moment in time. With the help of this particular design, it becomes possible to examine if there is a possible connection between the variables. The cross-sectional research method is useful because it is time efficient and also cost-effective. Its main goal is to capture a moment in time of the interactions that relevant variables would have within a certain population; in this case the variables are transformational leadership and job performance. By the implementation of this approach, the data will be gathered from employees within the sector of aviation in Albanian market using an online survey.

This study aims to prove the hypothesis constructed upon the theoretical framework of this paper. Based on the literature review, there is seen an overall positive correlation between Transformational Leadership and Job Performance. However, this potential relationship that has been the focus of researchers for decades, has still been untouched as a topic for the Albanian aviation industry. Therefore, the main hypotheses that this paper aims to prove are:

Hypothesis 1. H1: Transformational Leadership and Job Performance have a positive relationship in Albanian’s aviation industry.

According to this hypothesis, there is a strong and favorable relationship between the two variables within the Albanian’s aviation sector. The underlying premise is that when leaders engage in transformational behaviors, such as motivating and inspiring their staff and colleagues, it will boost their performance in the working environment.

The null hypothesis. H0: Transformational Leadership and Job Performance have no significant relationship in Albanian’s aviation industry.

According to the null hypothesis, there is no significant connection between transformational leadership and job performance. It claims that any relationship and correlation between the variables is not the consequence of a real underlying link but rather of random variability or chance.

Alternative hypotheses:

Alternative hypothesis 1. Ha1: In the Albanian aviation industry, the four characteristics of transformational leadership—Idealized Influence, Inspiring Motivation, and Individualized Consideration—have varying effects on various facets of work performance.

In particular, Task Performance will be more positively influenced by Intellectual Stimulation and Individualized Consideration, but Contextual Performance will be more favorably influenced by Individualized Influence and Inspirational Motivation.

This alternative hypothesis proposes that the various transformational leadership characteristics may have distinctive effects on areas of job performance in this field of study. It suggests that although intellectual stimulation and individualized consideration will have a higher positive effect on contextual performance, inspirational motivation and idealized influence will have a stronger positive impact on task performance.

Alternative hypothesis 2. Ha2: In the Albanian aircraft industry, the four transformational leadership dimensions—Idealized Influence, Inspirational Motivation, Intellectual Stimulation, and Individualized Consideration—have varying effects on the variable of counterproductive work behavior that affects job performance. These aspects will specifically be adversely correlated with unproductive work behavior.

This alternate hypothesis suggests that all four dimensions of transformational leadership are negatively related with counterproductive work behavior, which means that higher levels of transformational leadership will respond to lower levels of counterproductive behaviors among employees.

These alternative hypotheses are significant in pointing out additional information that would allow for more nuanced examination of the potential relationship between transformational leadership and job performance, considering the dimensions of both of the variables within the Albanian aviation context.

### **3.3. Research Approach**

This study will rely on a quantitative research approach, which is going to give data for the investigation of the potential relationship that might exist between transformational leadership and job performance in the Albanian aviation sector. This specific approach includes gathering and analyzing numerical data in order to draw statistical inferences and create population-level generalizations.

This approach is necessary to systematically measure and evaluate the relevant variables using the responses from the online survey's Likert scale. This particular strategy makes it possible to collect data in a systematic and consistent manner, which facilitates statistical analysis to look at the relationships between the two set variables. Furthermore, the quantitative data approach will make it easier to provide reliable findings for statistical analysis techniques, such as regression and correlation analysis by examine possible associations,

patterns, trends, and draw conclusions based on the data received.

However, it is significant to mention that this type of research has its own limitations. Considering the fact that it is much easier to analyze and evaluate the data, it may not capture the full extent of complexity of the phenomenon under investigation.

### **3.4. Research Population and Sampling**

The research population refers to the whole group of people that share similar traits and characteristics that serves as the source of the sample that will be further analyzed. In the case of the research study of this paper, the research population (known as N) is made up of employees that work within the aviation sector in Albania including individuals from different positions that are exposed to leadership practices such as: managers, pilots, flight attendants, ground staff, administrate workers, and other airport-related operations and services.

Sampling on the other hand, is referred to as the process of selecting a portion of the research population to take part in the study. In this instance, the research population is the one mentioned above. Random probability sampling technique is used.

### **3.5. Participants**

The participants recruited for the competition of the online survey were recruited in a random probability sample technique, which explains that everyone within the population can participate and has an equal chance of being selected. Therefore, the survey was distributed using online platforms such as WhatsApp, Instagram, and Email addresses, to reach people that are part of the population group of individuals that are employed in the aviation industry and/or work for Tirana International Airport. To be able to participate in this study, participants must be over 18 years of age and currently employed within the sector. A total of 53 participants completed the online survey and provided meaningful data for the research.

### **3.6. Survey and Measures**

Participants answered a total of 24 questions, from which three of them give demographic information and the rest give information for the specter of study that this paper wants to analyze.

The following measures were used to test the hypothesis:

Transformational Leadership

Participants responded a total of 12 statements retrieved from the Multifactor Leadership Questionnaire Form

(Avolio & Bass, 1999) using a 5-point Likert scale (1=Strongly Disagree, 2=Disagree, 3=Neutral, 4=Agree, 5=Strongly Agree) to measure four dimensions of transformational leadership such as idealized influence, inspirational motivation, intellectual stimulation, and individualized consideration. The items were modified to assess experiencing transformational leadership rather than to demonstrate these behaviors.

### 3.6.1. Job Performance

Participants answered a total of 9 questions related to job performance variables retrieved from the Individual Work Performance Questionnaire (IWPQ) (Campbell, 1990) using a 5-point Likert Scale (1=Strongly Disagree, 2=Disagree, 3=Neutral, 4=Agree, 5=Strongly Agree) to measure three dimensions of job performance such as task performance, contextual performance, and counterproductive work behavior.

### 3.6.2. Age

In the survey there is one question that gives data for the age groups of the individuals. They were divided into 18-25, 26-33, 34-41, and 42 and above. The average age group was '18-25'.

### 3.6.3. Gender

The survey consisted of one question that measured the gender of participants. The options were Male and Female. The majority of responses were collected from female participants with around 50.9%.

### 3.6.4. Education

In the survey there was only one question that gives data about the level of education of participants. The options were High School, Bachelor, and Master. The majority of the respondents selected Bachelor. Only 3 participants selected 'High School'.

## 3.7. Likert Scale

The questions used to give insights into transformational leadership and job performance are presented on a 5-point Likert scale. This scale is used in research studies, in this case by offering 5 available options to the participants, it is much easier to measure the precision of their answers. Since the 5-point Likert scale is easy to understand, it is also easy to measure and analyze. It offers standardization of the response format reducing the likelihood of errors, and confusion and enhancing the reliability of the data.

## 3.8. Limitation

This study faced some limitations that might withhold information about this topic. A limited number of participants for the research is insufficient for collecting pertinent information. Even though the construction of the survey was done to reach a broader participation rate, the sample size was limited since it was challenging to find participants within this industry to complete the survey online. There is a possibility that the significance of the hypothesis is not fully supported due to the small sample size of respondents. Although, the lack of previous research for this field makes it challenging for the interpretation of the final results and makes it possible for the data collection method to create responses that might be biased. As a result, the findings might not accurately show the real variety and diversity of the target group of the population. Thus, the data provided from the findings might serve as a valuable point of start for further research studies with a larger sample size for this topic of interest that would enhance the credibility and the reliability of the data findings.

## 4. DATA ANALYSIS AND FINDINGS

### 4.1. Reliability test

The data retrieved from the online survey need to be analyzed to find if it can be credible for further analysis. Greater values of the Cronbach's alpha coefficient, which runs from 0 to 1, indicate more internal consistency. The least acceptable level for the Cronbach's alpha coefficient accepted should be above  $\alpha > 0.5$ .

**Table 1.** Reliability Statistics

Cronbach's Alpha	N of Items
.838	24

From Table 1, the Cronbach's  $\alpha = 0.838$ , which is greater than  $\alpha = 0.5$ . This means that the data from the online survey is reliable and will be given credible results.

### 4.2. Descriptive Statistics

Descriptive Statistics helps to check the normality of the data, for further assumptions and analysis of the sample. The mean, maximum, and minimum are shown to depict if there is any problem with the data. The standard deviation is also used altogether with skewness and kurtosis, which are checked for normality. Skewness can tell if the data is positively or negatively skewed in terms of responses. Kurtosis on the other hand shows the heights in the data trends, which should be in the interval of -2 to +2.

**Table 2.** Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation	Skewness		Kurtosis	
	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error
IndividualizedInfluence	53	1.67	5.00	3.7610	.75780	-.426	.327	.053	.644
InspirationalMotivation	53	1.67	5.00	3.7233	.77276	-.965	.327	.508	.644
IntellectualStimulation	53	1.00	5.00	3.5723	.79361	-1.107	.327	1.305	.644
IndividualizedConsideration	53	1.00	5.00	3.6164	.84326	-1.053	.327	1.177	.644
TaskPerformance	53	3.33	5.00	4.1887	.46460	-.319	.327	-.481	.644
ContextualPerformance	53	3.33	5.00	4.2704	.39254	.381	.327	-.105	.644
CounterproductiveWorkBeh avior	53	1.00	5.00	2.3145	.96391	.753	.327	.059	.644
Gender:	53	1	2	1.49	.505	.039	.327	-2.078	.644
Age:	53	1	4	2.23	1.137	.430	.327	-1.216	.644
Education:	53	1	3	2.40	.599	-.418	.327	-.633	.644
Valid N (listwise)	53								

Based on the information on Table 2, the descriptive statistics analysis provided important valuable information for the examination of this study. The mean scores for each of the characteristic are shown by the mean values, which also represent the participant’s opinions about the Albanian aviation sector. Among the dimensions of the transformational leadership, the individualized influence has the greatest mean equal to 3.7610 followed by Inspirational Motivation 3.7233, Individualized Consideration 3.6164, and Intellectual Stimulation with a mean of 3.5723. This provides an estimate of the central tendency. On the other hand, the highest value on job performance variables is under Contextual Performance with a mean equal to 4.2704, followed by Task Performance 4.1887 and Counterproductive Work Behavior 2.3145.

The values of the standard deviation provide information about how variable or dispersed the data are around the mean. A smaller standard deviation value indicates a more regular pattern of the responses, while a higher value of standard deviation shows greater variation in the responses. The standard deviation of the Contextual Performance ( $s = 0.39254$ ) explains that for this variable the participant's responses were in line, whilst the opposite happens with counterproductive work behavior ( $s = 0.96391$ ) which explains that the responses have a greater variation.

For individualized influence the scores appear to be somewhat skewed towards the upper end, according to the distribution's modest negative skewness value of -0.426. The scores are thought to be quite near to the mean and devoid of severe outliers, as indicated by the kurtosis value of 0.327, which denotes a moderately peaked distribution. This is the same for all variables of transformational leadership. For Job Performance variables, such as Task Performance, the skewness value of -0.319 suggests a slightly negative distribution, indicating that the scores have a little bias in favor of higher values.

Contextual Performance indicates a slightly positive skewed distribution with the value equal to 0.381, followed by Counterproductive Work Behavior with a

skewed value of 0.753 and a Kurtosis value of 0.327 that indicates a moderately peaked distribution.

In this instance the moderately peaked distribution resembles a normal distribution to some extent. However, having in mind that  $n=53$  is greater than 30, and that the skewed values are within the range

+2 and -2, we can conclude that the sample is approximately normally distributed.

### 4.3. Factor Analysis

The KMO (Kaiser-Meyer-Olkin) measure and Bartlett's test of sphericity can help to indicate whether the dataset has a moderate/high level of adequacy and significance in the levels of intercorrelations among the set variables.

**Table 3.** KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.	of.782
Bartlett's Test of Sphericity	of Approx. Chi-Square 189.950
	df 21
	Sig. <.000

A result of 0.782 on the KMO scale indicates that the sample is appropriate for factor analysis. KMO values vary from 0 to 1, with values closer to 1 suggesting that the data is more applicable for factor analysis. Given that the dataset's KMO score of 0.782 implies a moderate-to-high level of sampling adequacy, factor analysis may be applicable in this case.

Bartlett's test of sphericity's significant p-value of 0.000 shows that the actual correlations within the dataset's variables are substantially different from zero. This demonstrates that factor analysis can proceed since the level of intercorrelation between the variables is high enough.



Degrees of Freedom (df) and Estimated Chi-Square Values: Bartlett's test also returns an approximation chi-square value of 189.950 and df of 21. The correlation matrix's chi-square value evaluates whether it significantly differs from an identity matrix, which would suggest a lack of intercorrelation. Because of the large chi-square value and related degrees of freedom in this situation, factor analysis is appropriate since there is a pattern of association among the variables.

Leadership, especially with Intellectual Stimulation and Individualized Consideration. by these outcomes, since task performance shows a positive correlation with variables of Transformational Leadership, especially with Intellectual Stimulation and Individualized Consideration. of (-0.071), (0.070), and (0.078) with Counterproductive Work Behavior, except individualized consideration which has a slightly positive correlation of (0.043).

**Table 4.** Correlation Matrix

Correlation Matrix<sup>a</sup>

		IndividualizedInfluence	InspirationalMotivation	IntellectualStimulation	IndividualizedConsideration	TaskPerformance	ContextualPerformance	CounterproductiveWorkBehavior
Correlation	IndividualizedInfluence	1.000	.742	.687	.726	.276	.171	-.071
	InspirationalMotivation	.742	1.000	.849	.762	.267	.266	-.070
	IntellectualStimulation	.687	.849	1.000	.775	.368	.262	-.078
	IndividualizedConsideration	.726	.762	.775	1.000	.368	.139	.043
	TaskPerformance	.276	.267	.368	.368	1.000	.488	-.178
	ContextualPerformance	.171	.266	.262	.139	.488	1.000	-.201
	CounterproductiveWorkBehavior	-.071	-.070	-.078	.043	-.178	-.201	1.000
	Sig. (1-tailed)	IndividualizedInfluence		<.001	<.001	<.001	.023	.110
InspirationalMotivation		.000		.000	.000	.027	.027	.309
IntellectualStimulation		.000	.000		.000	.003	.029	.290
IndividualizedConsideration		.000	.000	.000		.003	.161	.379
TaskPerformance		.023	.027	.003	.003		.000	.101
ContextualPerformance		.110	.027	.029	.161	.000		.075
CounterproductiveWorkBehavior		.308	.309	.290	.379	.101	.075	

<sup>a</sup> Determinant = .020

Based on the information from Table 4, an analysis of the correlation between the factors of Transformational Leadership and Job Performance can be done.

A positive correlation between transformational leadership variables (Individualized Influence, Inspirational Motivation, Intellectual Stimulation, and Individualized Consideration) and Task Performance is seen. The individualized influence shows a positive correlation with task performance (0.276) together with Inspirational Motivation (0.267), also intellectual stimulation and individualized consideration have respectively a value of (0.368) in relation to task performance. This gives clues about accepting H1 that can conclude that transformative leadership and effective job performance are positively correlated in Albania's aviation industry. It is important to note that the determinant level of =0.020 represents the potential strength of this relationship between the variables in the correlation matrix. When the determinant value is close to zero, as it is in this instance (0.020), it indicates that the correlation matrix's variables are very multicollinear. It suggests that the variables are intricately linked and that the data they record may duplicate or overlap in some cases. However, we do not have enough information to conclude that we can significantly accept H1 yet. On the other hand, the alternative hypothesis Ha1 is supported

Individualized influence, inspirational motivation, and intellectual stimulation respectively negative correlation. The significance levels (Sig.) show the likelihood that the observed relationships were obtained by chance. In this instance, the correlations are statistically significant because the significance values are smaller than 0.05 (1-tailed). This suggests that Ha2 is mostly proven suggesting that higher levels of TL dimensions are associated with lower levels of Counterproductive Work Behavior and vice versa, except for Individualized Consideration.

**4.4. Correlation analysis**

Correlation analysis (bivariate) is mainly concerned with trying to find out if there exists a relationship between the variables and determine the magnitude of that relationship.

**Table 5.** Correlations

	Transformational		Job Performance
Transformational	Pearson Correlation	1	.195
	Sig. (2-tailed)		.161
	N	53	53

Job Performance	Pearson Correlation	.195	1
	Sig. (2-tailed)	.161	
	N	53	

Table 5 shows a representation of the data for the correlation between variables of Transformational Leadership and those of Job performance. The Pearson Correlation Coefficient, which is known to measure the strength of the linear relationship between TL and JP, ( $r = 0.195$ ) shows that there exists a weak positive relationship between these variables. Moreover, referring to the p-value which is equal to 0.161 (2-tailed), it is concluded that this value is greater than the significance level of 0.05, and therefore there is not enough evidence to say that the relationship between Transformational Leadership and Job Performance is statistically significant.

Based on this information, the null hypothesis (H0) cannot be rejected because there is not enough evidence that proves that the relationship between these variables is positive. On the contrary, the results show that this correlation between the two sets of variables might be due to random chance, since there is an existing weak positive correlation between TL and JP variables.

It needs to be emphasized that from the interpretation of the results, the failing of rejecting the null hypothesis does not necessarily mean that there is no relationship between Transformational Leadership and Job Performance in the aviation industry of Albania. It rather shows that there is lack of evidence to support the hypothesis. An increase of the sample size (N) would show different results on this matter.

**4.5. Regression Analysis**

For more accurate results of this study, a regression analysis is conducted to determine which variables would have an impact on the subject of interest. Since the process of analyzing TL and JP is through a relationship assessment, the need for further evidence to finally conclude the results for this industry is essential.

With the help of the ANOVA table (Table 6.), the results will determine whether the regression analysis is statistically significant. The Fisher Value (F) would give a conclusion about the significance of the relationship between variables if the value was below the predetermined significance level of 0.05.

**Table 6. ANOVA<sup>a</sup>**

Model	Sum of Squares	df	Mean Square	F	Sig.
1	Regression .257	1	.257	2.022	.161 <sup>b</sup>
	Residual 6.478	51	.127		
	Total 6.735	52			

- a. Dependent Variable: Job Performance
- b. Predictors: (Constant), Transformational Leadership

From the results of ANOVA table, the regression result (SST= 0.257) shows that there is a portion of the dependable variable of Job Performance that can be explained by the predictor variable of Transformational Leadership. On the other hand, the residual sum of squares (SSE = 6.478) represents the portion of the dependent variable that the predictor variable of TL cannot fully explain. From the Fisher Value (F=2.022) it is understood that from its value the significance of the regression model can be calculated as well. Since the above Factor and Correlation analysis gave similar results for failing to reject the null hypothesis (that there is no significant relationship between TL and JP in the aviation sector of Albania), the level of significance (p-value) from the ANOVA table indicates exactly the probability of the F-value under the assumption that the H0 is not rejected. The level of significance (p=0.161) is greater than the predetermined level of significance (p=0.05), which means that the relationship between the two variables has occurred by chance and has no significance. This simply means that the null hypothesis cannot be rejected, which would not favorize the alternative hypothesis as well (Ha1 and Ha2).

**5. DISCUSSION**

From the findings of the survey analysis, Transformational Leadership variables do not have a strong and significant relationship with Job Performance variables, except Task Performance, which has the highest correlation values with Intellectual Stimulation and Individualized Consideration, respectively 0.368, suggesting that transformational leaders encourage their employees to be creative and critically think for any problem solutions by motivating them and make them feel valued (Bass & Riggio, 2005). The Pearson Coefficient of Correlation ( $r = 0.196$ ) can interpret that there is a weak positive linear relationship between the two variables of interest. This means that it is expected to be a relatively small increase in the dependent variable if there is a positive increase in the independent variable. This implies that there is an existing positive relationship between TL and JP, but it is important to understand that

this does not imply that the TL variables might influence the Task Performance variable of Job Performance. The regression analysis indicated that there is no significance in the relation between the set of variables, since the F-value (2.022) and p-value (0.616) conclude that there is a non-significant relationship between variables. The majority of the findings from the analysis showed that there is strong evidence to conclude that the null hypothesis cannot be rejected, indicating that there is no significant evidence to say that the two variables are positively related.

The results from the findings of the survey analysis conducted with the help of IBM SPSS, do not follow a pattern with previous research. Even though transformational leadership behaviors are stated to have an impact on the overall performance of the company (Manzoor et. al., 2019), the industry of aviation in Albania seems to not have the same consistency of the results. This can give clues about the importance of this topic in this specific sector. Since, the Albanian aviation industry is very dynamic in its core, it requires fast and efficient reaction to daily activities and operations from employees. Due to its degree of work intensity, employees should be vigilant, and pay attention to details. This can simply make them stay active and ready for action in the working environment. From the results of the survey analysis, it is seen that the majority of the findings indicated that there is no-significant relationship between transformational leadership style and job performance, which mean that apart from what type of leadership it is performed within this industry, job performance is not completely dependent on it. This is why Task Performance and Contextual Performance mean statistic is the highest among all the other variables, respectively (4,1887) and (4.2704). This explains that employees of this sector have an overall high rating for their performance in the workplace, which includes them taking responsibility and voluntary actions that might not be directly required from their leaders.

However, even though the outcomes of this research did not indicate that a positive relationship is set between Transformational Leadership and Job Performance in the Albanian's aviation industry, the importance that the leaders within this sector should keep developing transformational behaviors is very significant. Transformational leaders are necessary contributors to the overall success of a company (Lim & Ployhart, 2004).

## CONCLUSION

The research of this study has shown that the transformational leadership of the aviation industry in the country of Albania does not necessarily define job performance of its employees. However, when a leader shows characteristics of idealized influence, offer their

consideration, are motivative and stimulate their employees, and also inspire them to achieve best results, has a positive indication in the way how the daily operations are managed to achieve the best outcomes (Koopmans et. al., 2013). As viewed in the literature, transformational leaders are evaluated as visionary people that offer both inspirational and motivational approaches to support and empower their workforce (Bass & Riggio, 2005). In the industry of aviation is necessary to have strong leadership, and simultaneously give the opportunity to people to be active and have positive job performance. The research findings of this study back up the theory that job performance in this sector should be of a high percentage, however there is not seen a direct significant pattern with transformational leadership, and therefore, it cannot be concluded with certainty that transformational leadership has a direct positive impact on job performance of people that work within this sector. Referring to certain limitations, the relationship defined from the analysis would have been due to random chance considering the small number of the sample size.

## RECOMMENDATION

Based on the data gathered and the findings provided from the analysis of this study, it is of great consideration that further research analysis should be recommended for this topic of interest. Firstly, it needs to be considered a recommendation for a greater sample size for the specter of the investigation, to provide valuable outcomes to minimize the possibility for the results to be biased.

Besides, a recommendation for the long-term effects of transformational leadership in the industry of aviation in the Albanian market should be considered since it would give essential information about the innovative ideas and leadership management of this diverse sector. Finally, it is suggested that the future study should use a variety of data collection methods, to be sure to capture all the valuable information from employees, including direct observations and also interviews to create a more thorough grasp of this study of interest. These recommendations would be helpful to contribute to shaping literature and provide essential information for a field that has not been yet a primary topic for investigation.

## REFERENCES

- [1] Alam, M. A. (2016). Techno-stress and productivity: Survey evidence from the aviation industry. *Journal of Air Transport Management*, 50, 62–70. <https://doi.org/10.1016/j.jairtraman.2015.10.003>
- [2] Antonakis, J. (2012). Transformational and charismatic leadership. *The Nature of Leadership*, 256–288.

- [3] Avolio, B. J., Bass, B. M., & Jung, D. I. (1999). Re-examining the components of transformational and transactional leadership using the multifactor leadership. *Journal of Occupational and Organizational Psychology*, 72(4), 441–462. <https://doi.org/10.1348/096317999166789>
- [4] Bakker, A. B., Hetland, J., Olsen, O. K., & Espevik, R. (2022). Daily transformational leadership: A source of inspiration for follower performance? *European Management Journal*, 1(1). sciencedirect. <https://doi.org/10.1016/j.emj.2022.04.004>
- [5] Bass, B. M., & Riggio, R. E. (2006). *Transformational Leadership* (2nd ed.). Psychology Press. <https://doi.org/10.4324/9781410617095>
- [6] Bastola, D. P. (2020). The Relationship Between Leadership Styles and Aviation Safety: A Study of Aviation Industry. *Journal of Air Transport Studies*, 11(1), 71–102. <https://doi.org/10.38008/jats.v11i1.155>
- [7] Bryman, A. (1992). *Charisma and leadership in organizations*. Sage Publications.
- [8] Campbell, J. P. (1990). Modeling the performance prediction problem in industrial and organizational psychology. In M. D. Dunette & L. M. Hough (Eds.), *Handbook of industrial and organizational psychology* (pp. 687–732). Consulting Psychologists Press.
- [9] Campbell, J., & Wiernik, B. (2015). The Modeling and Assessment of Work Performance Further. *The Annual Review of Organizational Psychology and Organizational Behavior*, 2, 47–74. <https://doi.org/10.1146/annurev-orgpsych-032414-111427>
- [10] Carmeli, A. (2005). Perceived External Prestige, Affective Commitment, and Citizenship Behaviors. *Organization Studies*, 26(3), 443–464. <https://doi.org/10.1177/0170840605050875>
- [11] Cavazotte, F., Moreno, V., & Bernardo, J. (2013). Transformational leaders and work performance: the mediating roles of identification and self-efficacy. *BAR - Brazilian Administration Review*, 10(4), 490–512. <https://doi.org/10.1590/s1807-76922013000400007>
- [12] Darmawan, D., & Tanuwijaya, J. (2023). Factors Affecting on Job Performance. *Journal Ekonomi Dan Bisnis Jagaditha*, 10(1), 1–8. <https://doi.org/10.22225/ji.10.1.2023.1-8>
- [13] Diamantidis, A. D., & Chatzoglou, P. (2018). Factors Affecting Employee performance: an Empirical Approach. *International Journal of Productivity and Performance Management*, 68(1), 171–193. <https://doi.org/10.1108/IJPPM-01-2018-0012>
- [14] Donkor, F., Dongmei, Z., & Sekyere, I. (2021). The Mediating Effects of Organizational Commitment on Leadership Styles and Employee Performance in SOEs in Ghana: A Structural Equation Modeling Analysis. *SAGE Open*, 11, 215824402110088. <https://doi.org/10.1177/21582440211008894>
- [15] Dumdum, U. R., Bowe, K., & Avolio, B. J. (2013). A meta-analysis of transformational and transactional leadership correlates of effectiveness and satisfaction: An update and extension. In B. J. Avolio & F. J. Yammarino (Eds.), *Transformational and Charismatic Leadership: The Road Ahead 10th Anniversary Edition* (pp. 39–70). Emerald Publishing Limited. 10.1108/S1479-357120135
- [16] Fevzi, B. (2019, February 24). *Opinion*. Klan Television. <https://www.youtube.com/watch?v=pyJHh33VpaI>
- [17] Gottfredson, R. K., Wright, S. L., & Heaphy, E. D. (2020). A critique of the Leader-Member Exchange construct: Back to square one. *The Leadership Quarterly*, 31(6). <https://doi.org/10.1016/j.leaqua.2020.101385>
- [18] Halpern, N., & Bråthen, S. (2011). Impact of airports on regional accessibility and social development. *Journal of Transport Geography*, 19(6), 1145–1154. <https://doi.org/10.1016/j.jtrangeo.2010.11.006>
- [19] Hay, I. (2006). Transformational leadership: Characteristics and criticisms. *E-Journal of Organizational Learning and Leadership*, 5(2).
- [20] J., R., Opatha, H. H. D. N. P., & M. D., P. (2017). A Synthesis towards the Construct of Job Performance. *International Business Research*, 10(10), 66. <https://doi.org/10.5539/ibr.v10n10p66>
- [21] Joo, B. (Brian), Jun Yoon, H., & Jeung, C. (2012). The effects of core self-evaluations and transformational leadership on organizational commitment. *Leadership & Organization Development Journal*, 33(6), 564–582. <https://doi.org/10.1108/01437731211253028>
- [22] Judge, T. A., & Piccolo, R. F. (2004). Transformational and Transactional Leadership: A Meta-Analytic Test of Their Relative Validity. *Journal of Applied Psychology*, 89(5), 755–768. <https://doi.org/10.1037/0021-9010.89.5.755>
- [23] Kaveri, M., & Prabakaran, G. (2013). Impact of work stress factors on employees' job performance with special reference to leather goods manufacturing companies at Vellore District. *International Journal of Human Resources*, 3(2), 121–132.
- [24] Khan, H., Rehmat, M., Butt, T. H., Farooqi, S., & Asim, J. (2020). Impact of Transformational Leadership on Work performance, Burnout and Social loafing: a Mediation Model. *Future Business Journal*, 6(1), 1–13. Springeropen. <https://doi.org/10.1186/s43093-020-00043-8>
- [25] Koopmans, L., Bernaards, C., Hildebrandt, V., van Buuren, S., van der Beek, A. J., & de Vet, H. C. W. (2012). Development of an individual work performance questionnaire. *International Journal of*

- Productivity and Performance Management*, 62(1), 6–28. <https://doi.org/10.1108/17410401311285273>
- [26] Krishnan, V. R. (2005). Transformational leadership and outcomes: role of relationship duration. *Leadership & Organization Development Journal*, 26(6), 442–457. <https://doi.org/10.1108/01437730510617654>
- [27] Lim, B.-C., & Ployhart, R. E. (2004). Transformational Leadership: Relations to the Five-Factor Model and Team Performance in Typical and Maximum Contexts. *Journal of Applied Psychology*, 89(4), 610–621. <https://doi.org/10.1037/0021-9010.89.4.610>
- [28] Manzoor, F., Wei, L., Nurunnabi, M., Subhan, Q. A., Shah, S. I. A., & Fallatah, S. (2019). The Impact of Transformational Leadership on Job Performance and CSR as Mediator in SMEs. *Sustainability*, 11(2), 436. <https://doi.org/10.3390/su11020436>
- [29] Moss, S. A., & Ritossa, D. A. (2007). The Impact of Goal Orientation on the Association between Leadership Style and Follower Performance, Creativity and Work Attitudes. *Leadership*, 3(4), 433–456. <https://doi.org/10.1177/1742715007082966>
- [30] Opatha, H., & Rathnayake, S. (2018). Determinants of Job Performance of Cabin Crew on Customer Service of an Aircraft: A Conceptual and Empirical Study in Sri Lanka. *Sri Lankan Journal of Human Resource Management*, 8(1), 36. <https://doi.org/10.4038/sljhrm.v8i1.5640>
- [31] Pandey, J. (2018). Factors affecting job performance: an integrative review of literature. *Management Research Review*, 42(2), 263–289. <https://doi.org/10.1108/mrr-02-2018-0051>
- [32] Pongpearchan, P. (2016). *Effect of transformational leadership and high performance work system on job motivation and task performance: Empirical evidence from business schools of Thailand universities*. 10, 93–105.
- [33] Thangaswamy, & Thiyagaraj. (2017). Theoretical concept of job satisfaction: A study. *International Journal of Research - Granthaalayah*, 5(6), 464–470. <https://doi.org/10.5281/zenodo.822315>
- [34] Tirana International Airport. (n.d.). Wwww.tirana-airport.com. Retrieved August 29, 2023, from <https://www.tirana-airport.com/en/article/965/About-TIA>
- [35] Viswesvaran, C., & Ones, D. S. (2000). Perspectives on Models of Job Performance. *International Journal of Selection and Assessment*, 8(4), 216–226. <https://doi.org/10.1111/1468-2389.00151>
- [36] Walumbwa, F. O., Lawler, J. J., Avolio, B. J., Peng Wang, & Kan Shi. (2005). Transformational leadership and work-related attitudes: The moderating effects of collective and self-efficacy across cultures. *Journal of Leadership & Organizational Studies*, 11(3), 2–16. <https://doi.org/10.1177/107179190501100301>
- [37] Zholi, A. (2022, April 22). *Albert Z. ZHOLI: 71-vjet nga historia e lavidshme e aviacionit luftarak shqiptar*. Gazeta Telegraf. <https://telegraf.al/dosier/albert-z-zholi-71-vjet-nga-historia-e-lavidshme-e->
- [38] Zuna, P. (2014). *Arkiva e Lajmeve*. Wwww.arkivaelajmeve.com. <https://www.arkivalajmeve.com/Historik-i-Agjencise-Nacionale-te-Trafikut-%20Ajrroj-Nga-Ing-Perparim-Zuna.1046915874/>

**Open Access** This chapter is licensed under the terms of the Creative Commons Attribution-NonCommercial 4.0 International License (<http://creativecommons.org/licenses/by-nc/4.0/>), which permits any noncommercial use, sharing, adaptation, distribution and reproduction in any medium or format, as long as you give appropriate credit to the original author(s) and the source, provide a link to the Creative Commons license and indicate if changes were made.

The images or other third party material in this chapter are included in the chapter's Creative Commons license, unless indicated otherwise in a credit line to the material. If material is not included in the chapter's Creative Commons license and your intended use is not permitted by statutory regulation or exceeds the permitted use, you will need to obtain permission directly from the copyright holder.

