



**MEASURING AND ASSESSING THE IMPACT OF LEADERSHIP
TYPES ON EMPLOYEE'S PERFORMANCE AND RISK-TAKING
TOLERANCE IN AVIATION ORGANIZATIONS**

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**MEASURING AND ASSESSING THE IMPACT OF LEADERSHIP TYPES ON
EMPLOYEE'S PERFORMANCE AND RISK-TAKING TOLERANCE IN
AVIATION ORGANIZATIONS**

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FINAL APPROVAL FOR THESIS

This thesis titled MEASURING AND ASSESSING THE IMPACT OF LEADERSHIP TYPES ON EMPLOYEE’S PERFORMANCE AND RISK-TAKING TOLERANCE IN AVIATION ORGANIZATIONS has been prepared and submitted by Esra KURTULUŞ in partial fulfillment of the requirements in “Eskişehir Technical University Directive on Graduate Education and Examination” for the Degree of Master's in Aviation Management Department has been examined and approved on 15/05/2024.

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ABSTRACT

MEASURING AND ASSESSING THE IMPACT OF LEADERSHIP TYPES ON EMPLOYEE'S PERFORMANCE AND RISK-TAKING TOLERANCE IN AVIATION ORGANIZATIONS

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Eskişehir Technical University, Institute of Graduate Programs, May 2024

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Leadership styles have a significant impact on organizations and employees. Different types of leadership play an important role in the organization and employee success. Its stream from different leadership styles can provide different approaches in different situations and employee groups.

This study aims to examine the effect of leadership types on employee performance and risk-taking tolerance in aviation organizations. The aviation industry is a stressful, dynamic and complex environment that is closely tied to ever-changing rules and regulations. In such sectors, the concept of leadership is critical.

In this study, a study was conducted by using the correlation analysis method in order to reveal the effect of leadership styles on employee performance and risk-taking tolerance and the connection and relationship between variables. The data collection process was carried out through questionnaires and applied to people working in different units operating in the aviation sector.

The results revealed that in the aviation industry, different leadership styles have a significant impact on employee performance measures and also affect employees' risk-taking behaviour.

The findings provide important clues that can be taken into account when evaluating and developing the leadership styles of aviation organizations. This study is expected to contribute to the literature on leadership practices and employee performance in the aviation industry.

Keywords: Leadership types, Employees performance, Risk behaviour, Risk tolerance, Aviation organizations.

ÖZET

HAVACILIK ORGANİZASYONLARINDA LİDERLİK ÇEŞİTLERİNİN ÇALIŞAN PERFORMANSINA VE RİSK ALMA TOLERANSINA ETKİSİNİN ÖLÇÜLMESİ VE DEĞERLENDİRİLMESİ

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Liderlik çeşitleri, organizasyonların ve çalışanların performansı üzerinde belirleyici bir etkiye sahiptir. Farklı liderlik tarzları, organizasyon ve çalışan başarısını etkileyen önemli bir rol oynamaktadır. Çünkü çeşitli liderlik yaklaşımları, farklı durumlar ve çalışan grupları için uygun bir yaklaşım sağlayabilmektedir. Bu çalışma, havacılık organizasyonlarında liderlik tarzlarının çalışan performansı ve risk alma toleransı üzerindeki etkisini incelemeyi hedeflemektedir. Havacılık endüstrisi, sürekli değişen kural ve regülasyonlara sıkı sıkıya bağlı olan, stresli, dinamik ve karmaşık bir ortamda faaliyet gösteren bir sektördür. Bu tür sektörlerde liderlik anlayışı kritik bir öneme sahiptir. Bu çalışmada, liderlik tarzlarının çalışan performansı ve risk alma toleransı üzerindeki etkisini ve bu değişkenler arasındaki ilişkiyi ortaya koymak için korelasyon analizi yöntemi kullanılarak bir araştırma yapılmıştır. Veri toplama süreci, havacılık sektöründe faaliyet gösteren farklı birimlerde çalışan kişilere anketler aracılığıyla uygulanmıştır. Sonuçlar, havacılık sektöründe farklı liderlik tarzlarının çalışan performansı ölçütleri üzerinde önemli bir etkisinin olduğunu ve aynı zamanda çalışanların risk alma davranışını da etkilediğini göstermektedir. Bulgular, havacılık organizasyonlarının liderlik tarzlarını değerlendirirken ve geliştirirken dikkate alınabilecek önemli ipuçları sunmaktadır. Bu çalışmanın, havacılık sektöründe liderlik uygulamaları ve çalışan performansı üzerindeki literatüre katkı sağlaması beklenmektedir.

Anahtar Sözcükler: Liderlik çeşitleri, Çalışan performansı, Risk alma toleransı, Risk alma davranışı, Havacılık organizasyonları.

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Esra KURTULUŞ

STATEMENT OF COMPLIANCE WITH ETHICAL PRINCIPLES AND RULES

I hereby truthfully declare that this thesis is an original work prepared by me; that I have behaved in accordance with the scientific ethical principles and rules throughout the stages of preparation, data collection, analysis and presentation of my work; that I have cited the sources of all the data and information that could be obtained within the scope of this study, and included these sources in the references section; and that this study has been scanned for plagiarism with “scientific plagiarism detection program” used by Eskişehir Technical University, and that “it does not have any plagiarism” whatsoever. I also declare that, if a case contrary to my declaration is detected in my work at any time, I hereby express my consent to all the ethical and legal consequences that are involved.

Esra KURTULUŞ

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GLOSSARY OF SYMBOLS AND ABBREVIATIONS

CRM	: Crew Resource Management
COSO	: Committee of Sponsoring Organizations of the Treadway
ERM	: Commission Enterprise Risk
CFA	: Confirmatory Factor Analysis
CFI	: Comparative Fit index
EP	: Employee Performance
FAA	: The Federal Aviation Administration
HRM	: Human Resource Management
KMO	: Kaiser-Meyer-Olkin
LDBQ	: Leader Behaviour Description Questionnaire
MLQ	: Multi-factor Leadership Scale
NNFI-TLI	: Tucker-Lewis Index
RMSEA	: The root mean square error of approximation
SHGM	: Turkish Directorate General of Civil Aviation
SBDVQ/ SBDQ	: Supervisor Behaviour Description Questionnaire
TL	: Transformational Leadership
TLS	: Transactional Leadership

1. INTRODUCTION

Nowadays, the aviation industry is becoming increasingly complex with the rapid advancement of technological and operational developments and the rules and regulations that must be strictly followed within this progress. For leaders who must deal with this complexity, it requires greater attention, research and understanding when shaping the strategies of institutions and the industry. This sector, which still operates successfully in all this complexity, is closely related not only to knowledge and skills but also to effective leadership. Improving the quality of work output is critical for leadership styles to shape employee performance. In order to reach this conclusion, in-depth research is required in this field. The aviation industry is a sector that requires high standards in many respects. For this reason, leaders in aviation organizations must maintain effective management.

Leadership is a concept that covers many different areas in organizations. However, in a high-risk field such as the aviation industry, the concept of leadership must be examined more deeply in terms of specific characteristics and skills. In this context, factors such as employee performance and risk-taking tolerance appear as important variables in understanding the impact of leadership types in aviation organizations.

This thesis aims to measure and evaluate the effects of different leadership types in aviation organizations on employee performance and risk-taking tolerance. Additionally, this study will bring a new perspective to academic research by providing an aviation industry-focused perspective on the literature in the field of leadership.

The focus of the study is to reveal the effects of leadership styles on operational efficiency, safety and employee performance in the aviation industry. Additionally, it aims to contribute to the sustainable success of aviation organizations by examining the effects of leadership types on critical factors such as risk management and organizational resilience. In order to achieve these goals, it is aimed to analyze the surveys to be applied to 404 people randomly selected from the sample space of 253,885 people currently working in the aviation field (SHGM, 2022) using statistical quantitative methods and to reveal the correlation between the variables as a result of these analyses. Participants in the survey are asked to first evaluate their manager by taking into consideration the leadership qualities of their immediate superior. In the second part of the survey, scaled surveys with proven accuracy, reliability and applicability were applied to see how he evaluated his job performance while working with this leader, and finally, what tendency his risk-taking behaviour showed while working with this leader. In this way, the study

will guide aviation managers to better understand the effects of different leadership types on business performance and risk-taking behaviour and to develop strategies accordingly.

This introduction chapter summarizes the scope, aims and methodology of the thesis; In the following sections, the methods to be used to examine the effects of leadership types on employee performance and risk-taking tolerance will be explained in detail. The results will make a valuable contribution to leadership practice and management strategies in the aviation industry and provide a new framework for future research.

1.1. The Concept of Leadership

Nowadays, with the development and change of societies, with the advancement of the concept of modernity, the concept of leadership has become more than just the definition – a person who leads a group of people, especially the head of a country, an organization, etc - written in the Oxford dictionary.

Because people are social creations, so they seek characters in their society who can achieve their goals and objectives, trust and lead them. These pursuits go back to the beginning of human history. The fact that it has existed in the past has gained importance today and has undergone conceptual development shows us that it will continue its importance in the future. The spread of social changes, crises, and corruption push people to look for leaders psychologically as well as the need arises. Companies and businesses are looking for people who will bring them closer to their corporate goals, manage the actions to be taken in this process, and accompany and lead them on this path.

The concept of leadership has many definitions in the literature and has been an important concept in every period. While the naming of leadership is thought to have been first made by Plato as "To govern by circling the environment", *Cyropaedia* written by Xenophon is considered to be the first systematic book on leadership (Tabak et al., 2007)

The concept of leadership is an issue that dates back to the fact that people began to live in communities and is important in many societies. Although research on this subject increased after the Industrial Revolution, leadership has been a subject that has attracted the attention of every individual in society since the early ages and on.

Leadership is also an effective category for Human resources management. Leaders help to understand the duties of employees, what is expected from the employee performance of the organization, and the corporate goals and reward systems of the

employees. In the definitions of leadership, the message that is emphasized and wanted to be given is common; which is "the interaction of leadership with the group with some of its self-attributed characteristics and activates the structure." In other words, efforts to influence and direct individual or group behaviour are at the core of leadership (Eraslan, 2004).

According to Packianathan Chelladurai and Amy Chan Hyung Kim (2022), Leadership is a behavioural process and an interpersonal relationship, Leadership aims to influence and motivate those in the group or the organization's goals. The leadership provides help employees understand the roles, performance expectation, and their relationships to organizational goals and reward systems, In addition to that, good leadership enhances employees, personal growth and develops motivation, performance and job satisfaction(Chelladurai and Kim, 2022). A leader is a person who has an influencing effect on others, who shows how to achieve the goals of those around him, who sets goals and tasks, and who guides them. Leadership is the process of influencing others to achieve goals in a given environment (Küçükali, 2010). A person: if it helps a group understand its tasks, goals, and objectives, helps a group meet its needs, and ensures the continuity of the group, that person has done the leadership role (Morphet et al., 1982). There are two main tasks for the leaders those are; to ensure the success of the group and to ensure the sustainability of the group. Influence and coordination are among the core tasks of leadership, and effective managerial leadership requires an understanding of the behaviour of individuals in the group (Küçükali, 2010).

According to Levent Eraslan, leadership is the sum of the ability and knowledge to gather a group of people around certain goals and to mobilize them to achieve these goals, while according to Brad Thompson (1998), the leader is the one who determines how resources, rewards, punishments will be distributed to whom. Leaders determine who will be given what job and task and the main objectives of the group. In other words, it is certain that a gathering and authority-building leader who can take and implement the necessary decisions at the appropriate time will be needed in any case.

They are two concepts that have a deep relationship between power and leadership, and they should be evaluated together.

1.2. Leaders' Power Sources

Power supports the position of leaders and management influence. At this point, it is necessary to examine the power sources of the leaders. While the characteristic futures

of leaders, behavioural characteristics accepted by individuals, business ethics, ethics and professionalism are some of the sources of strength, another source stems from the influence of the positions and business levels of the leaders. Although the position in which the leader works is important, the main source is that the employee's personal characteristics are accepted by the group he manages. Because team spirit and team compatibility are more important. In the literature, these power supplies have been classified by various researchers.

Robbins' classification of power supplies was extended by Wagner and Hollenbeck, adding the dimension of social relations, and grouping the resources into 5 groups (Bayrak, 2001).

These sources are;

Legality, which means, authority, rules, and practices such as law.

Control over resources, which ensures the wise control of resources such as money and information.

Specialization, which means, scarcity and low substitution.

Social relationships, which can also be called the strength of communication channels such as relationships, friendship, and amount of power.

Personal Characteristics, such as charisma which is the personal characteristic of leaders, such as attractiveness.

Leaders use this power while they can obtain resources such as position, personal characteristics, expertise, and opportunity to obtain information, the tools they use to influence those around them are channels such as punishment, reward and information. Besides that; coercive power, enforcement power, power from expertise, simulation or charismatic power, and power of influence.

1.3. Fundamentals of Leaders

There are some leadership characteristics, with differences within definitions, leadership preconceptions, and three constructive factors (people, tasks, environment) that are parts of the whole leadership role. Influential group leaders usually show some characteristics future (Bayrak, 2001). Firstly, giving the people direction but also meaning to the people they lead. Secondly building trust and then, being proactive and prepared to take risks in order to achieve success. Lastly to be encouraging suggestions that can find success in both concrete and representational ways were also supported.

Scholars from Ohio State University and the University of Michigan were among the first to describe and classify leader behaviours. Those scholars proposed two wide categories of leader behaviours.

Ohio State University scholars claim consideration and initiating model. Based on the Ohio state leadership studies, effective leaders need to be able to work with others and build a balanced team, while also establishing a framework within which actions can be done. The study was conducted using distributed questionnaires to organization-wide leaders and subordinates, including the Leader Behaviour Description Questionnaire (LBDQ) and the Supervisor Behaviour Description Questionnaire (SBDQ). Eventually, Ohio State leadership research refined the definition of leader behaviour into two components: initiating structure behaviour and consideration behaviour. Initiating structure behaviour refers to leader conduct that defines the leader-subordinate relationship, ensures everyone is aware of what is expected, creates official communication networks, and sets how work will be performed. Consideration behaviour describes leaders who are concerned about their subordinates and strive to create a warm, welcoming, and supportive environment. Meanwhile, scholars from the University of Michigan proposed two types of leadership styles: employee-oriented leadership and production-oriented leadership. They also outlined three essential leadership behaviours: task-oriented behaviour, relationship-oriented behaviour, and participative leadership. Job-centered leadership involves managers who pay close attention to their employees' work, demonstrate work procedures, and are genuinely interested in their effectiveness. Employee-centred leadership involves leaders who focus on creating a collaborative workgroup and ensuring that all staff are satisfied and motivated at work.

According to the Michigan Leadership Studies, both types of leadership ramped up production, however, the job-centred style increased output slightly more. Notwithstanding, utilizing significant pressure and strict monitoring led to lower enjoyment, along with increased employee turnover and absenteeism. The employee-centred approach led to improved workflow practices and enhanced engagement group cohesiveness, which contributed to higher satisfaction and reduced employee turnover and absenteeism. This suggested that perhaps the employee-centred leadership style was preferable. The Michigan Leadership Investigations were carried out at roughly the same period as the Ohio State Leadership Studies, in both of which observed the meaning and significance of duties and individuals. The Michigan Leadership Studies introduced

"Participative leadership" to the Ohio research results, carrying the debate over and above individuals and into the domain of leading terms.

Additionally, when we look at the literature some studies explain how leaders should be as follows;

Leaders should be the carriers of institutional values, effectively managing themselves interacting well with others, and embodying key character values such as trustworthiness, fairness, and responsibility (Harolds, 2011; Askeland, 2014). They should also demonstrate emotional intelligence and be visible and out front, especially during challenging times (Melanson, 2009; Askeland, 2014). Additionally, leaders need to be adaptive, ensure that change is necessary, and seek input from those they lead (Melanson, 2009).

A leader should be aware of the emotions of others, feel and show empathy, and use that understanding to exhibit better leadership within groups of people (Melanson, 2009). Leaders need to be visible and be out front, especially when things get rough or when they are the most perilous (Melanson, 2009).

According to Melanson (2009)'s study, the importance of good followership for effective leadership, the need for adaptability while ensuring the necessity of change, the significance of visibility and tailored approaches in leadership, and the crucial role of genuine belief in subordinates and effective mentoring (Melanson, 2009).

Courage is important in leaders because they are charged with rallying those under their command to take risks in pursuit of excellence (Watson, 2007). According to Watsons (2007), successful leadership is characterized by intelligence, trustworthiness, humaneness, courage, and sternness. Lack of trust in a leader can lead to subtle forms of resistance and undermine the leader's authority and the organization's effectiveness and also leaders need to maintain order and make difficult decisions for the good of the organization.

Leadership can be learned said Allio (2016), in the study that put forth that while leadership cannot be taught, it can be learned through the establishment of a leadership identity and persona, acquisition of relevant leadership knowledge and skills, and practice of acts of leadership, additionally, successful leadership hinges on effective communication and the ability to inspire followers to align with the proposed corporate direction (Allio, 2016).

1.4. Leader's Behaviour

According to the Yukl et al. (2002)'s leadership behaviour classified under three categories which are; task behaviour, relation behaviour and change behaviour.

1.4.1 Task behaviour

Task behaviour include three subcategories as short-term planning, clarifying task objectives and role expectation, monitoring operations and performance.

Short-term planning, is to find answer for the specific task about what to do, how to do, who will do and when it will be done in a short term. Composing plans, preparing written budgets, constructing schedules, and meeting with others to assess how to complete a task are all visible aspects. Planning is most observable when a leader takes action to put strategies into action, where it frequently involves clarifying goals and duties. Numerous studies and reports have found a significant positive correlation among planning and an independent measure of managerial effectiveness (Avolio and Gardner, 2005; Bass and Riggio, 2006; Avolio et al., 2009)

Clarifying responsibilities, is the communication of plans, policies, and role expectations (Yukl et al., 2002). Clearly defining responsibilities and objectives is crucial for successful teams. For the reason that, behaviour clarity is to lead and conduct joint activity and guarantee that everyone fully understands what to do and how to do it. Leaders should be clear to their teams about explaining the task clearly to this extent team member can direct its own effort toward high performance and understand the importance of the duty and responsibilities and the effective ways to work on the duty.

Monitoring operations and performance is collecting information on the operation of the manager's organisational structure, which including progress of the work, individual sub-ordinate achievement, quality of products and services, and project or program success (Yukl et al., 2002). Monitoring can come in many forms, including observing work being done, preparing, and carefully reviewing written reports, handling and investigating performance measurements in a computerized environment, and reviewing a person's or group's quality of work, as well as holding necessary meetings about the operation. Monitoring allows for the reduction of operational errors and the proactive prevention of potential errors. Employee productivity can rise, which contributes to the standardization of business processes. It enables to identify, see, and change unnecessary or inadequate steps as needed. Increases company profitability and corporate performance direct and indirect.

1.4.1. Relations behaviour

Relations behaviour include five subcategories as supporting, developing, recognizing, consulting, and empowering.

Supporting, represents the general belief that leaders appreciate their employees for their contributions and care about their well-being (Yukl et al., 2002; Bush, 2018). Leader support can be defined as the support an employee receives from his/her manager and the degree of importance given to him/her (Karayel et al., 2018). According to the Ackfeldt and Coote, (2005) leaders support can be defined as the support that leaders provide to employees and employees feel important as a result of perceiving this support. According to the survey study by Sağbaş, (2022), applied to 355 bank employees in order to reveal the effect of leader support and life satisfaction on job performance, it was concluded that leader support and life satisfaction can positively affect job performance (Sağbaş, 2022). Leader support increases the motivation of the employees and the self-confidence of the employees about the work. It increases employees' willingness for more responsibility and risk-taking tolerance. It increases the performance of employees, the quality of the work done and, indirectly, corporate performance. When employees realize their mistakes, they don't hesitate to talk to their leaders, which can prevent potential mistakes.

Coaching is a significant part of development. That is, to serve as a guide for an individual or a group. Leaders must continuously improve themselves in order to learn different, easier, and more practical job solution techniques and exchange this knowledge with their team to show them superior ways to complete a task (Wikoff et al., 2008). Leaders should learn from their mistakes and impart their expertise to their team about how to eliminate repeating the same errors in the future. Instead of simply resolving the issue and starting to move on, team members should be taught how to deal with difficult issues and what to do when confronted with challenges. Giving employees tasks that allow them to express themselves and helping them improve their self-confidence by strengthening their professional skills aids employees in advancing by voicing progress using motivating and encouraging techniques, as mentioned under the title of leadership support (Wikoff et al., 2008). Instead of handing them fish, it's more like instructing them how to fish.

Recognizing, entails praising and appreciating others for effective performance, significant accomplishments, and significant contributions to the organization or project. As a matter of fact, employees witness their efforts is visible, which increases their

eagerness and productivity at work (Wikoff et al., 2008). It also has a positive psychological impact on the employee. Recognition can take the form of both material and spiritual prizes. For example, while a concrete performance fee can be provided, verbally praising one's performance and work is a spiritual reward. As an employee's self-confidence increases, so does his or her job performance and organizational commitment (Wikoff et al., 2008). A rare field experiment by Wikoff et al. (2008) also found that praise by the supervisor increased subordinate performance significantly.

Consulting is the most important building block of the consultant is to involve others in the process of making important decisions (Yukl et al., 2002). The group members' thoughts, preferences, as well as needs that they expect to be met, are important. The input from behind the leader must be genuinely valued and when it comes to making important decisions, the leader and his/her team have to be on board, when a problem arises, things have to be solved as a team and this is how the decision-making starts (Wikoff et al., 2008). With the input of the group, the leader talks it out before making any firm decisions. Provides alternative methods of carrying out activities to assist group members and encourage those during operations. Volunteerism is essential in these activities due to the lack of coercion. Group members cannot be dragged into a forcible agreement environment; they must be convinced. The fact that employees are encouraged and gain self-confidence as a consequence of their involvement in these steps. He/she is capable of making more bold and open decisions. Employees can express themselves without hesitation.

Empowerment, involves giving and providing more autonomy and discretion to subordinates (Wikoff et al., 2008). If a subordinate understands more about what to do in a complex situation than the manager, the manager should delegate authority to the subordinate. As a matter of fact, the quality of the decision making and the action-taking process enhances. Leaders must have advanced character and be open-minded at this point. Empowering will also rise up new leaders in the organisation.

1.4.2. Change behaviours

Change behaviors refer to the actions and strategies that leaders and managers employ to facilitate, manage, and sustain change within an organization. These behaviors are critical for successfully implementing new processes, structures, or cultural shifts. Change behaviour include four subcategories as external monitoring, envisioning change, encouraging innovative thinking, and taking personal risks to implement change.

1.4.2.1. External monitoring

One of the most important steps in maintaining the sustainability and success of an organization is to correctly identify the threats, risks, and opportunities that may arise. External monitoring entails looking for information that can help define a particular need or dilemma, identifying people or groups within or outside the organization who may endorse the leader's work unit's activities and objectives, and gathering information to better understand current needs. This includes understanding potential customers and related technological advancements, changes in the political environment, and competitor and collaborator behavior (Yukl et al., 2002). According to research conducted on 20 companies, it was discovered that when executives had an accurate perception of the amount of industry volatility in markets and technology, profitability increased (Yukl et al., 2002).

1.4.2.2. Envisioning change

Change and development is a natural cycle of time, so the ability of organizations to keep up with change is an important factor for the sustainability of the organization. The people who will lead this change in organizations are the leaders. Although change is not always easy, employees may encounter resistance to this change. In this case, the power of leaders to change is important. Leaders' predictions of change should be able to convey the message of change and convince and motivate their followers to this change. Perception is more important in changing follower dedication to a proposed strategy or altering it if it is relevant to the values and ideals of the supporters, communicated with enthusiasm and confidence, and perceived to be feasible (Yukl et al., 2002).

1.4.2.3. Encouraging Innovative Thinking

Supporting innovative thinking and having a leader who supports innovative thinking always moves the organization and employees further and helps them take faster action on the challenges and threats they will face and increases organizational success. Innovating, albeit on a small scale, also positions people and businesses further ahead of their competitors. Employees given the chance to be creative behave more like employees who are tied to the company's objectives. It is generally believed that the possibility of articulating their views freely is what encourages workers.

1.4.2.4. Taking Personal Risks

Risk-taking is the act of sacrificing your characteristic features, effort, time, and/or money in an attempt to optimize your situation or take advantage of the opportunities that

life provides. Making a significant change is always risky, whether it's in personal life or an occupation. Most people struggle to accept the need for change, which is why it is often opposed. When there is serious resistance to change, the potential risks include job loss, reputational damage, career derailment, and personal rejection by coworkers (Yukl et al., 2002).



2. CHAPTER II: CONCEPTUAL FRAMEWORK

2.1. Types of Leadership

Leadership is an idea that has been advanced throughout history. As time goes by, the concept of leadership has been much changed. Change is a natural process resulting from time. The concept of leadership also changes. As technology advances, the structure and size of companies change with it; so do the social status and standard of living that people enjoy. And as the age and generation of employees change, so do the expectations and demands of companies. A leader's leadership style refers to the techniques, characteristics, and behaviour patterns they use to lead, motivate, encourage and manage their team members. The more people there are, the more leadership definitions there are many factors that affect the diversity of the concept of leadership (Stoner and Freeman, 1992).

Many theories of leadership exist: while earlier theories focus on the traits, power, and behavior of leaders (and later, their followers), more contemporary theories de-emphasize individualist approaches and traditional hierarchical structures in favor of collaboration, reciprocity, and inclusivity (Mortensen et al., 2014). There are different types of leadership, and each can lead to a very different outcome for organizations. For instance, servant leadership can go far beyond traditional leadership styles by providing great care through putting the customer first while ensuring that staff members are well-advanced and committed in their duties (Malak et al., 2022).

2.2. Transformational Leadership (TL)

Many of the world's greatest powerhouses are people who are able to inspire and motivate others and enable them to perform at heightened levels, as well as transform them. Transformational leadership(TL) is a concept introduced by scientists in the fields of organizational behavior and management. The concept of transformational leadership began with James V. Downton's 1973 book and was further developed by James Burns in 1978. Later, in 1985, researcher Bernard M. Bass made significant contributions to the concept of transformational leadership. Most of these are such ancient leadership theories, including transformational leadership that have become popular again today because it was nearly lost in the dustbin of history. A TL model is used for a variety of purposes. It stands out, especially in sectors that require rapid innovation. If we consider the method of rewarding, which is one of the power sources of leaders, for example, the promise of performance perks given to the employees of the month or the company employees who

have reached the year-end target is seen as successful. However, these approaches are not enough to bring about lasting changes. At this point, a different leadership is needed to come up. TL is a kind that has emerged in this regard James McGregor Burns, who has done important work in developing the concept of TL, argues that leaders are a different leadership than promising people rewards and receiving their support. Burns, (1978) defines Transformational Leadership as the ability of employees to motivate and persuade them to achieve these common goals, rather than focusing on personal or organizational interests, and involves shifts in followers' beliefs, needs, and values (Kuhnert and Lewis, 1987).

Transformative leaders according to Bass (1985) and Burns (1978) are driven by their personal value systems. This involves fairness, integrity, and other values. Their study was cited by Kuhnert and Lewis, (1987). Ultimate values, which Burns, (1978) describes as those cannot be negotiated or traded between individuals (Kuhnert and Lewis, 1987). Informing their standards personally, transformational leaders are able both to unite their followers and to change the goals and beliefs of their followers. As Bass, (1985) and Kuhnert and Lewis, (1987) suggest, this kind of leadership is the ground for increasing individual performance levels beyond what was considered possible in the past.

According to Bass and Riggior, (2006) and Bush, (2018) leadership orientated in collaboration involves bending behaviour, culture and individuals as well as changing the leader him or herself, all at the same time. When it comes to leadership, this type of leader is one who consistently articulates new visions, a search for ethics and values, and sets high standards of conduct and accountability for his followers. The result aimed at in transformational leadership is bringing people together with others, making each of them more of an individual. Simić, (1998) proposed that transformational leadership is vital for the successful implementation and management of radical organizational change as managers need to possess the skills to lead people and teams forward together.

On the topic of staff productivity, studies have found that there is a positive association between transformative leadership and performance levels. Transformational leaders spur their charges onto coxswain, making them exceed their duties (Avolio and Bass, 2002). Through fostering positive relationships and empowering their followers, transformational leaders enhance satisfaction and commitment to the organization (Bass and Riggior, 2006). Transformational leaders also play a crucial role in promoting

innovation and creativity within organizations. By stimulating the minds of their followers and providing a vision that encourages risk-taking and exploration, they create an environment conducive to innovation and ultimately gain a competitive advantage (Avolio et al., 2004).

Transformational leadership is an effective leadership style in shaping organizational outcomes. With their charismatic and inspirational personality, transformational leaders inspire their followers to high levels of performance, promote a favourable working environment and result in increased innovations and creativities. Indeed, the empirical evidence consistently demonstrates the positive impacts of transformational leadership on employees' performance, job satisfaction, organizational commitment, and innovation. This research offers insights to organizations to develop effective leadership strategies to succeed and enhance their performance. Transformative leaders are the ones who have a vision and like to communicate and support their followers and create an environment where their followers enjoy being part of this vision, and they take part in the leader as one of them. They establish a relationship of trust with employees and create a sense of respect and commitment in people. The goal of these leaders is to persuade and transform employees and organizations to change. They transfer the knowledge and experience of educated people to their employees respect that employees have the authority to make decisions, and mentor them with the awareness that they are more proactive, develop old methods, find new solution methods and become the leaders of the future.

The four main elements of the transformational leadership model style developed by Bass, (1985) are as follows.

Idealized influence, When leaders demonstrate idealized influence, they become role models for their followers. This type of leadership is seen with leaders who act with high ethical principles, a strong sense of purpose, and integrity. By embodying these characteristics, transformational leaders foster trust and earn respect among their followers (Bass and Riggior, 2006). Leaders who exhibit idealized influence lead by example and serve as role models for their team members and followers (Bass, 1985). This leadership model emphasizes that leaders are to be good people. Over time, employees see the leader's demonstrated behaviours and model the behaviours of their leader. This behaviour is not about pushing the employees to work hard, but instead

serving as a model for the employees and influence through commitment, trust, transparency and respect (Bass and Riggior, 2006)

Intellectual stimulation, which transformational leaders play a vital role in challenging the status quo and promoting critical thinking among their followers, thereby cultivating a culture of creativity and innovation (Bass, 1985). They establish an environment that nurtures the emergence of novel ideas, embraces diverse perspectives, and stimulates intellectual growth (Bass and Riggior, 2006). Changing Leadership assumes the important role of questioning the existing state of affairs and is an advocate of critical thinking among followers. One of the effects of this is to alter the schema of imagination. Furthermore, they should provide an environment that allows new ideas to hatch, incorporates various viewpoints, and fosters the growth of reasoning and creativity (Bass and Riggior, 2006). According to Bass and Riggior, (2006) leader who fosters a free intellectual atmosphere may help prompt new viewpoints to be examined in areas from which different angles have been taken already. A large number of rigid viewpoints have been built into business units. On the other hand, for the organization to thrive, innovation and change is a need. Only by letting employees use their logic, only by giving them both the incentive and the opportunity to think over and find new possibilities within bounds, can this be done. Transformational leaders will only be able to lead their followers to break out of established territories, question conventional wisdom, and develop route-breaking solutions if they nurture creativity and expect their group members to challenge received dogma (Bass, 1985).

Inspirational motivation, in terms of encouraging motivation, Bass, (1985) highlights the distinction between inspiring and using pressure, fear, and threats to impose one's will on employees. In the approach of inspiring motivation, leaders encourage their employees by setting very ambitious goals that are consistent with the direction and vision of the organization, its mission and interests, and the employees' self-interests. Furthermore, inspiring motivation emphasizes creating a spirit of involvement in which people feel a sense of connection and involvement with the organization and their work. Finally, it involves creating an atmosphere of communal and collaborative work where people feel like they are empowered to contribute their best efforts toward goal accomplishment (Avolio et al.2004).

Individual consideration is where transformational leaders understand each of their followers' needs, strengths and the areas in which they need support (Avolio et al., 2004). They give one-on-one mentorship and coaching to grow the careers and lives of their followers.

By understanding the unique needs of each employee, transformational leaders seek to engage them fully by going beyond standardized best practices. This leadership model places a strong emphasis on individual assessment (Bass, 1985). Transformational leaders don't see everyone as being the same, blindly pulling them into their way of thinking instead, they see each person as bringing their unique perspective and talent to the organization and team they work in. Finally, by respecting and celebrating the unique strengths of employees, transformational leaders create an inclusive work context that is indispensable to both personal and organizational success. Other paper in literature show at Table 2.1.

Table 2.1. *Additional Findings About Transformational Leadership.*

Author and Study Information	Findings
The Effect of Transformational Leadership on Employee Performance Mediated by Leader-Member Exchange (LMX) (Hasib et al., 2020)	The main findings of the study are the relationship between transformational leadership and the positive relationship between superiors and subordinates, the examination of the perception of lead member exchanges in relation to improved performance, and the testing of the mediation effect of the LMX. Individual-focused transformational leadership was significantly related to job Performance.
The Transformational Leadership Effect on Job Satisfaction and Job Performance (Kishen, Syah and Anindita, 2020)	Transformational leaders motivate their subordinates to perform at a higher level by inspiring them and presenting them with intellectual challenges, paying attention to their individual needs. The main results of the research are; Job satisfaction is strongly correlated with employees' perceptions of the work environment. Relationships between co-workers can be influenced by many factors, including demographics such as compensation and promotion opportunities, employee leadership styles, national culture, etc. It is a mutual influence between national culture and transformational organizational culture and transformational leadership on job satisfaction.

2.3. Transactional Leadership (TLS)

Transactional leadership refers to transactions in which both the superior and the subordinate mutually influence each other, each of them receiving something of value (Yukl et al., 2002). To put it simply, leaders give their employees or members something they want in return for getting what leaders desire; this encompasses all of the main aspects, influence, task performance, work that fall under leadership (Avolio and Bass, 2002). This is an agreement with benefits for both partners involved. It's a win-win agreement for both sides. In these situations, leaders are more effective and forceful, as what the leader wants is a vested interest for employees or followers. Such an approach is type II power (Bass, 1985). Transactional leaders also take care to fulfil the desires of their employees. Thereby creating a relationship of mutual count on each other and win-win dependence.

In Graen et al. (1982) study they examined the effect of both high-quality and low-quality exchange relationships on employee turnover along with that found that employees who entered into relationships that involved the exchange of support and emotional resource (high-quality) were less likely to leave an organization than employees who entered into relationships that included contract-agreed elements, such as eight hours of work for eight hours of pay (low-quality) (Kuhnert and Lewis, 1987). For instance, the most widely known transactions are those based on leaders' knowledge of the actions team members must take to achieve desired personal outcomes (e.g., working overtime for a paid vacation). In these transactions, transactional leaders identify the roles that followers must play and the tasks that followers must accomplish in order to attain their individual objectives while also fulfilling the organisation's objectives (Graen et al., 1982).

2.3.1. Transactional Leadership (TLS) effect on employees performance

Numerous studies have been conducted to examine the effects of transformational and transactional leadership styles on work outcomes in organizations. However, there is a lack of consistent findings regarding the outcomes, success situations, or the impact of leadership styles on performance. The existing literature reveals gaps and inconsistencies in this area of research. Transactional leadership (TLS) has garnered significant attention in the fields of organizational behaviour and management. TLS involves interactions

between leaders and subordinates, where in both parties influence each other to achieve mutually advantageous outcomes (Yukl et al., 2002). This leadership style operates on the premise of exchanging desired resources or rewards in return for specific performance or tasks (Kuhnert and Lewis, 1987).

According to the research made by Aga et al. (2016), Waldman and Atwater, (1994), and Brymer (1991) suggest that transformational leadership is positively indirectly related to job performance and has a negative relation with success in means of leadership style. Whereas according to the study made by Liphadzi et al. (2015) same leadership style was directly related to project success.

Abdelwahed, Soomro, and Shah (2023), investigated a study in Pakistan to determine the effect of transactional leadership on employee performance, with the intention of contingent focus on the passion of the entrepreneur (Abdelwahed et al., 2022). Their findings indicate that transactional leadership, by setting clear expectations, goals and rewards, demonstrated that transactional leadership has a positive effect on employee performance. This document emphasized that entrepreneurs' passion is just a partially mediating variable, suggesting that when an entrepreneur reveals excitement and commitment toward entrepreneurship, workers tend to be more encouraged and show higher stages of performance below transactional leadership. The result of this research will help organizations to adopt activities that improve their leadership to increase employee success and foster a climate of passion and engagement.

According to the study, by total, of 356 cases are applied for the final analysis. The results demonstrated a positive and significant effect of TLS and ETP on EP. Thus, the ETP is recognized as a mediator between the TLS and the EP. The study's findings would offer significant contributions and implications for executives, entrepreneurs, and managers (Abdelwahed et al., 2022).

Recent research related to transactional leadership style (TLS) has generated some intriguing findings. For example, one study showed that employees in high-quality exchange relationships, characterized by positive affect and support, had lower turnover than employees representing low-quality relationships that were driven by contractual obligations (Graen et al., 1982). These results emphasize the importance of TLS in promoting beneficial results like increased retention and organizational commitment. Transactional leader behaviours play a vital role in assisting leaders in identifying actions and behavioural role requirements that are necessary for their employees to align with

their personal goals and objectives in their job roles (Liphadziet al., 2015). By providing clear guidance and predictions of success, such as paid time off resulting from completed overtime, transactional leaders facilitate role achievement and improve performance (Kuhnert and Lewis, 1987).

However, when introducing TLS, it's also important to remind people of its limitations and potential failures. According to Avolio, the main characteristics of interactionist leadership are the fulfilment of certain performance requirements and the absence of managers who have the necessary characteristics and leadership type for the sustainable and effective intellectual development and advancement of employees (Avolio et al., 2004). The way TLS-type leaders use the reward and punishment system to reach the desired level can be effective in this regard, but it does not do justice to the emotionality and creativity of the employees and does not help them produce new ideas (Bass and Riggior, 2006). Other paper in literature show at Table 2.2.

Table 2.2. *Additional Findings About Transactional Leadership*

Author and Study Information	Findings
Influence of transformational and transactional leadership on employee performance. (Raveendran, 2022)	While transformational leadership affects employee performance positively, transactional leadership does not affect employee performance at a significant level. Psychological empowerment and support, both leadership styles have an impact on employee performance. Furthermore, the research found that both transformational and transactional leadership affected psychological empowerment.
The impact of transformational and transactional leadership styles on employees satisfaction and performance: an empirical test in a multicultural environment (Fernandes and Awamleh, 2011)	The main findings of the paper are that transformational leadership has a strong positive transactional leadership has negative effect on employees' job satisfaction and is significantly associated with job satisfaction and self-esteem.
Impact of transactional leadership and transformational leadership on employee performance: A case of FMCG industry of Pakistan (Kalsoom, Khan, and Zubair, 2018)	In this study; The transactional leadership style has a strong positive correlation with the performance of employees in Pakistan's FMCG industry. Although both transactional and transformational leadership styles appear to have a relationship with employee performance, transactional leadership style has a strong positive relationship with employee performance. Along with Pearson correlation, Linear Regression Analysis has also been used in order to predict the predictor's contribution towards employees' performance. The recommendation is for the Pakistan FMCG industry to prioritize training and manuals on transactional leadership to foster better leadership development.

Table 2.2 (Continued) *Additional Findings About Transactional Leadership*

Leadership, job satisfaction and service-oriented organizational citizenship behaviors in flight attendants (Tsai and Su, 2018)	The sample included 228 flight attendants employed in international airlines operating in Taiwan. The results indicated that leadership and job satisfaction are positively related to service-oriented OCBs in airline flight attendants. Job satisfaction mediates the relationship between transactional leadership and service-oriented OCBs. Transactional leadership has a stronger impact on job satisfaction compared to transformational leadership.
The effects of transactional and transformational leadership on personnel conduct (Nsom, Teih and Sundjo, 2019)	The focus of this paper has been to present how transactional and transformational leadership styles affect personnel conduct Cameroon Baptist Convention Health Services (CBCHS) central administration leadership, has been the inspiration to the conclusions made. From the empirical qualitative study conducted on 30 personnel, as a result Transactional leadership has a negative impact on personnel conduct and can likely lead to the non-completion of projects.

In conclusion, research on Transactional Leadership (TLS) and its impact on employee performance highlights the importance of change relationships, task clarity, and goal alignment. Also in some studies, TLS can effect employee performance negatively. According to the different results in literature, there may be various reasons why the effect of transactional leadership on performance in different fields and industries can be both positive and negative. These different results may depend on variables such as the work structure in the sample studied, cultural factors and the way the leadership style is implemented. For example, in some cases, clearly defining specific goals and using reward-punishment systems may increase job performance, while in other cases this approach may demotivate employees or hinder innovation in the long term. In addition, specific dynamics in the industry or sector studied may also affect the results. For example, creativity and flexibility may be at the forefront in a rapidly changing industry, while routine and repetitive tasks may be more important in a more stable industry. On the other hand, various variables such as measurement methods, sample selection and working conditions may cause these differences

2.4. Situational Leadership

Situational leadership, formulated by Hersey and Blanchard (1982), focuses on the adaptability of leadership styles to particular situations and the developmental level of followers. In this model, effective leadership depends upon the task and the relationships. Task-oriented leadership considers accomplishing goals and attaining productivity, while relationship-oriented leadership entails building camaraderie and trust. A leader needs to act following the needs of their followers, balancing tasks and relationships. This model is consistent with by Nicholls in 1985, which that leadership style should vary as a function of the developmental level of the follower (Yukl et al., 2002).

Yukl et al. 's (2002) review article delves into various studies on situational leadership, analyzing the effectiveness of different leadership styles in different situations. The paper highlights the theory's strengths and weaknesses and provides valuable insights for leaders. In conclusion, situational leadership is a dynamic approach that acknowledges the individual needs of followers and emphasizes the importance of adapting leadership styles to achieve optimal results in various organizational settings.

Research has been conducted exploring not only the concept of situational leadership but also the mindset. Apparently, some of the core competencies required for improving change readiness and successfully navigating through change may equally be critical components for situational leadership theory (Bass, 1985; Buljac-Samardzic et al., 2010; Chelladurai and Kim, 2022). Situational mindsets have been proven to have a significant positive impact on change readiness, which is the capacity to deal with change and transition successfully, requiring a transformation in leadership approach and leadership theory suggests that there is no "one size fits all" approach to leadership (Church, 1995; Avolio et al., 2004). To sum up, the most effective approach is a flexible one that adapts to the situation at hand and uses a combination of directive and participative strategies to address the ever-changing needs of followers.

As a result, scholars have been quick to point to the strengths and weaknesses of the situational leadership approach, For instance, one of the underlying premises of the situational theory of leadership is that the most effective style of leadership is dependent on the circumstances and situations (Waller et al., 1989). Situational leadership is dealing

with theory of leadership that suggests an effective leadership style that adapts to the particular context and environment in which it is being used in order to accomplish the desired goals and effect positive changes within organizations (Bass, 1985; Waller et al., 1989; Avolio et al., 2004).

Overall, situational leadership is seen as a valuable approach that can be employed in a variety of contexts. It is emphatically argued that it requires leaders who are nimble and can adapt their approaches to the needs of changing situations and environments.

2.5. Servant Executive Leader

Servant leadership is a core leadership model for the 21st century. Servant Leadership in that century was put forward by Robert Greenleaf (1977) as an alternative to traditional leadership styles, which emphasized autocratic, top-down relationships between leaders and followers.

It comes together with collaboration, trust, empathy, and the ethical use of power (Yu et al., 2021). It has been built on and measured by variables of vision, influence, integrity, trust, and service. This mode of leadership has inspired some of the most innovative leadership thinkers and has been seen as a new paradigm in leadership (Spears, 1995). Servant Executive Leadership, refers to a leader who uses servant leader ideals in a managerial style and set of strategies. In this model, a leader's first objective is to serve the needs of employees, their teams, and their stakeholder groups, as the leader fulfils executive responsibilities and implements strategic priorities (Greenleaf, 1977). Servant executive leadership can bring several benefits to aviation organizations. Servant executive leadership has been found to create a positive work environment, promoting a sense of value, support, and empowerment among employees. Research indicates that this leadership style can lead to elevated levels of job satisfaction, enhanced engagement, and improved morale among individuals working (Greenleaf, 1977; Askeland, 2014).

It enhances teamwork and collaboration. Servant Executive Leaders prioritize building strong relationships and good teamwork among employees (Greenleaf, 1977). This encourages employees to open communication, trust, and collaboration, (Schein, 2004) which can improve coordination and cooperation in terms of aviation industry. It is the most important step to prevent errors in any kind of aviation department to have a strong bond for the team and excellent communication between employees.

It improves safety and performance. Servant leadership, by prioritizing employee well-being and fostering a supportive work environment. Servant Leadership can impact safety culture, decision-making processes and performance in critical operational tasks positively (Hussain and Ali, 2012; Hofmann and Morgeson, 2017) within aviation organizations.

It increases organizational commitment. Servant executive leadership can foster a sense of organizational commitment among employees (Wang et al., 2018). Employees' strong attachment to the organization's goals, values, and mission can be seen when leaders pay attention to their team (Spears, 1995). Servant executive leadership is also reflected here. This greater sense of attachment can manifest itself in heightened loyalty, fewer turnovers and greater effectiveness (Biełkowska et al., 2022), in aviation organizations.

It can create positive customer experience. Servant executive leadership which focuses on serving others (Spears, 1995), is highly relevant in the aviation industry as it extends to customers and passengers in the aviation industry. Research suggests that when leaders prioritize customer service and create a customer-centric culture, it can lead to improved customer satisfaction, loyalty, and overall positive customer experience (Spears, 1995).

Table 2.3. *Additional Findings About Servant Leadership*

Effects of servant leadership on followers' job performance (Hussain and Ali, 2012)	The study assessed how five elements of servant leadership affected workers' job performance. The results show that improving an employee's vision does not significantly improve their job performance. According to the study, servant leadership can help technical management businesses boost employee morale and boost productivity.
Servant leadership: Influence on financial business-unit performance and employee's well-being (Yu et al., 2021)	Servant leadership poses a contradiction in that it requires leaders to prioritize their followers' needs and interests over their own self-interest, which may appear paradoxical to organizational effectiveness. However, it is linked to favorable outcomes for followers, teams, and companies.
The indirect effects of servant leadership behavior on organizational citizenship behavior and job performance (Zehir et al., 2013)	Servant leadership behaviour is important for directing employee behaviour and developing company ideals. Organizational justice mediates the relationship between servant leadership, organizational citizenship, and job performance. Hypotheses on organizational justice's full mediation effect on the relationship between servant leadership behaviour, organizational citizenship behaviour, and job performance are supported.

Table 2.3 (Continued) *Additional Findings About Servant Leadership*

Turnover-mitigating effect of servant leadership on job performance (Bieńkowska et al., 2022)	Servant leadership serves as an intermediary in the job performance model, with the goal of reducing turnover. Employee turnover serves as a mediator in the job performance model, which is based on turnover-reducing servant leadership. Servant leadership has an enormous effect on job performance and a disruptive relationship with employee turnover, as well as the impact of employees' dynamic capacities on employee turnover reduction. Employee dynamic capabilities (EDC) play a statistically significant role in the association between employee turnover and work performance.
Servant leadership as a driver of employee service performance: Test of a trickle-down model and its boundary conditions (Wang, Xu, and Liu, 2018)	High-level managers' servant leadership has the potential to improve employees' in-role and extra-role service performance by influencing the servant leadership of low-level supervisors. The study's primary findings are, servant leadership by high-level managers can enhance employees' in-role and extra-role service performance by influencing the servant leadership of lower-level supervisors. Servant leadership has a greater trickle-down effect when high-level managers and low-level supervisors are viewed to fully embody the organization. Furthermore, both high-level managers' and supervisors' organizational embodiments act as mediators in the link between servant leadership and employee service performance.

2.6. Authentic Leadership

Authentic leadership is a leadership concept that is centred on self-confidence, ethical behaviour, and healthy connections with subordinates and the leader tends to stress the importance of creating an environment in which people can trust the sincerity and authenticity of its members (Avolio and Gardner, 2005). Open, honest, and inspiring trust among their team members such standards are demanded of leaders (Karabıyıkoglu and Kanbur, 2023). They are aware that initiating change and promoting fairness originate from their own acts-out changing procedures, lead by personal example in their sphere of life and then motivate subordinates, therefore, a harmony of the leader's behaviour and their values is achieved once more (Walumbwa et al., 2008). Authentic leadership is characterized by authentic, transparent, and self-aware leaders (Avolio and Gardner, 2005). Authentic leaders build trust, promote open communication, and foster a positive work environment, which in turn improves employee performance (Luthans and Avolio, 2003). Research studies have examined the effects of authentic leadership, moreover, it

is demonstrated how Authentic Leadership affects and even changes some consequences in different organizational contexts

According to the study made by Walumbwa et al. (2008), investigated the link between authentic leadership and employee performance, job satisfaction, and organizational citizenship behaviour in one study. Authentic Leadership was found to be positively associated with these outcomes, implying that leaders who exhibit authentic behaviours can foster positive work outcomes.

Another study, conducted by Luthans and Avolio (2003), looked at the impact of authentic leadership on follower psychological capital, which is an individual's positive psychological state. Authentic Leadership was found to be positively related to follower psychological capital, emphasizing the importance of authentic leaders in promoting positive psychological well-being among their followers.

Furthermore, research by Avolio and Gardner (2005), conducted research on the relationship between Authentic Leadership and employee creativity. The findings showed that authentic leadership positively influenced employee creativity, emphasizing the role of authentic leaders in creating an environment that encourages innovative thinking and problem-solving (Avolio and Gardner, 2005).

These studies provide empirical evidence supporting the positive impact of Authentic Leadership on employee performance, job satisfaction, organizational citizenship behaviour, psychological well-being, and creativity.

2.7. Distributed Leadership

Distributed leadership uses technology for inter-location communication that involves the collective interpretation of decisions (Thornton, 2010). It is a conceptual approach to managing different perspectives, cultures, and boundaries, fostering collaboration, direction, engagement, and adapting to changes (Gasson and Elrod, 2006). Distributed leadership involves multiple leaders and the sharing of leadership activities, Distributed leadership describes the sharing of leadership tasks between employees and managers to optimize decision-making, resource availability, and goal-setting within an organization (Gasson and Elrod, 2006; Yıldırım, 2017). Theoretically, distributed leadership allocates functional roles to employees and manages boundaries (Gasson and Elrod, 2006). It is a concept that emphasizes the presence of multiple leaders and the sharing of leadership activities within an organization (Bienefeld and Gudela, 2011). It is a concept that encourages the participation of all members, not just official leaders

(Gasson and Elrod, 2006; Thornton, 2010; Yildirim, 2017). Distributed Leadership can be defined as shared or collective leadership that sees leadership as a responsibility shared among a number of individuals or groups in the enterprise (Bienefeld and Gudela, 2011). Rather than resting everything on this one person, distributed leadership sees certain individuals are experts or contributors to some extent and thus allows discussion and action at different levels

Since it is an interdisciplinary concept, it is in different fields This concept has been further developed by Thornton (2010), in the context of online environments, where information and communication technologies enable all group members to contribute to leadership and to utility organizations, finding that highly distributed leadership is associated with employee satisfaction, innovation, and performance (Thornton, 2010). Distributed leadership has a positive relationship with concepts such as organizational behaviour and organizational commitment (Bienefeld and Gudela, 2011). Distributed leadership plays an important role in decision-making and strongly correlates with the quality of the decision and crew performance such as during an emergency on board an aircraft, (Bienefeld and Gudela, 2011)

Distributed leadership is a type of leadership where power resides as well as decision-making among multiple people within an organization or team, according to the concept. This approach fosters teamwork, empowerment and collaboration.

In a high-risk, high-tempo working environment such as an aviation organization The system can improve situational awareness, decision making and communication; each is critical to roles in the air as well as on the ground fields. In an emergency, for instance, a distributed leadership system could allow quick, decisive action since decisions can be made quickly and easily, over a decentralized network of leaders. It also fosters a culture that is more open and inclusive, where all leaders feel valued and their perspectives are considered.

2.8. Charismatic Leadership

One of the most talked about leadership types is charismatic leadership. In general, it is used to describe leaders with magnetism and personal magnetism, inspiring, influencing, and setting an example for the leader's followers/employees (Chughtai, 2019). Although it is popular among leadership types, there is limited information in the literature on the definition of charismatic leadership. Charismatic leaders have a psychological attractiveness that allows them to attract others to them (Eagly et al., 2003).

Charismatic leaders are seen as transformational leaders who inspire and motivate their employees to achieve the goals they want to achieve (Bass, 1985; Lee, Chen et al., 2015). Charismatic leaders are often seen as authentic leaders who are loyal to themselves and the values they carry, and whose authenticity inspires trust and loyalty to their followers (Lee et al., 2015). Charismatic leaders have the ability to inspire and motivate their followers to reach their full potential (Hackman, 1987; Wilderom et al., 2012). In this way, it helps to add value to organizations by improving the ideas of the employees by showing the behaviours of guiding and coaching them in their new ideas. Charismatic leaders are often perceived as emotionally intelligent, which allows them to understand and respond to the emotional needs of their followers (Hackman, 1987).

Charismatic leadership is defined by the leader's exceptional charm, persuasive communication skills, and ability to inspire and influence others. Charismatic leaders often have a clear vision and are able to give their followers the direction, inspiration, and motivation necessary to achieve successful results (Hackman, 1987; Avolio and Gardner, 2005; Chughtai, 2019; Wilderom et al., 2012).

A well-known study on charismatic leadership by Eagly, Johannesen-Schmidt, and Engen (2003), The researchers examined the differences between transformational and transactional leadership styles, focusing on the gender differences of the participants. According to the results of the study, charismatic leadership, which is a type of transformational leadership; Follower satisfaction, loyalty and motivation are in a positive relationship with the variables.

In another study in the literature by Judge and Piccolo (2004), charismatic leadership, which is a component of transformational leadership, has a significant positive effect on employee performance and satisfaction.

In addition, the study conduct by Avolio et al. (2009), examined the relationship between charismatic leadership and followers' trust, satisfaction, and organizational citizenship behaviours. According to the data obtained, charismatic leadership is found in employees/followers; It has been revealed that variables such as trust in the leader, follower satisfaction and organizational citizenship behaviour are positively affected. According to Zhao et al. (2021) study found that employees positively affect the innovation performance of millennials through their leadership, professional and organizational identification. Charismatic leadership has long-term positive effects on organizational culture on organizational performance (Wilderom et al., 2012).

Other studies in the literature have revealed that the charismatic leadership type creates added value by positively affecting the stress, job performance and work engagement of the followers/employees environmental dynamism and performance team performance, internal marketing, employee engagement and the overall performance of the organization (Hoogh et al., 2004; Lee et al., 2015; Lepine et al., 2016; Yin et al., 2021).

2.9. Laissez-Faire Leadership

Although laissez-faire leadership is often characterized by a rigid and controlling approach, it should not be confused with authoritarian leadership (Eagly et al., 2003). While authoritarian leaders force their employees to make every move, laissez-faire leaders give their team members a lot of freedom and autonomy (Hackman, 1987). Research has shown that laissez-faire leadership can be effective in specific situations. For example, if employees are highly skilled and motivated, laissez-faire leadership shows high levels of job satisfaction and performance, according to research, however, if employees are less capable, laissez-faire leadership is not efficient in terms of performance and job satisfaction, leading to performance levels and dissatisfaction (Hackman, 1987; Eagly et al., 2003).

2.10. Autocratic Leadership

An autocratic leader is one who centralizes authority, exercising formal power, the power of rewarding, and the power of punishment (Daft, 1991; Arıkan, 2001). Such leaders usually make their own decisions and control their subordinates' every move and don't like to have their decisions questioned. (Drafke and Kossen, 1998).

For employees who are generally submissive and do not prefer to contribute to business planning and decision-making processes, this type of leadership style works to a great extent and attracts attention (Arıkan, 2001). Authoritarian leadership style is extremely appropriate during an emergency or crisis where the leader does not have much choice (Drafke and Kossen, 1998).

3. CHAPTER III: EMPLOYEE PERFORMANCE AND AVIATION

Employee performance plays a pivotal role in the success and efficiency of aviation organizations. In an industry driven by safety, efficiency, and exceptional service, the performance of individuals directly impacts operational outcomes. This chapter, delves into the realm of employee performance in aviation organizations, exploring the intricacies, challenges, and strategies to optimize performance and drive organizational success.

Research in the aviation industry has consistently highlighted the importance of employee performance. Isnanto (2021), emphasizes job satisfaction strengthens employee engagement and organizational commitment, decreases the rate of employee turnover and improves employee performance This is further supported by Chew et al. (2012), who underscores the positive impact of workforce diversity on performance. Gathogo and Kiiru, (2021) highlight the significant influence of high-performance work practices and HR practices, respectively, on employee performance. These studies collectively underscore the critical role of employee performance in the success of aviation organizations.

Several major elements highlight the relevance of employee performance in aviation firms. High-performance work techniques, such as incentive management, performance management, training and development, and employee interactions, have been shown to considerably improve employee performance (Gathogo and Kiiru, 2021). This is reinforced by the significance of job happiness in increasing employee engagement, organizational commitment, and productivity (Isnanto, 2021). Perceived organizational support is also important, with a favourable association between organizational identification and safety management performance in airlines, Organizational concern for employee benefit is favourably associated with safety education and training, and organizational support for employee work is also positively related to safety policy and objectives, as well as the reduction of dangerous events (Qi at al., 2019). These studies demonstrate the multidimensional impact of employee performance on the success and safety of aviation enterprises.

Employee performance is about how well people who work in aviation do their jobs and behave in the workplace. However, there is no margin for error in aviation, so keeping the focus alive during the job is a very important performance indicator. Employee performance includes the skills, knowledge, and abilities needed to do the job. In aviation,

employee performance, whose scope goes beyond just technical knowledge, needs to include a variety of things such as customer service, teamwork, or support for change management, as well as other cute little "extras" related to an organization achieving its goals.

3.1. Multifaceted Nature of Performance Metrics and Aviation

Employee performance is evaluated in a multidimensional way. Studies in the literature have identified several basic performance measures that contribute to the success of organizations and individuals. The main ones are;

Technical competence which refers to the knowledge, skills, and competencies of employees in performing the tasks assigned to them (Bass, 1985). Technical expertise is a requirement for employee problem-solving skills and snap decision-making processes. In aviation, technical expertise is necessary to avoid errors, maintain operational excellence, comply with legal requirements, and ensure the highest levels of safety and security. For example, a pilot's ability to make accurate and rapid decisions in an emergency is an indication of their technical competence.

Customer Service is the ability of employees to provide exceptional customer service has a significant impact on customer satisfaction, loyalty and the overall reputation of the organization (Lee, Chen, and Lee, 2015). Employees with excellent communication skills, empathy and a customer-centric approach contribute to improving customer experiences and positive brand perception. In the aviation sector, customer service ensures that passengers are satisfied with their flight experience. For example, when a passenger service agent explains to a passenger who is using the airport for the first time what the boarding time is, how to get to the boarding gate, what time the plane door will close, what they can carry in their cabin baggage, meeting the needs of the passengers with empathy and foresight, emphasizes the importance of customer service in aviation.

Teamwork and collaboration which refers to effective teamwork ensure excellent communication among team members, resulting in smooth operations, improved efficiency, and increased productivity. According to research, fostering a culture focused on teamwork has a positive impact on overall operational performance (Buljac-Samardzic et al., 2010). In aviation organizations, cooperation between the flight crew and ground crew ensures that operations are carried out smoothly and on time. The coordination,

communication, and teamwork of the ground crew and flight crew during the take-off and landing processes of an aircraft demonstrate the success of the teamwork.

Adaptability is the ability of employees to adapt and respond to changing conditions as the industry evolves. Adaptive employees can handle unexpected challenges, make effective decisions under pressure, and cope with changing operational demands (Endsley and Jones, 2011). Employees in the aviation industry must adapt to frequently updated safety protocols and regulations. For example, when a new safety regulation comes into effect, all airline personnel must quickly adapt to these new rules. For example, during the COVID-19 pandemic, many new safety protocols and regulations came into effect in the aviation industry. Airlines have implemented measures such as new hygiene standards, social distancing rules, and mask-wearing requirements to protect the health of passengers and crew. This is a significant example of aviation employees quickly adapting to new conditions and regulations.

Safety and security awareness refers to the level of awareness of individuals and organizations in complying with safety and security procedures and promoting a culture where safety and security are always a priority. This level of awareness has a positive impact on the performance of both organizations and employees (Endsley and Jones, 2011). Safety and security awareness in aviation is critical to protecting the lives of both passengers and employees and preventing accidents. Safety and security awareness in this sector requires the participation of everyone from pilots, cabin crew, and ground staff to all employees. An example of this is a maintenance technician meticulously performing aircraft checks and reporting the slightest abnormality.

In the aviation industry, employee performance has a significant impact on a variety of organizational outcomes. High levels of employee performance have been shown in studies to positively correlate with operational efficiency, safety and security records, customer satisfaction, and overall organizational success (Chen et al., 2019). Effective employee performance boosts productivity, reduces errors, and fosters an excellence culture within aviation organizations.

3.2. Impact on Operational Efficiency, Safety, and Organizational Success

Employee performance directly influences various aspects of aviation organizations, including;

Impact on operational efficiency: Employee performance also has a significant impact on operational efficiency in many business sectors, such as the aviation industry.

Studies have shown that employees who consistently demonstrate high levels of performance contribute to increased productivity, streamlined processes, and effective resource utilization (Denisi and Pritchard, 2006). Their capacity to meet performance expectations, monitor processes, and optimize their work helps improve overall operational efficiency. High-performing employees contribute to streamlined processes, reduce delays, improve turnaround times, increase on-time performance, and optimize resource utilization (Denisi and Pritchard, 2006).

Research in the literature also highlights the role of employee engagement in improving operational efficiency. Engaged and motivated employees tend to go beyond their normal tasks, resulting in increased productivity and improved operational outcomes (Alfes et al., 2013). When employees are aligned with organizational goals and feel trusted to make decisions, they are a driving force in increasing operational efficiency. Happy employees increase the quality of work output.

Impact on safety and security: Organizational safety and security outcomes are directly reflected in employee performance, especially in sectors with a high sensitivity to safety and security regulations, such as aviation. High-performing employees set high safety and security records and lead to fewer accidents and incidents (Neal and Griffin, 2006). Employees who follow safety procedures in detail exhibit situational awareness and take action against risks and dangers with a proactive mindset (Neal and Griffin, 2006). All this helps to make the work environment, work output, and operation safer and secure. Research has found that the safety and security climate and organizational culture play vital roles in both improving employee performance and providing safe and secure work environments (Neal and Griffin, 2006). Institutions that attach importance to safety and security, provide adequate training and resources to their employees, and organize a culture of safety and security awareness tend to have well-performing employees (Zohar, 2010). Employees' understanding of safety issues promotes a positive safety environment that results in better safety performance and fewer accidents (Zohar, 2010).

Impact on organizational success: the performance of employees greatly influences the overall success of an organization. Research has shown that high-performing institutions provide positive foundations in finance, customer satisfaction, and corporate effectiveness as a whole (Delery and Doty, 1996; Schneider et al., 2017). Consistently well-performing employees improve a company's image, customer satisfaction, and

competitive advantages. Employee performance and organizational success are also led by leaders. Some leadership practices that have yielded positive results include; Setting clear expectations, providing feedback and recognition, and creating a supportive environment for employees have been shown to improve employee performance and overall organizational outcomes (Avolio et al., 2009; Judge and Piccolo, 2004).

3.3. Factors Influencing Employee Performance

In a dynamic and volatile industry like aviation, many variables that affect the performance of employees shape the efficiency, productivity and engagement of individuals. The main determinants obtained as a result of popular research and studies are as follows:

Leadership; the impact of various leadership styles on employee performance has been extensively researched in many studies. Effective leaders motivate, inspire, encourage, motivate and guide their employees in a positive work environment by allowing employees to develop and excel (Avolio et al., 2009; Yukl et al., 2002)).

Organizational culture; employee performance in aviation organizations is heavily influenced by organizational culture (Schein, 2004). Cultivating a culture that values safety, teamwork, continuous learning, and open communication creates an environment in which employees can perform to their full potential.

Training and development; comprehensive training programs and opportunities for ongoing professional development improve employees' skills, knowledge, and competence (Salas et al., 2012). Employees who are well-trained and competent are more likely to deliver high-quality performance and adapt to changing aviation environments.

Job satisfaction and motivation; employee performance is influenced by job satisfaction and motivation (Maslow, 1970; Locke and PLatham, 2004). When employees find their work meaningful, feel a sense of accomplishment, and are recognized, their performance and commitment improve (Locke and Platham, 2004).

Besides those organizational, and job-related elements, employee performance, is deeply influenced by individual factors that encompass a spectrum of personal attributes and characteristics. These factors delve into the essence of who the employee is, beyond their skillset and job description. It encompasses their inherent motivation, whether driven by intrinsic satisfaction derived from the work itself or extrinsic factors like rewards and recognition. Their attitudes and beliefs towards their work and the organization profoundly shape their dedication and commitment. Additionally, emotional

intelligence plays a pivotal role, as it determines their ability to navigate complex interpersonal dynamics and manage their own emotions effectively. Moreover, the state of their health and well-being, both physical and mental, significantly impacts their ability to perform optimally. From managing stress to maintaining a healthy work-life balance, these personal factors form the foundation upon which all other aspects of performance rest.

3.4. Strategies to Optimize Employee Performance

To maximize employee performance in aviation organizations, several strategies can be employed:

a. *Clear Performance Expectations:* Clear performance expectations and objectives assist employees in understanding their roles, responsibilities, and performance criteria. Employees can track their progress and make necessary improvements with regular feedback and performance evaluations.

b. *Employee Empowerment:* Employee empowerment can be defined as empowering organizations to provide their employees with a certain degree of freedom and control over their day-to-day activities which includes having process improvement, helping to create and manage new systems and tactics, and providing the skills to manage small departments (Brymer, 1991). In this way, the knowledge, skills and experience of the employees increase and provide added value both in the future and in the current situation of the institution. Employee empowerment as a management philosophy has been shown to have a positive impact on both employee and organizational performance (Brymer, 1991). This autonomy can also lead to positive outcomes such as increased motivation, individual performance, responsibility, and a sense of ownership.

c. *Recognition and Rewards:* Strong recognition and reward systems for exemplary efforts aim to motivate and inspire employees to keep what they do well and relentlessly pursue better.

d. *Training and Skill Development:* required training programs, workshops, and skill-building initiatives equip employees with the resources and expertise needed to succeed in their roles, resulting in better outcomes.

e. *Job satisfaction:* Job satisfaction is one of the most important issues in an organization to keep up employees' performance. Job satisfaction is a primary policy priority in any organization to improve employees' performance (Isnanto,

2021). Job satisfaction is a concept that has been widely used in the literature because it affects not only individual but also group behaviours and total productivity. Job satisfaction is the most important factor in employee performance. Empirical evidence of the importance of job satisfaction is the issues such as employee demonstrations demanding a raise in wage, absence from work, low work motivation, and a raise in employee turnover rate (Isnanto, 2021). All of these issues are linked to employee job satisfaction and have a direct impact on employee performance. Also, research in the literature shows a positive correlation both directly and indirectly between job satisfaction with other variables affecting job performance (Isnanto, 2021). Job satisfaction affecting turnover rate researched and job satisfaction with employee involvement (Isnanto, 2021). The studies in the literature indicate that lack of job satisfaction stems from salary dissatisfaction and inadequate provision for personal leave and holidays. Lack of flexibility in the working hours, lack of recognition from managerial authorities following exemplary performance overtime workload, time allocated for daily travel between home and workplace. All those variables affect turnover time, job satisfaction, organizational performance, employee involvement and employee performance.

3.5. Human Factors and Performance Optimization in Aviation Organizations

This chapter discusses human factors that affect employee performance in aviation organizations. In addition, it draws attention to the relationships between human factors, performance variability and error prevention in aviation contexts.

In aviation organizations, the challenges related to the human factor present a remarkable situation. The human factor is a very important factor that highly affects airlines, the safety of air traffic control, the quality of operations, the strategic progress of institutions, business output and aviation organizations (Kansoy and Bakanoğlu, 2021; Ji-xin, 2007; Yılmaz, 2019). In the aviation industry, recognizing, focusing on, and taking into account human factors, improving and optimizing performance is a basic requirement in terms of business output. The potential for error arising from human nature minimizes the human factor and maximizes flight safety (Kansoy and Bakanoğlu, 2021). The greatest risk to a business's ability to achieve its strategic goals and objectives is the human factor. Organizational behaviour and culture have an undeniable impact on business performance and corporate sustainability and the achievement of corporate

strategies (Yılmaz, 2019). Human factor optimization and improvement of employees reduce the impact of human factors on the quality of operations (Ji-xin, 2007). In one study, the human factors team in the Mission Analysis Division of the TSA's Office of Security Capabilities found that technology, policies, procedures, and training have an amplifying impact on human systems performance during transportation security operations (Kudrick, Caggiano and Speed, 2015). A detailed examination of factors such as organizational structure, management, corporate culture, training and recruitment positively affects aviation safety and mission success (Westrum and Adamski, 1999). Wiener (1989), emphasizes the importance of a systems perspective that addresses factors such as workload, inadequate group interaction, and human error. Helmreich, (1997)) recommends the use of team resource management (CRM) programs to reduce errors through teamwork by examining accident-case histories in detail and focusing on simulators. Harris (2006), advocates a socio-technical systems approach to improve operational efficiency, taking into account the role of human factors in a broader context.

3.5.1. Analyzing the role of human factors

Human factors play a critical role in employee performance within aviation organizations, ensuring safe and efficient operations (Ji-xin, 2007). Human factors are the psychological, physiological, and sociotechnical factors that influence people's performance and behaviour at work (Helmreich, 1997). Understanding and managing human factors is critical for optimizing employee performance in the aviation industry. Because the aviation industry has a complex structure, requires high levels of responsibility and on-time performance, challenging assignments and immediate decision-making.

Cognitive factors are one type of human factor that has a significant impact on employee performance (Kansoy and Bakanoğlu, 2021). Mental workload, attention, decision-making, situational awareness, and information processing are examples of these. Aviation organizations must ensure that their employees are adequately trained and equipped with the cognitive skills required to effectively handle the demands of their roles. Employee cognitive abilities can be improved through effective training programs, proper resource allocation, and the use of advanced technologies.

Aviation organizations can improve employee performance and overall operational outcomes by fostering a positive social environment and promoting effective interpersonal relationships. Employee performance is also influenced by organizational

and environmental factors (Ayanoglu, 2007). Employee performance in aviation organizations can be significantly influenced by factors such as organizational culture, leadership styles, management practices, and external stressors. Effective leadership that fosters a supportive and empowering work environment, recognizes and rewards performance, and establishes clear goals and expectations can boost employee motivation and engagement, resulting in higher performance. Human factors encompass various psychological, physiological, and sociotechnical aspects that affect individual and team performance in aviation organizations. Research by O'Connor and Klemm, (2019) highlights the significance of human factors in aviation safety and emphasizes the need to integrate human-centred approaches in training, system design, and operational procedures. Additionally, Helmreich and Merritt, (2020) underscores the importance of teamwork, communication, decision-making, and situation awareness as key human factors in fulfilling performance in aviation organizations.

3.5.2. Impact of crew resource management, fatigue management, and stress mitigation techniques

Crew Resource Management (CRM) is a critical human factors approach aimed at improving teamwork, communication, and decision-making within aviation teams. Salas et al. (2012), show that CRM training improves employee performance, error reduction, and safety outcomes. Another factor influencing performance in aviation organizations is fatigue management. According to Caldwell et al. (2017), fatigue mitigation strategies, such as implementing adequate rest periods and scheduling practices, are critical for optimizing employee performance and reducing the risks associated with fatigue-related errors. On the same note, stress management interventions such as stress management training, and organizational stress support systems are also associated with optimum employee performance.

3.6. Leadership and Employee Performance in Aviation Organizations

Many leadership styles have been explored in relation to employee performance in aeronautical organizations. Transformational leadership styles, characterized by inspiring and motivating subordinates to achieve excellence, have been shown to have positive effects on employee outcomes (Bass and Riggior, 2006). Transformational leaders inspire and motivate their followers to achieve exceptional results through vision, charisma, intellectual stimulation, and personal attention (Bass and Riggior, 2006). They create a shared sense of purpose, encourage innovation, and foster employee personal growth.

Research by Avolio et al. (2009) demonstrated that transformational leadership style is associated with higher levels of employee performance and job satisfaction.

Likewise, servant leadership, which emphasizes service and employee empowerment, is associated with higher employee performance (Ehrhart, 2004). In addition, authentic leadership, which exemplifies authentic and ethical behaviour, is related to employee performance and organizational success (Avolio and Gardner, 2005). Servant leaders prioritize the needs of their followers and work for their personal and professional growth (Greenleaf, 1977). By fostering a supportive and empowering environment, servant leaders improve employee motivation, engagement, and commitment (Hu and Liden, 2011). The studies shows that servant leadership is positively related to employee job performance and organizational citizenship behaviour.

Authentic leaders build trust, promote open communication, and foster a positive work environment, which in turn improves employee performance. Researches shows that authentic leadership is positively related to employees' job performance, job satisfaction and organizational citizenship behaviour in the office (Walumbwa et al., 2008).

Table 3.1. *Additional Findings About Leadership and Employee Performance in Aviation Organizations.*

Effect of leadership behavior styles on performance: A field study on civil aviation ground services (Yeter and Konyalılar, 2022)	-Inclusive and transformative leadership methods have a beneficial effect on staff performance. - There is a positive correlation between transformative leadership and work success, as well as inclusive leadership and job performance.
The impact of transformational leadership, organizational culture, and employee engagement on employee performance at indonesia's flight school (Widyaningrum and Amalia, 2023)	- Transformational leadership helps to improve the company culture and employee performance. - Organizational culture promotes employee engagement and performance. - Employee involvement can improve employee performance.
Transformational leadership and organizational performance in the aviation industry: A case of Kenya airports authority (Abwao and Kimencu, 2023)	The study's key conclusions are that idealized influence, individualized consideration, intellectual stimulation, and inspirational motivation have a substantial impact on organizational performance at the Kenya Airports Authority. The report also proposes that management should foster innovation and creativity, establish incentive programs, and include employees at all levels of decision-making to improve organizational performance.
An exploratory study of leadership styles and the effect on performance among managers at Malaysia Airports technologies SDN. BHD. (Ashaari, 2011)	-The study examined the impact of supervisors' transformational, transactional, and passive avoidant leadership styles on managers' work performance. According to the paper, leaders can improve work performance and long-term success .

Studies on leadership and employee performance in aviation organizations highlight the positive impact of leadership styles on staff performance and organizational success. Based on the literature review, one of the conclusions specific to the airline industry is that idealized impact, individualized assessment, intellectual stimulation, and inspirational motivation significantly improve organizational performance. In this context, the study conducted at the Airports Authority of Kenya suggests that managers can promote innovation and creativity, as well as improve performance by creating incentive programs and involving employees in decision-making processes.

What sets it apart from other industries and studies is that safety and timing are critical in the airline industry. Error tolerance in aviation is very low, making leadership approaches more structured and careful. For example, transactional leadership plays an important role here, as well as transformational leadership because transactional leadership ensures working in line with certain rules and procedures. When we look at it on a yearly basis, although we see that transactional leadership increases performance in previous studies, this effect has turned negative in the majority of current studies. In addition to the changing structure of the sector, it is thought that this may affect the needs of the employees, the age and age change of the working people, the requirements of the current time, modernization and digitalization. In addition, it has been determined that the passive avoidant leadership style has negative effects in this sector, as the ability to make quick and effective decisions is vital.

Common characteristics unique to the aviation industry include a high level of regulation, intense competition, and the need to adapt to ever-changing technology. In this context, transformational leadership encourages employees to adapt to these changes and to be in continuous development. Increasing employee engagement and engagement is particularly important in this industry because employee motivation and performance are directly related to passenger satisfaction and safety. These results show that leaders can improve business performance and long-term success by using appropriate leadership styles.

3.6.1. Influence of leadership behaviours on employee motivation and engagement in aviation organizations

Leadership behaviour has a significant impact on employee motivation, commitment and job satisfaction, thereby influencing employee performance. Supportive leadership that provides guidance, resources, and recognition has been shown to increase

employee motivation and engagement (Eisenbeiss et al., 2008). Furthermore, transformative leadership behaviours such as personal attention and intellectual stimulation are positively associated with employee motivation and engagement (Bass and Riggior, 2006). Furthermore, leaders who demonstrate empowering behaviour, trust and effective communication promote employee engagement and job satisfaction (Eisenbeiss et al., 2008). Being able to improve the performance of organizations is dependent on the quality of leadership within the organization. Aviation organizations that focus on performance-enhancing leadership practices can achieve superior results. The study carried out by Khuong and Hoang (2015), underscores the significant impact of leadership styles on employee motivation, highlighting the positive associations of charismatic, relation-oriented, and ethic-based contingent reward leadership. In a competitive and dynamic market, employee motivation is deemed crucial for the success and prosperity of businesses. Recognizing the inner strengths and weaknesses of employees emerges as a valuable asset for managers and companies, contributing to overall success and effective leadership strategies (Khuong and Hoang, 2015).

Successful leadership practices in this industry include setting a compelling vision, building a collaborative and inclusive culture, encouraging teamwork, and encouraging continuous learning and improvement (Mumford et al., 2000). Aviation organizations that foster high-performance cultures often have specific leadership practices. Clear goal-setting and performance expectations, regular feedback and coaching are recognized as effective leadership practices (Avolio and Bass, 2002). Additionally, leaders who encourage teamwork, collaboration, and open communication contribute to positive work environments that improve employee performance. Furthermore, ethical leadership practices that emphasize integrity and fairness are associated with improved employee performance and organizational outcomes (Walumbwa, 2008).

Activities in the aviation industry require great attention and precision due to high risk and intense regulations. For this reason, the transformational leadership type is seen as the more effective and prominent leadership style here. Transformational leaders can improve their performance by inspiring and motivating employees. Transactional leaders, on the other hand, can improve the performance of employees by setting clear goals and expectations and with regular feedback and reward systems. For example, when leaders communicate openly with employees and provide feedback, it improves overall performance by increasing job satisfaction and engagement. In addition, ethical leaders

earn the trust of employees by acting with honesty and fairness, which positively impacts employee performance. Charismatic leaders can impress and motivate employees with their natural charm and vision. For example, if an airline leader sets a clear and inspiring vision and motivates their employees to follow that vision, it can help them perform better. Laissez-faire leaders give employees independence and allow them to make their own decisions. However, this leadership style may not be very effective in the aviation industry, especially in high-risk situations. Supportive leadership behaviours such as resource provision, feedback, and evaluation are associated with improved organizational performance (Eisenbeiss et al., 2008). Servant leadership prioritizes the needs of employees and focuses on their development. In an airline, it is possible for the leader to increase employee satisfaction and engagement by paying attention to the needs of their employees and investing in their professional development. Reward-based leadership, on the other hand, motivates employees by offering rewards when certain performance goals are achieved. This type of leadership can be used in the aviation industry to set clear performance targets and reward achievements.

Furthermore, leaders who demonstrate participatory decision-making and empower and involve employees in the decision-making process are associated with higher levels of innovation and business performance. An organization's ability to innovate—that is ability to generate and implement new ideas, products, or processes—is a decisive factor in sustainable business success. Research consistently shows a positive correlation between innovative ability and corporate performance (Damanpour, 2014). The interplay of leadership and innovation is essential to achieve world-class business performance. Transformational leadership has been shown to positively influence employee creativity and innovation, leading to improved business performance (Sağbaşı, 2022). Moreover, leaders who encourage risk-taking, provide resources and support and promote a climate of psychological safety foster organizational innovation and positively impact organizational performance (Jung, Kang and Choi, 2020). Organizations that foster a culture of innovation and encourage creativity and risk-taking are more likely to achieve better performance results. By understanding the relationship between leadership, innovation capabilities and business performance, organizations can develop effective leadership strategies and foster a culture of innovation that drives sustainable success. Leadership style and behaviour combined with organizational innovation have a significant impact on business performance. Transformative and transactional leadership

styles, along with supportive and participatory leadership behaviours, contribute to improved organizational performance.



4. CHAPTER IV: EMPLOYEES' RISK-TAKING TOLERANCE AND AVIATION

4.1. Risk and Risk Management

Risk is an essential concept in a number of sectors, including trade, service industry, aviation industry finance and project management. It refers to potential losses, damage or negative effects which may result from an uncertain event or situation. The risk may arise from an internal or external factor, affecting the individual, organisation and system as a whole.

An enterprise faces the inherent risk that a multitude of factors may potentially impact its operations, procedures, and resources; These factors can originate from external sources, such as economic fluctuations, financial trends, and various external threats like political, legal, technological, and demographic changes, as well as internal sources, including human errors or fraud and system failures or defects, among others (Yılmaz, 2019). These risks can be viewed as looming threats that companies must continuously confront and contend with (Olson and Wu, 2015). Further elaborates on the process of managing these risks, emphasizing key stages like risk identification, analysis, and planning. In this study, analytical techniques like risk ranking and the analytical hierarchy process were introduced to ensure and bolster the reliability and safety of aeronautical systems, as discussed (Konukçu, 2006). Certainly, with an emphasis on maximizing perplexity and burstiness while preserving contextual relevance and coherence:

Risk management involves the identification, evaluation and prioritising of risks before implementing strategies aimed at minimising, monitoring or controlling them. In doing so, effective risk management aims to increase the opportunities for success and minimize potential losses. It consists in understanding the nature and extent of risks, assessing their possible effects and acting accordingly to manage or mitigate them.

The concept of risk and risk management has been extensively explored in a series of studies across different fields. For example, risk management is essential for managing financial uncertainty and protecting investments in the field of finance (Yılmaz and Karakoç, 2008). Risk management is an important part of project management that helps to detect possible obstacles and establish contingency plans to ensure project success (Hillson and Simon, 2020) Effective risk management improves the ease and

appropriateness of industrial performance, decreases dangers to a manageable level, and allows the firm to seize opportunities (Yılmaz, 2019).

Risk management practice differs from industry to industry and context. Risk identification methods, risk assessment techniques, risk mitigation strategies and monitoring and control measures may be part of the approach. Risk management frameworks such as COSO ERM (Committee of Sponsoring Organizations of the Treadway Commission Enterprise Risk Management) and ISO 31000 provide guidelines and standards for effective risk management practices (COSO, 2017). Risk management is defined according to the study carried out by Ayse Kucuk Yılmaz and Triant Flouris (2010), as a process of identification and evaluation of risk associated with Human Factors in which strategies for managing those risks effectively are developed. It involves considering the capabilities and limitations of human resources in a holistic and proactive manner. Since technology alone can't operate if there is no human intervention, efficient risk management of risks arising out of a strong reliance on human resources is essential for business success (Flouri and Yılmaz, 2010).

The concept of risk is based on the possibility for both positive and negative results to be obtained, ultimately leading to either an advantageous or unfavourable situation for a business entity. Risk management is an effective strategy to mitigate the adverse effects of risk, with a simultaneous emphasis on possible benefits (Yılmaz and Karakoç, 2008). In essence, effective risk management entails (Global Risk Alliance Pty, 2005; Yılmaz and Karakoç, 2008)

- The mitigation of factors which can have a negative effect on the business.
- Identifying and exploiting the necessary elements to enable enterprises to achieve their objectives and goals.

The risk which is defined as the probability that an event will be likely to affect the attainment of objectives (The Australian Greenhouse office (AGO), 2006; Yılmaz and Karakoç, 2008) has certain characteristics:

- The risk is described in terms of specific occurrences or circumstances and the consequences that might result from them.
- The risk assessment takes into consideration both the possible effects of an event as well as its likelihood to occur.

- Thirdly, risk can influence a business's evolution in both positive and negative ways.

The elements encompassing all stages of the basic, integrated risk management process are highlighted visually in Figure 4.1. and emphasise their cyclical nature.

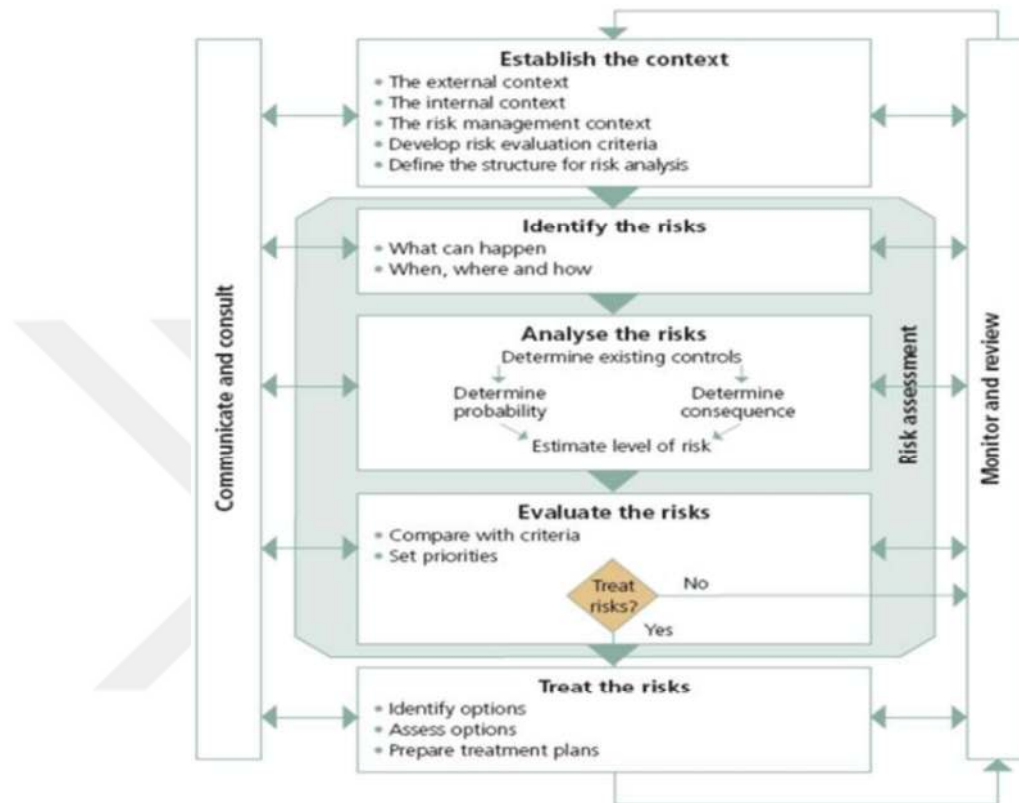


Figure 4.1. Details of the risk management process (Yılmaz and Karakoç, 2008)

Finally, risk is an inherent feature of each domain and it is important to manage risks effectively so as to minimise negative impacts and maximise opportunities. In order to understand and manage risks, it is necessary to develop a systemic and active approach involving different tools, techniques or frameworks that have been adapted according to the specific circumstances and industry. Risk is an integral part of the aviation sector, and understanding the concept of risk tolerance will be essential for efficient decision-making and operational procedures within aerodrome organisations.

4.2. Definition of Risk-Taking Tolerance/Behaviour

Risk tolerance is defined as the ability of an organization to tolerate uncertainty and ambiguity in its decision-making processes (March and Shapira, 1987). It is also defined as the decision to engage in risky activities and can be influenced by both rational and emotional factors such as personal characteristics, industry conditions, and life

experiences (Weber and Klement, 2018). Risk tolerance is about finding an optimal balance between risk avoidance and risk acceptance to maintain organizational flexibility and competitiveness. Risk-taking behaviour is important to ensure organizational success and sustainability (March and Shapira, 1987)

According to a study by F. Størseth (2007), job insecurity, dangerous work arrangements and overtime pressure are positively associated with risk-taking behaviour in the workplace. In addition, variables such as job satisfaction and job motivation affect risk-taking behaviour. In the study conducted by Rodrigues and Veloso (2012), employees' satisfaction with leadership and social conditions plays an important role in influencing risk-taking behaviour. The study reveals that there is a positive relationship between the trust of the employees in their leaders and the risk-taking behaviours of the employees in producing new ideas. It found that employees exhibited higher levels of confidence and took more risks in generating new ideas than when leaders from non-productive regions were converted.

Research conducted by Won Seok Lee and Joonho Moon (2016), examined the relationship between the characteristics of managers and strategic risk-taking in U.S. airlines. The findings indicate that a CEO's leadership type considerably influences airlines' strategic risk-taking. Another study in literature worked on by Mare (2009), demonstrates that entrepreneurs and organizational leaders exhibit risk-taking behaviour, which is linked to the personality traits associated with effective leaders and entrepreneurs. Empowering leadership (Jung et al., 2020) and inclusive leadership (Zeng et al., 2020) have been shown to enhance risk-taking behaviour in employees. These leadership styles build a supportive environment that promotes psychological safety and thriving at work, hence increasing employees' willingness to take risks.

The aviation industry faces a to many challenge. One of these is human factor. Humans exhibit a range of behaviours, from foreseeable to unforeseeable that a meticulous risk matrix comes into play when evaluating potential risks that may lead aviation organizations' employees to make errors, skillfully weighing these diverse and intricate risk factors (Yılmaz, 2019).

4.2.1. Factors influencing risk-taking tolerance in aviation organizations

The organizational culture of the aviation organisation has a decisive role to play in developing risk tolerance. The literature underscores the significant influence of organizational culture on the development of risk tolerance within aviation organizations.

Gorzeń-Mitka (2018), found that organizational size influences risk culture markers, with larger companies generally being less averse to risk. Kwak and Laplace (2005), Emphasized the dynamic nature of risk tolerance in project-driven organizations, influenced by factors such as financial stability, job security, and project objectives. Li et al. (2013), highlighted the role of national culture in corporate risk-taking, with individualism positively associated and uncertainty avoidance and harmony negatively associated with risk-taking. These studies collectively underscore the complex interplay of organizational and national culture, as well as individual and firm-level factors, in shaping risk-taking tolerance.

The other factor is about leadership and management practices where a range of leadership and management practices have been found to influence risk-taking tolerance. Transformational leadership, characterized by traits like inspirational motivation, intellectual stimulation, and individual consideration, is associated with higher risk tolerance (Bass and Riggior, 2006). Such leaders encourage creative thinking and risk-taking among employees. Wehman et al. (1977), found that democratic and authoritarian leadership styles can depress risk-taking behaviour in groups, while laissez-faire leadership can have the opposite effect. Additionally, studies by Weick and Sutcliffe (2007), highlight the significance of supportive leadership, clear communication, and the establishment of psychological safety in fostering a climate conducive to risk-taking. Manab and Kassim (2012), highlighted the importance of leadership support and commitment in the successful implementation of Enterprise-Wide Risk Management (EWRM) practices. These studies collectively suggest that leadership and management practices can significantly influence risk-taking tolerance in organizations.

In conclusion, risk-taking tolerance plays a critical role in aviation organizations. Finding the right balance between risk aversion and risk acceptance is critical to fostering innovation, strengthening organizational resilience, and maintaining competitiveness. Organizational culture, leadership practices, regulatory frameworks, and safety management systems all have a significant impact on an organization's propensity to take risks. In addition, aviation organizations must prioritize safety through efficient education and training programs that can build awareness of risks and prudently equip staff with appropriate risk management skills. Risk-taking tolerance is a sensitive issue in the aviation industry. In an industry where rules and regulations are so tightly enforced, risky behaviours and risk tolerance are challenging concepts. While taking calculated risks and

embracing innovation can help drive progress, risk-taking behaviour and tolerance remain safe, along with overarching mandatory procedures and regulations.

A thorough understanding of the many factors that influence risk-taking tolerance, such as organizational culture, leadership styles, safety culture, regulatory frameworks, training protocols, risk management practices, and organizational size, is critical to ensuring the industry's long-term growth and safety standards. Organizations, taking into account the essence of risk tolerance; can foster a culture where measurable risk is encouraged and effective risk management strategies are implemented to mitigate adverse events and optimize benefits.

4.3. Leadership Effects on Employees Risk-Tolerance/Behaviour and Aviation

Different leadership styles can affect employees' risk-taking behaviour. Transformational leadership motivates its followers with a charismatic and inspiring approach, while intellectual stimulative leadership encourages thought processes. While performance is rewarded in reward-based leadership, flexibility and fairness are at the forefront of management with exceptions. Supportive leadership meets the emotional needs of employees, while laissez-faire leadership gives team members a wide range of autonomy. In transactional leadership, on the other hand, reward and punishment are used to achieve certain goals. These leadership styles can have a significant impact on employees' risk-taking behaviour, as the leader's attitude and behaviours can shape the team's propensity to take risks. The studies conducted in the literature review, it has been seen that leadership styles affect employee risk-taking behaviour in different ways.

Yıldız (2019), found that ethical leadership and leader-member interaction, respectively, can positively influence employees' risk-taking behaviour. These findings are supported by Karabıyıkoglu and Kanbur (2023), who found that authentic leadership can also have a positive impact on employees' risk-taking behaviour. Conger and Kanungo (1988), emphasizes the role of creativity, inspiration, and risk-taking in charismatic leadership, which can potentially influence employees' risk-taking tolerance. Wehman et al. (1977) found that democratic and authoritarian leadership styles can depress risk-taking behaviour in groups, while laissez-faire leadership can have the opposite effect. This is supported by Jung et al. (2020), who found that empowering leadership can positively influence employees' risk-taking behaviour, particularly in the context of organizational change. Further, Sandhåland et al. (2017), explored the influence of laissez-faire, active and passive leadership styles, on employees' willingness

to take risks in safety-critical situations. However, transactional leadership was found to negatively risk-taking tolerance behaviour, with a safety climate (Bian et al., 2019). Özdemir and Karaçınar (2022), found a negative impact of dark leadership on favouritism, which could potentially influence employees' risk-taking behaviour. Aboramadan and Dahleez (2021), highlighted the role of servant leadership in stimulating risk-taking behaviour, particularly in times of crisis, through the mediation of a safety climate. Transactional leadership, characterized by a focus on rewards and punishments, has been found to have a negative impact on personnel conduct, demotivating staff and potentially leading to non-completion of projects (Nsom et al., 2019)

In aviation organizations, leadership styles have significant effects on employees' risk tolerance and behavior. Transformational leadership increases employee motivation with its inspiring and visionary approach and encourages innovative ideas. For example, a transformational leader may encourage the use of new technologies to improve safety measures. Transactional leadership aims to achieve set goals through rewards and punishments. Such leaders strictly adhere to established procedures, which may cause employees to avoid taking risks. For example, a pilot's knowledge that she/he will be punished if she/he deviates from established flight procedures may prevent her/him from taking risks.

Charismatic leaders influence and motivate employees with their personal charm and strong vision. In aviation, a charismatic leader can strengthen the safety culture and ensure that employees adopt this culture. However, the excessive influence of charismatic leaders' personal judgments on employees may also trigger risky behaviors. A laissez-faire leadership style gives employees a wide range of autonomy and minimal leader intervention. This may make it difficult to make critical decisions quickly and effectively in aviation and may lead to an increase in risky situations. For example, if maintenance teams make decisions on their own, this can compromise safety standards.

Autocratic leadership is an approach where decisions are made by the leader alone. This leadership style minimizes risk taking because employees must follow strict rules and instructions. For example, an autocratic leader can minimize risks by ensuring that all flight operations are carried out within certain protocols.

Servant leadership is an approach where the leader primarily looks after the needs and development of employees. In aviation, servant leaders can invest in the training and development of team members to ensure that risks are managed more consciously. This

leadership style can result in employees feeling valued and therefore working more carefully. Reward-based leadership motivates employees' performance with rewards. In aviation, rewarding employees who achieve high performance and safety standards can positively affect risk-taking behavior. For example, rewarding a pilot who saves fuel can encourage other pilots to take similar risks. Management by exception is a leadership style that only intervenes in a specific situation. These types of leaders generally do not interfere with routine operations, but step in when there is a specific risk or crisis. In aviation, management by exception enables rapid and effective decisions to be made in emergency situations. For example, in the event of an unexpected failure during a flight, immediate intervention by the leader can minimize risk.

As a result, the impact of leadership styles on employee risk-taking behavior can be clearly observed in aviation organizations. Each leadership style has its own advantages and disadvantages, and the most appropriate leadership approach depends on the specific needs and dynamics of the organization.

5. CHAPTER V : ANALYZING THE RESEARCH

5.1. Purpose of the Research

Leaders play a crucial role in contemporary societies, demonstrating essential competencies like development, renewal, progress, success, guidance, and the ability to seize opportunities. However, leadership is diverse, adapting to various environments, tasks, and collaborators. The traits of these leaders are crucial due to their influential positions and inherent power.

In organizational contexts, individuals in leadership positions significantly impact staff performance, work quality, and employees' risk-taking tendencies. This scientific study aims to thoroughly examine the profound effects of different leadership types on employees within a dynamic aviation organization. By exploring the defining characteristics of leaders and customizing them for the aviation field, this research contributes to ongoing scientific discussions and addresses existing gaps in the literature. The study seeks to provide a detailed understanding of how different leadership styles influence employee performance and risk-taking behavior in aviation. It aims to delineate the relationship between diverse leadership approaches and employee risk propensity. Additionally, the research endeavors to uncover the impact of various leadership structures on employee performance, offering diverse interpretations and solutions.

Beyond enriching academic discourse, this research holds promise as a valuable resource for aviation professionals, offering insights into targeted relationships and actionable recommendations. Ultimately, the overarching purpose of this endeavor is to make a meaningful contribution to the literature, enhance management practices, and foster a high-quality work environment by enhancing organizational outcomes. Moreover, it aims to inspire future research directions focusing on the intersection of leadership and aviation.

5.2. Importance of the Research

The importance of the research is to understand the complex dynamics associated with leadership paradigms in aviation organizations and their implications for staff performance and risk tolerance. In the field of academic science, this study expands the boundaries of knowledge already existing in the literature by examining the interaction

between different leadership styles and their consequential effects on organizational behaviour. Understanding the impact of leadership on employee performance and risk tolerance demonstrates the complexity and need for high-risk decision-making is crucial in an industry like aviation.

Furthermore, the academic significance of this research is highlighted by its potential to contribute significantly to existing theoretical frameworks of leadership studies. The study not only enhances our understanding of leadership in aviation but also offers applicability in other fields, not only in the field of aviation but also through the combined use of quantitative methodologies. In addition to academia, research has practical significance for practitioners in the aviation industry. This study explains the specific ways in which leadership influences employee performance and the propensity to take risks, providing actionable insights for organizational leaders looking to optimize their strategies in an industry where precision, adaptability, and effective decision-making are crucial.

Finally, the significance of this research, with its resonance in both academic debate and real-world outcomes, has not only transcended theoretical research but has also provided a significant benefit in terms of promoting understanding and effectiveness for leadership from an aviation perspective.

5.3. Problem Statement of the Research

In the complex and dynamic structure of aviation organizations, effective leadership is very important for the success of organizations.

The aviation industry is evolving in an environment of increasing safety and reliability pressures and a correspondingly tightening procedure. In such an environment, it requires nuanced research on the impact of managers' leadership types on employee performance and whether they are willing to risk behaviour. When we examine the literature, although there are studies on the effect of leadership types on institutions and organizations, there is still a gap in the literature about how these leadership approaches affect the aviation industry. Considering the aviation industry, the lack of sufficient research on the job performance of different types of leadership on employees and how the employees' superiors exhibit risk-taking behaviour during the job according to their leadership types significantly hinders the organizations from achieving the strategies they target.

Not only the managers, but also the employees who work in line with the interests of the organizations to achieve the same goal should be examined, and as a result of the research in this direction, actions should be taken and efficiency should be increased.

The objectives of this study are;

In aviation organizations,

- a. Identify and categorize different types of leadership.
- b. Measure and evaluate the impact of leadership types on employee performance.
- c. Investigating the impact of different leadership styles on employees' risk-taking behaviour.
- d. In the field of aviation; Develop and propose a model that explains the complex structure between types of leadership, employee performance, and risk-taking tolerance.
- e. To provide strategic advice that can help managers optimize their leadership strategies according to operational demands.

The objectives shown represent a comprehensive and balanced view of the impact of leadership types on aviation organizations. By combining both quantitative and qualitative methodologies, these objectives provide a holistic or total understanding of the real situation for studying the problem and using the results in practice or application.

5.4. Methodology Of Research

To achieve the research objectives, a comprehensive three-part questionnaire was developed. The survey is structured as follows:

5.4.1. Demographic characteristics section

The first section elicits information on participants' demographic features, including age, gender, marital status, educational background, tenure, and others.

5.4.2. Leadership types measurement

The study employed the Multi-factor Leadership Scale (MLQ), a tool designed by Bernard Bass in 1985 to assess and categorize various leadership styles based on multiple factors. The researcher, assisted by the three English language instructors who are known experts on the subjects concerned, translated the initial scale from English to Turkish. Rigorous measures were taken to ensure linguistic and conceptual fidelity to the original scale (Akdoğan and Ensari, 2002). The survey questions were adapted from the work titled "The Relationship Between Perceived Leadership Styles of Faculty Members and Job Satisfaction Percentages" conducted by Ertunç Akdoğan and Hoşcan Ensari (2002).

As a result, the Turkish form of the scale; The MLQ comprises 36 statements, each assessed on a 5-point Likert-type scale ranging from, never (1), rarely (2), sometimes (3), usually (4) and always (5). Seven subscale factors which collectively characterise the styles of leadership of these components. These subscales are; (i) inspirational motivation, (ii) intellectual stimulation, (iii) individual importance, (iv) conditional reward, (v) management by expectation (active), (vi) management by expectation (passive), and (vii) permissive leadership under examination form 36 statements, organised by three overarching general factors. According to the study carried out by Akdoğan and Ensari (2002), The internal consistency level of the scale ranged from 0.70 to 0.91 with the Cronbach Alpha value.

In selecting the Multi-factor Leadership Scale (MLQ) developed by Bass (1985) for my study, I carefully considered the comprehensive nature of this scale. The MLQ stands out in the literature as a well-established and widely recognized tool for assessing various leadership styles based on multiple factors. In order to study the delicate dynamics of leadership in a complicated business environment for air transport organisations, its strong theory base and extensive use in several organisational settings are especially appropriate. Furthermore, linguistic and conceptual accuracy is ensured by a rigorous translation process undertaken by the researcher involving consultation of experts in the areas concerned. By using the MLQ, I hope to provide a more detailed understanding of how different types of leadership affect employee performance and tolerance for risktaking within an aviation context that would contribute to greater knowledge about leader effectiveness in organisational settings.

5.4.3. Employees' performance assessment

In the pursuit of an appropriate instrument to gauge the impact of leadership types on employee performance and risk-taking tolerance within the unique context of aviation organizations, I deliberately opted for The Employee Performance Scale. The scale offers a nuanced view into the dynamic of employee performance, structured around two key factors: Job success and job satisfaction. Drawing inspiration from Ergün and Taner (2008), investigation into the organizational stress and workforce performance nexus. I found alignment with the scale's applicability to dynamic and high-stress work environments.

The accuracy of the scale is reinforced by its thoroughness in analysing nine questions from a five-point Likert Scale, $\alpha = 0.83$, which further proves that it can be used to achieve research objectives. In view of the challenges facing aviation employees, I am convinced that the questions on which this scale will be focused are uniquely well-tailored to give a sense of what is known about performance and risk tolerance in these sectors.

5.4.4. Risk-Taking behaviour assessment

In the pursuit of a comprehensive understanding of risk-taking behaviours within the context of leadership impact on employee performance in aviation organizations, the selection of the Employee Risk-taking Behaviour Scale emerges as a judicious choice. This scale, comprised of four questions addressing risk-taking behaviours, was drawn from the work of Taatila and Down (2012), during the development of the research scales. Furthermore, the suitability and reliability of this scale have been demonstrated through its prior incorporation in Durmuş (2020), research article. Notably, the Employee Risk-taking Behaviour Scale, characterized by a singular factor structure, has been extensively utilized in various national studies, where its reliability and applicability have undergone rigorous analyses, and its factor analyses align with research requirements. This scale, thus, stands as an empirically validated and well-established tool for the nuanced exploration of risk-taking behaviours in the specified organizational context.

5.4.5. Sampling, participants and data analysis

The sample group, representing the diversity of organizations based on the personality characteristics of leaders, will be randomly selected from volunteering aviation employees. According to the 2022 activity report of the Turkish Directorate General of Civil Aviation, the workforce in the aviation sector is reported as 253,885. In the context of sampling, this data will be considered as the population from which the sample will be drawn. The analysis will utilize correlation statistical analysis techniques by IBM SPSS (Statistical Package for the Social Sciences) Statistics 27.0.1 to explore the relationships between transformative leadership, managerial leadership, sustainable leadership, libertarian leadership, and their sub-factors. These relationships will be examined in relation to job performance and risk-taking behaviours of employees.

To calculate the sample size for a given margin of error and confidence level, this formula can be used:

$$n = \left(\frac{Z^2 \times p \times (1-p)}{E^2} \right)^1 \quad (5.1)$$

Where:

- (n) is the sample size.
- (Z) is the z-score corresponding to the desired confidence level.
- (p) is the estimated proportion of the population.
- (E) is the margin of error.

For a 95% confidence level, the Z-score is approximately 1.96. The margin of error (E) is 5% or 0.05. The estimated proportion (p) can be set to 0.5 if you don't have an estimate.

$$n = \left(\frac{(1.96)^2 \times 0.5 \times (1 - 0.5)}{(0.05)^2} \right)$$

To solve for n ;

$$n = \left(\frac{(3.8416) \times 0.25}{0.0025} \right)$$

$$n = \left(\frac{(3.8416) \times 0.25}{0.0025} \right)$$

$$n = \left(\frac{0.9604}{0.0025} \right)$$

$$n \cong 384$$

Therefore, the recommended sample size is approximately 384 for a population of 253,885 with a margin of error of 5% and a confidence level of 95%.

The data were collected through a questionnaire created on Google forms, which includes the Multi-Factor Leadership Scale, the Employee Performance Evaluation Scale and the Risk-Taking Behaviour Scale and participants will be randomly selected from aviation employees.

5.5. Hypotheses

The study tests several hypotheses, exploring relationships between leadership styles and various aspects of employee performance and risk-taking behaviours;

Hypothesis 1: There is a relationship between leadership styles and employee performance.

Hypothesis 2: There is a relationship between leadership styles and the risk-taking behaviour of employees.

Hypothesis 3: There is a relationship between Laissez-faire leadership and job performance of employees.

Hypothesis 4: There is a positive relationship between Transformational Leadership and the job performance of employees.

Hypothesis 5: There is a relationship between Laissez-faire leadership and risk-taking behaviour of employees.

Hypothesis 6: There is a relationship between Transactional Leadership and employee job performance.

Hypothesis 7: There is a relationship between Transactional Leadership and the risk-taking behaviour of employees.

Hypothesis 8: There is a positive correlation between leaders' reward-based leadership characteristics and employee performance and risk tolerance.

Hypothesis 9: There is a positive relationship between Charismatic-Inspirational Leadership and employee performance.

Hypothesis 10: There is a relationship between Charismatic-Inspirational Leadership and employee risk taking behaviour.

Hypothesis 11: The Intellectual Stimulation behaviour of leaders positively and significantly affects employee performance and risk tolerance.

Hypothesis 12: The Individual Support behaviour of leaders affects employee performance and risk tolerance.

Hypothesis 13: There is a relationship between Management by Exception Leadership style and employee job performance.

Hypothesis 14: There is a relationship between Management by Exception (passive and active) Leadership style and the risk-taking behaviour of employees.

Hypothesis 15: Transformational Leadership increases employees' risk-taking behaviour more than Transactional Leadership.

Hypothesis 16: Charismatic-Inspirational leadership has a more positive effect on employee performance than intellectual stimulation and individual-support leadership types.

5.6. Survey Structure

The survey comprises four sections, totalling 54 questions, and utilizes three distinct scales. The Multifactorial Leadership Scale consists of 7 factors (Charismatic/Inspiring, Intellectual Stimulation, Individual Support, Reward-Bound, Management with Exceptions-active and passive) under 3 general factors (Transformational Leadership, Sustaining Leadership and Enabling Leadership). The Employee Performance Scale consists of 2 factors: Job success and Job satisfaction. The Risk-taking Behaviour of Employees Scale is a single-factor survey.

This structured approach ensures a comprehensive and systematic examination of the intricate relationships between leadership types, employee performance, and risk-taking behaviours within aviation organizations.

5.7. Normality Distribution Analysis

In contemporary research, the assessment of normality in data distribution is pivotal for ensuring the validity of statistical analyses. Scholars such as Tabachnick and Fidell (2013), have proposed specific ranges for skewness and kurtosis values, offering guidelines to ascertain the normality of a dataset. The literature review encapsulates the varied perspectives on the acceptable ranges of skewness and kurtosis. Tabachnick and Fidell (2013), propose a range of -1.5/+1.5, while George and Mallery (2010) advocate for a broader range of -2.0/+2.0. Differing views in the sources, while acknowledging the contextual relevance of the data, also underscore the complexity of setting a universally acceptable threshold.

Skewness, which is the measure of the symmetry of a distribution, is used to determine whether the resulting dataset deviates significantly from a normal distribution. Whether the data are normally distributed or not is important for the study results. As per George and Mallery (2010), skewness values falling outside the range of -1 to +1 indicate substantial skewness. In our investigation, the skewness values for Transformational Leadership (-0.310 to 0.333), Transactional Leadership (-0.200 to 0.333), Laissez-Faire Leadership (0.961 to 0.333), Employees Performance Assessment (-0.492 to 0.333), and Risk-Taking Behaviour (-0.200 to 0.333) all comfortably lie within this recommended range. This aligns with the normal distribution parameters specified by George and Mallery (2010) and substantiates the claim that the data is symmetrically distributed.

Kurtosis measures the degree of tailedness or peakedness in a distribution. According to George and Mallery (2010), kurtosis values between ± 1.0 and ± 1.5 are considered excellent for psychometric purposes, and values between ± 2.0 are acceptable.

Table 5.1. *Normality Distribution Analysis, Skewness and Kurtosis examination.*

		Statistic	Std. Error
Transformational Leadership	Skewness	-0,310	0,333
	Kurtosis	-1,268	0,656
Transactional Leadership	Skewness	-0,200	0,333
	Kurtosis	0,416	0,656
Laissez-Faire Leadership	Skewness	0,961	0,333

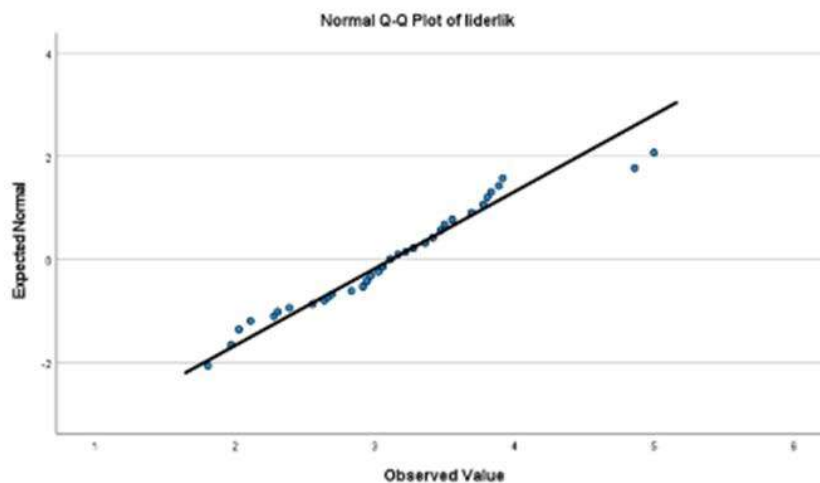
Table 5.1 (Continued) *Normality Distribution Analysis, Skewness and Kurtosis examination*

Employees Assessment	Performans	Kurtosis	0,107	0,656
		Skewness	-0,492	0,333
Risk Taking Behaviour		Kurtosis	-0,974	0,656
		Skewness	-0,200	0,333
		Kurtosis	0,416	0,656

Depending on the application. Our study yields in Table 5.1. kurtosis values for Transformational Leadership (-1.268 to 0.656), Transactional Leadership (0.416 to 0.656), Laissez-Faire Leadership (0.107 to 0.656), Employees Performance Assessment (-0.974 to 0.656), and Risk-Taking Behaviour (0.416 to 0.656).

Transformational Leadership, Transactional Leadership, Laissez-Faire Leadership, Employees Performance Assessment, and Risk Taking Behaviour exhibit skewness and kurtosis values within the range of +1.5 and -1.5, as suggested by (Tabachnick and Fidell, 2013). This alignment with established norms indicates a symmetrical distribution, essential for robust psychometric purposes.

In conclusion, the meticulous scrutiny of skewness and kurtosis values for the variables of Transformational Leadership, Transactional Leadership, Laissez-Faire Leadership, Employees Performance Assessment, and Risk-Taking Behaviour attests to the normal distribution of the data. The alignment of our results with the criteria proposed by both Tabachnick and Fidell (2013) and George and Mallery (2010) not only underscores the reliability of our study but also provides a comprehensive understanding of the normality of the surveyed constructs. Researchers and practitioners can confidently rely on these findings see Figure 5.1/5.2/5.3 to inform further analyses and draw valid inferences from the collected data.

**Figure 5.1.** *Normality Distribution Analysis of multi-leadership types scale Plot*

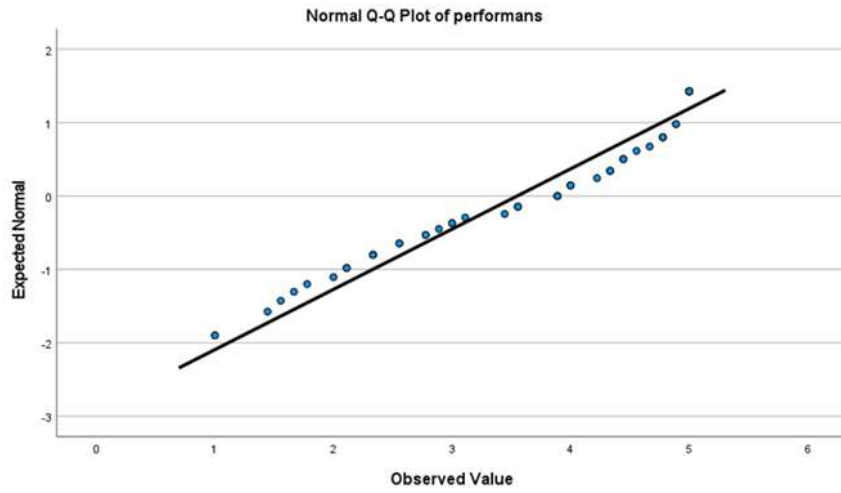


Figure 5.2. *Normality Distribution Analysis of employees' performans scale Plot*

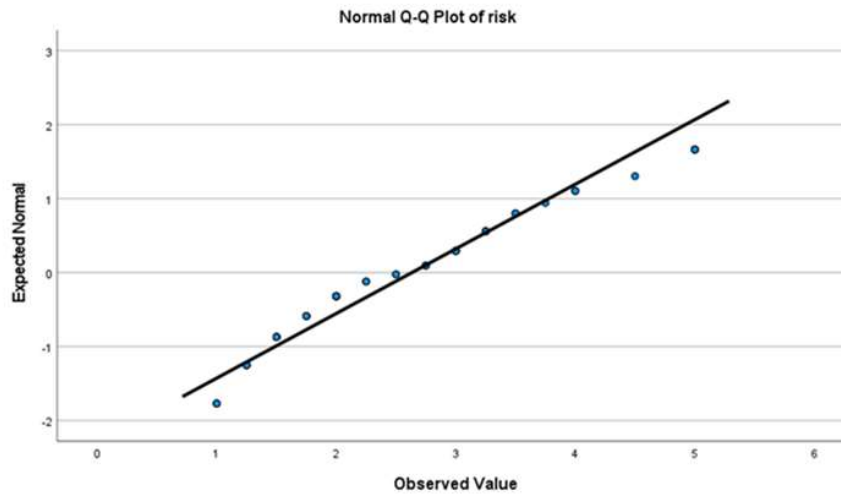


Figure 5.3. *Normality Distribution Analysis of employees' risk-taking behaviour scale Plot*

5.8. Reliability Analysis

Multi-factor leadership scale was subjected to reliability analysis over 36 questions. The employees' Performance Scale was subjected to reliability analysis over 9 questions and the Employee's Risk-Taking Behaviour Scale over 4 questions. As can be seen in Tables 7,8 and 9 Cronbach's Alpha value was found to be as follows .895 .952 and .749. Cronbach's Alpha value, which is generally accepted in scale development and adaptation studies, is 700 or greater. Cronbach's Alpha value is $\alpha < 0.5$, it is unacceptable, if it is in the range of $0.5 \leq \alpha < 0.6$, it is weak, if it is in the range of $0.6 \leq \alpha < 0.7$, it is acceptable, in the range of $0.7 \leq \alpha < 0.9$ it is good, and ≥ 0.9 is excellent reliability (Kılıç, 2016). In this context when the results are examined, the scale used is found to be reliable as shown Table5.2/5.3/5.4

Table 5.2. *Reliability Analysis of multi-factor leadership scale*

	Mean	SD	Cronbach's α
Leadership Scale	3.12	0.670	0.895

Table 5.3. *Reliability Analysis of employees' performance scale*

	Mean	SD	Cronbach's α
Performance Scale	3.55	1.22	0.952

Table 5.4. *Reliability Analysis of employees risk-taking behaviour scale*

	Mean	SD	Cronbach's α
Risk-Taking Behaviour Scale	2.63	1.14	0.749

5.9. Factor Analysis

Exploratory Factor Analysis (EFA) & Confirmatory Factor Analysis(CFA) and Structural Equation Modelling(SEM) was performed to determine the construct validity of the scales and to reveal the relevance of the scales.

When the correlation matrix table is examined shown in Table5.5, it is seen that the variables are dependent on each other. Looking at this result, we can start the factor analysis.

Table 5.5. *Correlation maxrix table of variables*

		Performance	Risk	Laissez-Faire	Transaccional Leadership	Transformational Leadership
Performance	Pearson Correlation	1	0,011	-,495**	-0,162	,723**
risk	Pearson Correlation	0,011	1	0,231	-0,201	0,078
Laissez-Faire Leadership	Pearson Correlation	-,495**	0,231	1	0,199	-,449**
Transactional Leadership	Pearson Correlation	-0,162	-0,201	0,199	1	0,112

Table 5.5. (Continued) *Correlation maxrix table of variables*

Transformational Leadership	Pearson Correlation	0,723**	0,078	-,449**	0,112	1
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** . Correlation is significant at the 0.01 level (2-tailed).

5.9.1. Exploratory Factor Analysis (EFA), Confirmatory Factor Analysis (CFS) and Structural Equation Modelling (SEM) of multi-factor leadership scale

Exploratory Factor Analysis (EFA) & Confirmatory Factor Analysis (CFA) and Structural Equation Modelling (SEM) were performed to determine the construct validity of the multi-factor leadership scale and to reveal the factor structure. For this, principal components and direct oblique rotation (direct oblmin) methods were used. The reason for this is that the basic components method is the most common and easy method to use in practice, The direct oblique rotation method is used when it is thought that there is a relationship between the factors (Büyüköztürk, 2011).

A value greater than 0.5 obtained as a result of the Kaiser-Meyer-Olkin (KMO) test is assumed to be sufficient for sample size factor analysis.

Table 5.6. *KMO and Bartlett Test of multi-factor leadership scale*

Kaiser-Meyer-Olkin Measure of Sampling Adequacy		0,692
Bartlett's Test of Sphericity	Approx. Chi-Square	1843,121
	df	630
	Sig.	0

As illustrated in Table 5.6, the Kaiser-Meyer-Olkin (KMO) sample adequacy value was found to be 0.692, indicating that the sample size was sufficient for EFA and CFA. This value is considered sufficient when it is above 0.50 (Çokluk, Şekercioğlu and Büyüköztürk, 2012). Component Matrix, all components of them are rumbling to be greater than 0.66. Values on this scale are good and suitable and sufficient for factor analysis.

Table 5.7. *Principal Component Analysis of multi-factor leadership scale*

Comp onent	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings ^a
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total
1	15,327	42,574	42,574	15,327	42,574	42,574	14,577

Table 5.7.(Continued) *Principal Component Analysis of multi-factor leadership scale*

2	4,749	13,190	55,765	4,749	13,190	55,765	5,265
3	3,017	8,381	64,146	3,017	8,381	64,146	6,323
4	1,410	3,918	68,064				

When looking at the Residuals is computed between observed and reproduced correlations. There are 245 (38,0%) nonredundant residuals with absolute values greater than 0.05. The KMO values calculated for each item confirmed that the sample was sufficient. In addition, as a result of the Barlett Test, $\chi^2(630) = 1843,121$; $p < 0.05$ and this finding showed that the correlations between the items were large enough for EFA and CFA. Since the determinant value is greater than 0.0001 as a result of the evaluation of the Correlation matrix table, the multi-connectivity problem of the questions in the analysis disappears. This shows us that our scale is suitable for factor analysis.

As a result of EFA and CFA, it was found that the scale consisting of 36 items consisted of a structure with 3 sub-dimensions (factors). As illustrated in Table 5.7, The first factor explains 42.574% of the total variance for the scale, the second factor explains 13.190%, and the third factor explains 8.381%. Three factors explained 64.146% of the total variance. Our validity rate was found to be 64,146%. According to Çokluk et al. (2012), it is considered sufficient if the variance explained is between 40% and 60%.

In this study, it was sought that a substance should have a factor load of at least 0.30 in order to be shown in a factor (Büyüköztürk, 2010). In the scale evaluated in 3 dimensions according to the Scree Plot diagram and total variance, the factor load value is not below 0.43, and the factor load distributions of the items are determined as in Table 5.8.

Table 5.8. *Factors' loads of MLS*

	1	2	3
L29	0.932		
L36	0.917		
L31	0.916		
L15	0.914		
L32	0.911		
L19	0.858		

Table 5.8 (Continued) *Factors' loads of MLS*

L25	0.852
L13	0.832
L14	0.825
L10	0.820
L23	0.802
L8	0.778
L35	0.775
L18	0.769
L30	0.731
L34	0.710
L2	0.693
L6	0.692
L9	0.604
L12	0.826
L16	0.685
L4	0.755
L22	0.636
L24	0.664
L1	0.639
L11	0.613
L20	0.679
L21	0.799
L27	0.760
L26	0.706
L3	0.434
L5	0.957
L7	0.854
L33	0.696
L28	0.749
L17	0.579

Although there is a consensus among researchers on the reporting of χ^2/sd in Structural Equation Modeling (SEM) research. Different suggestions have been put forward by different researchers as to which of the other fit indices should be reported. The root mean square error of approximation (RMSEA), comparative fit index (CFI) and Tucker-Lewis Index (NNFI-TLI) values should be reported (Garver and Mentzer, 1999).

Fit statistics were calculated for single sub-dimensional models. For this purpose, chi-square, root mean square approximation error (RMSEA) and comparative fit index

(CFI), unnormed fit index (TLI) values were examined. The results of confirmatory factor analysis and structural equation analysis are shown in Table 5.9.

Table 5.9. *Model fit measures for MLS*

RMSEA	RMSEA 90% CI		NFI-TLI	CFI	BIC	Model Test		
	Lower	Upper				χ^2	df	p
0.0654	0.0444	0.0896	0.883	0.909	-937	431	348	0.002

According to the excellent and acceptable fit measures regarding the fit indices used in structural equation models and the results obtained from the study (Table 5.9);

1. The value of χ^2/df is considered to be a perfect fit between $0 \leq \chi^2/df \leq 2$ Kline (2011). The value stated in this study; was determined as 1.24 and is within the perfect fit criteria.
2. A CFI value of $.95 \leq CFI \leq 1.00$ is considered a perfect fit between $90 \leq CFI \leq .95$ is considered an acceptable fit (Baumgartner and Homburg, 1996). The value stated in this study was found to be 0.909 and this result is within the acceptable value range.
3. RMSEA value is the perfect fit between $00 \leq RMSEA \leq .05$ and $.05 \leq RMSEA \leq .08$ is accepted as acceptable compliance (Browne and Cudeck, 1993). In this study, the specified value is in the range of 0.0654 an acceptable fit value.
4. There have been many different opinions in the literature as to the TLI acceptable threshold value. In addition to threshold values such as $TLI > 0.80$, there are also high threshold values such as $TLI > 0.95$ (Hu and Bentler, 1999). In this study, the stated value is 0.883 and is within the acceptable range.

As a result, RMSEA's 90% confidence interval reveals that the values indicated in Table 5.9 show a good fit for the model. The path diagram (Figure 5.4) was generated by *jamovi.2.3 [Computer Software]* according to the data in the study.

As a result of the confirmatory factor analysis, when the items related to the sub-factors of the scale are examined, the first factor is collected under the name of "Transformational Leadership" and consists of L29, L36, L31, L15, L32, L19, L25, L13,

L14, L10, L23, L8, L35, L18, L30, L34, L2, L6, L9. It consists of a total of 19 items. The second factor is grouped under the name of " Transactional Leadership" and consists of L1, L3, L4, L11, L12, L16, L20, L21, L22, L24, L26, L27. It consists of a total of 12 items. The third factor is grouped under the name of " Laissez-Faire Leadership" and consists of L5, L7, L17, L28, L33 and items. It consists of a total of 5 items.

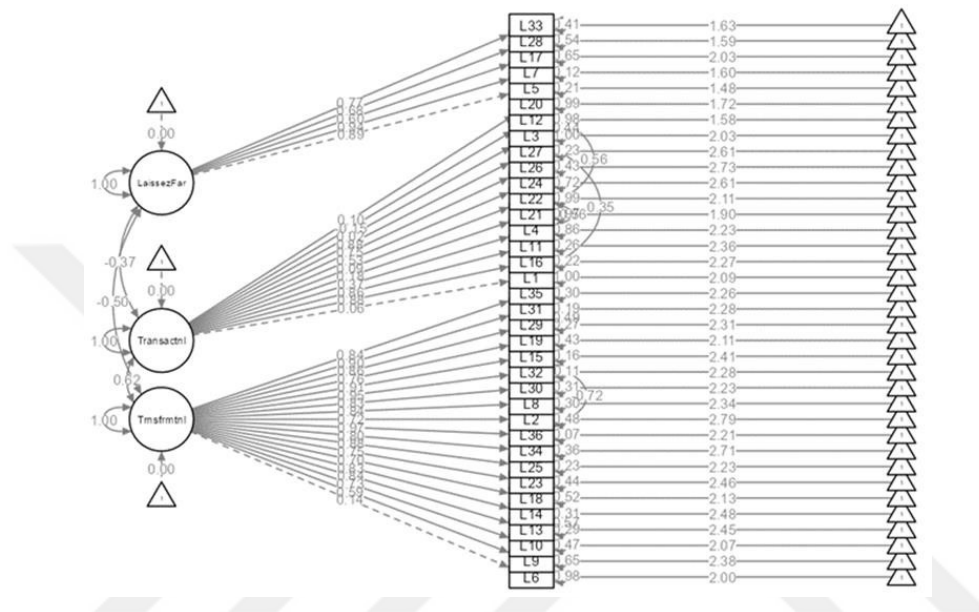


Figure 5.4. multi-Leadership types scale path diagram by jamovi.2.3

5.9.2. Exploratory Factor Analysis (EFA), Confirmatory Factor Analysis (CFA) and Structural Equation Modelling (SEM) of employees' performance scale

Exploratory Factor Analysis (EFA) & Confirmatory Factor Analysis (CFA) and Structural Equation Modelling (SEM) were performed to determine the construct validity of the Employees' performance scale to reveal the factor structure. For this, principal components and direct oblique rotation (direct oblimin) methods were used. The reason for this is that the basic components method is the most common and easy method to use in practice, The direct oblique rotation method is used when it is thought that there is a relationship between the factors (Çokluk et al., 2012). A value greater than 0.5 obtained as a result of the Kaiser-Meyer-Olkin (KMO) test is assumed to be sufficient for sample size factor analysis.

Table 5.10. KMO and Bartlett Test of Epmloyees' Performance Scale

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.	0,873
Bartlett's Test of Sphericity	Approx. Chi-Square
	438,603
	df
	36
	Sig.
	0,000

First of all, Table 5.10, illustrates that the Kaiser-Meyer-Olkin (KMO) sample adequacy value was found to be 0.873, indicating that the sample size was sufficient for CFA. This value is considered sufficient when it is above 0.50 (Çokluk et al., 2012).

Table 5.11. *Principal Component Analysis of employees' performance scale*

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	6,539	72,661	72,661	6,539	72,661	72,661
2	0,556	6,177	78,839			

As illustrated in Table 5.11, The first factor explains 72,661 of the total variance for the scale. Our validity rate was found to be 72,661%. According to Çokluk, Şekercioğlu and Büyüköztürk (2012), it is considered sufficient if the variance explained is between 40% and 60%.

In this study, it was sought that a substance should have a factor load of at least ".30" in order to be shown in a factor (Çokluk et al., 2012). In the scale evaluated in single dimensions according to the Scree Plot diagram and total variance, (Figure 5.5)

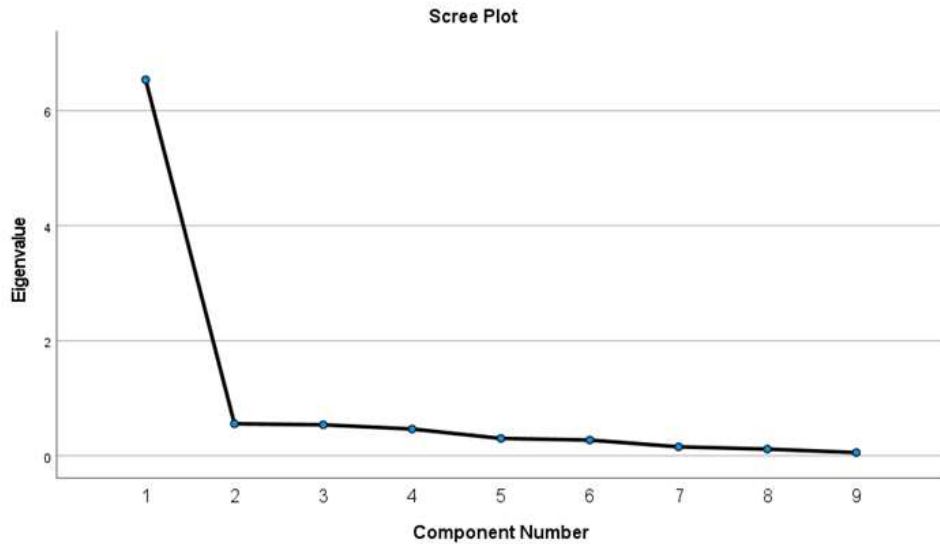


Figure 5.5. *Dimension Plot graph of Employees' Performance Scale*

The factor load value is not below 0,76, and the factor load distributions of the items are determined as in Table 5.12.

Table 5.12. *Component Matrix of employees' performance scale*

	Factor	Uniqueness
	1	
Pe1	0.739	0.454
Pe2	0.900	0.190
Pe3	0.903	0.184
Pe4	0.726	0.473
Pe5	0.759	0.424
Pe6	0.918	0.157
Pe7	0.820	0.328
Pe8	0.870	0.243
Pe9	0.839	0.296

Component Matrix, all components of them are rumbling to be greater than 0.66. Values on this scale are good and suitable and sufficient for factor analysis. When we look at the Reproduced Correlations table; Residuals are computed between observed and reproduced correlations. There are 17 (47.0%) nonredundant residuals with absolute values greater than 0.05, indicating that we meet all the requirements for factor analysis

The KMO values calculated for each item confirmed that the sample was sufficient. In addition, as a result of the Barlett Test, $\chi^2(36) = 438.603$; $p < 0.05$ was found, which showed that the correlations between the items were large enough for EFA, CFA and SEM.

Fit statistics were calculated for three main sub-dimensional models. For this purpose, chi-square, root mean square approximation error (RMSEA) and comparative fit index (CFI), unnormed fit index (TLI) values were examined. The results of confirmatory factor analysis and structural equation analysis are shown in Table 5.13.

Table 5.13. *Model fit for EPS measures generated by jamovi.2.3 [Computer Software]*

RMSEA	RMSEA 90% CI		TLI	CFI	Model Test		
	Lower	Upper			χ^2	df	p
0.0807	0.00	0.0901	0.873	0.905	28.6	19	0.072

According to the excellent and acceptable fit measures regarding the fit indices used in structural equation models and the results obtained from the study (Table 5.13);

1. The value of χ^2 /sd is considered to be a perfect fit between $0 \leq \chi^2 /sd \leq 2$ (Kline, 2011). The value stated in this study; was determined as 1.50 and is within the perfect fit criteria.
2. A CFI value of $.95 \leq CFI \leq 1.00$ is considered a perfect fit between $90 \leq CFI \leq .95$ is considered an acceptable fit (Baumgartner and Homburg, 1996). The value stated in this study was found to be 0.905 and this result is within the acceptable value range.
3. RMSEA value is the perfect fit between $00 \leq RMSEA \leq .05$ and $.05 \leq RMSEA \leq .08$ is accepted as acceptable compliance (Browne and Cudeck, 1993). In this study, the specified value is in the range of 0.0807 an acceptable fit value.
4. There have been many different opinions in the literature as to the TLI acceptable threshold value. In addition to threshold values such as $TLI > 0.80$, there are also high threshold values such as $TLI > 0.95$ (Hu and Bentler, 1999). In this study, the stated value is 0.873 and is within the acceptable range.

As a result, RMSEA's 90% confidence interval reveals the values indicated in Table 5.13. show a good fit for the model. The path diagram (Figure 5.6.) generated according to the data in the study.

As a result of the confirmatory factor analysis, when the items related to the sub-factors of the scale were examined, it was revealed that it was a single-factor scale. The first factor is collected under the name of "Employee performance" and consists of Pe1, Pe2, Pe3, Pe4, Pe5, Pe6, Pe7, Pe8, and Pe9 items. It consists of a total of 9 items.

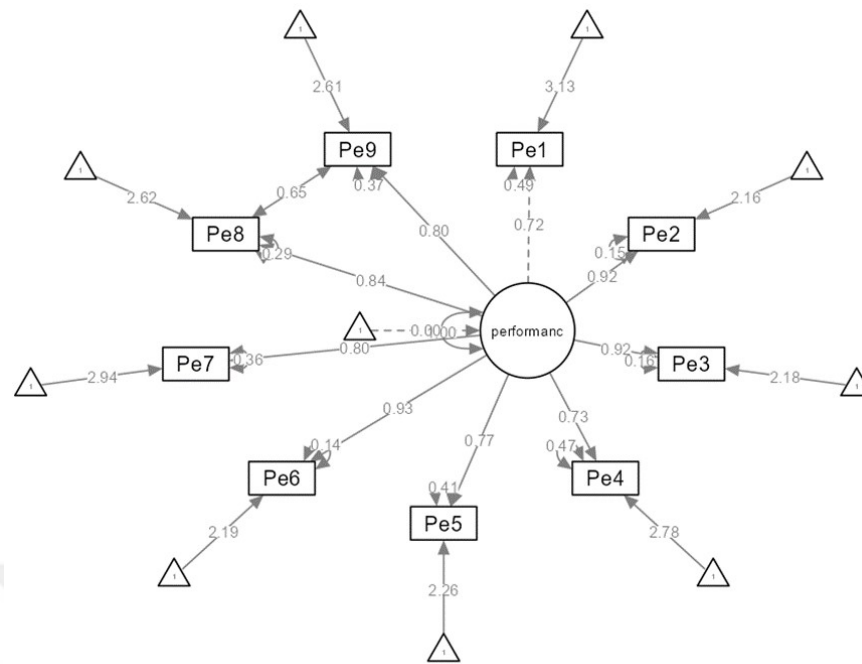


Figure 5.6. *Employees' Performance scale path diagram*

5.9.3. Exploratory Factor Analysis (EFA), Confirmatory Factor Analysis (CFA) and Structural Equation Modelling (SEM) of employees' risk taking behaviour scale

Exploratory Factor Analysis (EFA) & Confirmatory Factor Analysis (CFA) and Structural Equation Modelling (SEM) were performed to determine the construct validity of the employees' risk-taking behaviour/tolerance and to reveal the factor structure. For this, principal components and direct oblique rotation (direct oblmin) methods were used. The reason for this is that the basic components method is the most common and easy method to use in practice, The direct oblique rotation method is used when it is thought that there is a relationship between the factors (Çokluk et al., 2012).

A value greater than 0.5 obtained as a result of the Kaiser-Meyer-Olkin (KMO) test is assumed to be sufficient for sample size factor analysis as shown in Table 5.14.

Table 5.14.. *KMO and Bartlett test of employees' risk taking behaviour*

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		0,736
Bartlett's Test of Sphericity	Approx. Chi-Square	45,128
df		6
Sig.		0,000

As illustrated in Table 5.14, the Kaiser-Meyer-Olkin (KMO) sample adequacy value was found to be 0.736 and showed that the sample size was sufficient for EFA and

CFA. This value is considered sufficient when it is above 0.50 (Çokluk et al., 2012). Component Matrix, all components of them are rumbling to be greater than 0.66. Values on this scale are good and suitable and sufficient for factor analysis.

Table 5.15. *Principal Component analysis of total variance explained*

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	2,291	57,282	57,282	2,291	57,282	57,282
2	0,759	18,987	76,269			

The KMO values calculated for each item confirmed that the sample was sufficient. In addition, as a result of the Barlett Test, $\chi^2(6) = 45.128$; $p < 0.05$ was found, and this finding showed that the correlations between the items were large enough for EFA&CFA. This shows us that our scale is suitable for factor analysis.

As a result of the CFA, it was found that the scale consisting of 4 items consisted of a single sub-dimensional (factor) structure, which explains approximately 57,282 of the total variance. Our validity rate was found to be 57.282%. A cumulative value of more than 50% tells us that our measurement tool is valid. According to Çokluk et al. (2012), it is considered sufficient if the variance explained is between 40% and 60%. In the scale evaluated in single dimensions according to the Scree Plot diagram and total variance, the factor load value is not below 0.65, and the factor load distributions of the items are determined as in Table 5.16

Table 5.16. *Component Matrix of employees' risk taking behaviour*

	Factor
	1
Ri3	0.804
Ri2	0.789
Ri4	0.769
Ri1	0.659

According to Garver and Mentzer (1999), the root mean square error of approximation (RMSEA), comparative fit index (CFI) and Tucker-Lewis Index (NNFI-TLI) values should be reported.

Fit statistics were calculated for single-dimensional models. For this purpose, chi-square, root mean square approximation error (RMSEA) and comparative fit index (CFI), unnormed fit index (TLI) values were examined. The results of confirmatory factor analysis and structural equation analysis are shown in Table 5.17.

Table 5.17. *Model fit measures for ERT*

RMSEA	RMSEA 90% CI		TLI	CFI	SRMR	Model Test		
	Lower	Upper				χ^2	df	P
0.034	0.00	0.283	0.990	0.997	0.034	2.06	2	0.357

According to the excellent and acceptable fit measures regarding the fit indices used in structural equation models and the results obtained from the study (Table 5.17.) ;

1. The value of χ^2/sd is considered to be a perfect fit between $0 \leq \chi^2 /sd \leq 2$ (Kline, 2011). The value stated in this study; was determined as 1.03 and is within the perfect fit criteria.
2. A CFI value of $.95 \leq CFI \leq 1.00$ is considered a perfect fit between $90 \leq CFI \leq .95$ is considered an acceptable fit (Baumgartner and Homburg, 1996). The value stated in this study was found to be 0.997 and this result is within the perfect value range.
3. RMSEA value is the perfect fit between $00 \leq RMSEA \leq .05$ and $.05 \leq RMSEA \leq .08$ is accepted as acceptable compliance (Browne and Cudeck, 1993). In this study, the specified value is in the range of 0.034 and the perfect fit value.
4. The Bentler-Bonnett Normed Fit Index (NFI) value is the perfect fit between $95 \leq NFI \leq 1.00$ and between $.90 \leq NFI \leq .95$ is considered acceptable (Baumgartner and Homburg, 1996). The NFI value stated in this study is 0.955 where this score is considered as a perfect fit.
5. There have been many different opinions in the literature as the TLI acceptable threshold value. In addition to threshold values such as

TLI>0.80, there are also high threshold values such as TLI>0.95 (Hu and Bentler, 1999). In this study, the stated value is 0.990 and is within the acceptable range.

As a result, RMSEA's 90% confidence interval reveals that the values indicated in Table 5.17 show a good fit for the model. The path diagram (Figure 5.7) was generated according to the data in the study.

As a result of the confirmatory factor analysis, it was revealed that the scale was a single-factor scale. This factor measures the risk-taking tolerance/behaviour of employees. The factor consists of Ri1, Ri2, Ri3, and Ri4 substances. It consists of a total of 4 items.

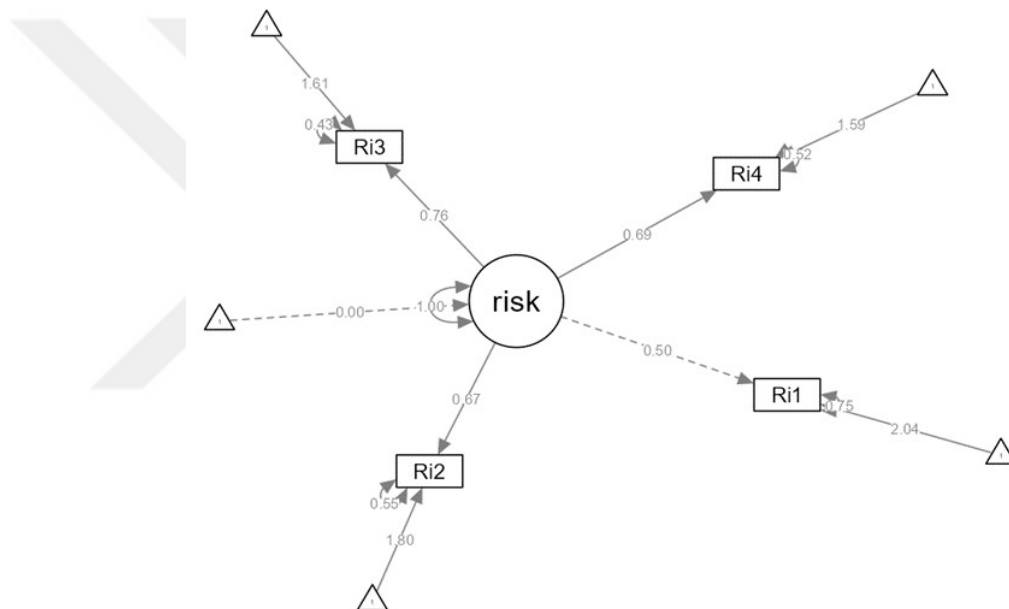


Figure 5.7. *Employees' Risk-Taking Behaviour scale path diagram*

6. CHAPTER VI: ANALYSIS AND FINDINGS

In this chapter, we present our findings and analyze the data, offering a comprehensive examination of the results obtained from our study. This detailed analysis aims to provide insightful interpretations and draw meaningful conclusions based on the empirical evidence gathered.

6.1. Descriptive Statistics

In this study, the recommended sample size is approximately 384 for a population of 253,885 with a margin of error of 5% and a confidence level of 95%. The survey questions of the study were distributed through various channels with the link created on Google Forms. With the participation of 404 people in the survey, a more accurate sample was formed by passing the approximate sample size. Due to the fact that the number of people has reached a sufficient level, the survey has been closed for use.

Descriptive statistics about the demographic characteristics of a total of 404 people surveyed in the study are given below.

When the age information is examined, there is no missing data in any of the information taken from 404 people.

Table 6.1. *The Number and Percentage of Participants' Attendance According to Age*

	Frequency	Percent	Valid Percent	Cumulative Percent
18-24	71	17,6	17,6	17,6
25-35	179	44,3	44,3	61,9
36-45	113	28	28	89,9
46-55	26	6,4	6,4	96,3
55 years and above	15	3,7	3,7	100
Total	404	100	100	

Upon examination of the demographic distribution of participants shown in Table 6.1., it was observed that a predominant proportion of 44.3% (179) of the participants are between the ages of 25-35 and 28.0% (113) are between the ages of 36-45. 17.6% (71) of the participants were between the ages of 18-24. A smaller percentage of participants, constituting 6.4% (26 individuals), were within the age range of 46-55 years, while 3.7% (15 individuals) were aged 55 years or older. The age group of 25-35 years constituted the largest segment of participants in the study, representing 44.3% of the total cohort.

Table 6.2. *The number and percentage of participants' attendance according to Gender*

Gender				
	Frequency	Percent	Valid Percent	Cumulative Percent
Male	182	45,0	45,0	45,0
Prefer not to say	22	5,4	5,4	50,5
Female	200	49,5	49,5	100,0
Total	404	100,0	100,0	

It is revealed in table 6.2. that 49.5% (200 individuals) identify as female, while 45.0% (182 individuals) identify as male. Notably, a subset comprising 5.4% (22 individuals) opted not to specify their gender information. Remarkably, the analysis demonstrates a complete absence of missing data in the gender information collected from the entirety of the participant pool, totalling 404 individuals.

Table 6.3. *The Number and percentage of participants' attendance according to marital status*

Marital Status				
	Frequency	Percent	Valid Percent	Cumulative Percent
Married	183	45,3	45,3	45,3
Single	221	54,7	54,7	100,0
Total	404	100,0	100,0	

It was revealed in table 6.3. that a majority of the participant, 54.7% (221 individuals), identified as single, while the remaining 45.3% (183 individuals) reported being married.

Table 6.4. *The number and percentage of participants' attendance according to education*

Education				
	Frequency	Percent	Valid Percent	Cumulative Percent
Associate degree	85	21,0	21,0	21,0
Bachelor's degree	232	57,4	57,4	78,5
Doctoral degree	15	3,7	3,7	82,2
High School	33	8,2	8,2	90,3
Master's degree	39	9,7	9,7	100,0
Total	404	100,0	100,0	

Upon analyzing the distribution of participants based on their educational attainment (Table 6.4.), it is evident that the majority, comprising 57.4% (232 individuals), hold Bachelor's degrees. Following this, 21.0% (85 individuals) possess associate degrees, while 9.7% (39 individuals) have attained master's degrees. A smaller

proportion, constituting 8.2% (33 individuals), are high school graduates, and a mere 3.7% (15 individuals) have obtained doctorate degrees.

Table 6.5. *The number and percentage of participants' attendance according to employee tenure*

Distribution of Employee Tenure				
	Frequency	Percent	Valid Percent	Cumulative Percent
Less than a year	59	14,6	14,6	100,0
1-4 Years	124	30,7	30,7	30,7
5-10 Years	150	37,1	37,1	85,4
11 Years and above	71	17,6	17,6	48,3
Total	404	100,0	100,0	

In the study sample, 37.1% (150 individuals) worked at the same company for 5-10 years, while 30.7% (124 individuals) indicated a tenure of 1-4 years, 17.6% (71 individuals) 11 years or more, and 14.6% (59 individuals) reported a tenure of less than one year that shown in table 6.5.

6.2. Research Hypotheses

Correlation analysis shows the linear relationship between two or more variables. The amount of relationship between two variables is calculated by correlation techniques called binary or simple correlation (Şencan, 2005). It can apply the inter-item correlation analysis method to see whether the relationships between items are strong or weak, to determine the consistency between items, or to reveal the hidden variable in the background of the items (Şencan, 2005). For this reason, the obtained data were subjected to correlation analysis in the SPSS statistical program. Pearson Correlation Analysis was used to determine the relationship between the variables. The following value ranges were used when interpreting the correlation coefficients. The table is taken from Hünér Şencan's book Reliability and Validity in Social and Behavioural Measurements in Table 6.6.

Table 6.6. *Interpretation of correlation coefficients table (Şencan, 2005).*

Value	Reliability
R> ,80	Highly Strong
R= ,60 - ,80	Strong
R= ,40 - ,59	Moderate relationship
R= ,20 -,39	Low degree relationship
r< ,20	Weak degree of relationship (may be due to coincidence)

Hypothesis 1: There is a relationship between leadership styles and employee performance.

H_{a0} : There is no relationship between leadership types and employee performance at the confidence level $\alpha=0.001$.

H_{a1} : There is a relationship between leadership types and employee performance at $\alpha=0.001$ confidence level.

Pearson Correlation Analysis was used to determine the relationship between leadership and employee performance. The findings are shown in Table 6.7.

Table 6.7. *Relation between leadership styles and employee performance.*

Performance	Pearson r	Leadership
	p	,791**
	n	0,000
		404

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

A strong positive ($r=0.791$) and significant ($p<0.05$) relationship was found between leadership types and employee performance. In other words, there is a strong relationship between the leadership style of the participants' managers and the job performance of the participants, and it increases significantly together. The variance explained by the variables on each other is 63%. As a result, 63% of job performance may stem from the manager's leadership style. After analyzing the collected data, it can be concluded that the H1 hypothesis is accepted.

Hypothesis 2: There is a relationship between leadership styles and the risk-taking behaviour of employees.

H_{b0} : There is no relationship between leadership types and employees' risk-taking behaviour at the $\alpha=0.001$ confidence level.

H_{b1} : There is a relationship between leadership types and employees' risk-taking behaviour at $\alpha=0.001$ confidence level.

Pearson Correlation Analysis was used to determine the relationship between leadership and risk-taking/tolerance behaviour. The findings are shown in Table 6.8.

Table 6.8. *Relation between leadership styles and employee risk behaviour*

		Risk
	Pearson r	,193**
	p	0,000
Leadership	n	404

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

A positive ($r=0.193$) and significant ($p<0.05$) relationship was found between leadership types and risk-taking/tolerance behaviour. In other words, there is a relationship between the leadership style of the participants' managers and the participant's risk-taking tolerance/behaviour during work. The variance that the variables explain on each other is 3.73%. As a result, 3.73% of employees' risk-taking tolerance/behaviour may be due to the manager's leadership style. But the level is smaller than 0,20 which says it might be the coincidence result.

After analyzing the collected data, it can be concluded that the H2 hypothesis is accepted.

Hypothesis 3: There is a relationship between Laissez-faire leadership and job performance of employees.

H_{c0} : There is no relationship between laissez-faire type leadership and employees' job performance at $\alpha=0.001$ confidence level.

H_{c1} : There is a relationship between the laissez-faire type of leadership and the job performance of the employees at the $\alpha = 0.001$ confidence level.

Pearson Correlation Analysis was used to determine the relationship between laissez-faire type leadership type and employee performance. The findings are shown in Table 6.9

Table 6.9. Relation between Laissez-faire leadership and employee performance

Performance	Pearson r	LaissezFaire -,663*
	P	0,013
	n	404

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

A strong negative ($r=-0.663$) and significant ($p<0.05$) relationship was found between laissez-faire type leadership type and employee performance. In other words, there is a strong relationship between the laissez-faire type leadership trait of the participants' managers and the participant's work performance, and it decreases significantly. The variance that the variables explain on each other is 44%. As a result, 44% of the performance of the employees may be due to the laissez-faire type of leadership type of the manager.

After analyzing the collected data, it can be concluded that the H3 hypothesis is accepted.

Hypothesis 4: There is a positive relationship between Transformational Leadership and the job performance of employees.

H_{d0} : There is no relationship between the Transformational Leadership type and the job performance of the employees at the confidence level $\alpha=0.001$.

H_{d1} : There is a relationship between the Transformational Leadership type and the job performance of the employees at the confidence level $\alpha = 0.001$.

Pearson Correlation Analysis was used to determine the relationship between Transformational Leadership and employee performance. The findings are shown in Table 6.10.

Table 6.10. Relation between transformational leadership and employee performance

Performance	Pearson r	Transformational Leadership ,811**
	P	0,000
	N	404

Statistically, the r-value ranges from 0 to 1, and a high positive value (0.811) indicates a highly strong relationship between these two variables. There was a highly strong positive correlation between TL and employee performance ($r=0.811$) and a significant ($p<0.05$) relationship was found. This shows that there is a strong correlation between the transformational leadership style of the participants' managers and their job performance and that they are significantly increasing together. The low p-value ($p<0.001$), which indicates that this relationship is statistically significant, supports that this relationship is not random and is a real relationship.

The variance that the variables explain on each other is 66%. That is, 66% of the relationship between the two variables is explained. This suggests that much of the variability in employee performance can be attributed to managers' transformational leadership style. In conclusion, these findings suggest that transformational leadership style may be an effective strategy to improve employees' job performance (Kuhnert and Lewis, 1987; Avolio and Bass, 2002; Avolio and Gardner, 2005; Bass and Riggior, 2006; Fernandes and Awamleh, 2011; Kalsoom et al., 2018; Kishen et al., 2020; Hasib et al., 2020; Isnanto, 2021; Raveendran, 2022).

After analyzing the collected data, it can be concluded that the H4 hypothesis is accepted.

Hypothesis 5: There is a relationship between Laissez-faire leadership and risk-taking behaviour of employees.

H_{e0} : There is no relationship between laissez-faire leadership and employee risk-taking behaviour at the confidence level $\alpha=0.001$.

H_{e1} : There is a relationship between laissez-faire leadership and employee risk-taking behaviour at the confidence level $\alpha=0.001$.

Pearson Correlation Analysis was used to determine the relationship between laissez-faire type leadership type and employee risk-taking behaviour. The findings are shown in Table 6.11.

Table 6.11. *Relation between Laissez Faire and employee risk taking tolerance*

	Pearson r	Laissez Faire -,348**
Risk	p	0,000
	n	404

Statistically, the r-value ranges from 0 to 1, and a low degree negative value (-.348) indicates a low degree relationship between these two variables. A low negative ($r = -0.348$) and significant ($p < 0.05$) relationship was found between laissez-faire and employee-employee risk-taking. This found a low degree significant relationship between the laissez-faire leadership style of the participants' managers and the employee risk-taking behaviour. The low p-value ($p < 0.001$), which indicates that this relationship is statistically significant, supports that this relationship is not random and is a real relationship. This indicates that the when one variables increase the other one is decreasing. The variance that the variables explain on each other is 12%. That is, 12% of the relationship between the two variables is explained. This suggests that some of the negative impact on employee risk-taking behaviour may be attributed to the laissez-faire leadership style of managers.

After analyzing the collected data, it can be concluded that the H5 hypothesis is accepted.

Hypothesis 6: There is a relationship between Transactional Leadership and employee job performance.

H_{f0} : There is no relationship between transactional leadership and employee job performance at the confidence level $\alpha = 0.001$.

H_{f1} : There is a relationship between transactional leadership and employee job performance at the confidence level $\alpha = 0.001$.

Pearson Correlation Analysis was used to determine the relationship between transactional type leadership type and employee performance. The findings are shown in Table 6.12.

Table 6.12. *Relation between transactional leadership and employee performance*

Transactional leadership	Pearson r	Performance
	p	-,767**
	n	0,000
		404

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

Statistically, the r-value ranges from 0 to 1, and a strong negative value (-.767) indicates a strong correlation between the two variables. A strongly negative ($r=-.767$) and significant ($p<0.05$) relationship was found between transactional leadership type and employee performance. In this case, a strong and significant relationship was found between the transactional leadership style of the participants' managers and the employee rope performance. This indicates that the when one variables increase the other one is decreasing. The low p-value ($p<0.001$), which indicates that this relationship is statistically significant, supports that this relationship is not random and is a real relationship. The variance that the variables explain on each other is 58%. That is, it explains 58% of the relationship between the two variables. This shows that a significant part of the negative impact on employee job performance can be attributed to the transactional leadership type of managers (Bass, 1985; Kuhnert and Lewis, 1987; Fernandes and Awamleh, 2011; Ashaari, 2011; Kalsoom, Khan and Zubair, 2018; Abdelwahed et al., 2022; Raveendran, 2022). After analyzing the collected data, it can be concluded that the H6 hypothesis is accepted.

Hypothesis 7: There is a relationship between Transactional Leadership and the risk-taking behaviour of employees.

H_{g0} : There is no relationship between transactional leadership and risk-taking behaviour at the confidence level $\alpha=0.001$.

H_{g1} : There is a relationship between transactional leadership and risk-taking behaviour at the confidence level $\alpha=0.001$.

Pearson Correlation Analysis was used to determine the relationship between transactional type leadership type and employee risk-taking behaviour/tolerance. The findings are shown in Table 6.13.

Table 6.13. *Relation between Transactional Leadership and risk taking behaviour*

Transactional Leadership	Pearson r	Risk
	P	-,490**
	n	0,000
		404

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

Statistically, the r-value ranges from 0 to 1, and a moderate negative value (-.490) indicates a moderate relationship between these two variables. A moderately negative ($r = -0.490$) and significant ($p < 0.05$) relationship was found between transactional leadership type and employee risk behaviour. In this case, a moderate and significant relationship was found between the transactional leadership style of the participants' managers and the employee's risk-taking tolerance/behaviour. This indicates that the when one variables increase the other one is decreasing. The low p-value ($p < 0.001$), which indicates that this relationship is statistically significant, supports that this relationship is not random and is a real relationship. The variance explained by the variables on each other is 24.01%. That is, it explains 24.01% of the relationship between the two variables. This shows that some of the negative effects on employee risk-taking tolerance can be attributed to the transactional leadership type of managers. As a result, these findings suggest that employees who work with transactional-type leaders are less likely to have risk-taking behaviour at work. After analyzing the collected data, it can be concluded that the H7 hypothesis is accepted.

Hypothesis 8: There is a positive correlation between leaders' reward-based leadership characteristics and employee performance and risk tolerance.

H_{h0} : Reward-based leadership has no effect on employee performance and risk tolerance at the $\alpha = 0.001$ confidence level.

H_{h1} : Reward-based leadership has an effect on employee performance and risk tolerance at the confidence level $\alpha = 0.001$.

Pearson Correlation (one-tailed) Analysis was used to determine whether reward-based leadership has a positive effect on employees' performance and risk tolerance. The findings are shown in Table 6.14.

Table 6.14. *Relation between Reward-based leadership and employee performance & risk taking behaviour*

Risk	Pearson r	Reward-Based -,503**
Performance	Pearson r	-,590**
	Sig. (2-tailed)	0,000
	N	404

Statistically, the r-value ranges from 0 to 1, and a moderate negative value (-.590 and -.503) indicates a moderate relationship between these variables. A moderate negative ($r = -0.590$, -0.503) and significant ($p < 0.05$) relationship was found between reward-related leadership traits and employee performance and risk tolerance. This showed that there was a moderate and significant relationship between the participants' managers' reward-based leadership traits and the job performance and risk tolerance of the employees. This indicates that the when one variables increase the other one is decreasing. The low p-value ($p < 0.001$), which indicates that this relationship is statistically significant, supports that this relationship is not random and is a real relationship. The variance that the variables explain on each other is about 35% and 25%. That is, it explains 35% and 25% of the relationship between the variables. After analyzing the collected data, it can be concluded that the H8 hypothesis is rejected.

Hypothesis 9: There is a positif relationship between Charismatic-Inspirational Leadership and employee performance.

H_{j0} : There is no positive correlation between Charismatic-Inspirational Leadership and employee performance at the confidence level $\alpha = 0.001$

H_{j1} : There is a positive correlation between Charismatic-Inspirational Leadership and employee performance at the confidence level $\alpha = 0.001$.

Pearson Correlation (single-tailed) Analysis was used to determine the positive relationship between Charismatic-Inspirational Leadership and employee performance. The findings are shown in Table 6.15.

Table 6.15. *Relation between Charismatic-Inspirational Leadership and employee performance*

Performance	Pearson r	Charismatic-Inspirational Leadership ,807**
	p	0,000
	n	404

****.** *Correlation is significant at the 0.01 level (1-tailed).*

Statistically, the r-value ranges from 0 to 1, and a high strong positive value (0.807) indicates a strong relationship between these two variables. There was a strong positive correlation between Charismatic-Inspirational Leadership and employee performance ($r=0.807$) and a significant ($p<0.05$) relationship was found. This indicates that there is a strong correlation between the Charismatic-Inspirational leadership style of the participants' managers and their job performance and that they are significantly increasing together. The low p-value ($p<0.001$), which indicates that this relationship is statistically significant, supports that this relationship is not random and is a real relationship.

The variance that the variables explain on each other is 65%. That is, it explains 65% of the relationship between the two variables. This shows that a large part of the variability in employee performance can be attributed to the Charismatic-Inspirational leadership style of managers. In conclusion, these findings suggest that the Charismatic-Inspirational leadership style may be an effective strategy to improve employees' job performance (Eagly et al., 2003; Avolio and Gardner, 2005; Avolio et al., 2009; Zhao et al., 2021; Yin et al., 2021).

After analyzing the collected data, it can be concluded that the H9 hypothesis is accepted.

Hypothesis 10: There is a relationship between Charismatic-Inspirational Leadership and employee risk taking behaviour.

H_{k0} : There is no relationship between Charismatic-Inspirational Leadership and employee risk-taking tolerance at the confidence level $\alpha=0.001$

H_{k1} : There is a relationship between Charismatic-Inspirational Leadership and employee risk-taking tolerance at the confidence level $\alpha=0.001$.

Pearson Correlation (2-tailed) Analysis was used to determine the positive relationship between Charismatic-Inspirational Leadership and employee risk-taking behaviour. The findings are shown in Table 6.16.

Table 6.16. *Relation between Charismatic-Inspirational Leadership and employee risk taking behaviour*

Charismatic Leadership	Pearson r	Risk
	p	,508**
	n	0,000
		404

Statistically, the r-value ranges from 0 to 1, and a moderate positive value (0.508) indicates a strong relationship between these two variables. There was a moderate degree positive correlation between Charismatic-Inspirational Leadership and risk-taking behaviour ($r=0.508$) and a significant ($p<0.05$) relationship was found. This shows that there is a moderate correlation between the Charismatic-Inspirational leadership style and risk-taking behaviour of the participants' managers and that it increases significantly together. The low p-value ($p<0.001$), which indicates that this relationship is statistically significant, supports that this relationship is not random and is a real relationship.

The variance that the variables explain on each other is 26%. That is, it explains 26% of the relationship between the two variables. This suggests that some of the variability in employee risk-taking tolerance may be associated with the Charismatic-Inspirational leadership style of managers. After analyzing the collected data, it can be concluded that the H10 hypothesis is accepted.

Hypothesis 11: The Intellectual Stimulation behaviour of leaders positively and significantly affects employee performance and risk tolerance.

H_{10} : Intellectual Stimulation leadership trait has no effect on employee performance and risk tolerance at the $\alpha=0.001$ confidence level.

H_{11} : Intellectual Stimulation leadership trait has an effect on employee performance and risk tolerance at the confidence level $\alpha=0.001$.

Pearson Correlation (double-tailed) Analysis was used to determine the relationship between Intellectual Stimulation Leadership trait and employee performance and risk tolerance. The findings are shown in Table 6.17.

Table 6.17. *Relation between intellectual stimulation leadership and employee performance*

Performance	Pearson r	Intellectual stimulation ,804**
Risk	Pearson r	,490
	p	0,000
	N	404

Statistically, the r-value ranges from 0 to 1, and a positive value (0.804 and 0.490) indicates a strong(performance) and moderate degree (risk taking tolerance) relationship between these variables. Intellectual Stimulation: There was a strong positive correlation between leadership trait and employee performance ($r=0.804$) and moderate degree risk tolerance($r=0.490$) and a significant ($p<0.05$) relationship was found. This indicates that there is a strong correlation between the Intellectual Stimulation leadership trait of the participants' managers and job performance and and moderate degree correlation of risk tolerance and that they are significantly increasing together. The low p-value ($p<0.001$), which indicates that this relationship is statistically significant, supports that this relationship is not random and is a real relationship.

The variance that the variables explain on each other is 65% and %24. That is, it explains 65% and %24 of the relationship between variables. This that a large part of the variability in employee performance and risk tolerance can be attributed to the Intellectual Stimulation leadership feature of managers. In conclusion, these findings suggest that the Intellectual Stimulation leadership style may be an effective strategy to improve the job performance of employees.

After analyzing the collected data, it can be concluded that the H11 hypothesis is accepted.

Hypothesis 12: The Individual Support behaviour of leaders affects employee performance and risk tolerance.

H_{m0} : Individual Support leadership has no effect on employee performance and risk tolerance at the $\alpha=0.001$ confidence level.

H_{m1} : Individual Support leadership trait has an effect on employee performance and risk tolerance at the confidence level $\alpha=0.001$.

Pearson Correlation (single tail) Analysis was used to determine the relationship between Individual Support Leadership trait and employee performance and risk tolerance. The findings are shown in Table 6.18.

Table 6.18. *Relation between Individual support Leadership and employee performance and risk tolerance*

Performance		Individual _support
Risk	Pearson r	,801**
	p	,485**
	n	0,000
		404

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

Statistically, the r-value ranges from 0 to 1, and a high value in the positive direction (0.801, 0.458) indicates a strong relationship between these variables. There was a strong positive correlation between leadership trait and employee performance ($r=0.801$) and moderate degree correlation on risk tolerance ($r=0.458$) and a significant ($p<0.05$) relationship was found. This indicates that there is a strong correlation between the Individual Support leadership trait of the participants' managers and their job performance and moderate degree correlation on risk tolerance and that they are significantly increasing together. The low p-value ($p<0.001$), which indicates that this relationship is statistically significant, supports that this relationship is not random and is a real relationship.

The variance that the variables explain on each other is 64% and 24%. That is, it explains 64% and 24%. of the relationship between the variables. This suggests that much of the variability in employee performance and risk tolerance can be attributed to the managers' Individual Support leadership style. In conclusion, these findings suggest that the Individual Support leadership feature may be an effective strategy to improve the job performance of employees and increase the risk tolerance power.

After analyzing the collected data, it can be concluded that the H12 hypothesis is accepted.

Hypothesis 13: There is a positive strong relationship between Management by Exception Leadership style and employee job performance.

H_{n0} : Management by Exception: Leadership (passive and active) has no positive and strong effect on employee performance at the confidence level $\alpha=0.001$.

H_{n1} : Management by Exception: Leadership (passive and active) has an positive and strong effect on employee performance at the confidence level $\alpha=0.001$.

Management by Exception: Pearson Correlation (2-tailed) Analysis was used to determine the relationship between leadership traits and employee performance. The findings are shown in Table 6.19.

Table 6.19. *Relation between management by exception leadership and employee performance*

Performance	Pearson r	Exception Active	Exception passive
	P	-,692**	-,696**
	n	404	404

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

Statistically, the r-value ranges from 0 to 1, and a strong negative value (-0.692,-0.696) indicates a strong correlation between these variables. Management by Exception, A strongly negative correlation between leadership traits and employee performance ($r=0.692, 0.696$) and a significant ($p<0.05$) relationship was found. This shows that the participants' Management by Exception managers have a strong correlation between leadership and job performance and this indicates that the when one variables increase the other one is decreasing. The low p-value ($p<0.001$), which indicates that this relationship is statistically significant, supports that this relationship is not random and is a real relationship. The variance that the variables explain on each other is 48%. That is, it explains 48% of the relationship between variables. This suggests that much of the variability in employee performance can be attributed to the Management by Exceptional leadership style of managers. As a result, these findings suggest that one of the factors that reduce the job performance of employees may be the Management by Exception leadership feature.

After analyzing the collected data, it can be concluded that the H13 hypothesis is rejected.

Hypothesis 14: There is a positive relationship between Management by Exception(passive and active) Leadership style and the risk-taking behaviour of employees

H_{p0} : Management by Exception Leadership (passive and active) has no positive effect on employee risk-taking tolerance/behaviour at the confidence level $\alpha=0.001$.

H_{p1} : Management by Exception Leadership (passive and active) has an positive effect on employee risk-taking tolerance/behaviour at the confidence level $\alpha=0.001$.

Pearson Correlation (2-tailed) Analysis was used to determine the relationship between Management by Exception Leadership trait and employee risk-taking behaviour. The findings are shown in Table 6.20.

Table 6.20. *Relation between Management by Exception Leadership and employee risk tolerance*

Risk	Pearson r	Exception Active	Exception Passive
	p	0,000	0,000
	n	404	404

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

Statistically, the r value ranges from 0 to 1, and a moderate degree, negative value (-0.474, -0.398) indicates a moderate relationship between these variables, Management by Exception(Active) and Management by Exception(Passive). Management by Exception: There was a negative correlation between leadership traits and employee risk-taking behaviour ($r=-0.474$, -0.398 .) and a significant ($p<0.05$) relationship was found. This shows that there is a medium degree corelation relationship between the Management by Exception leadership and risk-taking behaviour of the participants' managers and that indicates that the when one variables increase the other one is decreasing. The low p-value ($p<0.001$), which indicates that this relationship is statistically significant, supports that this relationship is not random and is a real relationship. The variance explained by the variables on each other is 22% for the active approach and 16% for the passive approach.

After analyzing the collected data, it can be concluded that the H14 hypothesis is rejected.

Hypothesis 15: Transformational Leadership may increases employees' risk-taking behaviour more than Transactional Leadership.

H_{r0} : Transformational Leadership has no more effect on employee risk-taking behaviour than Transactional leadership at the $\alpha=0.001$ confidence level.

H_{r1} : Transformational Leadership has a greater effect on employee risk-taking behaviour than Transactional leadership at the $\alpha=0.001$ confidence level.

Table 6.21. *Relation between Transformational and Transactional Leadership and employee risk tolerance*

Transformational Leadership	Pearson r	Risk
	p	,504**
		0,000
Transactional Leadership	Pearson r	-,490**
	p	0,000
	n	404

There was a positive correlation between transformational leadership and employee risk-taking behaviour ($r=0.504$ and $-,490$) and a significant ($p<0.05$) relationship. There is a negative ($r=-0.490$) and significant ($p<0.05$) relationship between transactional leadership and employee risk-taking behaviour. Based on the data, the positive effect of transformational leadership on employee risk-taking behaviour is greater than the effect of transactional leadership ($-0.490<0.504$). Transactional leadership does not have a positive effect.

After analyzing the collected data, it can be concluded that the H15 hypothesis is accepted.

Hypothesis 16: Charismatic-Inspirational leadership has a more positive effect on employee performance than intellectual stimulation and individual-support leadership types.

H_{s0} : Charismatic-Inspirational Leadership has no more positive effect on employee performance than intellectual stimulation and individual-support leadership at the $\alpha=0.001$ confidence level

, H_{s1} : Charismatic-Inspirational Leadership has a more positive effect on employee performance than intellectual stimulation and individual-support leadership at the confidence level $\alpha=0.001$

Table 6.22. *Relationship individual support, Intellectual stimulation,charismatic leadership& EP*

		<u>Performance</u>
Charismatic Leadership	Pearson r	,807**
	p	0,000
Individual Support	Pearson r	,801**
	p	0,000
Intellectual Stimulation	Pearson r	,804**
	p	0,000
	n	404

There is a positive ($r=0.807$) and significant ($p<0.05$) relationship between Charismatic Leadership and employee performance, a positive ($r=0.801$) & significant ($p<0.05$) relationship between Individual Support and employee performance, and a positive ($r=0.804$) and significant ($p<0.05$) relationship between Intellectual Stimulation and employee performance. Based on the data, the positive effect of Charismatic leadership is greater than the positive effect of Individual Support and Intellectual Stimulation leadership on employee job performance ($0.801 < 0.804 < 0.807$). It can be said that Charismatic Leadership has a more positive effect. After analyzing the collected data, it can be concluded that the H16 hypothesis is accepted.

7. CHAPTER VII: DISCUSSION, REVIEW, CONCLUSIONS AND RECOMMENDATION

In the discussion, conclusion and comments section, which constitutes the last part of the study, the findings described and obtained in the previous sections were evaluated. In this section, the gap that the study will fill in the literature, in general, is emphasized, the contribution of the study is emphasized, the implications for theory and practice are revealed, suggestions are made for future research, and finally, the limitations of the study are emphasized.

In the literature, many studies have examined the effects of leadership styles on employee performance and risk tolerance. In this thesis, transformational, charismatic-inspiring, intellectually stimulating, reward-dependent, management with exceptions, supportive, laissez-faire and transactional leadership types are mentioned and the relationships of these leadership types with employee performance and employees' risk-taking tolerance/behaviour are examined. In the light of the analysis made with the data obtained from the research, the following results were obtained:

A range of studies have found a significant relationship between leadership behaviours and employee job satisfaction and performance. While a significant negative relationship was observed between leadership styles such as transactional, laissez-faire, reward-based, and employee performance, a positive and significant relationship was found between charismatic leadership, Intellectual stimulation, individual support, transformational Leadership, Inspirational leadership types and employee performance. On the other hand, although the relationships between these leadership types and characteristics and the tolerance of risk-taking behaviour show positive and negative significance, the level of strength is low.

Transformational leadership is one in which it works with teams or followers beyond their own interests to achieve transformation, creating a vision to guide change through influence, inspiration, and executing change together with its members. Charismatic leadership is defined as a leader who uses his communication skills, persuasiveness, and charm to influence others. Autocratic leadership, also known as authoritarian leadership, can be defined as a structure in which the "boss" is at the top, holding most, if not all, of the workload and control over the distribution of responsibility. Laissez-Faire) Leaders, don't get too involved in every issue by giving too much instruction or guidance. Instead, they are leaders who let their teams loose and allow their

employees to use their own creativity, resources, and experience to help them achieve their goals. Transactional leadership is the leader who applies the management techniques developed to date in an efficient and rule-abiding manner. For this reason, transactional leaders are seen as leaders who reconcile the past with the present and represent more traditional leadership.

This study addresses personnel operating in the civil aviation sector in Türkiye. The professions of the participants were not limited to a specific category. The survey used in the research is based on a sample of 404 people from a sample space of 253,885 people (SHGM, 2022), consisting of aviation employees with senior managers/supervisors, regardless of whether they are managers or employees.

According to the results obtained from this research, there was a significant ($p<0.05$), highly strong ($r=0.811$) is positively correlation between TL and employees performance and, likewise, there was a significant ($p<0.05$) correlation between transformational leadership and employee risk-taking tolerance, with a moderate level ($r=0.504$) positively correlated. These results are in line with the theoretical information contained in the literature review of the study (Kuhnert and Lewis, 1987; Conger and Kanungo, 1988; Avolio and Bass, 2002; Avolio and Gardner, 2005; Bass and Riggior, 2006; Fernandes and Awamleh, 2011; Kalsoom, Khan, and Zubair, 2018; Hasib et al., 2020; Kishen, Syah, and Anindita, 2020;; Isnanto, 2021; Raveendran, 2022; Karabıyıkoglu and Kanbur, 2023). Intellectual stimulation involves the leader's efforts to break routine thought patterns, find creative solutions to problems, and develop the potential of team members. According to the results of this study, it was found that leadership traits were significantly ($p<0.05$), highly strong ($r=0.804$) with employees performance and has moderate ($r=0.490$) positively correlation with employees risk taking tolerance/behaviour. Supportive leadership is a type of leadership that sets an example, appreciates and congratulates what has been done, and refers to work for the well-being of employees and other people. This feature, which is a motivational feature for aviation employees who have to work in stressful environments, may be an effective strategy to improve the job performance of employees and increase the risk tolerance power. According to the results of this study, it was found that leadership traits were significantly ($p<0.05$), highly strong ($r=.801$) corelation with employee performance and moderate ($r=.485$) corelation with risk-taking tolerance in the aviation context. Charismatic leader, inspires and motivates followers through the charisma, charm, and

enthusiasm of the leader. They have the ability to build strong relationships, create a vision, and communicate it effectively to inspire others to achieve a common goal. According to the results, there is a significant ($p < 0.05$) and highly strong ($r = 0.807$) positive correlation between charismatic leadership and employee performance where moderate positive correlation with risk-taking tolerance. These results are in line with the theoretical information contained in the literature review of the study. In conclusion, these findings suggest that the Charismatic-Inspirational leadership style may be an effective strategy to improve employees' risk tolerance and job performance. Transactional leadership, characterized by a focus on rewards and punishments, has been found to have a negative impact on employees. According to the research in means of aviation there is strong negative ($r = -0.767$) and significant ($p < 0.05$) relationship between transactional leadership and employee performance likewise, a moderately negative ($r = -0.490$) and significant ($p < 0.05$) relationship between transactional leadership type and employee risk tolerance. These results are in line with the theoretical information contained in the literature review of the study. Reward-based leaders are often formed around rules and ethical standards with their followers. According to the results of this study, there is a significant ($p < 0.05$), moderate ($r = -0.590$ and $r = -.503$) degree negative correlation between Reward-based leaders and employee performance and risk-taking tolerance in the aviation context. According to these results, it is thought that the reward-Based leadership type may not be a good strategy in the context of aviation. And the established hypothesis was rejected. It suggests that the reward-based leadership approach in aviation organizations may not be effective in certain circumstances compared to other industries. Management by exception is a leadership style that only intervenes in a specific situation. These types of leaders generally do not interfere with routine operations, but step in when there is a specific risk or crisis. Results from this study shows that there is a significant ($p < 0.05$) and strong negative relationship (-0.692 and -0.696) correlation between Management by Exception (active and passive) leadership style and the employees' performance in the aviation context. So that H13 hypothesis rejected. These results are in line with the theoretical information contained in the literature review in the study (Sandhåland et al., 2017). A laissez-faire leadership style gives employees a wide range of autonomy and minimal leader intervention. This may make it difficult to make critical decisions quickly in aviation organizations. According to the results, there is a significant and negative relationship between Laissez-Faire Leadership and employee

performance ($r = -0.663$) and risk-taking behaviour ($r = -0.348$). Although this leadership feature gives positive results in some disciplines, the type of leadership that provides freedom in the context of aviation creates a negative relationship. It can be said that this is attributed to high stress and strict regulation follow-up. Laissez-faire leadership traits can be considered to negatively affect risk-taking tolerance and employee performance. It is in parallel with the theoretical information in the literature review of the study (Hackman, 1987; Sandhåland et al., 2017; Jung, Kang and Choi, 2020).

Overall, a strong positive ($r = 0.791$) and significant ($p < 0.05$) relationship was found between leadership types and employee performance. This revealed the relationship between these two factors, which is one of the main aims of the study. On the other hand, a positive ($r = 0.193$) and significant ($p < 0.05$) relationship was found between leadership types and risk-taking/tolerance behaviour. In other words, there is a relationship between the leadership style of the participants' managers and the participant's risk-taking tolerance/behaviour during work. This result is a weak hypothesis due to the low correlation coefficient explaining the relationship. And the result may have been accidental. In general, in the context of aviation, the risk variable is significant at low levels in different types of leadership. It is thought that the reason for this may be the lack of error tolerance in the aviation sector, the implementation of strict regulations and rules, and the work against time in a pressured and stressful environment. In other words, the possibility that the relationship may be coincidental is in line with the natural structure of the aviation industry. To summarize the outcomes of the study hypothesis shown at Table 7.1.

Table 7.1. *Summary of Hypothesis Results*

NO	Hypothesis	Result
H1	There is a relationship between leadership styles and employee performance.	ACCEPTED
H2	There is a relationship between leadership styles and the risk-taking behaviour of employees.	ACCEPTED
H3	Laissez-faire leadership is related to the job performance of employees	ACCEPTED
H4	There is a positive relationship between Transformational Leadership and the job performance of employees.	ACCEPTED
H5	Laissez-faire leadership is related to the risk-taking behaviour of employees.	ACCEPTED
H6	There is a relationship between Transactional Leadership and employee job performance.	ACCEPTED
H7	There is a relationship between Transactional Leadership and the risk-taking behaviour of employees.	ACCEPTED
H8	There is a positive correlation between leaders' reward-based leadership characteristics and employee performance and risk tolerance	REJECTED

Table 7.1. (Continued) Summary of Hypothesis Results

H9	There is a positive relationship between Charismatic-Inspirational Leadership and employee performance.	ACCEPTED
H10	There is a relationship between Charismatic-Inspirational Leadership and employee risk taking behaviour.	ACCEPTED
H11	The Intellectual Stimulation behaviour of leaders positively and significantly affects employee performance and risk tolerance.	ACCEPTED
H12	The Individual Support behaviour of leaders affects employee performance and risk tolerance.	ACCEPTED
H13	There is a relationship between Management by Exception Leadership style and employee job performance.	REJECTED
H14	There is a positive relationship between Management by Exception (passive and active) Leadership style and the risk-taking behaviour of employees	REJECTED
H15	Transformational Leadership increases employees' risk-taking behaviour more than Transactional Leadership.	ACCEPTED
H16	Charismatic-Inspirational leadership has a more positive effect on employee performance than intellectual stimulation and individual-support leadership types.	ACCEPTED

The acceptance of most of the hypotheses in the thesis shows that leadership styles in aviation organizations have a significant impact on employee performance and risk-taking tolerance. These results in the study reveal that leadership styles in aviation organizations have a significant impact on employee performance and risk-taking tolerance. However, it shows that the impact of some leadership traits is more pronounced than others, and in some cases ineffective. These findings can help provide strategic directions for leadership development and practice in the aviation industry.

When we evaluated the effects of leadership styles on employee performance and risk tolerance, we found that transformational leadership style was associated with higher employee performance compared to other leadership styles. Steps such as transformational leadership, visionary, inspiring, and encouraging the development of individual employees can improve their performance by increasing their motivation, and future management skills can be developed by improving employees' decision-making skills by encouraging risk-taking behaviour within safety and security rules in the aviation context. It is envisaged that these steps will improve the business outputs of the institutions. However, more research is needed on the generalizability of these findings and the impact of other factors.

The evaluation of this study has made an important contribution to our understanding of the effects of leadership types on employee performance and risk-taking tolerance in aviation organizations. In the literature, there are interdisciplinary studies such as education (Akdoğan and Ensari, 2002), health (Ergün and Taner, 2008; Buljac-Samardzic, Doorn and Wijngaarden, 2010; Helmreich and Merritt, 2020), business

administration (Khuong and Hoang, 2015; Abdelwahed, Soomro and Shah, 2022), tourism (Avcı and Topaloğlu, 2009), public administration (Arıkan, 2001). In the context of aviation, there are a limited number of examples. More efficient results can be achieved by developing and improving the scales and using different variables. In the field of leadership types, scale development can be made in order to measure more diversity. Our findings highlight the important effects of leadership styles on aviation organizations. This information can be a valuable resource for the development and implementation of leadership development programs and policies in the aviation industry. Besides that, we must also take into account the limitations of this study. For example, there is a wide variety of units working in the field of aviation, and our method of data collection and sample size may have some limitations. Furthermore, more useful scales and in-depth analyses may be needed to fully understand the complexity of leadership styles and the relationships between employee performance and risk-taking tolerance.

Among our recommendations as a result of the study is that managers in the field of aviation should use leadership style assessment tools at regular intervals to determine their leadership styles. In addition, companies can help create a better environment for employees by improving the characteristics and behaviours of managers by giving importance to leadership training. The results of the training can be followed with leadership-type evaluations made at regular intervals.

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APPENDIX

Ek 1- Etik Kurul Onayı

Eskişehir Teknik Üni. Evrak Tarih ve Sayısı: 28.02.2024 - 11097



T.C.
ESKİŞEHİR TEKNİK ÜNİVERSİTESİ REKTÖRLÜĞÜ
Hukuk Müşavirliği



Sayı : E-87914409-050.04-11097
Konu : 19.02.2024 tarih ve 19/24 Sayılı Sosyal
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(Esra KURTULUŞ Hk.)

28.02.2024

LİSANSÜSTÜ EĞİTİM ENSTİTÜSÜ MÜDÜRLÜĞÜNE

İlgi : 2300079996 sayılı yazınız.

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Bilgilerinizi ve uygulama dosyasının hazırlanmasında, ilgili kurumun bulunması halinde Etik Kurulu yönergesinin dikkate alınması hususunda gereğini rica ederim.

Prof. Dr. Yunus ÖZDEMİR
Sosyal ve Beşeri Bilimler Bilimsel
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