

ATILIM UNIVERSITY
GRADUATE SCHOOL OF SOCIAL SCIENCES
DEPARTMENT OF BUSINESS ADMINISTRATION
BUSINESS ADMINISTRATION DOCTORAL PROGRAMME

**EXAMINING THE IMPACT OF GREEN SERVANT AND
TRANSFORMATIONAL LEADERSHIP ON GREEN WORK
ENGAGEMENT AND TASK-RELATED PRO-
ENVIRONMENTAL BEHAVIOR**

Dissertation

Ali Cenk YORULMAZ

Ankara-2024

ATILIM UNIVERSITY
GRADUATE SCHOOL OF SOCIAL SCIENCES
DEPARTMENT OF BUSINESS ADMINISTRATION
BUSINESS ADMINISTRATION DOCTORAL PROGRAMME

**EXAMINING THE IMPACT OF GREEN SERVANT AND
TRANSFORMATIONAL LEADERSHIP ON GREEN WORK
ENGAGEMENT AND TASK-RELATED PRO-
ENVIRONMENTAL BEHAVIOR**

Dissertation

Ali Cenk YORULMAZ

Thesis Advisor

Prof. Dr. Mehmet Mithat ÜNER

Prof. Dr. Osman Mübin KARATEPE

Ankara-2024

ACCEPTANCE AND APPROVAL

This is to certify that this thesis titled “Examining the Impact of Green Servant and Transformational Leadership on Green Work Engagement and Task-Related Pro-Environmental Behavior” and prepared by Ali Cenk YORULMAZ meets with the committee’s approval unanimously as a Dissertation in the field of Business Administration following the successful defense conducted on 25/12/2024

Prof. Dr. Mehmet BAŞ (Chair)

Prof. Dr. Mehmet Mithat ÜNER (Advisor)

Prof. Dr. Şule TUZLUKAYA (Member)

Doç. Dr. Oğuzhan YAVUZ (Member)

Doç. Dr. Kemal Gürkan KÜÇÜKERGİN (Member)

Prof. Dr. Şule TUZLUKAYA

Director

ETHICAL STATEMENT

I accept and acknowledge that I have prepared this thesis study, prepared in line with the Thesis Writing Guidelines of Atılım University Graduate School of Social Sciences;

within the framework of academic and ethical rules;

presented the information, documents, evaluations, and results in a way that meets the rules of scientific ethics and morality,

I have referenced each work from which I have benefited while preparing my thesis, and that

I hereby present a unique study.

I hereby also understand that I shall accept any loss of rights against my behalf in cases otherwise.

Ali Cenk YORULMAZ

25/12/2024

ÖZ

YORULMAZ, Ali Cenk. Examining the Impact of Green Servant and Transformational Leadership on Green Work Engagement and Task-Related Pro-Environmental Behavior, Doktora Tezi, Ankara, 2024.

Mevcut literatürde, yeşil hizmetkâr liderlik (YHL) ve yeşil dönüşümcü liderliğin (YDL) yeşil iş bağlılığı (YİB) ve göreve yönelik çevre dostu davranış (ÇDD) üzerindeki birleşik etkilerini inceleyen çalışmalar eksiktir. Özellikle, bu liderlik stilleri ile göreve yönelik ÇDD arasındaki ilişkide YİB'in aracı bir rol oynaması göz önüne alınmamıştır. Bu boşluğu gidermek amacıyla, bu araştırma sosyal değişim teorisi ve iş talep-kaynakları modeline dayanarak YHL, YDL, YİB ve göreve yönelik ÇDD arasındaki ilişkileri keşfetmek üzere kavramsal bir çerçeve önermektedir. Veriler Ankara, Türkiye'deki otel çalışanlarından toplanmış ve hipotezler Kısmi En Küçük Kareler-Yapısal Eşitlik Modeli (PLS-SEM) ile test edilmiştir. Bulgular, YİB'in YHL ve YDL'nin göreve yönelik ÇDD üzerindeki etkisi için bir aracılık rolü üstlendiğini göstermektedir. Özellikle, YHL'nin YİB üzerinde YDL'ye kıyasla daha güçlü bir olumlu etkisi olduğu tespit edilmiştir. Beklendiği üzere, YHL'nin YİB aracılığıyla göreve yönelik ÇDD üzerindeki dolaylı etkisi, YDL'nin dolaylı etkisinden daha belirgin çıkmıştır.

Anahtar Sözcükler: Yeşil hizmetkâr liderlik, Yeşil dönüşümcü liderlik, Yeşil iş bağlılığı, Otel çalışanları, Göreve yönelik çevre dostu davranış

ABSTRACT

YORULMAZ, Ali Cenk. Examining the Impact of Green Servant and Transformational Leadership on Green Work Engagement and Task-Related Pro-Environmental Behavior, PhD Dissertation, Ankara, 2024.

The current literature lacks studies that examine the combined effects of green servant leadership (GSL) and green transformational leadership (GTL) on both green work engagement (GWE) and task-related pro-environmental behavior (PEB), particularly with GWE as a mediating factor between these leadership styles and task-related PEB. To address this gap, this research draws on social exchange theory and the job demands-resources model to propose a conceptual framework exploring the relationships among GSL, GTL, GWE, and task-related PEB. Data were collected from hotel employees in Ankara, Türkiye, and the hypotheses were evaluated using Partial Least Squares-Structural Equation Modeling (PLS-SEM). The findings indicate that GWE serves as a mediator for the impact of GSL and GTL on task-related PEB. Notably, GSL has a stronger positive effect on GWE compared to GTL. As hypothesized, the indirect effect of GSL on task-related PEB through GWE is also more pronounced than that of GTL.

Keywords: Green servant leadership, Green transformational leadership, Green work engagement, Hotel employees, Task-related pro-environmental behavior

APPRECIATION

I would like to express my heartfelt gratitude to my esteemed advisors, Prof. Dr. Mehmet Mithat ÜNER and Prof. Dr. Osman KARATEPE, for their invaluable guidance, encouragement, and expertise throughout my doctoral journey. Their insights and unwavering support have been instrumental in shaping this research, and I am deeply thankful for their dedication and mentorship.

I would also like to extend my sincere appreciation to Dr. Mehmet Bahri SAYDAM, whose support has been immensely helpful in completing this thesis. His encouragement and assistance have been a great source of motivation for me.

This work would not have been possible without the support and inspiration of all who have been part of my academic journey, and I am forever grateful.

TABLE OF CONTENTS

ÖZ	I
ABSTRACT	II
APPRECIATION	III
TABLE OF CONTENTS	IV
INDEX OF TABLES	VII
INDEX OF FIGURES	VIII
INTRODUCTION	1
CHAPTER 1: THEORETICAL BACKGROUND	4
1.1. Leadership	4
1.1.1. Leadership theories	5
1.1.1.1. Trait theories	5
1.1.1.2. Behavioral theories	6
1.1.1.3. Situational theories	8
1.1.1.4. New leadership theories	8
1.1.2. Sub-dimensions of servant leadership.....	13
1.1.2.1. Selflessness.....	14
1.1.2.2. Empathy.....	15
1.1.2.3. Justice	15
1.1.2.4. Honesty.....	16
1.1.2.5. Humility.....	17
1.2. Green Servant Leadership	18
1.3. Green Transformational Leadership.....	19
1.4. Green Work Engagement	22
1.4.1. Development of the concept of work engagement.....	22
1.4.2. Factors determining employee engagement levels	26
1.4.2.1. Individual resources.....	27
1.4.2.2. Job resources	27
1.4.2.3. Dimensions of employee engagement.....	28

1.4.3. The positive and negative outcomes of work engagement	30
1.4.4. Green work engagement	32
1.5. Task-Related Pro-Environmental Behavior	34
1.6. Social Exchange Theory	36
1.6.1. Core tenets of social exchange theory.....	36
1.6.2. SET's application in organizational contexts.....	37
1.6.3. Social exchange theory and leadership styles	37
1.6.4. SET and task-related pro-environmental behavior	38
1.6.5. Contemporary applications and implications of SET in green leadership	39
1.7. Job Demands-Resources Theory.....	40
1.7.1. Core components of job demands-resources theory	40
1.7.2. Motivational and health impairment processes in JD-R Theory	41
1.8. JD-R Theory and Leadership	42
1.8.1. Application of JD-R theory to green work engagement and pro- environmental behavior	42
1.8.2. Contemporary extensions of JD-R theory in green organizational contexts.....	43
CHAPTER 2: HYPOTHESES DEVELOPMENT.....	44
2.1. Green Leadership Styles and Green Work Engagement.....	44
2.2. Green Work Engagement and Task-Related Pro-Environmental Behavior	45
2.3. Green Work Engagement Mediates the Relationship.....	46
CHAPTER 3: METHOD.....	48
3.1. Sample and Data Collection	48
3.2. Measurement	50
3.3. Data Analysis	50
RESULTS	51
DISCUSSION AND CONCLUSIONS.....	64
REFERENCES	67
TURNITIN REPORT	86

RESUME.....	106
--------------------	------------



INDEX OF TABLES

Table 1. Respondents' profile (n=140)	49
Table 2. Confirmatory composite analysis	51
Table 3. Psychometric properties of the measures	52
Table 4. Discriminant validity check using the HTMT criterion	53
Table 5. Latent variable correlations and summary statistics	54
Table 6. Structural model test results	56
Table 7. Effects comparison test results	58



INDEX OF FIGURES

Figure 1 The Relationship Between Burnout and Work Engagement.....	23
Figure 2. Research Model.....	47
Figure 3. Importance-Performance map at the independent constructs level (GSL and GTL) on the dependent variable (Task-related PEB)	60
Figure 4. Importance-Performance map for GSL items on the dependent variable (Task-related PEB).....	61
Figure 5. Importance-Performance map for GTL items on the dependent variable (Task-related PEB).....	62

INTRODUCTION

The United Nations' 2030 Agenda for Sustainable Development provides a detailed framework aimed at ensuring global peace, prosperity, and environmental sustainability, both for the present and future generations (Viglia & Acuti, 2023). This agenda is particularly relevant to the tourism industry, as it seeks to promote economic growth that is both socially and environmentally sustainable (Demeter et al., 2023). Tourism plays a crucial role in the economies of many countries by generating employment and income (Zhang & Zhang, 2023). However, the industry also has a significant environmental impact, accounting for a notable portion of global greenhouse gas emissions, which were at 8% before the COVID-19 pandemic (Lenzen et al., 2018).

The pandemic temporarily reduced these emissions, leading to a 4.6% drop in global greenhouse gases, with a 1.5% reduction directly related to decreased transportation, particularly in air travel (Lenzen et al., 2020). However, this cut is still not enough to meet the 1.5°C limit of global warming in 2050 (Lenzen et al., 2020). Moreover, we have a major travel rebound as the COVID-19 pandemic wanes and the level of international tourists is currently 130% above the count of tourists arriving in January 2021 (Demeter et al., 2023). These statistics highlight the urgency for the tourism industry to redouble its efforts on sustainability as travel returns.

Leadership can play an important role in orienting investments towards environmental sustainability in the workplace and the promotion of working contexts with regard to the environment (Tosun et al., 2022); If the top management does not have a clear path and commitment, whatever effort the employees and lower levels put forth would not yield the desired results. These results highlight the pivotal role of committed top leaders in promoting ecological conservation in a corporate setting (Karatepe et al., 2022). Leadership styles such as servant leadership and transformational leadership are needed to retain employees with vital skills in developing sustainable initiatives (cf. Aftab et al., 2023; Rabiul et al., 2023).

Transformational leadership theory consists of four elements: “idealized influence,” “inspirational motivation,” “intellectual stimulation” and “individualized consideration.” “Idealized influence” describes a leader’s charismatic behavior that inspires trust and alignment with subordinates around the leader’s vision. Inspirational

motivation refers to the ability of the leader to communicate shared elements of purpose and an appealing, exciting future, resulting in high expectations (Aryee et al., 2012). “Intellectual stimulation” is understood as the leader’s ability to promote critical thought, risk-taking behavior, and proactive problem-solving, that is, problem-solving that is more than just reactive to someone or something. Individualized consideration entails the attention a leader gives to nurture their followers’ development needs as well as the creation of new ideas from them (Carmeli et al., 2014).

On the contrary, one of the most impactful styles in the hospitality industry is servant leadership, as it encourages various positive affective and behavioral outcomes for employees (e.g., Fatima et al., 2023; Kaya & Karatepe, 2020; Ozturk et al., 2021). Servant leaders empower their team by granting autonomy, fostering creativity, demonstrating humility, offering guidance, and prioritizing the well-being of their subordinates (Ozturk et al., 2021; Van Dierendonck, 2011).

From the perspective of environmental sustainability, both servant and transformational leadership can influence employees’ eco-friendly behaviors. Green servant leadership (GSL) (Luu, 2019) and green transformational leadership (GTL) (Tosun et al., 2022) are two such approaches. GSL is characterized by practices such as emotional support, fostering green values, conceptual skills, green empowerment, aiding subordinates in achieving environmental objectives, prioritizing environmental concerns, and ethical environmental behavior (Faraz et al., 2021, p. 1172). GTL, on the other hand, involves leaders who inspire their followers to meet environmental goals and exceed expected levels of environmental performance (Chen et al., 2013, p. 109). The environmentally conscious actions of such leaders can stimulate green-oriented and innovative behaviors among employees (Arici & Uysal, 2022).

Our study offers several key contributions to the literature. Firstly, it addresses a significant gap in research regarding the importance of green leadership styles, specifically Green Servant Leadership (GSL) and Green Transformational Leadership (GTL), in fostering a green-oriented environment and associated behavioral outcomes. Although the value of these leadership styles is recognized, empirical studies are lacking (Tosun et al., 2022; Halakhah et al., 2023). Furthermore, there is some uncertainty in the literature about which of these leadership styles best explains work-related outcomes. This gap in the literature was also noted in a recent systematic review

by Uysal and Arici (2022), who suggested that further exploration is needed to understand which aspects of leadership are most predictive of green-related job outcomes. Drawing on Social Exchange Theory (SET), our study seeks to fill this gap by exploring how GSL and GTL influence Green Work Engagement (GWE) and task-related Pro-Environmental Behavior (PEB). GWE is a construct of green-related motivation that denotes employees' involvement in environmental assignments as well as their energy, pride, and inspiration for these assignments (Karatepe et al., 2022, p. 3085). This engagement, in turn, affects task specific PEB; an important aspect for frontline service jobs where employees have to execute their tasks with consideration of the environment (Bissing-Olson et al., 2013).

Second, research addressing work engagement is abundant, while research to explore the effects of GWE is limited (Aboramadan, 2022; Darban et al., 2022; Karatepe et al., 2022). This is an important gap, because sustainable hospitality needs an engaged workforce willing to push sustainability. These elaborate task-related PEB employees can make our significant contributions to the organization. Specifically, we adopt the Job Demands-Resources (JD-R) theory (Bakker and Demerouti, 2017) and further investigate task-related PEB as a critical outcome of GWE.

Third, previous studies found multiple mediators explaining the link between green leadership types and work outcomes (Tosun et al, 2022; Vatankhah et al, 2023). Nevertheless, it remains that no empirical studies have explored the mediation effect of GWE on both GSL and GTL with task-PEB. More studies need to be conducted to examine the mechanisms by which these leadership styles impact outcomes including PEB in importance to tasks (Arici & Uysal, 2022).

CHAPTER 1: THEORETICAL BACKGROUND

1.1. Leadership

The term "leader" was first used in the 1300s but its development, and widespread use starts in the 20th century (Akbaba and Erenler, 2008). The definitions of leadership have changed and evolved over the years depending on the conditions of the times. The economic, political, military, and scientific developments experienced by civilizations have also contributed to the development of the concept of leadership (Akyan, 2002). While there are some differences between leadership and management, both concepts are related to administration. Management is concerned with being organized, making plans, and ensuring control, while leadership, apart from management, involves developing a vision, being open to change, motivating, and directing toward a goal (Kotter, 1990).

The concept of leadership in management science began to be used in the 1960s. To define the concept of leadership, we need to examine it from different perspectives and analyze it with different methods (Şişman, 2004). In the constantly evolving and changing world, the definition of leadership is constantly being renewed, and it has a dynamic structure. The common point of the definitions is that they are made by utilizing the prominent features of the leader or leaders (Bulut and Uygun, 2010). Yılmaz (2010), who defines leadership through the role of the leader in achieving common goals, defines leadership as the ability and power to bring a group of people together around a common purpose and to motivate and direct them in achieving these goals. Another definition focuses on the leader's ability to speak persuasively and their charisma, and Sorensen and Epps (1996) define a leader as someone who influences and directs the people they communicate with, manages them, and inspires them to act without forcing them to do so and sets an example for their surroundings. Kaya (1991), who emphasizes the leader's planning ability, defines a leader as a group member with responsibilities such as organizing their group to approach their goals, creating plans, and implementing them. According to Eren's (1998) definition of leadership, which is based on the leader's ability to provide motivation, a leader is someone who develops and directs the motivation, persuasion, and desires that their group needs to achieve their goals.

All organizations exist for a purpose, and schools are composed of different people who come together to achieve their goals. In schools, there is a manager who directs the organization toward its goals and the relevant individuals toward this goal (Dinçer and Fidan, 2000). School administrators must be consistent in their behavior when trying to achieve the organization's goals. Employees and relevant individuals must be valued in proportion to the rules and regulations. Therefore, administrators are expected to take on a leadership role that will contribute to their employees and the organization as a whole, in addition to their responsibilities (Özgenel and Aktaş, 2020). The leadership approach in school management defines the leader as a group member with directing and influential qualities in achieving the organization's goals, just like in other organizations (Sergiovanni, 1994). Leadership is one of the most important elements of schools that aim to raise socially, academically, and emotionally competent and successful students (Beycioğlu, 2015). A school administrator who wants to achieve the organization's goals must be a leader without a doubt. The leader who leads must have responsibilities that include managerial duties. For an effective contemporary management approach, school leaders must be leaders who can influence and persuade their employees (Kaya, 1991).

1.1.1. Leadership theories

The concept of leadership is not universal and does not remain the same in every situation. Different leadership styles emerge in different situations, and these styles have developed and evolved into new forms of leadership (Şentürk, 2017). Four main theories have been influential in the development of the concept of leadership: Trait Theories, Behavioral Theories, Situational Theories, and the new leadership theories that have emerged historically and continue to emerge (Yeşil, 2016).

1.1.1.1. Trait theories

The concept of leadership gained momentum in the 20th century with the development of various theories and studies. The Trait Theory was the first theory developed in this field and was actively used between 1910 and the 1940s (Yukl, 2010). This theory suggests that the more leadership traits a leader possesses, the more successful they will be as a leader (Akşit, 2010). The Trait Theory places the characteristics of the leader at the core of the leadership concept. Leaders use their innate leadership traits to lead their employees (Eren, 1998).

This theory primarily researched specific individuals who were leaders to determine "what makes them leaders." Through this research, the characteristics of great leaders were identified. It was argued that leadership occurs within the framework of these characteristics. Subsequently, the influence of the situation on leadership was examined (Tengilimoğlu, 2005). Stogdill determined the contribution of personal characteristics to leadership through his studies. According to Stogdill, in addition to a leader's personality traits, the necessity of situations where leadership is required is also important. Individuals who show leadership in a particular situation are not necessarily leaders in different situations. Stogdill's studies identified the personality traits associated with leadership. A leader is described as a motivated individual who takes responsibility and completes tasks, persists in pursuing goals, takes risks, is innovative, willing to be at the forefront of social events, confident, able to influence others, and shapes social relationships to achieve goals (Stogdill, 1948, 1974).

The theory that evaluates all aspects of leadership solely through the "leader person" and conducts research only on the characteristics of leaders, was not very successful (Bakan and Büyükbeşe, 2010). In the 1950s, different ideas began to emerge, and the behaviors of leaders rather than their characteristics started to be examined. With the introduction of behavioral theories, the use of the trait theory has decreased (Şimşek, 2006).

1.1.1.2. Behavioral theories

Behavioral theories formed the basis of leadership understanding between 1940 and 1960. This theory was proposed due to the belief that the previously proposed trait and skill theories were incomplete in the leadership literature (Şentürk, 2017). According to this theory, the concept of leadership is based on the idea that leadership can be defined by the leader's behaviors rather than their personal traits. Furthermore, this theory posits that there are two types of leaders: those who focus on the task and productivity, and those who prioritize employees and communication (Sevinç, 2018). This theory argues that leadership is not determined by innate or acquired characteristics. Researchers working on this theory have focused on the behaviors exhibited by leaders while performing their leadership roles, rather than on their personal traits and skills (Koçel, 2005).

Behavioral theories have been developed through many different research studies. The most important of these studies is the Ohio State University studies, the Michigan University studies, the Harvard University studies, Douglas McGregor's X and Y studies, and Blake and Mouton's Leadership Grid studies (Northouse, 2013).

Fundamentally, the Ohio State University, Michigan University, and Harvard University studies have a similar structure. Researchers divided leadership behaviors into task-oriented and relationship-oriented behaviors and searched for the best way to combine these two types of leadership behaviors. The Ohio State University identified "initiating structure and consideration," Michigan University identified "job-centered and employee-centered," and Harvard University identified "emotional leader and task leader" as the two dimensions of leadership (Bakan, 2008; Yukl, 2010).

Douglas McGregor's X and Y theory is one of the most widely used behavioral theories. The X approach in this theory is a leadership style in which the leader manages in an autocratic manner, assumes a role of a boss and a guide, and is superior to their subordinates. The Y approach, on the other hand, is a leadership style in which the leader practices democratic management, consults with their subordinates, engages in exchanging ideas, and ensures that all employees participate in decision-making (Koçel, 2005; Küçüközkan, 2015).

Blake and Mouton developed a grid model describing leadership behaviors in their studies. The task-oriented and relationship-oriented leadership approaches, which form the basis of behavioral leadership, are related to employees' achievement of their goals (Northouse, 2013). For this purpose, a leader exhibiting task-oriented behaviors is concerned with group members performing their tasks completely and achieving their goals. Leaders who exhibit relationship-oriented behaviors, on the other hand, are interested in their employees feeling comfortable and discovering themselves (Stogdill, 1948). According to the Managerial Grid developed by Blake and Mouton, leaders are positioned on a matrix based on two key dimensions of behavior: concern for people and concern for production. As a result of the different behaviors leaders exhibit, they are categorized into leadership styles such as Authority-Compliance, Country Club, Middle-of-the-Road, Impoverished, and Team leadership. Additional styles, such as Paternalistic and Opportunistic, have also been identified in later interpretations of the model (Küçüközkan, 2015).

1.1.1.3. Situational theories

Situational theories emerged as a combination of similarly structured theories that considered previous theories to be insufficient. Developed from the 1960s to the 1980s, this theory argues that it is not possible to make the same definitions of leadership for each leader and organization. According to this theory, the definition of leadership depends on the existing situation and conditions (Sevinç, 2018). According to the situational theory, leaders do not have a single characteristic. Similarly, there is no single type of leadership that can be effectively used in all situations. It is argued that each situation and environment can create its unique leadership style (Kılınç, 1995). Situational theories have emerged from several theories and approaches with specific structures and contents. The common point of these ideas and approaches is the diversity of leadership behaviors exhibited by leaders while performing their tasks. Every event and situation within an organization may lead to the display of different leadership behaviors (Tengilimoğlu, 2005).

According to situational theories, which also deal with situations that bring forth leadership, there are certain factors that affect leadership. According to these theories, environmental conditions and context, organizational goals, personnel skills and desires, organizational hierarchy and the leader's abilities are among the factors that affect leadership (Giderler, 2005).

With the emergence of situational theories, it has been demonstrated that there is no single ideal leader. These theories focus on the relationship between the requirements of different situations and different styles of leadership. The necessity for a leader to be a leader in all situations, which was present in previous theories, has been redefined in this theory as the need for a leader to be a leader according to the situation (Northouse, 2013).

1.1.1.4. New leadership theories

Postmodern theories, also known as new leadership approaches, encompass theories that have developed after 1980 and are increasingly growing in number today. With technological advancements, management science, organizational management, and leadership have gained importance and become areas of research for scientists (Yeşil, 2016). Along with the evolving technology and new lifestyles, areas of interest, customer satisfaction studies, organizational goals, customer expectations, and

feedback methods have also changed. Leadership styles have also adapted to emerging developments and changes (Tengilimoğlu, 2005).

The leaders examined and analyzed in leadership theories are far from today's leadership understanding. The fundamental idea behind new leadership theories is that leadership concepts can vary from society to society, organization to organization, and even person to person (Çelik and Sünbül, 2008). Leadership concepts that were previously shaped by traits, abilities, situations, and events have been approached in a contemporary way to create new leadership approaches that have emerged from these concepts. With these approaches, leadership concepts have been broken down and extensively examined in detail (Şentürk, 2017).

Several leadership approaches fall under the umbrella of new leadership theories, including charismatic leadership, transformational leadership, visionary leadership, and servant leadership. Additionally, democratic-participative leadership, autocratic leadership, and laissez-faire leadership are also discussed in the broader leadership literature (Demir, Yılmaz, & Çevirgen, 2010; Yeşil, 2016).

Charismatic leadership

Charismatic leadership is defined as a type of leadership that influences and directs followers through the strength of the leader's personality. The definition also emphasizes that charismatic leadership is made possible by the bond that is created between the leader and the followers (Antonakis, 2012). This leadership style is typically associated with crises and is seen as a type of leader who can rescue an organization from a difficult situation. These leaders are characterized as charismatic, confident, courageous, persuasive, and possessing a personality that influences the employees in the organization (Çelik and Sünbül, 2008).

Transformational leadership

Transformational leadership is defined as a leadership approach that supports the structural and organizational development of organizations, while also promoting the personal development of individuals within the organization. Additionally, transformational leaders continuously monitor the organization as a whole and its employees, identifying areas for improvement and facilitating their development and updating. In transformational leadership theory, there is a mutual trust relationship

between leaders and employees. The leader understands the interests and expectations of their employees, contributes to their development as much as possible, and seeks correct information to serve the organization's objectives. As a result, both the leader and employees continuously improve themselves (Şimşek, 2006).

Democratic-participative leadership

In the democratic-participative leadership approach, the organization adopts a human-centered approach. In this theory where respect and tolerance exist, all employees participate in the management processes of the organization. Democratic leaders do not use coercive power, are far from a controlling approach, and ensure that their followers are in a comfortable environment. The leader appreciates the successful work of their employees to increase their internal motivation. (Arıkanlı and Ulubaş, 2004). Groups that adopt a democratic and participative approach move collectively as a social unit. When developing goals and policies, dividing tasks, and distributing authority and responsibility, the leader consults with employees and respects the opinions of all members (Küçüközkan, 2015).

Autocratic leadership

Autocratic leadership is usually seen in organizations where formality and bureaucracy are prevalent. In this leadership style, there is minimal communication between the leader and the followers, and leaders keep their employees out of management. Authoritarian leaders may resort to using coercive power to get their employees to carry out their tasks and responsibilities (Buluç, 1998). This leadership style belongs to old-school leaders. However, it is still one of the most common leadership styles today. In bureaucratic and autocratic societies, leaders in this leadership style can be selfish, undemocratic, intolerant, harsh, and ruthless in their behavior (Bakan and Büyükbeşe, 2010).

Laissez-Faire leadership theory

In the laissez-faire leadership style, leaders avoid taking authority and responsibility. Therefore, there is a lack of hierarchy and motivation to achieve the organization's goals. Employees in subordinate positions determine the organization's goals, policies, methods of work, shortcomings, and solutions (Buluç, 1998). In this leadership style, the leader's role in a managed organization is to provide resources to subordinates and express opinions when asked. It is more appropriate to apply this leadership style in homogeneous groups where all employees are experts in their fields and could potentially be leaders (Bakan and Büyükbeşe, 2010).

Transactional leadership

Transactional leadership is a type of leadership in which the leader has high communication with employees and satisfies their personal interests. In this type of leadership, there is a transaction or exchange between the leader and followers. The leader applies reinforcements to employees in order to achieve the organization's goals (Eren, 1998). Leaders in this leadership style carry more managerial qualities. Transactional leaders know their employees' needs and motivate them by using these needs as rewards. External motivation sources and rewards are frequently used in this leadership style (Bakan and Buyukbese, 2010).

Visionary leadership

Visionary leadership is a type of leadership that is seen in organizations where leaders are forward-thinking and innovative. Leaders engage in behaviors and attitudes that will take the organization and followers into the future (Durukan, 2006). In this type of leadership, leaders who capture and create innovation also involve their employees in management. Visionary leadership is a leadership style that sees beyond routine authority, responsibility, and tasks, and is not afraid of change (Babil, 2009). In this type of leadership, leaders are not afraid to try and make mistakes. They enjoy acquiring new knowledge, and taking untraveled steps. They take risks and present dreams that will open new doors for the organization (Arslanoğlu, 2016). One of the new leadership theories, Servant Leadership Theory, is the main theme of this study. Therefore, this leadership understanding has been examined in detail under the next heading.

Servant Leadership

The servant leadership approach, developed by Greenleaf in the 1970s, places the leader in a position of serving their employees rather than being in an authoritative role. According to this leadership approach, a leader who desires success, productivity, and progress should provide their employees with the services they need. The servant leader is designed to be sensitive to their employees' problems, increase their development, and provide them with autonomy (Kahveci and Aypay, 2013). The servant leader takes on a role of a leader who values relationships and communications, is aware of their employees' needs and problems and solves them, and is focused on developing their followers beyond the organization's goals (Yukl, 2010). According to another view, the most important feature of servant leadership is to influence people by serving them, rather than directing them, and to guide them towards achieving the organization's objectives (Lantu, 2015).

If we were to define the servant leadership approach, it is understood as a leader who dedicates himself to serving the members within the organization, solves their problems, improves their performance, and assists in their personal development (Çoban, 2019). There are some differences between the servant leadership approach and other leadership theories and new leadership approaches. Organizational management aims to ensure that the organization achieves its goals. Servant leaders serve their employees and fulfill their needs to reach the organization's goal (Van Dierendonck, 2011). Robert Greenleaf, who introduced the servant leadership approach, was inspired by Herman Hesse's 1956 story "Journey to the East" and laid the foundations of his theory while developing this approach (Okçu and Çoğaltay, 2019).

Although servant leadership was introduced in the 20th century, there are many religious and cultural examples at the foundation of servant leadership (Sendjaya and Sarros, 2002). As the value placed on human beings increased, studies in this field began to spread in all areas. With the development of this understanding, the concept of servant leadership began to gain recognition. This is because a servant leader empathizes with their followers, listens to them effectively, supports, develops and sees them as part of the team (Özmutlu, 2011). Along with these characteristics, servant leadership differs from many theories and approaches proposed before it.

When we look at other theories, the leader is generally seen as a force that manages and directs the organization. In servant leadership, however, the leader behaves with tendencies to serve their employees, far from egotism and self-aggrandizement (Taylor, Martin, Hutchinson, and Jinks, 2007). The biggest difference between servant leadership and other leadership approaches is that it gives importance to people's emotional states and needs. While other leadership approaches focus on employees' productivity, performance, and goal-oriented desires, servant leadership aims to improve people's emotional states and fulfill their needs (Yalçın and Karadağ, 2013).

1.1.2. Sub-dimensions of servant leadership

There are many sub-dimensions of servant leadership. Researchers in the field have approached servant leadership with different dimensions. According to Spears (1998), there are 10 sub-dimensions of servant leadership, which include listening, empathy, healing, awareness, persuasion, conceptualization, foresight, stewardship, commitment to the growth of people, and building community. Farling, Stone, and Winston (1999) examined servant leadership in 5 sub-dimensions. According to their study, these sub-dimensions are vision, trust, service, impact, and credibility. Page and Wong (2000) identified 12 sub-dimensions of servant leadership, which include honesty, humility, servant, attentiveness, empowerment, development, decision-making, goal-setting, leading, modeling, team-building, and shared decision-making. Dennis and Bocernea (2005) examined servant leadership in 5 sub-dimensions. Their study revealed the sub-dimensions of social and moral love, humility, empowerment, vision, and trust. Bowman (2005) conducted studies on teachers and identified 6 sub-dimensions of servant leadership, including humility, honesty, trust, empathy, healing, and community. Ekinçi (2015) examined the sub-dimensions and identified five sub-dimensions that represent the behavioral styles applied by school principals to their teachers. These sub-dimensions are selflessness, empathy, justice, honesty, and humility.

1.1.2.1. Selflessness

According to Sober (1988), altruistic behavior is a type of behavior that is voluntary, benefits others besides oneself, and is performed without the expectation of reward or punishment, solely to do good to others. According to Greenleaf, who developed servant leadership (1977), altruistic behaviors are considered one of the most important characteristics of servant leadership, as they demonstrate that individuals are thinking about the well-being of others besides themselves.

A leader who exhibits selfless behaviors adopts a sensitive attitude toward the interests, desires, and actions of the followers of the organization (Usta and Ünsal, 2018). Employees working in organizations with servant leaders exhibit attitudes and behaviors such as taking responsibility, working collaboratively, being honest, and being committed to their work (Kandemir and Akgün, 2019). Because they have a leader who thinks of them, connects with them, values them, and helps them develop, employees in the organization feel committed to the organization. Employees with high organizational commitment also make the organization's goals their own (Temiz, 2016).

One of the most important prerequisites of a leadership approach based on service is the behavior of valuing the interests and needs of employees, which falls within the scope of altruistic behavior. Servant leaders prioritize the interests and needs, as well as problems, of their followers over their own urgent and important issues (Ekinci, 2015). Leaders who value the needs of others besides themselves will set an example for other personnel within the organization. As a result, positive communication and interaction within the organization will increase, contributing positively to many aspects such as organizational socialization, organizational culture, collaboration, organizational commitment, and job satisfaction (Sendjaya and Cooper, 2011).

1.1.2.2. Empathy

According to Rogers (1983), empathy is defined as a person accurately understanding the emotions and thoughts of another in specific situations, feeling what they feel, and conveying this to them. As Spears (1998) mentions, empathy, which is a sub-dimension of servant leadership, includes elements such as communication, effective listening, and social relationships. In organizations where empathetic communication is present, it is anticipated that communication problems and conflicts will significantly decrease. This can only be possible if the leader has effective listening skills and can make the other person feel understood (Ekinci, 2015).

It is stated that empathy plays a crucial role in behaviors such as sharing and helping, which are fundamental to servant leadership. In this approach, the leader tries to perceive each individual differently and engages in behaviors that aim for all followers to become autonomous (Bowman, 2005). When the leader and employees are familiar with each other's problems, they understand each other better. Leaders and employees who know each other well understand what they want and realize their talents. A servant leader is a person who knows the employee's skills and assigns tasks accordingly (Akyüz, 2012).

In this context, teachers who feel understood by school administrators, who try to find solutions to their problems, work to meet their needs, and take their expectations into account will realize that they have servant leaders. Through this connection, they will establish a special bond with their leader, and will sincerely do their best to achieve the organization's goals. (Ekinci, 2015).

1.1.2.3. Justice

Justice is used to refer to the realization of rights and law, and being honest in words and actions (Çeçen, 2020). The concept of justice used in organizations is defined as a situation where managers and employees are fair and honest to each other (Pillai, Shriesheim, and Williams, 1999). At the core of servant leadership, lies the commitment to consistency and justice in both words and actions, ensuring justice in tasks and resource sharing, and demonstrating a fair attitude in organizational management and employee evaluation (Ekinci, 2015).

Servant leaders are fair in their relationships with their employees and in their practices in the organization. Fairness in task sharing, responsibility distribution,

granting of rights, and the level of relationships are essential practices to ensure justice in the organization (Akyüz, 2012). When employees do not receive their rights for the work they do to achieve the organization's goals, their trust in the organization is shaken. Unfair allocation of rights to another employee doing the same task also damages trust. In organizations where there is no justice among employees, there is a lack of trust, which adversely affects their performance and productivity (Gürer, 2019).

According to many studies, organizations with a high sense of justice within the workplace have been found to have employees with high levels of job satisfaction, organizational commitment, and organizational trust (İşcan and Sayın, 2010; Yazıcıoğlu and Topaloğlu, 2009; Yıldırım, 2007).

1.1.2.4. Honesty

Honesty has been identified as a sub-dimension of servant leadership in many studies. According to Harter (2002), honesty is defined as being consistent and behaving in a way that is free from lying in speech, attitude, and behavior. Page and Wong (2000) have identified honesty as the cornerstone of the servant leadership concept. Through their research, they found that the honesty displayed by leaders in their behavior increased the trust of employees in the organization and their managers.

Leaders must set an example for their employees. Employees follow leaders who communicate with honesty towards them. Open, sincere, and truthful communication which is one of the most important qualities of servant leaders motivates employees towards achieving the goals of the organization (Çolak, 2020). Honest communication between servant leaders and their employees increases interpersonal and institutional trust. Followers of a leader who displays trustworthy, honest, and open communication also adopt honest communication practices (Russell, 2001).

Bowman (2005) suggested that when leaders exhibit honest behavior, employees are also likely, to be honest and make genuine contributions to the organization. In another study, Joseph and Bruce (2005) found that honesty behavior has a positive effect on employee characteristics such as commitment, trust, and satisfaction.

1.1.2.5. Humility

Emmons (1999) defines humility as a person who is unselfish, modest, respectful, open-minded, self-assessing, and possessing virtuous and strong character. Bowman (2005) emphasizes the importance of humility in servant leadership, stating that leaders practicing this style should not feel powerful or superior to those around them.

The leader should prioritize the interests and needs of the organization's employees, focusing on communicating with them in a humble manner and valuing their interests, needs, and expectations, which leads to an increase in trust within the organization. Humility is a prerequisite for trust and honesty within the organization (Temiz, 2016). Hierarchical organizations lack humility, which is an important aspect of servant leadership. Servant leaders are primarily focused on the emotional state of individuals and are committed to providing service-oriented leadership. Those who exhibit this type of leadership are humble and free from ego (Balay, Kaya, & Geçdoğan, 2014).

In his study on servant leadership, Patterson (2003) considers humility to be a necessity. The study suggests that if the servant leader is not humble, they will be unable to fulfill the needs of their environment, employees, and other stakeholders and may display arrogant and selfish behavior. The foundation of servant leadership is based on treating oneself and others equally and building sincere and authentic relationships. If a leader views themselves as superior to their employees, they will be unable to devote themselves to serving their employees (Ekinci, 2015).

1.2. Green Servant Leadership

Green servant leadership has emerged as a new approach to leadership and is preferred by leaders who are particularly sensitive to Green issues. This approach emphasizes the leader's sensitivity to the environment and also includes the characteristics of servant leadership. The servant leadership approach emphasizes the leader's view of leadership as a service to help their team and meet their needs. Combining this approach with green servant leadership helps to create a balance between serving the team and showing sensitivity to environmental issues (Greenleaf, 1970).

Various researches proved that the leadership that creates a green environment increases the loyalty of the leader's team and forms a positive green performance of the business. For instance, a 2002 study highlighted how green servant leadership can potentially improve the attainability of businesses with respect to environmental sustainability. The study also found that green servant leadership resulted in higher employee loyalty to the organization and improved business financial performance (Sendjaya and Sarros, 2002).

A rationale of green servant leadership extends beyond the business context to society at large. Research in 2016 showed that green servant leadership sensitizes society to environmental issues and contributes to building a culture of sustainability within society. Green servant leaders work together by partnering to solve environmental problems in the community (Ren and Chadee, 2016); this study also took note of this aspect.

Green servant leadership is one of the leadership theories and is introduced as an awareness of the leadership for the awareness of the environmental issues and being cheated for the welfare of society. Leading around the common centralized goal – requires the leader working for what not just suits them, but for the well-being of the environment and society as a whole. Leading for sustainable development This type of leadership can enable sustainable development. Green servant leadership in a business environment would lead to green, socially responsible and sustainability initiatives.

Green servant leadership was introduced by Greenleaf (1970). Leadership is a service-oriented understanding, and the leader will operate in the service of the

community; this is according to Greenleaf. Moreover, sustainability for community and nature should be ensured by the leader. The leader must, in this approach, be a servant in order to serve the needs of the community.

Which aims to make the best way to manage natural resources for the future and is environment-based. As it is based on the leader's sensitivity to the environment, the leader should take the lead in related environmental protection projects. Also, leaders must guide and train their organization on being environmentally sensitive (Liden et al., 2008)

Green servant leadership is, therefore, a relevant leadership approach not just for the business sector, but in any industry. With this leads to motivate not only your interests but also society and nature to sustainable. Hence, it will be recommended that the dimension of eco-oriented servant leadership be used for the good of the society (Özbağ and Şengel, 2014).

So, one of the relevant leadership styles for increasing sustainability in business and society at large is green servant leadership. By taking these approach, leaders, who are more environmentally conscious can make their business and community sensitize towards environment.

1.3. Green Transformational Leadership

GTL (green transformational leadership) is a style of leadership that integrates elements of transformational leadership into a framework specifically designed with emotional practices and principles tied to environmental sustainability. Although conventional transformational leadership focuses on motivating and inspiring followers toward shared goals (Bass & Avolio, 1993), GTL emphasizes ecological responsibility and stimulates employees to engage in sustainable behaviour that aligns with both organizational and environmental goals (Chen & Chang, 2013). This way of leading encourages a common commitment to ecocentric values, which leads to a more sustainable organization and more engaged employees in green behaviors.

The focus of GTL leaders remains on the four dimensions that constitute transformational leadership, namely idealized influence, inspirational motivation, intellectual stimulation, and individualized consideration, but in a green context. By way of idealized influence, green transformational leaders demonstrate pro-environmental behaviors themselves, establishing a strong example for employees to

emulate. For example, they might engage in recycling programs or support energy-reducing practices, thereby demonstrating to employees that environmental initiatives are central to the organizational values (Robertson & Barling, 2013). It is because of these practices that when employees observe this behavior, they tend to emulate this attitude which enhances the organization organization as well as the environment as a whole (Mittal & Dhar, 2016).

In the realm of an inspirational motivation, the GTL leaders discuss a compelling vision of environmental stewardship. They provide employees with an overarching purpose by tethering organizational goals to ecological well-being, so employees can understand their contributions as part of a broader, environmentally-minded mission (Graves et al., 2013). Employees are thus imbued with this vision and empowered to undertake their daily tasks informed by a sustainability mindset while reassuring themselves that their actions may make a tangible difference toward the environmental outcome. Research by Norton et al. (2015) shows that embedding sustainability in leaders' motivational frameworks can lead employees to engage in ecologically positive behaviours (e.g. recycling or energy conservation) because employees feel their work makes a contribution to larger-scale and meaningful ecological goals.

Another important aspect is intellectual stimulation, which motivates employees to ponder creatively and rebut current practices for betterment QTTMA, (Kim et al., 2017). Which leaders encourage their subordinates to think about ecological issues more deeply, creating a culture that promotes innovation and allows employees to come up with ideas to reduce their company's environmental footprint. One such approach taken by GTL leaders may involve asking departments to look at processes in terms of utilization of resources and come up with innovative initiatives to digitalise paper processes or green supply chain practices (Kura, 2016). By encouraging such innovation, green transformational leaders motivate employees to engage in sustainable behaviours and proactively identify and adopt new green solutions.

Individuated consideration is also a big part of GTL, in addition to the intellectual stimulation. Leaders of personalized commitment empathize with employees and their environmental initiatives. For example, a green transformational leader may support a recycling program led by an employee and offer time and

resources to facilitate the initiative, thereby enhancing employees' sense of responsibility (Li et al., 2020). When an employee has invested effort or suffering, and for individual environmental efforts, they sense recognition and become more willing to contribute to the organization's sustainability initiatives, so it is more likely that they will perform pro-environmental behaviors that can have an aspect of task in an ongoing and continuous process.

In addition, GTL has influenced massively on “green work engagement” and “task- related pro-environmental behavior.” Kim et al. (2017) have discovered that people have more organizational capabilities in voluntary environmental behaviors when the organization is led by green solid transformational leaders. The perception of employees that their leaders successfully care about sustainability improves employees intrinsic motivation to get involved with green initiatives promoting sustainability at work. Moreover, research also indicates that green transformational leaders lead to more psychologically safe settings where employees feel they can speak up about ecological issues or suggest green ideas without fear of negative consequences (Norton et al., 2015). The supportive environment creates an opportunity for employees to align their values with those of the organization and build a collective sense of environmental responsibility.

Finally, because GTL becomes an organizational routine, it establishes an administrative culture in which green activities are normal and prevalent. The leaders not only convey green values but reinforce them; therefore, they become ingrained in the organization, guiding the daily behaviors and decisions of employees (Chen & Chang, 2013). Due to the organization's green ethos, employees are KEPT be environmentally responsible and experience social pressure to do so as well. Consequently, green transformational leadership helps shift employees' focus toward long-term environmental goals, promoting a more profound commitment to sustainable practices that extend beyond individual tasks and affect the organization's overall direction.

1.4. Green Work Engagement

This section discusses the concept of work engagement, its conceptual development, factors influencing it, and its outcomes. In today's work environment, organizations not only consider employees' high levels of skills and mental capabilities but also emphasize their ability to remain mentally engaged, energetic, and integrated, with a sense of belonging to their work. Therefore, employees' energy, commitment, or in other words, their engagement in their work, is highly important in the workplace. For example, in the context of educational organizations, the performance of teachers in cultivating qualified individuals is directly related to their level of work engagement (Köse & Uzun, 2018). As the concept of work engagement is relatively new, its conceptual development is significant.

1.4.1. Development of the concept of work engagement

As the field of management has evolved, there has been a shift in the literature toward focusing on positive organizational behaviors. Work engagement is considered one of these positive behaviors. Schaufeli et al. (2002) define work engagement as a positive, fulfilling work-related state of mind characterized by vigor, dedication, and absorption.

Positive organizational behavior refers to the positive attitudes and behaviors that employees exhibit to achieve organizational goals and success (Köse, 2015). Over time, the focus has moved from examining negative management variables, like burnout, to positive ones, such as engagement. In management literature, the term work engagement is synonymous with job engagement or employee engagement (Özkalp & Meydan, 2015). Chronologically, work engagement emerged in the 1990s, after the introduction of the concept of burnout by Freudenberger in 1974. Schaufeli (2012) noted that work engagement first appeared in the context of employee engagement in the workplace, and it was first popularized by the Gallup Organization in the 1990s. One of the earliest researchers to conceptualize work engagement was Kahn (1990).

Kahn (1990) defined work engagement as the emotional, cognitive, and physical investment individuals make in their work roles. According to Kahn, engaged employees fully devote themselves to their roles, resulting in positive organizational and individual outcomes.

The conceptual development of work engagement is often seen in relation to burnout, a negative organizational behavior. While burnout was first introduced by Freudenberger (1974), work engagement later evolved as its positive counterpart. As Maslach & Leiter (1997) and Schaufeli & Bakker (2003) describe, work engagement is seen as the opposite of burnout. Whereas burnout is characterized by emotional exhaustion, depersonalization, and reduced personal accomplishment, engaged employees experience energy, vigor, and a sense of accomplishment. Burnout and work engagement are thus seen as inversely related, and some studies have suggested that they can be measured using similar instruments (Maslach & Leiter, 1997).

In their model for preventing burnout, Maslach & Leiter (1997) redefined burnout as the "erosion of engagement" and incorporated work engagement as a solution to prevent burnout (Ardıç & Polatçı, 2009). Their model contrasts burnout dimensions—exhaustion, cynicism, and inefficacy—with work engagement dimensions: vigor, dedication, and absorption (Maslach & Goldberg, 1998).

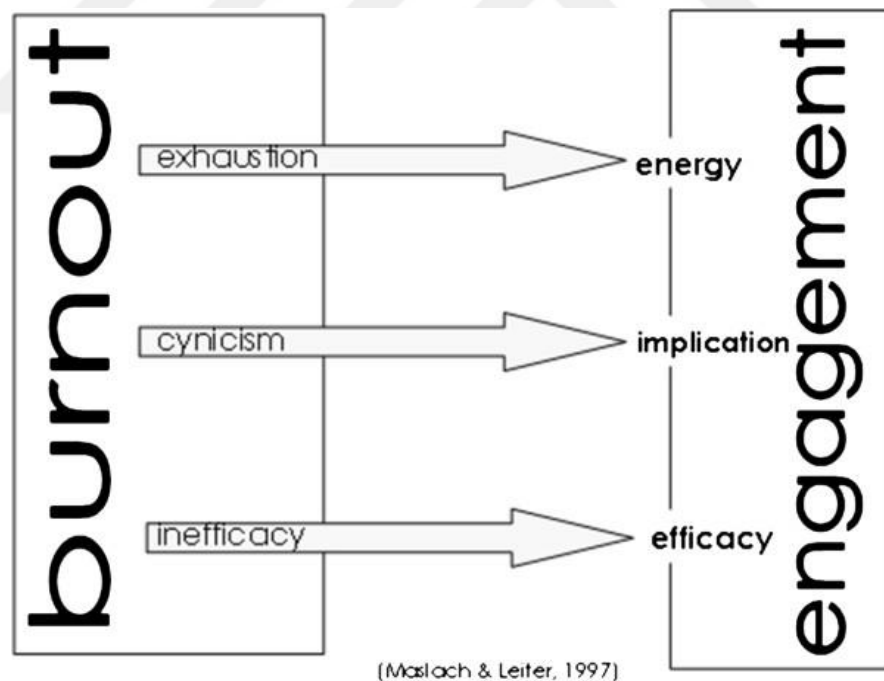


Figure 1 The Relationship Between Burnout and Work Engagement.

However, Chirkowska (2012) found that employee engagement and burnout are distinct constructs, though they are often discussed together. Schaufeli (2012) also noted that while burnout and engagement are related, they are not entirely opposites as suggested by earlier researchers.

Employee engagement in organizational contexts

Kahn (1990) described employee engagement as a state in which individuals are fully invested in their work physically, cognitively, and emotionally. Engaged employees are those who feel a strong sense of loyalty to their organization and profession, enjoy performing their tasks, and approach their work with enthusiasm (Özer, Saygılı, & Uğurluoğlu, 2015). Engaged employees find their work meaningful and significant, taking pride in their efforts.

The elements that define employee engagement include positive emotions toward work, attributing meaning to one's work, confidence in one's ability to complete tasks, and a positive outlook on future work opportunities (Sönmez, 2018). This engagement leads to positive attitudes and sustained motivation in the workplace. Celep (2000) described engagement as the willingness to go beyond formal duties to help achieve organizational goals. Engaged employees are characterized by their high levels of involvement, energy, and productivity.

Models of employee engagement

Several models of employee engagement have been developed. Four major approaches explain the concept (Atcıoğlu, 2018), and these models continue to be cited in theoretical studies on employee engagement. Kahn's (1990) model centers on the individual's psychological experiences at work and the work environment's ability to bring out their personal potential.

Maslach et al. (2001) describe employee engagement as the opposite of burnout, which is a negative state associated with disengagement. According to Maslach et al., employee engagement is a positive, fulfilling, and persistent state of mind marked by high impact and enthusiasm.

Harter et al. (2002) emphasized that engagement is driven by satisfaction and commitment, both of which reflect an individual's intrinsic motivation for work. Saks

(2006) further expanded the concept, introducing a distinction between organizational engagement and job engagement based on social exchange theory (Kurtpınar, 2011).

Finally, Maslach & Leiter (1997) redefined burnout as the erosion of work engagement and suggested that the opposite conditions of burnout—vigor, dedication, and absorption—must be present to promote engagement and counteract burnout (Maslach & Goldberg, 1998).

The concept of work engagement (often referred to as job engagement) can be associated with related terms such as occupational commitment, job satisfaction, and organizational commitment in organizational psychology (Ardıç & Polatçı, 2009). However, work engagement differs in its focus and criteria. Organizational commitment refers to an employee's loyalty to their organization, with the focus being on the organization itself, whereas work engagement centers on the employee's relationship with their job. Job satisfaction refers to the employee's contentment with their job and how well their needs are met by their organization, but it does not capture the emotional and cognitive connection between the employee and their work, as seen in work engagement.

Occupational commitment shares some similarities with work engagement, particularly in the sense of belonging. However, dimensions such as vigor and absorption, which are central to work engagement, are absent in occupational commitment. Therefore, work engagement offers a more comprehensive perspective on an individual's relationship with their job compared to these other well-established concepts in organizational psychology (Maslach, Schaufeli, & Leiter, 2001).

Employees who are engaged in their work and those who are not are evaluated differently by organizations. When individuals are not engaged, organizations may fail to achieve desired outcomes because such employees do not effectively utilize their time, energy, or attention (Ardıç, 2009; Polatçı, 2009). Conversely, engaged employees—those who take initiative, actively participate in organizational tasks, and go beyond their basic responsibilities—are considered valuable assets to the organization (Güzel & Uyar, 2019).

While engagement is generally associated with positive outcomes—such as employees being energetic, productive, and mentally and physically invested in their work—it can also have negative consequences. Engaged employees may face

challenges like conflicts between family, social life, and work environments, as well as an increase in health-related complaints (Bakker, Albrecht, & Leiter, 2011; Demerouti, Bakker, Nachreiner, & Schaufeli, 2001). One such negative outcome is workaholism. Workaholics are individuals who become excessively obsessed with work, constantly working, and prioritizing their job over other important life aspects. This can lead to difficulties in personal life and overall well-being. The goal, therefore, is to maintain work-life balance to avoid these negative consequences. In educational organizations, it becomes critical to develop management approaches and strategies that support high performance—driven by engagement—while minimizing the negative side effects of excessive work involvement.

There is a mutual, or dialectical, relationship between employees and organizations. Employees rely on organizations to maintain their standard of living and fulfill their personal and professional needs, while organizations depend on employees to ensure their sustainability and success (Cropanzano & Mitchell, 2005). In this dynamic, both parties have responsibilities: High employee performance directly contributes to increased organizational productivity. Work engagement plays a key role in enhancing employees' performance and ensuring its continuity. Engaged employees are those who are dedicated to their work, fully committed, and motivated in all aspects of their professional lives (Schaufeli et al., 2002). Several factors influence the level of employee engagement, such as organizational culture, leadership, and personal motivations.

1.4.2. Factors determining employee engagement levels

For organizations to achieve their goals and sustain their existence, they need employees who feel a strong sense of organizational support, promote cooperation within the organization, and maintain healthy communication. Therefore, organizations should identify and cultivate factors that enhance employee engagement. This section outlines the personal and organizational factors that significantly contribute to employee engagement, which in turn positively impacts the organization. Understanding these factors can help managers encourage higher levels of engagement among employees. One key factor is individual resources.

1.4.2.1. Individual resources

Individual resources refer to the positive self-assessments that employees make about their ability to influence their work environment and successfully manage tasks (Hobfoll, Ennis, Jackson, & Johnson, 2003). These self-evaluations help increase motivation, assist in goal setting, and lead to positive outcomes such as improved performance, job satisfaction, and overall life satisfaction (Seferinoğlu, 2021). When employees perceive themselves as aligned with organizational goals and confident in their personal resources, it boosts their internal motivation, resulting in higher satisfaction and enhanced performance in achieving the organization's objectives.

To promote employee engagement, it is essential to manage job demands so they do not exceed employees' capacity or lead to excessive strain. According to the Job Demands-Resources (JD-R) model, a balance between job demands and job resources is critical for sustaining high levels of employee engagement (Demerouti et al., 2001; Bakker & Demerouti, 2007). The JD-R model posits that while job demands can lead to strain and burnout when excessive, job resources can mitigate these effects and enhance engagement.

1.4.2.2. Job resources

Job resources are the aspects of our job that help us remain engaged with it — the organizational, social, and physical conditions of our work. As per the JD-R model, job resources released by social support, skills development, and autonomy are regarded as significant factors because they are capable of alleviating the negative consequences of high job demands but also intrinsically motivate them by meeting employees' basic psychological needs of relatedness, autonomy, and competence (Demerouti et al. 2001; Seferinoğlu 2021). Özkalp and Meydan (2015) goes further by stating that these resources are capable of either increasing or decreasing job interest as long as they are looked at as supportive or limiting. Furthermore, Schaufeli and Bakker (2004) emphasize that job resources empower employees to achieve their goals more effectively, fostering both personal growth and continuous learning.

1.4.2.3. Dimensions of employee engagement

Kahn (1990) defined employee engagement as individuals fully dedicating themselves emotionally, cognitively, and physically to their work activities within an organization. Physical engagement refers to the exertion of physical energy in work tasks, while cognitive engagement relates to employees' beliefs and attitudes toward their organization. Emotional engagement reflects employees' commitment and emotional connection to the organization, supervisors, leaders, and colleagues.

For employees to effectively achieve their work-related goals, they must fully integrate themselves into their work. Christian et al. (2011) suggest that employee engagement operates at multiple levels. It is composed of three key components: physical resources that contribute to energetic performance, emotional resources that foster dedication to work, and the cognitive focus needed for concentration and immersion in tasks (May, Gilson, & Harter, 2004). Full integration into work means employees engage physically, emotionally, and cognitively while feeling a strong sense of commitment. The psychological conditions for engagement can be described as meaningfulness, safety, and fit within the work environment (May, Gilson, & Harter, 2004).

While some studies (e.g., Saks, 2006) have conceptualized employee engagement as a single dimension, focusing primarily on aspects like concentration or flow, the most widely accepted model of engagement is the three-dimensional framework proposed by Schaufeli and colleagues (2002). This model defines engagement through the dimensions of vigor, dedication, and absorption, explained as follows:

Vigor

Vigor describes an employee's high levels of energy, mental resilience, and willingness to invest effort in their work, combined with determination to persevere through challenging situations (Schaufeli et al., 2002). Employees with vigor maintain energy and enthusiasm throughout the workday, support colleagues, and demonstrate resilience even in difficult times. Vigor also encompasses the dynamism and consistent interaction employees maintain with their work and colleagues, highlighting their enthusiasm and strength in overcoming challenges.

Dedication

Dedication refers to employees' deep involvement in their work, the meaningfulness they attribute to it, and their strong desire to perform it. It also involves how inspiring, challenging, and significant employees perceive their work to be. Employees experiencing dedication feel pride, enthusiasm, and a strong connection to their job (Schaufeli et al., 2002). They view their work as important, not just because of its inherent interest but because of its perceived value and purpose. As a summary dedication is to capture feelings that associate employees with their jobs such as pride, enthusiasm, and inspiration.

Absorption

Absorption is where an employee is engrossed and immersed in their jobs where time disappears like a seemingly infinite cycle, so they struggle to break free of jobs. This factor reveals the difficulty workers experience in separating themselves from their work setting (Schaufeli et al., 2002). Engaged workers will feel a sense of belonging and alignment to the company values whereas absorbed workers will be focused on their work to the point of losing track of time. Maslach et al. (2001)) further relate absorption with a clear grasp of job expectations and confidence in meeting job demands.

The Utrecht Work Engagement Scale (UWES) created by Schaufeli and Bakker (2004) is often used to measure the components of vigor, dedication, and absorption. Applying this scale, which has 17 items for several workforces, including Healthcare workers, administrator, teachers, and police officers. The scale contained six items assessing vigor, five items assessing dedication, and six items assessing absorption.

Different studies have interpreted these dimensions in a different manner. Köse (2015: 192) had translated absorption as interest, Arslan and Demir (2017: 427) however used terms like energy, dedication, and identification. Güzel and Uyar (2019) referred to vigor as "energy," dedication as "belonging," and absorption as "competence." Thus, there is no consensus on the exact Turkish translations of these terms.

Building on these descriptions, Maslach et al. (2001) proposed that the dimensions of vigor and dedication can be seen as direct opposites of the core burnout dimensions of emotional exhaustion and depersonalization, respectively (Maslach, Schaufeli, & Leiter, 2001). The inverse relationship between engagement and burnout is thus evident in their respective dimensions. Maslach and Goldberg (1998) further suggested that engagement includes a sense of commitment rather than depersonalization, efficacy in place of reduced personal accomplishment, and energy instead of emotional exhaustion (Maslach & Goldberg, 1998).

Factors such as excessive workload, inadequate rewards, lack of control, perceived injustice, value conflicts, and low dedication can lead to burnout, creating a mismatch between the individual and the organization. Conversely, factors like autonomy, manageable workloads, recognition, shared values, and fairness promote person-job fit, which in turn enhances work engagement (Ertemli, 2011).

1.4.3. The positive and negative outcomes of work engagement

Work engagement is considered a desirable behavior within organizations and is classified as a form of positive organizational behavior. Depending on the level of engagement that employees exhibit, it yields positive outcomes both for the individual and the organization. Given that individuals have personal, work, and social lives that are interconnected, the behavior of work engagement is thought to have the potential to influence a broad range of areas (Köse, 2015). When an individual's life is categorized into social, personal, and work aspects, and considering the significant impact each of these has on the others, the critical importance of work engagement in an individual's life becomes evident.

Engaged employees see themselves as capable of fulfilling the organization's expectations effectively (Schaufeli, 2015). They care deeply about the future of the organization, and they work with a level of motivation and enthusiasm that exceeds expectations. Engaged individuals contribute to the success of the organization and strive to add value to it. They are confident in their knowledge and skills, believe in their ability to make a difference within the organization, and understand that these factors are critical to their performance (Esen, 2011). Employees who believe they can make a difference within the organization begin to feel that their professional capabilities and talents positively influence their productivity.

The organizational implications of employee engagement reveal that every unit within the organization is directly or indirectly affected by this behavior. The reason lies in the impact that work engagement exerts. Work engagement enhances individual performance, contributes to efforts aimed at achieving organizational goals, improves the quality of work, and positively influences the organizational climate. Consequently, the outcomes of work engagement should be considered by managers, as engaged employees play a crucial role in the organization's development and progress toward its objectives. Below are research findings and information from the literature on the outcomes of work engagement.

Gostick and Elton (2007) assert that work engagement has a significant impact on motivating employees within an organization. Engaged employees exhibit behaviors that go beyond their usual efforts, tightly align themselves with the organization's success, dedicate themselves wholly to achieving the organization's goals, deliver high-quality performance, and do not shy away from taking on responsibilities. Embracing the organization's objectives becomes a form of intrinsic motivation.

Bal (2009) made several inferences about how the level of work engagement might affect the relationship between employees and their organizations. According to Bal (2009), the level of work engagement enhances the employee's enthusiasm and eagerness toward their job. It is also related to employees' mental well-being, the fostering of positive emotions, reduced risk of burnout and job dissatisfaction, working with maximum productivity due to increased intrinsic motivation, a sense of belonging to their organization, and access to resources related to their work.

Ardıç and Polatçı (2009) argue that increasing productivity levels to the desired degree and improving the well-being of individuals within an organization can only be achieved if employees are engaged with and fully integrated into their work. They also note that if undesirable situations arise in organizations, such as the onset of burnout, it can lead to high costs and challenges for the organization. To reverse this and foster work engagement among employees, managers would need to take on a significant workload. In doing so, individuals would use their energy to achieve organizational goals, feel a sense of belonging to the organization, and show a greater desire to develop their personal competencies.

Engaged employees are defined as individuals who carry out their duties with enthusiasm and often go above and beyond the demands of their roles, contributing positively to organizational performance. Due to these positive characteristics, it is likely that engaged employees will voluntarily engage in discretionary and extra-role behaviors (Rich, 2006). Rice (2009) emphasizes that engaged employees perform their jobs with greater passion and enthusiasm, which in turn fosters a sense of belonging and commitment to the organization. According to Dicke (2007), individuals who work with passion demonstrate exceptional effort toward the organization's advancement and become more genuinely involved in organizational activities (Kanten, 2012).

Engaged or fully integrated employees are individuals who work with high energy, dedicating themselves to their organizations without experiencing any job-related mental distress, thereby achieving maximum productivity. These characteristics of fully engaged employees are observed to contribute to positive organizational outcomes. However, it is important to view these employees not only as high-performing individuals but also as key figures who contribute to the organization's positive atmosphere. The positive atmosphere created by engaged employees has been found to positively influence the organizational climate and other employees as well. Moreover, it is known that engaged employees tend to be more satisfied with their jobs and are less likely to leave their positions compared to others (Roozeboom & Schelvis, 2014). Therefore, it is more likely that individuals who are not engaged in their work will develop intentions to leave the job.

1.4.4. Green work engagement

In today's rapidly evolving world, sustainability is no longer an option but a necessity. Businesses must adopt environmentally responsible practices to not only ensure their survival but also contribute to the health of our planet (Köse, 2015). Involvement in "Green" work requires an attunement to environmental sustainability across all sectors of an organization's operations. Such as conserving energy, reducing waste, and utilizing sustainable materials across supply chains. It is expected that companies will assess their processes to lower their Global Footprint and sustainability is an integral part of business models (Schaufeli et al., 2002).

Green-work refers to production, wide and small scale, that can be sustainable, meaning less harm to the environment in production and distribution. This means not only reducing current environmentally damaging practices, but innovating, or stopping harmful processes (Bakker, Albrecht, & Leiter, 2011).

Workers will also be key actors in this green transition. Businesses should educate their workforce on environmental consciousness which includes energy conservation, waste management, recycling, etc. In an era with increasing organizational focus on sustainability, motivation programs may facilitate employees' commitment to environmental objectives. Corporate strategy should facilitate regular evaluation of the environmental impact of products and services, to allow for reduction of some of the impact while improving corporate image and competitiveness (Bakker, Albrecht, and Leiter 2011).

A focus of green work engagement is to invest in green tech such as energy-efficient machinery and processes that uses less resources and produces less waste. These technologies serve not just to minimize an organisation's carbon footprint, but also to drive down operational costs and inefficiencies.

Moreover, green businesses need to connect with their communities too, partnering on local environmental efforts and environmental issues that matter to the community as a whole. This could include anything from supporting environmental education to engaging in or financing local sustainable projects (Köse, 2015).

From a reputational standpoint, green work engagement can also improve how a company is viewed by consumers, investors, and other external stakeholders. Companies that use sustainable practices are often preferred by consumers (Bakker, Albrecht, & Leiter, 2011), leading to improved customer loyalty as well as increased attractiveness to investors. Importantly, green work engagement helps solve global environmental problems: climate change, pollution, and biodiversity loss. (sound) sustainability the place mindset business role supported workplace issues businesses (Schaufeli et al., 2002).

Therefore, from a business perspective, green work is highly advantageous for the sustainability and durability of businesses itself which ensures to keep our planet sustainable. By focusing on green engagement, these businesses are not only securing their future, but also contributing to a more sustainable and livable world (Köse, 2015).

1.5. Task-Related Pro-Environmental Behavior

Task-related pro-environmental behavior (TPEB) is defined as sustainable actions taken by employees that are directly related to their job roles and responsibilities. Unlike general pro-environmental behavior which encompasses a range of eco-friendly actions that could take place in or out of work (Steg & Vlek, 2009), TPEB is specifically connected to those tasks which help achieve organizational environmental goals (Norton et al., 2015). Under such conditions, an individual's behavior toward the organizational green policy and green leadership encouragement tends to influence pro-organizational green behavior since leaders create a climate about sustainability as an integrated work task.

Within role theory framework, achieving TPEB can be facilitated if employees consider environmental behaviors as role expected behaviors, given that employees are more inclined to take actions that further their role expected conditions (Ture & Ganesh, 2014). Such measures include steps by employees to decrease paper usage, cut energy consumption, recycle objects, and streamlining processes to use fewer resources. According to Kim et al. (2017), when employees are encouraged to connect these tasks with their actions, it promotes role-specific sustainability. More recently, leadership – particularly green transformational or servant leadership – was identified as driver of these behaviors by helping employees view ecological responsibility as one of their role expectations (Robertson & Barling, 2013).

In the academic literature it was highlighted that if green organizational policies clearly define and reward TPEB, it would contribute towards willing employees to engage in more sustainable practices to their daily tasks (Graves et al., 2013). Civilizing environmental values in workplaces of an organization create a sense of accountability among employees, resulting in heightened involvement in TPEB (Lo et al., 2012). Leaders who promote green initiatives and urge employees to think about the environmental impact of their daily tasks often reinforce this behavior. According to Dumont et al. (2017), when employees are provided encouragement from the leadership level to enact sustainability as a part of their job role, their engagement in green behaviours that fall under their role is significantly higher.

Furthermore, employees are more likely to engage in task-related pro-environmental behaviors (i.e., VATPEB) when they are autonomously motivated (Deci

& Ryan, 2000), which is also consistent with the underlying motivation of TPEB as explained by self-determination theory (SDT). When it comes to corporate sustainability, by empowering employees to develop innovative, sustainable solutions in their jobs, leaders help cultivate a sense of autonomy, which we find drives pro-environmental behavior to become part of one's identity as an employee. This creates more autonomous motivation to practice TPEB (Kim et al., 2017), where employees are not just going through the motions of eco-friendly practices because they are just given as extra tasks.

Additionally, employees' perceptions of organizational support for the environment (called "green organizational support") have also been found to drive TPEB (Huang & Li, 2019). When organizations express sustainability as an actual value and put their money where their mouth is, employees are more likely to incorporate green practices into their work. Thus, this perception of support activates initial engagement in TPEBs and encourages the development of long-term commitment to these behaviors. In green supportive organizations, employees regularly engaged in resource saving and waste recycling as part of their jobs (Norton et al., 2015).

A critical responsibility leaders have in normalizing TPEB is recognizing and rewarding employees that follow-through on integrating sustainability into their day-to-day work (Robertson & Barling, 2013). The value of TPEB is strengthened through recognition, serving as extrinsic motivation for employees which can lead to intrinsic motivation in the long run. For example, employees recognized for lowering their energy usage or decreasing waste may be inspired to nurture a long-lasting interest in sustainability. This dynamic speaks to the importance of leader support and recognition in fostering a workplace culture that views green practices as a core component of employees' job role (Dumont et al., 2017).

TPEB is thus a sustainable form of job performance, whereby employees continually consider the environmental implications of the task they are engaged in. This approach recognizes that organizations integrating green expectations within job roles and creating supportive leadership pathways are more conducive to widespread engagement in TPEB. When an organization and its employees have well-defined ecological values, it can be mutually beneficial not only enhances reaching

environmental goals, but also creates a single-minded workforce focused on the same environmental target (Huang & Li, 2019).

1.6. Social Exchange Theory

Social Exchange Theory (SET) is a widely used theoretical framework in social psychology and organizational behavior, which explains human relationships and behaviors in terms of exchanges and reciprocity. SET, based on economic and behavioral theories, was first introduced by George Homans in the 1950s to explain social behavior through the prism of cost-benefit analysis and exchange dynamics. According to Homans (1958), individuals were said to partake in social exchanges referencing the expectation of receiving rewards, which would be balanced against the potential costs incurred. Hence, SET suggests that social interactions are driven by the common benefits that they generate, while individuals expect a return for their contributions. Understanding workplace hierarchies, in which we seek knowledge from the experienced, is a leading example of this core aspect of behavior; a need to obtain an implicit reward that develops our personal stock.

1.6.1. Core tenets of social exchange theory

The key concepts of SET include reciprocity, trust, and mutual benefit. Reciprocity is providing those who are kind with the expectation that kindness will be returned to them, and it is the foundation of cooperative relationships (Blau, 1964). Trust is another key element of SET, with ongoing social exchanges relying on the trust that benefits will be reciprocated. Initially, there may be limited interactions between you and others, but as positive exchanges accumulate over time, trust and collaborative relationships are cultivated, ultimately leading to ongoing, mutually beneficial exchanges (Emerson, 1976). Finally, SET asserts exchanges can be diverse in nature; some exchanges are purely economic, while others take on a more social and symbolic character that entails gaining non-tangible returns like respect, appreciation and loyalty.

Peter Blau's major book, *Exchange and Power in Social Life* (1964), extended Homans' ideas into broader implications of social exchanges on the level of social structure, beyond the individual interaction units analyzed by Homans. In contrast, Blau (1964) contended that exchanges serve to stabilize and integrate organizations by promoting mutually beneficial relationships. According to Blau's extension of SET,

reciprocity is determined not only by tangible exchanges but also by less tangible elements such as loyalty and commitment, factors that are as increasingly important in forms of leadership.

1.6.2. SET's application in organizational contexts

Within the field of organizational studies, above and beyond its original application, SET has emerged as a primary theoretical lens in order to explore a variety of workplace phenomena, such as motivation and organizational citizenship behavior. According to Cropanzano and Mitchell (2005), SET has specific significance in understanding why employees will reciprocate their leaders' favorable treatment with positive work behaviors. After all, employees who look to their leaders as supportive and fair are more likely to feel a sense of obligation to return the favor, which can translate to heightened commitment, job satisfaction, and performance. This reciprocity process is fundamental in building a positive organizational climate, with leaders actively engaging in the exchange to affect employees' attitudes and behaviors.

SET is widely exploited by organizations to encourage various pro-organizational behaviors through mechanisms including but not limited to, empowering leadership, mentoring and fair treatment etc. For instance, leaders who act with integrity and fairness build trust and loyalty, motivating employees to go the extra mile in constructive behaviors beyond the duties of their role (Gouldner, 1960). Moreover, SET illustrates how employees may experience a sense of reciprocity toward leaders and organizations that invest in their well-being, motivating them to return the favor by increasing their engagement and performance (Eisenberger et al., 1986).

1.6.3. Social exchange theory and leadership styles

As scholars explore how specific leadership styles drive motivation and performance, the relevance of SET in the field of leadership studies has rapidly grown. Transformational and servant leadership styles match well with SET principles, as both styles focus on supportive, ethical, and empathetic leader behaviors that ensure high-quality social exchanges take place.

One such way, the green transformational leadership (GTL) style, combines sustainability and transformational aspects. Green transformational leaders encourage employees to engage in more sustainable practices by showing how environmental sustainability aligns with organizational values and goals (Robertson & Barling, 2013). This kind of leadership fosters a reciprocal relationship wherein an employee feels the urge to behave in a green work manner to reciprocate the leader's ecological values. Studies provide empirical support for this idea that employees are more likely to engage in pro-environmentally behavior under GTL because of psychological obligation to conform to the organization environmental goals (Norton et al., 2015).

Green Servant Leadership (GSL) also reflects SET's focus on trust and reciprocity by creating a positive and ethical environment in the workplace. GSL placing greater importance on employees' needs than environmental stewardship further enhances its ability to stimulate green work engagement (Choi et al., 2021). Exchanges driven by GSL are typically marked by joint accountability of environmental outcomes, in which industry-operating employees feel pressure to provide the same support to good practice of the leader. Facilitating these reciprocal exchanges helps GSL foster an organizational culture in which sustainability is woven into the fabric of daily work practices.

1.6.4. SET and task-related pro-environmental behavior

The most recent application of SET is in the realm of understanding task-related pro-environmental behavior (TPEB) (Hansen et al., 2020), wherein employees are held accountable for sustainability-oriented actions with respect to the tasks they perform at work. According to SET leaders who model and endorse sustainable behaviors establish an expectancy that employees will reciprocate and act toward sustainability objectives (Bai et al., 2020). TPEB represents a process of positive reciprocity in which employees perform green behaviors not only because they are personally motivated but also because they respond to the pro-environmental orientation of their leaders.

One such study, conducted by Norton et al. (2015) discovered that employees are more likely to perform TPEB when they work under environmentally benevolent leaders, as a means of reciprocation. Second, such a reciprocity framework is useful to practice as it tends to lead to green behaviors at the workplace as employees believe

that their sustainable hunting is appreciated in return they are most likely to follow such behaviors to reciprocate to the organization.

Moreover, the green structure that green leaders fostered further strengthens the employees' sense of responsibility to perform TPEB (Kim et al., 2019). Employees may also take green actions related to their tasks—which minimize waste and conserve energy in line with organizational sustainability goals—when they are in a supportive climate for acting green. As more green behavior emerges from organizations in a reciprocal obligation approach of SET, therefore, SET serves as a broader theoretical framework for understanding TPEB motivation because of the intrinsic value of linking through the lens of reciprocal obligations.

1.6.5. Contemporary applications and implications of SET in green leadership

The extension of Social Exchange Theory definition within green leadership research was examined on recent studies exposing the role of social exchanges on employee engagement to sustainability actions. Research by Qin et al. (2022) suggests that employees will identify more with the organization of the green leader and strive for the same organizational objectives. These green leadership styles are probably seen as authentic and mission-oriented by workers, thereby bolstering their commitment to sustainability goals. In addition, SET has played a key role in elucidating the phenomenon that green leaders can significantly drive GWE through building a social exchange that aligns with employees' intrinsic motivations for environmental commitment (Gong et al., 2020).

Thus, environmental (green) leadership is recognized as one of the powerful forces for integrating sustainable practices into organizational culture. When leaders can demonstrate a sense of environmental responsibility, it creates a reciprocal exchange that is conducive to the experience of TPEB and GWE, in which employees begin to view the sustainability of the firm as a part of their role. In this sense, the social exchanges facilitate the establishment of a green organizational identity which in turn moves the employees to respond to the pursuit of environmental causes as a natural extension of their allegiance to the organization (Zhao et al., 2023).

Overall Social Exchange Theory provides an essential perspective on the relationship between green leadership and pro-environmental behavior

Keywords
Green Leadership Pro-Environmental Behavior Social Exchange Theory

Organizations SET emphasizes reciprocity, trust, and mutual obligations, factors which can help us understand why employees are motivated to reciprocate the green behaviors of their leaders with engagement in sustainable practices. Green value leaders cultivate a workplace environmental responsibility environment through TPEB and GWE which is an exchange of reciprocity (Kara, 2021). This alignment of leadership values and employee behavior underscores the continuing relevance of SET in modern organizational studies—particularly in the context of sustainability and pro-environmental engagement.

1.7. Job Demands-Resources Theory

Job Demands-Resources (JD-R) Theory is one of the most prevalent frameworks used in organizational psychology and behavior, elucidating the balancing mechanisms between two entities: job demands and job resources, over employee well-being, motivation and performance. This framework was Introduction of Job Demands-Resources Model (2001) in the JD-R model there has been developed a more general model to cover some weaknesses of several existing work stress and motivation theories, such as the Job Strain Model (Karasek, 1979) as well as the Conservation of Resources Theory (Hobfoll, 1989). According to JD-R Theory, every job has distinct stressors (demands) and support factors (resources), and together these determine the level of motivation and stress among employees, producing related outcomes (e.g. work engagement, performance, general wellbeing).

1.7.1. Core components of job demands-resources theory

The JD-R Theory postulates that the aspects of the job can be categorized into two categories, job demands and job resources. Job demands refer to a job's physical, psychological, social, or organizational aspects that require sustained effort, potentially leading to strain and negative health outcomes. Examples of job demands include heavy workloads, time pressure, and emotional labor (Bakker & Demerouti, 2007). While job demands can lead to stress when they are excessive or overwhelming, they do not necessarily produce negative effects unless resources are insufficient to manage them.

Job resources are the physical, social, psychological, or organizational aspects that help individuals manage job demands, encourage the accomplishment of work objectives while promoting personal growth and development. Resources can exist at

various levels, including organizational support, role clarity, feedback, autonomy, and opportunities for development (Schaufeli & Taris, 2014). These resources serve two purposes: they mitigate the adverse effects of job demands on stress and boost employee motivation, leading to increased engagement and performance.

The balance between demands and resources is central to JD-R Theory. When resources adequately meet demands, employees experience greater motivation and engagement. On the other hand, employee burnout, stress, and disengagement become more likely when demands are greater than resources (Bakker & Demerouti, 2017).

1.7.2. Motivational and health impairment processes in JD-R Theory

According to the job demands-resources (JD-R) theory, the effect of job demands and resources on employees has two separate paths: the motivational process and the health impairment process (Demerouti et al., 2001).

The second dimension is the motivational process, as this explains how job resources motivate employees and consequently lead to positive outcomes such as work engagement, work commitment and organizational citizenship behavior. This is because many employees possess a burning desire to have the resources available to them, which gives them confidence and drive, resulting in top-tier performance and satisfaction on the job. Within the domain of pro-environmental behaviors, motivated employees are inclined toward environmentally sustainable behaviors if the leadership and resources available support environmental responsibility and individual actions towards sustainability (Bakker et al., 2023).

The Health Impairment Process describes how high demands from job deplete employees' energy and lead to stress and health problems. Extreme job demands coupled with limited resources lead to employees experiencing burnout, absenteeism, and unwanted turnover. When it comes to pro-environmental actions, without proper support to carry out green initiatives, those can be evaluated as another obligation that may lead to strain and lower engagement in environmental activities (Xanthopoulou et al., 2007).

1.8. JD-R Theory and Leadership

JD-R Theory has been used to examine leadership styles and how they impact employee engagement and well-being. Both transformational and servant leadership offer job resources that foster motivation and buffer the detrimental effect of job demands.

This is highly compatible with the JD-R Theory because GTL can be seen as a behavior role whose effectiveness is determined by the extent to which it inspires employees to go beyond their direct self-interests and focus on collective objectives, particularly those related to the environment. GTL also serves as a resource in the work environment through providing a shared environmental vision, autonomy in decision-making, and emotional support, which buffers the demands of engaging in green behaviors (Robertson & Barling, 2013). GTL employees showed a higher level of motivation to pursue green work engagement (GWE) and task-related pro-environmental behaviors (TPEB) due to the supportive environment created by transformational leaders (Norton et al., 2015).

In accordance with JD-R Theory, Green Servant Leadership (GSL) provides considerable job resources by serving employees and putting their needs first. GSL also provides a safe and supportive environment which can reduce the pressure of environmental work by making sure that the workers feel supported and valuable. (Choi et al., 2021). This kind of leadership reduces the health impairment process because the leader is concerned about employees' well-being, while it increases the motivational process through a supportive climate promoting green engagement and green performance.

1.8.1. Application of JD-R theory to green work engagement and pro-environmental behavior

The JD-R Theory has been an ever-growing model to understand green work engagement (GWE) and task-related pro-environmental behavior (TPEB). Abbreviation GWE stands for employees' commitment to environmental aims in the workplace, and TPEB refers to activities done by employees, out of their sense of duty, to execute their jobs in an environmentally friendly way. JD-R Theory suggests that the availability of job resources and the degree of job demands associated with

environmental responsibilities become important predictors of GWE and TPEB (Bakker & Demerouti, 2017).

For instance, Norton et al. found that helpful resources (e.g., guidelines, feedback, leader support) encouraged employees to engage in TPEB when they had access to such resources. On the contrary, when green initiatives are considered as extra job demands without sufficient resources, employee stress and burn-out occur which will eventually outcome disengagement of pro-environmentalist behaviors (Kim et al., 2019). Therefore, the JD-R Theory emphasizes providing supportive resources in balance with environmental demands for the employee well-being and sustaining engagement in the green initiatives.

1.8.2. Contemporary extensions of JD-R theory in green organizational contexts

More recent studies have extended JD-R Theory by investigating how particular green job demands and resources affect employees' environmental behavior. Xanthopoulou et al. (2007), which highlights how interactions of personal resources (e.g., resilience, optimism, and self-efficacy) with job resources could buffer the outcomes of high demand and green work engagement. Furthermore, Bakker et al. (2023) state that the green leaders could create a resourceful environment through emphasizing eco-friendly practices, offering training and awarding recognition in the context of sustainable activities. These extensions suggest that JD-R Theory is a flexible, and evolving, model, which is relevant and applicable to the demanding nature of organizational and environmental contexts in modern societies.

Overall, and more specifically, the JD-R Theoretical Perspective (and Model) has great potential to be utilized for understanding the relationships taking place between green leadership, employee motivation and engagement in pro-environmental behaviors. This equilibrium can also yield a workplace culture where employees feel inspired to support organizational sustainability targets without feeling burnt out due to excess pressure. Given that JD-R Theory focuses on the broad dynamics relating to resource allocation, motivational dynamics between E-R fit, and the impact of stress, the theory provides important insights for understanding the ways organizations can provide sustainable support to employees in fulfilling their green responsibilities.

CHAPTER 2: HYPOTHESES DEVELOPMENT

2.1. Green Leadership Styles and Green Work Engagement

From previous research, it has been documented that the effect that servant leadership has on different results is usually stronger than that of transformational leadership and other leadership types. For example: Schneider and George (2011) found servant leadership to be a stronger predictor of work-related outcomes such as employee satisfaction and commitment than transformational leadership. Likewise, Kaya and Karatepe (2020) showed that the relationship between servant leadership and work engagement was stronger than between authentic leadership and work engagement. Hoch et al. (2018) further found that the impact of servant leadership on task performance to be greater compared to that of authentic leadership.

Theoretical Foundation In the present study Social Exchange Theory (SET) forms the basis to examine the link of Green Servant Leadership (GSL) and Green Transformational Leadership (GTL) with Green Work Engagement (GWE) (Cropanzano & Mitchell, 2005). SET posits that reciprocally optimal exchange norms maintained between employees and organizations are ongoing, and cultivate trust and loyalty (Cropanzano & Mitchell, 2005). Accordingly, employees develop goodwill towards green servant leaders and green transformational leaders when they notice that these leaders encourage their attempts to promote Pro-Environmental Behaviors (PEBs) or acknowledge their environmental efforts, along with the obligation to reciprocate with positive affective and behavioral outcomes (e.g. GWE and task-related PEB). This encourages employees to participate in green work and perform regular green activities effectively.

We hypothesize that green servant leaders are more likely to promote higher levels of GWE because they use a bottom-up approach that provides crucial resources to support employees' voluntary and creative participation in green initiatives (Luu, 2019). In contrast, green transformational leaders inspire employees to pursue green objectives and exceed expected levels of environmental performance (Chen et al., 2013; Janjua et al., 2024).

Moreover, employees are likely to exhibit higher levels of GWE and task-related PEB when working in an environment where green servant leaders leverage others' expertise, honor their commitments, empathize with followers, provide clear

expectations, and act with a focus on serving others rather than personal gain (Van Dierendonck, 2011). Based on these insights and empirical evidence, we propose the following hypotheses:

****H1:**** The positive effect of GSL on Green Work Engagement is greater than the positive effect of GTL on Green Work Engagement.

****H2:**** The positive effect of GSL on task-related Pro-Environmental Behavior is greater than the positive effect of GTL on task-related Pro-Environmental Behavior.

2.2. Green Work Engagement and Task-Related Pro-Environmental Behavior

Motivation drives job performance according to the Job Demands-Resources (JD-R) theory (Bakker & Demerouti, 2017). Highly engaged employees exhibit a sense of purpose, energy, and enthusiasm in their work, resulting in task completion (Bakker & Demerouti, 2017). Thus, based on this principle, we suggest that employees will perform green work, and this work will likely be associated with higher levels of PEB (i.e. task-related PEB).

However, the research on the actual impact of GWE factor on the environmental related outcomes remains limited. For instance, Karatepe et al. (2022) claim that GWE has significant positive effects on task-related PEB of hotel employees. Similarly, Aboramadan (2022) found positive indicators of GWE on both in-role and extra-role green behaviors as well as on employees' green innovative behavior among higher education institutions staff. Drawing on these insights, we hypothesize:

****H3:**** Green Work Engagement is positively related to task-related Pro-Environmental Behavior.

2.3. Green Work Engagement Mediates the Relationship

Our research investigates the potential of Green Work Engagement (GWE) to mediate between green leadership styles and task-related Pro-Environmental Behavior (PEB), using the JD-R theory and Social Exchange Theory (SET) as a springboard. At the same time, JD-R theory empirically underlines the main role of resource availability which contribute to goals achievement and encourage positive behaviors in the workplace (Bakker & Demerouti, 2017), evidence of which is (GWE) (Aboramadan, 2022). Servant leaders grant autonomy, are focused on employee development, and exhibit humility which highlight putting employees' interests first (Van Dierendonck, 2011; Kaya & Karatepe, 2020). Conversely, transformational leaders also influence, but rather than through "idealized influence," "inspirational motivation," "intellectual stimulation," and "individualized consideration" (Hoch et al., 2018), transform by motivating employees.

Studies before this one suggest that servant leadership influences job outcomes more strongly through work engagement than authentic leadership (Kaya & Karatepe, 2020). Similarly, Lee et al. (2019) found that servant leadership had a more significant impact on task performance and organizational citizenship behaviors than ethical leadership. Based on these insights, we hypothesize that in environments where GSL is effectively applied, hotel employees are likely to experience higher GWE and, as a result, exhibit increased task-related PEB. Thus, we propose the following hypothesis:

****H4:**** The indirect positive effect of Green Servant Leadership on task-related Pro-Environmental Behavior through Green Work Engagement is stronger than the indirect positive effect of Green Transformational Leadership.

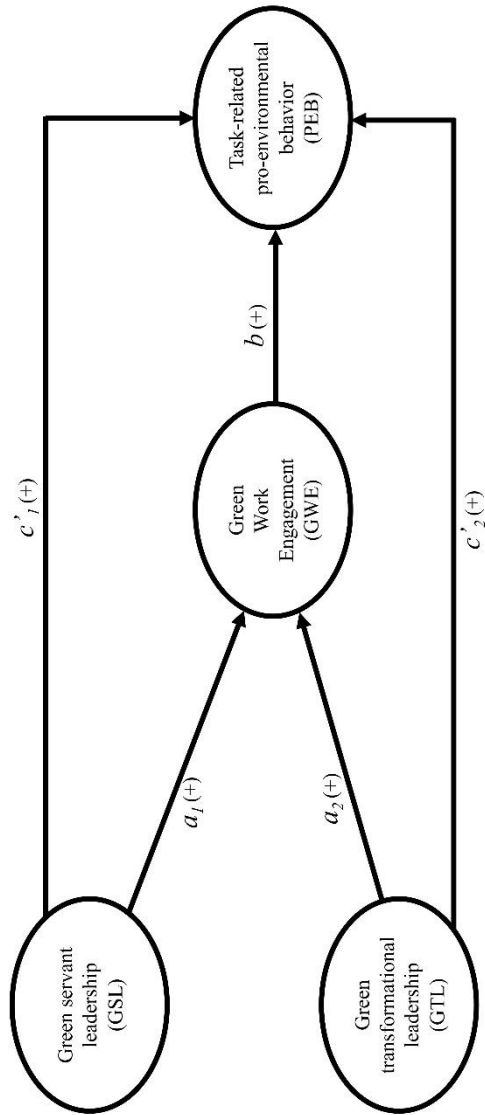


Figure 2. Research Model

Hypotheses:

- H1.** The positive effect of GSL on GWE (a_1) is stronger than the positive effect of GTS on GWE (a_2).
- H2.** The positive effect of GSL on task-related PEB (c'_1) is stronger than the positive effect of GTS on task-related PEB (c'_2).
- H3.** GWE relates positively to task-related PEB (b)
- H4.** The indirect positive effect of GSL on task-related PEB via GWE (a_1b) is stronger than the indirect positive effect of GTL on task-related PEB via GWE (a_2b)

CHAPTER 3: METHOD

3.1. Sample and Data Collection

Based on information available on the Turkish Tourism Ministry's website, out of the 206 hotels in Ankara that hold a Tourism Operation Certificate, 20 are Green Star certified (Ministry of Tourism, 2020). After discussions with these establishments, eight out of the 20 agreed to participate in the study. Consequently, a total of 206 surveys were completed from these eight hotels.

To determine whether the sample size had sufficient statistical power to evaluate the proposed model, an F-test for linear multiple regression (a priori) was conducted. At least 123 participants were needed in order to test a model with corresponding parameters (i.e., up to six predictors with a medium effect size) at 90% confidence and a 5% margin of error. The study sample of 140 respondents exceeds the minimum statistical power threshold needed to analyze the model using variance-based SEM (Hair et al., 2022). Additionally, once the data was gathered, a post-hoc test was conducted by qualified professionals to ensure that the sample size was adequate for testing the model. The Hair et al. (2024) and Guenther et al. (2023), and based on the refinement of Kock and Hadaya (2018), called as the inverse square root. By applying this approach, the researchers will be able to estimate the minimum sample size needed for a model to be tested based on the features of that model, specifically the path coefficient with the smallest value in the sample that can still achieve significance. We calculated, using the formula suggested by Kock and Hadaya (2018):

$$\text{For a significance level} = 5\%: n_{min} > \left(\frac{2,486}{|0,222|} \right)^2 = 125.399$$

To summarize, an adequate sample size derives from Streiger, in which using of the inverse-square-root method, it can be said that a sample size greater than 126 will be enough to evaluate the hypotheses of our model with confidence (Kock and Hadaya, 2018).

Table 1 presents the demographic details of the participants.

Table 1. Respondents' profile (n=140)

Variable/Category	Frequency	Percentage
Age		
Category 1	21	15.0%
Category 2	60	42.9%
Category 3	45	32.1%
Category 4	13	9.3%
Category 5	1	0.7%
Gender		
Male	79	56.4%
Female	57	40.7%
No answer is preferred	4	2.9%
Organizational Tenure		
Category 1	38	27.1%
Category 2	52	37.1%
Category 3	31	22.1%
Category 4	15	10.7%
Category 5	4	2.9%

3.2. Measurement

In this study we used pre-existing, validated scale items. The survey was prepared in English first, then translated into Turkish using back-translation. A pilot test was conducted with 15 customer-facing employees to test word clarity of the survey questions. No modifications to the item wording were necessary after the piloting phase. Green servant leadership (GSL) was measured with seven items adapted from Aboramadan et al. (2021), based on Liden et al. (2008). Reliability for the GSL scale was high (coefficient $\alpha = 0.952$), and responses were rated on a 7-point Likert scale (from 1 = strongly disagree to 7 = strongly agree). Green transformational leadership (GTL) was measured using six items developed by Mittal and Dhar (2016) based on transformational measures ($\alpha = 0.919$). Green work engagement (GWE) was measured using six items borrowed from (Aboramadan, 2022), and adapted from Schaufeli et al. (2006) ($\alpha = 0.905$). The five-item scale by Bissing-Olson et al. was used to measure for task-related pro-environmental behavior (PEB) (2013) ($\alpha = 0.940$), on a scale of “1 = never” to “5 = always.” Moreover, control variables were included to mitigate their possible influence on the dependent variable of the model: age (5 categories), gender (2 categories) and organizational tenure (5 categories).

3.3. Data Analysis

In order to assess the suggested model, we employed the Partial Least Squares Structural Equation Modeling (PLS-SEM) approach. The choice of PLS-SEM was justified since it can model constructs that are unobserved latent variables measured as composite scores (Hair et al., 2022; Henseler, 2017). All variables in the analysis were treated as composites, which are rational, reflective constructs based on theoretical underpinnings that underlie measurable elements (Henseler, 2017). The analysis was performed in two approvals, according to the approaches advocated by Hair et al. (2022). We started with an evaluation of measurement model external properties and then continued with the hypothesis testing and relationships of the structural model. The SmartPLS4 software was used to conduct these analyses.

RESULTS

Measurement Model Properties

The analysis started with a Confirmatory Composite Analysis (CCA). According to Henseler and Schuberth (2020), CCA is the appropriate method to use in assessing the relationship between a research model and its relevant variables. The fit of the models were tested based on the following three indices: Standardized Root Mean Square Residual (SRMR), Unweighted Least Squares Distance (dULS), and Geodesic Distance (dG). All discrepancy values were below the 95% confidence interval (HI95) as presented in Table 2. In line with the recommendations of Henseler and Schuberth (2020), and at a 0.05 significance level, the model was found acceptable from both the measurement and structural perspectives, providing no basis for rejection.

Table 2. Confirmatory composite analysis

Discrepancy	Saturated Model		Estimated Model		
	Value	HI ₉₅	Value	HI ₉₅	
<i>SRMR</i>	0.044	0.057	0.047	0.059	Supported
<i>d_{ULS}</i>	0.582	0.984	0.661	1.037	Supported
<i>d_G</i>	0.569	0.781	0.576	0.784	Supported

Notes: SRMR=Standardized root mean square residual; d_{ULS}=Unweighted least squares distance; d_G=Geodesic distance.

To examine indicator reliability, we reviewed the indicator loadings and their statistical significance. Loadings above 0.7 are generally deemed satisfactory (Hair et al., 2020). In this study, all indicator loadings ranged from 0.754 to 0.961 (refer to Table 3). We assessed composite reliability through Cronbach's alpha, composite reliability, and the Dijkstra-Henseler statistic. All values exceeded the 0.707 threshold (Hair et al., 2020), confirming that each composite demonstrated sufficient reliability. Convergent validity was evaluated using the Average Variance Extracted (AVE). As detailed in Table III, AVE values were consistently above 0.681, affirming convergent validity, as they exceeded the minimum 0.50 benchmark (Hair et al., 2020).

Table 3. Psychometric properties of the measures

Construct/Item	FL	α	pA	CR	AVE
Green Servant Leadership					
GSL01	0.847***				
GSL02	0.794***				
GSL03	0.865***				
GSL04	0.900***	0.940	0.944	0.952	0.739
GSL05	0.842***				
GSL06	0.809***				
GSL07	0.950***				
Green Transformational Leadership					
GTL01	0.843***				
GTL02	0.876***				
GTL03	0.857***				
GTL04	0.867***	0.919	0.923	0.937	0.713
GTL05	0.821***				
GTL06	0.800***				
Green Work Engagement					
GWE01	0.769***				
GWE02	0.754***				
GWE03	0.832***				
GWE04	0.887***	0.905	0.909	0.927	0.681
GWE05	0.885***				
GWE06	0.817***				
Task-related PEB					
T-TPEB01	0.938***				
T-TPEB02	0.961***	0.940	0.941	0.962	0.893
T-TPEB03	0.937***				

Notes: FL=Items loading ***p-value<0.001; α =Coefficient Cronbach's alpha; pA =Dijkstra-Henseler's statistic (rho_a); CR=Composite reliability (rho_c); AVE=Average variance extracted.

Discriminant validity was assessed using the heterotrait-monotrait (HTMT) ratio, as advised by Henseler et al. (2015). The HTMT ratios were below the 0.85 threshold, which aligns with the discriminant validity criteria set by Hair et al. (2020). Additionally, we applied HTMTinference to verify the consistency of HTMT ratios (Franke and Sarstedt, 2019). By creating confidence intervals from a two-tailed resampling test, we confirmed that the 0.90 threshold was never included in the intervals (Franke and Sarstedt, 2019). The results for both HTMT ratio and HTMT inference are presented in Table 4. Correlations among latent variables and descriptive statistics are shown in Table 5.

Table 4. Discriminant validity check using the HTMT criterion

	1	2	3	4
1.Green Servant Leadership	-			
2.Green Transformational Leadership	0.783 [0.677,0.835]	-		
3.Green Work Engagement	0.600 [0.439,0.736]	0.574 [0.446,0.694]	-	
4.Task-related PEB	0.620 [0.411,0.802]	0.626 [0.446,795]	0.734 [0.574,0.837]	-

Notes: HTMT= Heterotrait-monotrait ratio.

HTMT_{inference} based on t[9,999] 2-tailed bootstrapping test; Confidence interval in brackets.

Table 5. Latent variable correlations and summary statistics

Variables	1	2	3	4	5	6
(1)Gender	-					
(2)Organizational tenure	0.331*	-				
(3)Green Servant Leadership	0.113	0.243*	-			
(4)Green Transformational Leadership	0.014	0.236*	0.727**	-		
(5)Green Work Engagement	0.002	0.206*	0.554**	0.525**	-	
(6)Task-related PEB	-0.043	0.235*	0.583**	0.586**	0.679**	-
Mean	0.419	2.279	6.057	6.125	5.230	6.405
Standard deviation	0.495	1.145	1.200	1.164	1.101	1.040

Notes: ***p<0.001; **p<0.01; *p<0.05 (two-tailed test)

In order to control a potential common method bias (CMB) as recommended by Min et al. (2016), we employed analyses to calculate the variance inflation factor (VIF). According to the results of Harman's test, a single factor explains only 48.580% of the total variance (Podsakoff et al., 2003), which is below the recommendation threshold of 50%. Moreover, Hair et al. "VIF>3.3 can be suggestive of potential collinearity issues, which can be suggestive of CMB problems" (2020). The computed VIF values for all composite variables in the study were less than 2.325. In light of these findings, we decided that CMB did not pose an issue.

Structural Model

Given that we proposed a mediation model, we applied the approach recommended by Cepeda-Carrion et al. (2017) to test the hypotheses. This method involved initially estimating the direct effects between the model's independent and dependent variables ($c1'$ and $c2'$) and subsequently assessing the relationships between the independent and dependent variables with the mediating variable (denoted as $a1$, $a2$, and b). These estimates helped us test two indirect effects ($a1b$ and $a2b$). Since we anticipated positive effects across all instances, we utilized a one-tailed bootstrap analysis with 9,999 samples to assess the direct and indirect relationships outlined in our model and to evaluate the hypotheses. The results are detailed in Table 6.

Table 6. Structural model test results

	Path Coefficient (p-value)	t- value s	CI	f ²	Conclusion
Direct effects test					
				0.09	
a_1 :GSL→GWE	0.367(0.004)	2.640	0.137,0.591	6	Weak effect
				0.04	
a_2 :GTL→GWE	0.258(0.017)	2.129	0.060,0.455	7	Weak effect
				0.32	
b :GWE→T-RPEB (H3)	0.475(0.000)	3.876	0.270,0.670	7	Strong effect
			-	0.02	
c_1' :GSL→T-RPEB	0.158(0.114)	1.206	0.047,0.382	3	No effect
				0.04	
c_2'' :GTL→T-RPEB	0.222(0.031)	1.873	0.051,0.441	9	Weak effect
Mediating effects test					
(a_1b) : GSL→GWE→T-RPEB	0.174(0.018)	2.107	0.059,0.343		Full mediation
(a_2b) : GTL→GWE→T-RPEB	0.122(0.026)	1.947	0.042,0.255		Partial mediation
Total effects					
GSL→T-RPEB	0.332(0.014)	2.200	0.079,0.576		
GTL→T-RPEB	0.344(0.004)	2.638	0.141,0.571		
Endogenous variable	R2	Adjusted R2			
GWE	0.339	0.329			
T-RPEB	0.544	0.534			
Control variables test					
			-		
Age→T-RPEB	-0.095(0.191)	1.460	0.226,0.031	0.018	No effect
			-		
Gender→T-RPEB	-0.040(0.725)	0.382	0.263,0.186	0.001	No effect
			-		
Organizational Tenure→T-RPEB	0.081(0.131)	1.506	0.021,0.191	0.018	No effect

Notes: GSL= Green Servant Leadership; GTL=Green Transformational Leadership; GWE= Green Work Engagement; T-RPEB= Task-related PEB

CI= confidence interval bias corrected based on t[9,999] one-tailed bootstrapping test.

Control variable tests based on t[9,999] two-tailed bootstrapping and 95 percent confidence interval bias corrected

The results indicated that, as expected, GSL ($a_1: \beta=0.367$, $p_{\text{one-tailed}}<0.004$) and GTL ($a_2: \beta=0.258$, $p_{\text{one-tailed}}<0.017$) were directly and positively associated with green work engagement. Additionally, GTL was directly and positively related to task-related PEB ($c_2': \beta=0.222$, $p_{\text{one-tailed}}<0.031$). However, while a positive relationship was confirmed between GSL and task-related PEB, the direct effect was not statistically significant ($c_1': \beta=0.158$, $p_{\text{one-tailed}}<0.114$). Moreover, green work engagement served as a positive mediator between GSL and task-related PEB ($a_1b: \beta=0.174$, $p_{\text{one-tailed}}<0.018$). Similarly, green work engagement mediated the relationship between GTL and task-related PEB ($a_2b: \beta=0.122$, $p_{\text{one-tailed}}<0.026$). To quantify the variance explained by the mediations, we applied the Variance Accounted For (VAF) method. VAF measures the proportion of the total effect accounted for by the indirect effect, as suggested by Cepeda-Carrion et al. (2017). The results showed that the mediation effect in a_1b explained 52.46% of the variance in task-related PEB, while the mediation in a_2b accounted for 35.57% of the variance. We also evaluated the model's explanatory power by examining R^2 values. Authors such as Hair et al. (2020, 2022) recommend an R^2 threshold of approximately 0.200 for studies focusing on employee behaviors or attitudes. As shown in Table 6, the R^2 values for all endogenous variables surpassed this threshold.

Based on these findings, we conducted an effects comparison test to fully evaluate hypotheses H1, H2, and H4. We followed the procedure outlined by Cepeda-Carrion et al. (2017), employing a one-tailed bootstrap test with 9,999 samples to test the significance of the differences between a_1 and a_2 (as posited in H1), c_1 and c_2 (as posited in H2), and a_1b and a_2b (as posited in H4). The results are provided in Table 7.

Table 7. Effects comparison test results

	Differential Effects			95% Confidence Interval		95% Confidence Interval Bias Corrected	
	Coefficient 1	Coefficient 2	Differential Coefficient	LCI	UCI	LCIBC	UCIBC
H1: $a1 - a2$	0.367	0.258	0.109	0.099	0.487	0.117	0.505
H2: $c1' - c2'$	0.158	0.222	-0.064	-0.410	0.273	-0.409	0.274
H4: $(a1b) - (a2b)$	0.174	0.122	0.052	0.012	0.249	0.017	0.253

Notes: LCI= Lower confidence interval; UCI= Upper confidence interval; LCIBC= Lower confidence interval bias corrected; UCIBC= Upper confidence interval bias corrected; Confidence intervals based on $t[9,999]$ one-tailed bootstrapping test.

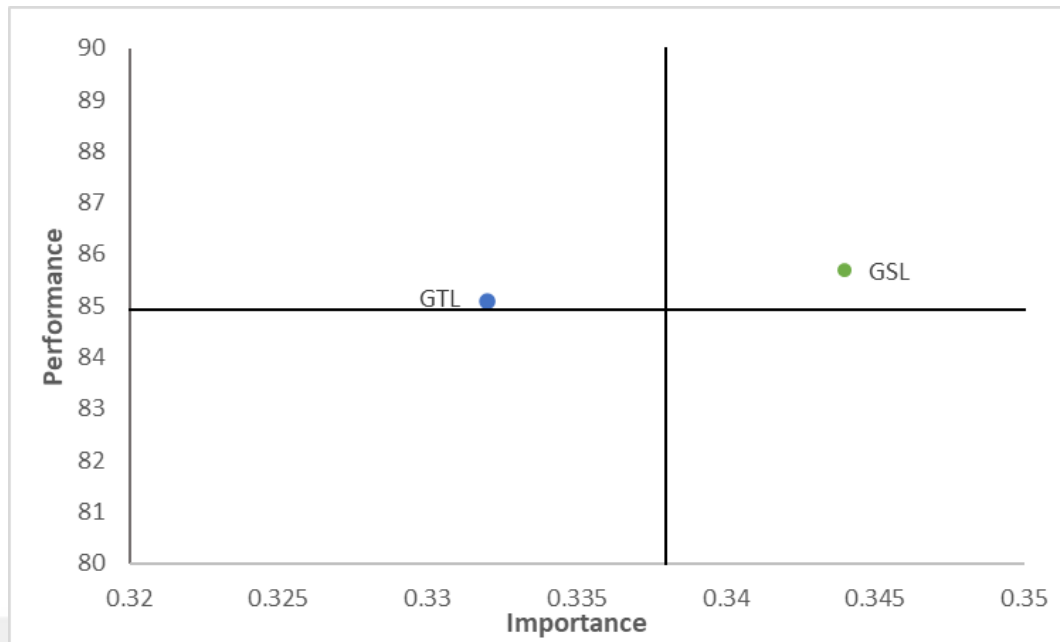
The tests showed that the positive effect of GSL ($\beta = 0.367$) on green work engagement was stronger than that of GTL ($\beta = 0.258$) on green work engagement. Furthermore, the difference between the path coefficients was statistically significant ($\beta = 0.109$, CI=0.099, 0.487), as the confidence interval did not include zero. This result supports the conclusion that the direct effect of GSL on green work engagement consistently exceeds that of GTL, thus confirming H1. Conversely, the data did not support the hypothesis that the positive effect of GSL on task-related PEB ($\beta = 0.158$) is stronger than the effect of GTL on task-related PEB ($\beta = 0.222$), as the difference between the path coefficients was not significant ($\beta = -0.064$, CI=-0.409, 0.274). Therefore, H2 is rejected.

Regarding H3, the structural model analysis (Table 6) confirmed that green work engagement has a direct and positive effect on task-related PEB ($\beta = 0.475$, one-tailed $p < 0.000$, CI=0.270, 0.670), thus confirming H3. Finally, the indirect positive effect of GSL on task-related PEB through green work engagement ($\beta = 0.174$) was stronger than the indirect effect of GTL ($\beta = 0.122$). The difference between these path coefficients was statistically significant ($\beta = 0.052$, CI=0.012, 0.249), with the confidence interval excluding zero. This confirms that the indirect effect of GSL on task-related PEB surpasses that of GTL, thereby supporting H4.

Importance-Performance Maps Analysis (IPMA)

To gain deeper insights into how Green Servant Leadership (GSL) and Green Transformational Leadership (GTL) influence task-related Pro-Environmental Behavior (PEB), we conducted supplementary Importance-Performance Map Analyses (IPMA). IPMA extends the traditional interpretation of PLS results by mapping the impact (importance) of antecedent constructs on the outcome variable while juxtaposing these impacts with the performance scores of each latent variable, normalized to a 0-100 scale (Hair et al., 2024). Following Hair et al.'s (2024) methodology, we generated scatter plots (maps) to capture the importance-performance metrics of the model and facilitate interpretation.

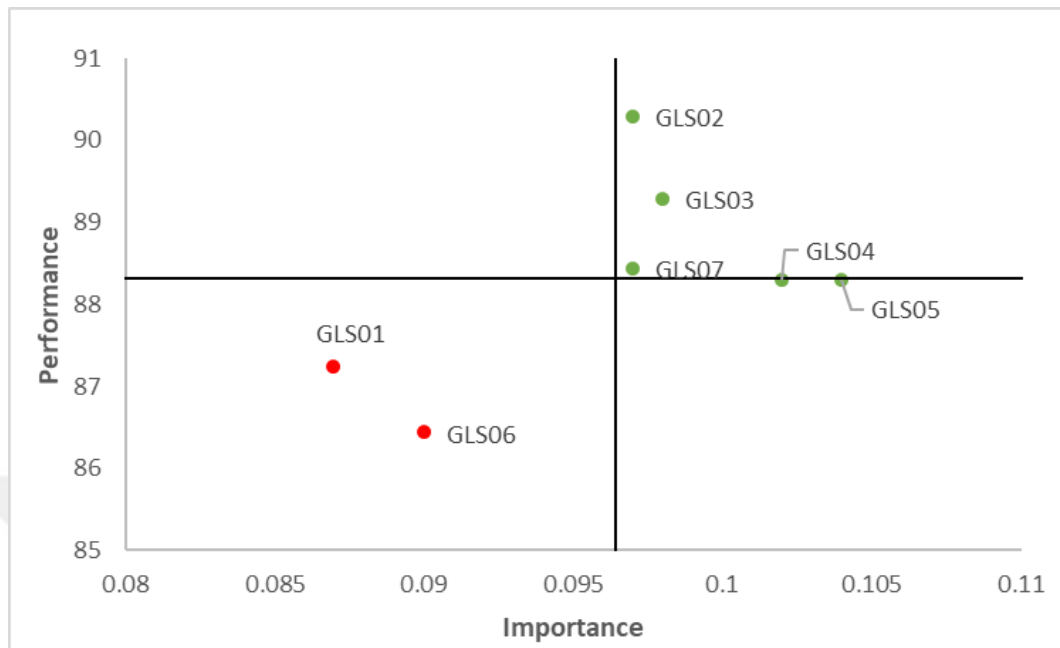
At the construct level, the IPMA analysis (Figure 3) showed that GSL demonstrated both high importance and high performance, positioning it in the upper-right quadrant of the map. In contrast, GTL had lower performance and fell below the mean threshold of importance, represented by the horizontal line in the map. This suggests that emphasizing GSL over GTL is likely to yield a stronger impact on task-related PEB. These findings align with the statistical analysis results.



Notes: GSL= Green Servant Leadership; GTL=Green Transformational Leadership; T-RPEB= Task-related PEB

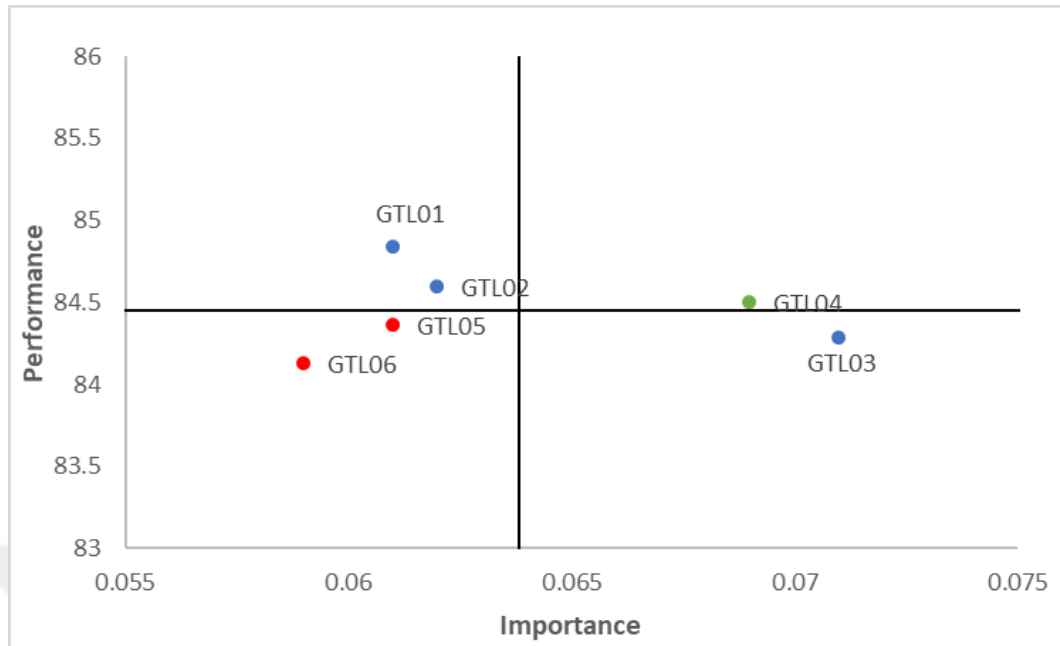
Figure 3. Importance-Performance map at the independent constructs level (GSL and GTL) on the dependent variable (Task-related PEB)

We also performed a similar IPMA at the indicator level to further investigate the influence of each GSL and GTL indicator on task-related PEB. Figures 4 and 5 illustrate the findings, offering insights into which indicators should be prioritized for improving task-related PEB. For example, focusing on GSL indicators, excluding GLS01 and GLS06, could enhance employees' task-related PEB (Figure 4). For GTL (Figure 5), emphasizing GTL04 would have a significant impact on task-related PEB in terms of importance-performance.



Notes: GLS= Green Servant Leadership; T-RPEB= Task-related PEB

Figure 4. Importance-Performance map for GSL items on the dependent variable (Task-related PEB)



Notes: GTL=Green Transformational Leadership; T-RPEB= Task-related PEB

Figure 5. Importance-Performance map for GTL items on the dependent variable (Task-related PEB)

Model Robustness Analysis: Endogeneity Test

Endogeneity is an important issue in structural equation modeling (SEM) because it can produce biased results. In order to confirm the robustness of our findings and account for potential endogeneity issues, we adhered to the specified guidelines set forth by Hult et al. (2018) and the references contained therein (sample papers are particularly proximity to PLS-SEM). The inclusion of control variables (age, gender, and organizational tenure) in our model, first of all, shows preliminary results. None of these control variables were found to be statistically significant predictors of task-related PEB (see Table 6).

Second, we used a Gaussian copula approach, as described by Becker et al. (2022) and Hult et al. (2018), further testing for endogeneity. Using the Cramer-van Mises test, we validated the non-normality of our data before applying the Gaussian copula. Following confirmation of non-normality, Gaussian copulas were added on the paths connecting each independent variable (GSL and GTL) with the dependent

variable (task-related PEB). According to Becker et al. (2022) and Hult et al. (2018): if the copula values are not significant, then endogeneity concerns can be dismissed. In our analysis, the copula results did not approach significance (GSL→Task-related PEB: $\beta=-0.086$, $p=0.341$; GTL→Task-related PEB: $\beta=-0.017$, $p=0.840$).

Overall, these results provide confidence that our analysis is not susceptible to meaningful endogeneity concerns, contributing further to the robustness of our findings (Becker et al., 2022; Hult et al., 2018).



DISCUSSION and CONCLUSIONS

Conclusions

This study has some important findings. Overall, green servant leadership (GSL) has greater positive effects than green transformational leadership (GTL) on green work engagement (GWE) and task-related pro-environmental behavior (PEB). This finding is consistent with other studies performed by Hoch et al. (2018) and Kaya and Karatepe (2020), who note that servant leadership is positively related to work engagement and job-related outcomes compared to any other leadership styles including authentic or transformational leadership. Employees in exchange for being managed under GSL practice high levels of both GWE and task-related PEB (Saks 2006), following the framework laid down by the Social Exchange Theory (SET). Hence, GSL is a better predictor for both GWE and task-related PEB than GTL.

Our results also indicate that GWE is a positive predictor of task-related PEB, which aligns with previous studies (Karatepe et al., 2022). As per the Job Demands-Resources (JD-R) theory, engaged employees, who are motivated and energized, tend to perform better (Bakker and Demerouti, 2017). SET further suggests that employees with high engagement are more likely to establish strong, high-quality relationships with their organizations (Aboramadan, 2022), which in turn fosters pro-environmental behavior. Thus, GWE emerges as a critical factor influencing green job outcomes, such as task-related PEB.

Organizations that effectively implement GSL are likely to see employees highly engaged in green work, thereby promoting greater task-related PEB. Employees tend to mirror the behaviors of their supervisors, and GSL's emphasis on shared power, subordinates' well-being, humility, and direction may inspire more pro-environmental consciousness than other leadership styles (Van Dierendonck, 2011).

Theoretical Implications

This study contributes significantly to the hospitality literature by showing that the indirect influence of GSL on task-related PEB through GWE is stronger than that of GTL. By addressing these connections, the study responds to calls for more research in leadership studies (Arici and Uysal, 2022). Moreover, the findings emphasize that GWE acts as a mechanism through which both GSL and GTL affect job outcomes. This is particularly important as existing literature lacks comprehensive exploration of the simultaneous impact of GSL and GTL on GWE and job outcomes, especially task-related PEB, in the hospitality sector.

Furthermore, the study fills a research gap by including adaptive performance in the model. A review of hospitality literature reveals that no studies have yet examined the role of adaptive performance as an outcome of GSL and GTL in driving task-related PEB, a deficiency highlighted in recent systematic reviews (Arici and Uysal, 2022; Guchait et al., 2023).

Practical Implications

The findings from this study offer several actionable insights for the hospitality and tourism sectors. First, leadership training programs for managers should emphasize both GSL and GTL, equipping them to promote task-related PEB among employees. Given the increasing focus on sustainability in the hospitality industry, such training aligns with the industry's goals.

Second, organizations can foster a culture of GWE by implementing sustainability-focused initiatives such as collaborative workshops, problem-solving exercises, and team-based sustainability projects. These initiatives can enhance employees' commitment to eco-friendly practices.

Third, given the significant role employees play in shaping guests' perceptions, hotels can adopt GSL and GTL philosophies to encourage employees to promote green activities to guests, enhancing both the guest experience and the hotel's environmentally conscious image.

Finally, hospitality organizations can introduce green metrics into employee performance appraisals. This could include adaptive performance metrics that encourage employees to proactively contribute to the hotel's sustainability efforts,

reflecting a commitment to integrating environmental responsibility into performance evaluations.

Limitations and Future Research

This study has certain limitations. First, it is context-specific, focusing on hotel employees in Ankara, Türkiye. Expanding the research across different hospitality sectors (e.g., airlines, cruise ships, casinos) and countries (e.g., the UK, China) would provide broader insights. Second, while procedural and statistical methods were used to control for common method variance, collecting time-lagged or multi-source data (e.g., from supervisors) would further strengthen the findings.

Third, while we found that GWE is a key mechanism linking both GSL and GTL to task-related PEB, future research could explore the moderating roles of factors such as psychological green climate, individual green values, or green commitment. Finally, replication of this study in other service contexts (e.g., banking, airlines, cruise ships) would help to validate the relationships explored in this model.

REFERENCES

- Aboramadan, M. (2022). The effect of green HRM on employee green behaviors in higher education: The mediating mechanism of green work engagement. *International Journal of Organizational Analysis*, 30(1), 7-23.
- Aboramadan, M., Kundi, Y. M., & Farao, C. (2021). Examining the effects of environmentally-specific servant leadership on green work outcomes among hotel employees: the mediating role of climate for green creativity. *Journal of Hospitality Marketing and Management*, 30(8), 929-956.
- [Aftab, J.](#), [Sarwar, H.](#), [Kiran, A.](#), [Abid, N.](#), & [Ahmad, S.B.](#), 2023. Do transformational leadership and work engagement matter for job performance in luxury hotels? Exploring the role of leaders' managerial skills. *Journal of Hospitality and Tourism Insights*, 6(5), 1818-1839.
- Akbaba, A. ve Erenler, E. (2008). “Otel İşletmelerinde Yöneticilerin Liderlik Yönelimleri Ve İşletme Performansı İlişkisi”. *Anatolia: Turizm Araştırmaları Dergisi*, 19 (1): 21-36.
- Akşit, H. (2010). *Yönetim Ve Yöneticilik* (1. Baskı). Kum Saati Yayınları.
- Akyan, E. (2002). *Girişimcilik Ve Girişimcilerin Liderlik Davranışları* [Yayımlanmamış yüksek lisans tezi]. Erciyes Üniversitesi.
- Akyüz, B. (2012). *Hizmetkar Liderlik Davranışlarının Örgütsel Adalet, Örgütsel Vatandaşlık Davranışları ve Performans Üzerine Etkisi: Eğitim Sektörü Üzerine Bir Araştırma* [Doktora tezi, Gebze Yüksek Teknoloji Enstitüsü]. Açık Bilim.
- Andersen, J.A. (2018), “Servant leadership and transformational leadership: from comparisons to farewells”, *Leadership & Organization Development Journal*, Vol. 39 No. 6, pp. 762-774.
- Antonakis, J. (2012). *Transformational And Charismatic Leadership*. D.V. Day (Ed.). *The Nature Of Leadership*. (Pp. 256-288).
- Ardıç, K. & Polatçı, S. (2009). Tükenmişlik sendromu ve madalyonun öbür yüzü: İşle bütünleşme. *Erciyes Üniversitesi İktisadi ve İdari Bilimler Fakültesi Dergisi*, 31,21-46.

- Arıcı, H. E., and Uysal, M. (2022), “Leadership, green innovation, and green creativity: A systematic review”, *The Service Industries Journal*, Vol. 42 No. 5-6, pp. 280-320.
- Arıkanlı, A. ve Ulubaş, B. (2004), Yönetim: Yönetim Fonksiyonları Ve Yönetici Davranışları (1. Baskı). Tarım Ve Köy İşleri Bakanlığı Yayını.
- Arslan, E. T. & Demir, H. (2017). İşe angaje olma ve iş tatmini arasındaki ilişki: Hekim ve hemşireler üzerine nicel bir araştırma. Yönetim ve Ekonomi: Celal Bayar Üniversitesi İktisadi ve İdari Bilimler Fakültesi Dergisi, 24(2), 371- 389.
- Arslanoğlu, Ş. (2016). Lise müdürlerinde liderlik, liderlik düzeylerinin öğretmenlerin motivasyonuna etkisi (Konya ili örneği) [Yayınlanmamış yüksek lisans tezi]. KTO Karatay Üniversitesi.
- Atcıoğlu, E. (2018). Okulların etkililik düzeyleri ile çalışanların işe angaje olma düzeyleri arasındaki ilişki. (Yüksek Lisans Tezi). Kahramanmaraş Sütçü İmam Üniversitesi Sosyal Bilimler Enstitüsü, Kahramanmaraş.
- Babil, F. (2009). İlköğretim Okulu Müdürlerinin Vizyoner Liderlik Özelliklerine Sahip Olmaları ile Öğretmenlerin Örgütsel Adanmaları Arasındaki İlişki [Yüksek lisans tezi, Eskişehir Osmangazi Üniversitesi]. Eskişehir Osmangazi Üniversitesi.
- Bai, Y., Lin, L., & Liu, J. (2020). Leveraging the power of social exchange for promoting task-related pro-environmental behavior: The mediating role of green work engagement. *Journal of Business Ethics*, 167(1), 145-157. <https://doi.org/10.1007/s10551-019-04138-6>
- Bakan, İ. (2008). "Örgüt kültürü" ve "liderlik" türlerine ilişkin algılamalar ile yöneticilerin demografik özellikleri arasındaki ilişki: Bir alan araştırması. *KMU İktisadi ve İdari Bilimler Fakültesi Dergisi*, 10(14), 1-28.
- Bakan, İ. ve Büyükbeşe, T. (2004). Örgütsel iletişim ile iş tatmini unsurları arasındaki ilişkiler: akademik örgütler için bir alan araştırması. *Akdeniz İİBF Dergisi*, 4(7), 1-30.
- Bakker, A. B., & Demerouti, E. (2007). The Job Demands-Resources model: State of the art. *Journal of Managerial Psychology*, 22(3), 309-328. <https://doi.org/10.1108/02683940710733115>

- Bakker, A. B., & Demerouti, E. (2017). Job demands–resources theory: Taking stock and looking forward. *Journal of Occupational Health Psychology*, 22(3), 273-285. <https://doi.org/10.1037/ocp0000056>
- Bakker, A. B., Albrecht, S. L., & Leiter, M. P. (2011). Key questions regarding work engagement. *European Journal Of Work And Organizational Psychology*, 20(1), 4-28.
- Bakker, A. B., Demerouti, E., & Sanz-Vergel, A. I. (2014). Burnout and work engagement: The JD–R approach. *Annual Review of Organizational Psychology and Organizational Behavior*, 1(1), 389-411.
- Bakker, A. B., Demerouti, E., & Schaufeli, W. B. (2023). Green job demands and resources: How green leaders boost employee green work engagement. *Journal of Environmental Psychology*, 79, 101813. <https://doi.org/10.1016/j.jenvp.2023.101813>
- Bakker, A.B. and Demerouti, E. (2017), “Job demands-resources theory: taking stock and looking forward”, *Journal of Occupational Health Psychology*, Vol. 22 No. 3, pp. 273-285.
- Bal, E. A. (2009). Bir pozitif psikoloji kavramı olarak işe gönülden adanma (work engagement) ve insan kaynakları açısından önemi. Osmangazi Üniversitesi 17. Ulusal Yönetim ve Organizasyon Bildiri Kitabı, 546-552.
- Balay, R., Kaya, A. ve Geçdoğan, Y. R. (2014). Eğitim yöneticilerinin Hizmetkar liderlik yeterlikleri ile farklılıkları yönetme becerileri arasındaki ilişki. *Eğitim Bilimleri Araştırmaları*, 4(1), 229-249.
- Bass, B. M., & Avolio, B. J. (1993). Transformational leadership and organizational culture. *Public Administration Quarterly*, 17(1), 112-121.
- Becker, M.J., Proksch, D. and Ringle, C. (2022), “Revisiting gaussian copulas to handle endogenous regressors”, *Journal of the Academy of Marketing Science*, Springer US, Vol. 50, pp. 46–66.
- Beycioğlu, K. (2015). Eğitim Yönetiminde Yeni Liderlik Yaklaşımları. N. Konan (Ed.), Öğretmen liderliği (1. Baskı, s. 157-180) içinde. Pegem Akademi Yayınları.

- Bissing-Olson, M. J., Iyer, A., Fielding, K. S., and Zacher, H. (2013), "Relationships between daily affect and pro-environmental behavior at work: The moderating role of pro-environmental attitude", *Journal of Organizational Behavior*, Vol. 34 No.2, pp. 156–175.
- Blau, P. (1964). Exchange and power in social life. John Wiley & Sons.
- Bowman, R. F. (2005). Teacher As Servant Leader. *The Clearing House: A Journal Of Educational Strategies, Issues And Ideas*, 78(6), 257-260.
- Buluç, B. (1998). Bilgi Çağı Ve Örgütsel Liderlik (Organizational Leadership And Information Era), *Yeni Türkiye Dergisi*, 4(20), s. 1205-1213.
- Bulut, Y. ve Uygun, S.V. (2010). "Etkin Bir Yönetim İçin Vizyoner Liderliğin Önemi: Hatay'daki Kamu Kurumları Üzerinde Bir Uygulama", *Mustafa Kemal Üniversitesi, Sosyal Bilimler Enstitüsü Dergisi*, 7(13), s. 29-47.
- Çeçen, A. (2020). Adalet Kavramı (5. Baskı). Astana Yayınları.
- Celep, C. (2000). Eğitimde örgütsel adanma ve öğretmenler. Ankara: Anı Yayıncılık.
- Çelik, C. ve Sünbül, Ö. (2008). Liderlik Algılamalarında Eğitim ve Cinsiyet Faktörü: Mersin İlinde Bir Alan Araştırması. *Süleyman Demirel Üniversitesi, İktisadi ve İdari Bilimler Fakültesi Dergisi*, 3, s.49-66.
- Cepeda-Carrion, G., Nitzl, C. and Roldan, J. (2017), "Mediation analyses in partial least squares structural equation modeling: Guidelines and empirical examples", *Partial Least Squares Path Modeling*, Springer, pp. 173–195.
- Chen, Y.-S., & Chang, C.-H. (2013). The determinants of green product development performance: Green dynamic capabilities, green transformational leadership, and green creativity. *Journal of Business Ethics*, 116(1), 107-119.
- Chirkowska, T. (2012). Does work engagement burn out? the person-job fit and levels of burnout and engagement in work. *Polish Psychological Bulletin* , 43(2), 76-85.
- Choi, S. B., Ullah, S. M. E., & Kwak, W. J. (2021). Green Servant Leadership and Employees' Green Work Behavior: The Role of Pro-Environmental Psychological Climate and Green Values. *Business Strategy and the Environment*, 30(1), 1-10. <https://doi.org/10.1002/bse.2621>

- Christian, M. S., Garza, A. S., & Slaughter, J. E. (2011). "Work engagement: A quantitative review and test of its relations with and contextual performance". *Personnel Psychology*, 64, 89-136.
- Çoban, O. (2019). Okul Müdürlerinin Hizmetkar Liderlik Davranışları İle Öğretmenlerin İş Doyumu Arasındaki İlişkiler [Yayımlanmamış yüksek lisans tezi]. Pamukkale Üniversitesi.
- Çolak, T. Ö. (2020). Hizmetkar Liderlik Tarzının Örgütsel Bağlılık ve Adalet Algısına Etkileri [Yüksek lisans tezi, Beykent Üniversitesi].
- Cropanzano, R., & Mitchell, M. S. (2005). Social exchange theory: An interdisciplinary review. *Journal of Management*, 31(6), 874-900. <https://doi.org/10.1177/0149206305279602>
- Darban, G., Karatepe, O.M. and Rezapouraghdam, H. (2022), "Does work engagement mediate the impact of green human resource management on absenteeism and green recovery performance?", *Employee Relations*, Vol. 44 No. 5, pp. 1092-1108.
- Deci, E. L., & Ryan, R. M. (2000). The "what" and "why" of goal pursuits: Human needs and the self-determination of behavior. *Psychological Inquiry*, 11(4), 227-268.
- Demerouti, E., Bakker, A. B., Nachreiner, F., & Schaufeli, W. B. (2001). The Job Demands-Resources Model of burnout. *Journal of Applied Psychology*, 86(3), 499-512. <https://doi.org/10.1037/0021-9010.86.3.499>
- Demeter, C., Fechner, D., and Dolnicar, S. (2023), "Progress in field experimentation for environmentally sustainable tourism—A knowledge map and research agenda", *Tourism Management*, Vol.94, pp. 104633.
- Demir, C., Yılmaz, M. K. ve Çevirgen, A. (2010). Liderlik yaklaşımları ve liderlik tarzlarına ilişkin bir araştırma. *Uluslararası Alanya İşletme Fakültesi Dergisi*, 2 (1), 129-152.
- Dennis, R. S. ve Bocarnea, M. (2005). Development Of The Servant Leadership Assessment Instrument. *Leadership & Organization Development Journal*, 26(8) 600-615.
- Dinçer, Ö. ve Fidan, Y. (2000). İşletme Yönetimine Giriş (8. Baskı). Alfa Yayıncılık.

- Doğan, E. (2002). Çalışanların işine cezbolması: dönüştürücü liderlik tarzının lidere olan güvenin güçlenmesine ve negatif / pozitif duygulanımın etkileri. (Doktora tezi). Marmara Üniversitesi Sosyal Bilimler Enstitüsü, İstanbul.
- Dumont, J., Shen, J., & Deng, X. (2017). Effects of green HRM practices on employee workplace green behavior: The role of psychological green climate and employee green values. *Human Resource Management*, 56(4), 613-627.
- Durukan, H. (2006). Okul Yöneticisinin Vizyoner Liderlik Rolü. Ahi Evran Üniversitesi Kırşehir Eğitim Fakültesi Dergisi (KEFAD), 7, 2, s. 278-285.
- Eisenberger, R., Huntington, R., Hutchison, S., & Sowa, D. (1986). Perceived organizational support. *Journal of Applied Psychology*, 71(3), 500-507. <https://doi.org/10.1037/0021-9010.71.3.500>
- Ekinci, A. (2015). Okul Müdürlerinin Hizmetkar Liderlik Davranışları Ölçeğinin Geliştirilmesi Ve Hizmetkar Liderlik Davranışlarının Öğretmen Görüşlerine Göre Değerlendirilmesi. *Eğitim Ve Bilim*, 40(179).
- Emerson, R. M. (1976). Social exchange theory. **Annual Review of Sociology**, 2, 335–362. <https://doi.org/10.1146/annurev.so.02.080176.002003>
- Emmons, R. A. (1999). *The Psychology Of Ultimate Concerns* (1nd ed.) Guilford Press.
- Eren, E. (1998). *Örgütsel Davranış Ve Yönetim Psikolojisi* (12. Baskı). Beta Basım Yayın Dağıtım.
- Ertemli, H. B. (2011). İş aile ve aile iş çatışmalarının işe cezbolma üzerindeki etkisine yönelik bir uygulama. (Yüksek Lisans tezi). Yıldız Teknik Üniversitesi Sosyal Bilimler Enstitüsü, İstanbul.
- Esen, E. (2011). Çalışanların örgüte cezbolması, Marmara Üniversitesi İ.İ.B.F. Dergisi, 30(1), 377-390.
- Farling, M. L., Stone, A. G. ve Winston, B. E. (1999). Servant Leadership: Setting The Stage For Empirical Research. *The Journal Of Leadership Studies*, 6, 49-72.
- Franke, G. and Sarstedt, M. (2019), “Heuristics versus statistics in discriminant validity testing: a comparison of four procedures”, *Internet Research*, Vol. 29 No. 3, pp. 430–447.

- Freudenberger, H. J. (1974), "Staff Burnout". *Journal of Social Issues*, 30, ss.159-165.
- Giderler, C. (2005). Yöneticilerin Kişilik Tarzları ile Liderlik Davranışları Arasındaki İlişki ve Eczacıbaşı Topluluğu'nda Uygulama [Yüksek lisans tezi, Dumlupınar Üniversitesi].
- Gong, Y., Zhang, Y., & Feng, T. (2020). Green transformational leadership and green product development performance: The mediating role of green innovation behavior. *Corporate Social Responsibility and Environmental Management*, 27(3), 647-659. <https://doi.org/10.1002/csr.1827>
- Gostick, A.; Elton, C., (2007). *The carrot principle*. Salt Lake City, UT: OC Tanner Company, ss.146.
- Gouldner, A. W. (1960). The norm of reciprocity: A preliminary statement. *American Sociological Review*, 25(2), 161-178. <https://doi.org/10.2307/2092623>
- Graves, L. M., Sarkis, J., & Zhu, Q. (2013). How transformational leadership and employee motivation combine to predict employee pro-environmental behaviors in China. *Journal of Environmental Psychology*, 35, 81-91.
- Greenleaf, R. K. (1970). *The servant as leader*. Center for Applied Studies.
- Greenleaf, R. K. (1977). *Servant Leadership: A Journey Into The Nature Of Legitimate Power And Greatness*. New York: Paulist Press.
- Guchait, P., Peyton, T., Madera, J.M., Gip, H. and Molina-Collado, A. (2023), "21st century leadership research in hospitality management: a state-of-the-art systematic literature review", *International Journal of Contemporary Hospitality Management*, Vol. 35 No. 12, pp. 4259-4296.
- Guenther, P., Guenther, M., Ringle, C.M., Zaefarian, G. and Cartwright, S. (2023), "Improving PLS-SEM use for business marketing research", *Industrial Marketing Management*, Elsevier Inc., Vol. 111 No. April, pp. 127–142.
- Gürer, A. (2019). 21. Yüzyılda Liderlik Yaklaşımları (1. Baskı). Hiperlink Yayınevi.
- Güvenç, S. (2012). İşe Yönelik Destek ve çalışmaya tutkunluk arasındaki ilişki. (Yüksek Lisans Tezi). Marmara Üniversitesi Sosyal Bilimler Enstitüsü, İstanbul.

- Hair, J.F., Howard, M.C. and Nitzl, C. (2020), “Assessing measurement model quality in PLS-SEM using confirmatory composite analysis”, *Journal of Business Research*, Elsevier, Vol. 109 No. March 2020, pp. 101–110.
- Hair, J.F., Hult, G.T., Ringle, C.M. and Sarstedt, M. (2022), *A Primer on Partial Least Squares Structural Equation Modeling (PLS-SEM). 3rd Edition*, Sage publications, Thousand Oaks.
- Hair, J.F., Sarstedt, M., Ringle, C.M. and Gudergan, S.P. (2024), *Advanced Issues in Partial Least Squares Structural Equation Modeling, 2nd Edition*, Sage publications, Thousand Oaks
- Harter, J. K., Schmidt, F. L., & Hayes, T. L. (2002). Business-unit-level relationship between employee satisfaction, employee engagement, and business outcomes: A meta-analysis. *Journal Of Applied Psychology*, 87(2), 268.
- Harter, S. (2002). *Handbook Of Positive Psychology* (1nd ed.). Oxford University Press.
- Henseler, J. (2017), “Bridging design and behavioral research with variance-based structural equation modeling”, *Journal of Advertising*, Vol. 46 No. 1, pp. 178–192.
- Henseler, J. and Schuberth, F. (2020), “Using confirmatory composite analysis to assess emergent variables in business research”, *Journal of Business Research*, Elsevier, Vol. 120 No. July, pp. 147–156.
- Henseler, J., Ringle, C.M. and Sarstedt, M. (2015), “A new criterion for assessing discriminant validity in variance-based structural equation modeling”, *Journal of the Academy of Marketing Science*, Vol. 43 No. 1, pp. 115–135.
- Hobfoll, S. E. (1989). Conservation of resources: A new attempt at conceptualizing stress. *American Psychologist*, 44(3), 513-524. <https://doi.org/10.1037/0003-066X.44.3.513>
- Hobfoll, S. E., Johnson, R. J., Ennis, N., & Jackson, A. P. (2003). Resource loss, resource gain, and emotional outcomes among inner city women. *Journal Of Personality And Social Psychology*, 84(3), 632
- Hoch, J.E., Bommer, W.H., Dulebohn, J.H. and Wu, D. (2018), “Do ethical, authentic, and servant leadership explain variance above and beyond transformational

- leadership? A meta-analysis”, *Journal of Management*, Vol. 44 No. 2, pp. 501-529.
- Homans, G. C. (1958). Social behavior as exchange. *American Journal of Sociology*, 63(6), 597-606. <https://doi.org/10.1086/222355>
- Huang, J., & Li, W. (2019). The mediating role of green organizational support between employees' perceptions of green HRM practices and pro-environmental behavior: Evidence from hotel industry. *Journal of Human Resource Management*, 6(4), 40-48.
- Hult, G.T.M., Hair, J.F., Proksch, D., Sarstedt, M., Pinkwart, A. and Ringle, C.M. (2018), “Addressing endogeneity in international marketing applications of Partial Least Squares Structural Equation Modeling”, *Journal of International Marketing*, Vol. 26 No. 3, pp. 1–21.
- İşcan, Ö. F. ve Sayın, U. (2010). Örgütsel Adalet, İş Tatmini Ve Örgütsel Güven Arasındaki İlişki. *Atatürk Üniversitesi İktisadi Ve İdari Bilimler Dergisi*, 24(4), 195-216.
- Joseph, E. E. ve Bruce, E. W. (2005). A Correlation Of Servant Leadership, Leader Trust, And Organizational Trust. *Leadership & Organization Development Journal*, 26(1), 6-22.
- Kahn, W. A. (1990). Psychological conditions of personal engagement and disengagement at work. *Academy of Management Journal*, 33(4), 692-724.
- Kahveci, H. (2012). İlköğretim okullarında Hizmetkar örgüt liderliğinin incelenmesi [Yüksek lisans tezi, Eskişehir Osmangazi Üniversitesi]. Eskişehir Osmangazi
- Kahveci, H. ve Aypay, A. (2013). Hizmetkar Liderlik Ve Okul Kültürü Arasındaki İlişkinin İlköğretim Okullarında İncelenmesi. *Eğitimde Politika Analizi*, 2(1), 44-60.
- Kandemir, A. ve Akgün, N. (2019). Ortaokul Öğretmenlerinin Hesap Verebilirlik Algıları ile Yöneticilerin Hizmetkar Liderlik Davranışları Düzeyleri Arasındaki İlişki. *Abant İzzet Baysal Üniversitesi Eğitim Fakültesi Dergisi*, 19(4), 1637-1653.

- Kanten, P. (2012). İşgörenler de işe adanmanın ve proaktif davranışların oluşumunda örgütsel güven ile örgütsel özdeşleşmenin önemi. (Doktora Tezi). Süleyman Demirel Üniversitesi Sosyal Bilimler Enstitüsü, Isparta.
- Karasek, R. A. (1979). Job demands, job decision latitude, and mental strain: Implications for job redesign. *Administrative Science Quarterly*, 24(2), 285-308. <https://doi.org/10.2307/2392498>
- Karatepe, T., Oztüren, A., Karatepe, O.M., Uner, M.M. and Kim, T.T. (2022), “Management commitment to the ecological environment, green work engagement and their effects on hotel employees’ green work outcomes”, *International Journal of Contemporary Hospitality Management*, Vol. 34 No. 8, pp. 3084-3112.
- Kaya, B. and Karatepe, O.M. (2020), "Does servant leadership better explain work engagement, career satisfaction and adaptive performance than authentic leadership?", *International Journal of Contemporary Hospitality Management*, Vol. 32 No. 6, pp. 2075-2095.
- Kaya, Y. K. (1991). Eğitim Yönetimi: Kuram Ve Türkiye’deki Uygulama (2. Baskı). Bilim Yayınları.
- Kim, A., Kim, Y., Han, K., Jackson, S. E., & Ployhart, R. E. (2017). Multilevel influences on voluntary workplace green behavior: Individual differences, leader behavior, and coworker advocacy. *Journal of Management*, 43(5), 1335-1358.
- Kim, A., Kim, Y., Han, K., Jackson, S. E., & Ployhart, R. E. (2019). Multilevel influences on voluntary workplace green behavior: Individual differences, leader behavior, and coworker advocacy. *Journal of Management*, 45(4), 1451-1479. <https://doi.org/10.1177/0149206317730806>
- Kılınç, T. (1995). “Durumsal Liderlik Anlayışında Gelişmeler: Liderliğe İkameler Yaklaşımı”, İ. Ü. İşletme Fakültesi Dergisi, Cilt: 24, 59-76.
- Koçel, T. (2005). İşletme Yöneticiliği (1. Baskı). Arıkan Yayınevi.
- Kock, N. and Hadaya, P. (2018), “Minimum sample size estimation in PLS-SEM: The inverse square root and gamma-exponential methods”, *Information Systems Journal*, Vol. 28 No. 1, pp. 227–261.

- Köse, A. (2015). İşe angaje olma ile örgütsel destek algısı ve örgüt iklimi arasındaki ilişki. (Doktora tezi). Zirve Üniversitesi Sosyal Bilimler Enstitüsü, Gaziantep
- Köse, A., & Uzun, M. (2018). Kendini işe verme ile algılanan örgütsel adalet arasındaki ilişki. *Kuram ve Uygulamada Eğitim Yönetimi*, 24(3), 483-528.
- Kotter, J.P. (1990). *What Leaders Really Do* (1nd ed.). Harward Business Review.
- Küçüközkan, Y. (2015). Liderlik ve Motivasyon Teorileri: Kuramsal Bir Çerçeve. *Uluslararası Akademik Yönetim Bilimleri Dergisi*, 1 (2), 86-115.
- Kura, K. M. (2016). Linking environmentally specific transformational leadership and environmental concern to green behavior at work. *Global Business Review*, 17(3), 1-14.
- Kurtpınar, M. (2011). Birey-örgüt uyumunun bireysel performans üzerindeki etkisinde kişilik özellikleri ve işe adanmışlığın rolü. (Yüksek Lisans Tezi). Genelkurmay Başkanlığı Harp Akademileri Komutanlığı Stratejik Araştırmalar Enstitüsü Müdürlüğü, İstanbul.
- Lantu, D. C. (2015). Servant Leadership And Human Capital Management: Case Study In Citibank Indonesia. *Procedia-Social And Behavioral Sciences*, 169, 303-311.
- Lenzen, M., Li, M., Malik, A., Pomponi, F., Sun, Y., Wiedmann, T., Faturay, F., Fry, J., Gallego, B., Geschke, A., Gómez-Paredes, J., Kanemoto, K., Kenway, S., Nansai, K., Prokopenko, M., Wakiyama, T., Wang, Y. and Yousefzadeh, M. 2020, "Global socio-economic losses and environmental gains from the Coronavirus pandemic", *PloS one*, Vol. 15, No. 7, pp. e0235654.
- Lenzen, M., Sun, Y. Y., Faturay, F., Ting, Y. P., Geschke, A., and Malik, A. (2018), "The carbon footprint of global tourism", *Nature Climate Change*, Vol.8 No.6, pp. 522-528.
- Li, X., Wang, Y., & He, L. (2020). The impact of green transformational leadership on employee green behavior in China. *Sustainability*, 12(2), 324-333.
- Liden, R. C., Wayne, S. J., Zhao, H., and Henderson, D. (2008), "Servant leadership: Development of a multidimensional measure and multi-level assessment", *The leadership Quarterly*, Vol.19 No.2, pp. 161-177.

- Lo, S. H., Peters, G. J. Y., & Kok, G. (2012). A review of determinants of and interventions for pro-environmental behaviors in organizations. *Journal of Applied Social Psychology*, 42(12), 2933-2967.
- Luu, T. T. (2019), “Building employees’ organizational citizenship behavior for the environment: The role of environmentally-specific servant leadership and a moderated mediation mechanism”, *International Journal of Contemporary Hospitality Management*, Vol. 31 No.1, pp. 406-426.
- Maslach, C. & Goldddberg, J. (1998). Prevention of burnout: new perspectives. *Applied & Preventive Psychology*, 7(1) 63-74.
- Maslach, C. ve Leiter, P. M. (1997). The truth about burnout. Jossey- Bass, San Francisco: Ca.
- Maslach, C., Schaufeli, W. B. & Leiter, M. P. (2001). Job burnout. *Annual Review Psychology*, 52, 397-422.
- May, D. R., Gilson, R. L. & Harter, L. M. (2004). the psychological conditions of meaningfulness safety and availability and the engagement of the human spirit at work. *Journal of Occupational and Organizational Psychology*, 77(1), 11-37.
- Min, H., Park, J. and Jeong, H. (2016), “Common method bias in hospitality research: A critical review of literature and an empirical study”, *International Journal of Hospitality Management*, Elsevier Ltd, Vol. 56, pp. 126–135.
- Ministry of Tourism (2020). Turizm İstatistikleri. <https://yigm.ktb.gov.tr/TR-9851/turizm-istatistikleri.html> (retrieved on 18 June 2023).
- Mittal, S., & Dhar, R. L. (2016). Effect of green transformational leadership on green creativity: A study of tourist hotels in India. *Tourism Management*, 57, 118-127.
- Northouse, P. G. (2013). *Leadership: Theory And Practice* (7nd ed.) Sagepublications.
- Norton, T. A., Parker, S. L., Zacher, H., & Ashkanasy, N. M. (2015). Employee green behavior: A theoretical framework, multilevel review, and future research agenda. *Organization & Environment*, 28(1), 103-125. <https://doi.org/10.1177/1086026615575773>

- Okçu, V. ve oğaltay, N. (2019). “Okul Yöneticilerinin Hizmetkar Liderlik Davranışları İle Öğretmenlerin Motivasyon Düzeyleri Arasındaki İlişki”, International Social Mentality And Researcher Thinkers Journal, 5(26): 1759-1773.
- Öner, H. (2008). Hizmetkar yöneticilik ile işe kapılma değişkenleri arasındaki ilişkide, örgütsel adaletin ara değişken olarak etkisi; tutarlılık anlayışı ve işin karmaşıklık düzeyinin şartlı değişken olarak rolleri. (Doktora Tezi). Marmara Üniversitesi Sosyal Bilimler Enstitüsü, İstanbul.
- Özbağ, G. K., & Şengel, E. (2014). Çevreci liderlik yaklaşımı: Kavramsal bir değerlendirme. Ege Akademik Bakış, 14(4), 567-579.
- Özer, Ö., Saygılı, M., & Uğurluoğlu, Ö. (2015). Sağlık çalışanlarının işe cezbolma düzeylerinin belirlenmesine ilişkin bir araştırma. Business and Management Studies: An International Journal, 3(3), 261-272.
- Özgenel, M. ve Aktaş, A. (2020). Okul Müdürlerinin Liderlik Stilllerinin Öğretmen Performansına Etkisi. Uluslararası Liderlik Çalışmaları Dergisi: Kuram Ve Uygulama, 3(2), 1-18.
- Özkalp, E. & Meydan, B. (2015). Schaufeli ve Bakker tarafından geliştirilmiş olan İşe Angaje Olma ölçeğinin Türkçe’de güvenilirlik ve geçerliliğinin analizi. ISGUC The Journal of Industrial Relations and Human Resources, 17(3), 1-19.
- Özkalp, E., & Meydan, C. H. (2015). *İşletmelerde Davranış*. Eskisehir: Anadolu University Press.
- Özmutlu, İ. (2011). Bedensel Engelli Sporcularda Antrenörlerin Hizmetkar Liderlik Davranışlarının Sporcu Tatmini İle İlişkisi [Yayınlanmamış doktora tezi]. Gazi Üniversitesi
- Page, D. ve Wong, P. (2000). A Conceptual Framework For Measuring Servant Leadership (2nd ed.). University Press Of America.
- Patterson, K. A. (2003). Servant Leadership: A Theoretical Model (1nd ed.). Regent University.
- Pillai, R., Schriesheim, C. A. ve Williams, E. S. (1999). Fairness Perceptions And Trust As Mediators For Transformational And Transactional Leadership: A Two-Sample Study. Journal Of Management, 25(6), 897-933

- Podsakoff, P.M., MacKenzie, S.B., Lee, J.Y. and Podsakoff, N.P. (2003), “Common method biases in behavioral research: A critical review of the literature and recommended remedies”, *Journal of Applied Psychology*, Vol. 88 No. 5, pp. 879–903.
- Polatcı, S. (2007). Tükenmişlik sendromu ve tükenmişlik sendromuna etki eden faktörler (Gaziosmanpaşa Üniversitesi akademik personeli üzerinde bir analiz). (Yüksek Lisans Tezi). Gaziosmanpaşa Üniversitesi Sosyal Bilimler Enstitüsü, Tokat.
- Qin, J., Mao, Y., & Zhao, X. (2022). Impact of green transformational leadership on employee green behavior: The mediating role of green organizational identity and the moderating role of environmental training. *Environmental Science and Pollution Research*, 29(1), 1675-1687. <https://doi.org/10.1007/s11356-021-16083-4>
- Ren, S., & Chadee, D. (2016). Servant leadership and work engagement: The contingency effects of leader-follower power distance values and environmental dynamism. *Journal of business ethics*, 139(1), 167-179.
- Rich, B. L., 2006. “Job engagement: construct validation and relationships with job satisfaction, job involvement, and intrinsic motivation”; PhD Thesis, University of Florida.
- Robertson, J. L., & Barling, J. (2013). Greening organizations through leaders’ influence on employees’ pro-environmental behaviors. *Journal of Organizational Behavior*, 34(2), 176-194. <https://doi.org/10.1002/job.1820>
- Roozeboom, M.B. ve Schelvis, R. (2015). Work engagement: drivers and effects.
- Russell, R. F. (2001). The role of values in servant leadership. *Leadership & Organization Development Journal*, 22, 76-84.
- Russell, R.F. and Gregory Stone, A. (2002), “A review of servant leadership attributes: developing a practical model”, *Leadership & Organization Development Journal*, Vol. 23 No. 3, pp. 145-157.
- Şahin, B. (2009). Örgütsel Gelişmenin Sağlanmasında Dönüşümcü Liderlerin Rolü. *Dokuz Eylül Üniversitesi Sosyal Bilimler Enstitüsü Dergisi*, 11(3), 97-118.

- Saks, A. M. (2006). Antecedents and consequences of employee engagement. *Journal of Managerial Psychology*, 21, 600-619.
- Schaufeli, W. B. (2012). Work Engagement what do we know and where do we go? *Romanian Journal of Applied Psychology*, 14(1), 3-10.
- Schaufeli, W. B. (2015). Engaging leadership in the job demands-resources model. *Career Development International*.
- Schaufeli, W. B., & Bakker, A. B. (2004). Job demands, job resources, and their relationship with burnout and engagement: A multi-sample study. *Journal of Organizational Behavior*, 25(3), 293-315. <https://doi.org/10.1002/job.248>
- Schaufeli, W. B., & Taris, T. W. (2014). A critical review of the Job Demands-Resources Model: Implications for improving work and health. In G. F. Bauer & O. Hämmig (Eds.), *Bridging occupational, organizational and public health* (pp. 43-68). Springer. https://doi.org/10.1007/978-94-007-5640-3_4
- Schaufeli, W. B., Salanova, M., González-Romá, V., & Bakker, A. B. (2002). The measurement of engagement and burnout: A two sample confirmatory factor analytic approach. *Journal of Happiness Studies*, 3(1), 71-92. <https://doi.org/10.1023/A:1015630930326>
- Schaufeli, W., & Bakker, A. (2003). Utrecht work engagement scale: Preliminary manual. Utrecht: Occupational Health Psychology Unit. Utrecht University.
- Schaufeli, W.B., Bakker, A.B. and Salanova, M. (2006), "The measurement of work engagement with a short questionnaire: a cross-national study", *Educational and Psychological Measurement*, Vol. 66 No. 4, pp. 701-716.
- Schneider, S.K. and George, W.M. (2011), "Servant leadership versus transformational leadership in voluntary service organizations", *Leadership & Organization Development Journal*, Vol. 32 No. 1, pp. 60-77
- Seferinoğlu, H. (2021). Okul yöneticilerinin yetki devri düzeylerinin öğretmenlerin işe angaje olma davranışları üzerindeki rolü. (Yüksek Lisans Tezi). Recep Tayyip Erdoğan Üniversitesi Lisansüstü Eğitim Enstitüsü, Rize.
- Seferinoğlu, S. (2021). *Psychological approaches to motivation in the workplace*.

- Sendjaya, S. ve Cooper, B. (2011). Servant Leadership Behaviour Scale: A Hierarchical Model And Test Of Construct Validity. *European Journal Of Work And Organizational Psychology*, 20(3), 416-436.
- Sendjaya, S., & Sarros, J. C. (2002). Servant leadership: Its origins, development, and application in organizations. *Journal of leadership & organizational studies*, 9(2), 57-64.
- Şentürk, F. K. (2017). Etik Liderliğin Belirleyicileri Olarak Kişilik, Örgüt Kültürü Ve Dini Yönelim: Antalya'daki Dört Ve Beş Yıldızlı Otellerde Bir Uygulama. *Seyahat Ve Otel İşletmeciliği Dergisi*, 14(3), 186-206.
- Sergiovanni, T. J. (1994). Organizations Or Communities? Changing The Metaphor Changes The Theory. *Educational Administration Quarterly*, 30: 214- 226.
- Sevinç, Ş. (2018). İmam Hatip Okulları Müdürlerinin Liderlik Anlayışları [Yüksek lisans tezi, Uludağ Üniversitesi].
- Şimşek, A. (2006). Duygusal Zekânın, Ana-Baba Tutumunun ve Doğum Sırasının Tercih Edilen Liderlik Tarzına Etkisi [Yüksek lisans tezi, Ankara Üniversitesi].
- Şişman, M. (2004). Öğretim Liderliği (2. Baskı). Pegem Yayınları.
- Sober, E. (1988). What Is Evolutionary Altruism?. *Canadian Journal Of Philosophy*, 14, 75-99.
- Sorensen, T. ve Epps, R. (1996). Leadership And Local Development:Dimensions Of Leadership İn Four Central Queensland Towns. *Journal Of Rural Studies*. 12(2), 113-125.
- Spears, L. C. (1998). Introduction: Tracing The Growing Impact Of Servant Leadership (1nd ed.). Wiley And Sons.
- Steg, L., & Vlek, C. (2009). Encouraging pro-environmental behaviour: An integrative review and research agenda. *Journal of Environmental Psychology*, 29(3), 309-317.
- Stogdill, R. M. (1948). Personal Factors Associated With Leadership: A Survey Of The Literature. *The Journal Of Psychology*, 25(1), 35-71.

- Taylor, T., Martin, B.N., Hutchinson, S. ve Jinks, M. (2007), “Examination Of Leadership Practices Of Principals Identified As Servant Leaders”. *International Journal Of Leadership In Education*, 10(4): 401–19.
- Temiz, E. (2016). İlkokul Yöneticilerinin Sahip Olması Gereken Hizmetkar Liderlik Özelliklerine İlişkin Öğretmen Görüşleri [Yüksek lisans tezi, Gaziantep Üniversitesi].
- Tengilimoğlu, D. (2005). Hizmet İşletmelerinde Liderlik Davranışları İle İş Doyumu Arasındaki İlişkinin Belirlenmesine Yönelik Bir Araştırma. *Ticaret Ve Turizm Eğitim Fakültesi Dergisi*: Sayı: 1, 23-45.
- Tosun, C., Parvez, M. O., Bilim, Y. and Yu, L. (2022), “Effects of green transformational leadership on green performance of employees via the mediating role of corporate social responsibility: Reflection from North Cyprus”, *International Journal of Hospitality Management*, Vol. 103, pp. 103218.
- Tuan, L. T. (2020), “Environmentally-specific servant leadership and green creativity among tourism employees: Dual mediation paths”, *Journal of Sustainable Tourism*, Vol. 28 No.1, pp. 86-109.
- Tummers, L. G., & Bakker, A. B. (2021). Leadership and job demands-resources theory: Recommendations for future research. *Frontiers in Psychology*, 12, 697408. <https://doi.org/10.3389/fpsyg.2021.697408>
- Ture, A., & Ganesh, P. (2014). Role theory and pro-environmental behavior: The case of employee green behavior in organizations. *International Journal of Organizational Theory and Behavior*, 17(3), 377-398.
- Turgut, T. (2011). Çalışmaya tutkunluk: iş yükü, esnek çalışma saatleri, yönetici desteği ve iş-aile çatışması ile ilişkileri. *Atatürk Üniversitesi İktisadi ve İdari Bilimler Dergisi*, 25(3-4), 155-179.
- Usta, M. E. ve Ünsal, Y. (2018). Okullarda Algılanan Hizmetkar Liderlik Düzeyinin İncelenmesi. *Sakarya University Journal of Education*, 8(4), 168-184.
- Van Dierendonck, D. (2011). Servant Leadership: A Review And Synthesis. *Journal Of Management*, 37(4), 1228-1261.

- Vatankhah, S., Fejes, O. F., Karatepe, O. M., and Nosrati, S. (2023), “Fly green: environmentally specific servant leadership and its impact on green performance outcomes”, *Current Issues in Tourism*, pp. 1-16.
- Viglia, G. and Acuti, D. (2023), “How to overcome the intention–behavior gap in sustainable tourism: Tourism Agenda 2030 perspective article”, *Tourism Review*, Vol. 78 No. 2, pp. 321-325.
- Xanthopoulou, D., Bakker, A. B., Demerouti, E., & Schaufeli, W. B. (2007). The role of personal resources in the Job Demands-Resources model. *International Journal of Stress Management*, 14(2), 121-141. <https://doi.org/10.1037/1072-5245.14.2.121>
- Yalçın, M. ve Karadağ, E. (2013). Hizmetkar Liderlik Ve Okul Kültürü: Bir Yapısal Eşitlik Modellemesi. *İnönü Üniversitesi Eğitim Fakültesi Dergisi*, 14(2), 101-120.
- Yazıcıoğlu, İ. ve Topaloğlu, I. G. (2009). Örgütsel Adalet Ve Bağlılık İlişkisi: Konaklama İşletmelerinde Bir Uygulama. *İşletme Araştırmaları Dergisi*, 1,316.
- Yeşil, A. (2016). Liderlik Ve Motivasyon Teorilerine Yönelik Kavramsal Bir İnceleme. *Uluslararası Akademik Yönetim Bilimleri Dergisi*, 2(3), 158-180.
- Yıldırım, F. (2007). İş Doyumu İle Örgütsel Adalet İlişkisi. *Ankara Üniversitesi Sbf Dergisi*, 62(01), 253-278.
- Yılmaz, H. (2010). Vizyon, Misyon, Kariyer ve Daha Ötesi-Stratejik Liderlik (1.Baskı). Kum Saati Yayınları.
- Yukl, G. (2010). *Leadership In Organizations* (8nd ed.). Prentice Hall.
- Zhang, J. and Zhang, Y. (2023), “Tourism and regional carbon emissions: city-level evidence from China”, *Tourism Review*, Vol. 78 No. 3, pp. 888-906.
- Zhao, H., Wu, J., & Xu, L. (2023). Green leadership and employee green behavior: Examining the mediating role of green climate and the moderating role of environmental knowledge. *Business Strategy and the Environment*, 32(2), 1280-1292. <https://doi.org/10.1002/bse.3149>
- Zhou, H., Wu, J., & Xu, L. (2023). Green leadership and employee green behavior: Examining the mediating role of green climate and the moderating role of

environmental knowledge. *Business Strategy and the Environment*, 32(2), 1280-1292. <https://doi.org/10.1002/bse.3149>



TURNITIN REPORT

After Defence - Ali Cenk Yorulmaz 19316920002 PHD Thesis

ORJİNALLİK RAPORU

% **13**

BENZERLİK ENDEKSİ

% **7**

İNTERNET KAYNAKLARI

% **11**

YAYINLAR

% **2**

ÖĞRENCİ ÖDEVLERİ

BİRİNCİL KAYNAKLAR

- 1** Reza Sharbaf Tabrizi, Osman M. Karatepe, Hamed Rezapouraghdam, Elisa Rescalvo-Martin, Constanta Enea. "Green human resource management, job embeddedness and their effects on restaurant employees' green voice behaviors", International Journal of Contemporary Hospitality Management, 2023
Yayın % **1**
- 2** Tuna Karatepe, Elisa Rescalvo-Martin, Taegoo Terry Kim, M. Mithat Uner, Ali Ozturen, Osman M. Karatepe. "Test of a moderated serial mediation model of management commitment to the ecological environment", International Journal of Hospitality Management, 2024
Yayın <% **1**
- 3** Osman M. Karatepe, Hungchen Hsieh, Mohammed Aboramadan. "The effects of green human resource management and perceived organizational support for the environment on green and non-green hotel

employee outcomes", International Journal of Hospitality Management, 2022

Yayın

4	Muhammad Usman, Thomas Garavan, Osman M. Karatepe, Muhammad Waheed Akhtar, Elisa Rescalvo-Martin, Muhammad Kashif Aslam. "A moderated mediation model of despotic leadership and knowledge sabotage behavior", International Journal of Hospitality Management, 2025	<% 1
5	www.coursehero.com İnternet Kaynağı	<% 1
6	repub.eur.nl İnternet Kaynağı	<% 1
7	Arnold B. Bakker, Michael P. Leiter. "Work Engagement - A Handbook of Essential Theory and Research", Psychology Press, 2019	<% 1
8	www.researchgate.net İnternet Kaynağı	<% 1
9	www.frontiersin.org İnternet Kaynağı	<% 1
10	Victor O. Olorunsola, Osman M. Karatepe, Elisa Rescalvo-Martin. "Give it 110 percent: The sequential nexus between green	<% 1

supervisor support, green descriptive norm,
green self-efficacy, and green behavior",
International Journal of Hospitality
Management, 2024

Yayın

-
- 11 Wael Mohammed Thabet, Kamal Badar,
Mohammed Aboramadan, Ahmad Abualigah.
"Does green inclusive leadership promote
hospitality employees' pro-environmental
behaviors? The mediating role of climate for
green initiative", The Service Industries
Journal, 2022

Yayın

-
- 12 aquila.usm.edu <% 1

İnternet Kaynağı

-
- 13 docs.google.com <% 1

İnternet Kaynağı

-
- 14 Sejal Doshi, Sebin Joy, Arti Arun Kumar.
"chapter 9 Towards a Sustainable Future", IGI
Global, 2024

Yayın

-
- 15 nrl.northumbria.ac.uk <% 1

İnternet Kaynağı

-
- 16 Tuna Karatepe, Ali Ozturen, Osman M.
Karatepe, M. Mithat Uner, Taegoo Terry Kim.
"Management commitment to the ecological
environment, green work engagement and

their effects on hotel employees' green work outcomes", International Journal of Contemporary Hospitality Management, 2022
Yayın

-
- | | | |
|----|--|------|
| 17 | Mohamed Ahmed Suliman, Ahmed Hassan Abdou, Moatazbella Farid Ibrahim, Dayal Ali Waheer Al-Khaldy et al. "Impact of Green Transformational Leadership on Employees' Environmental Performance in the Hotel Industry Context: Does Green Work Engagement Matter?", Sustainability, 2023
Yayın | <% 1 |
|----|--|------|
-
- | | | |
|----|---------------------------------|------|
| 18 | c.coek.info
İnternet Kaynağı | <% 1 |
|----|---------------------------------|------|
-
- | | | |
|----|---------------------------------|------|
| 19 | iauecce.com
İnternet Kaynağı | <% 1 |
|----|---------------------------------|------|
-
- | | | |
|----|---|------|
| 20 | Submitted to Nottingham Trent University
Öğrenci Ödevi | <% 1 |
|----|---|------|
-
- | | | |
|----|--|------|
| 21 | Submitted to Vrije Universiteit Amsterdam
Öğrenci Ödevi | <% 1 |
|----|--|------|
-
- | | | |
|----|--|------|
| 22 | Muhammad Farrukh, Muhammad Rafiq, Osman M. Karatepe, Ali Raza. "Unleashing the Pygmalion's nudge: The roles of leadership styles and leader expectations in driving employees' pro-environmental behaviors", International Journal of Hospitality Management, 2025 | <% 1 |
|----|--|------|

23	core.ac.uk İnternet Kaynağı	<% 1
24	www.mdpi.com İnternet Kaynağı	<% 1
25	Thomas Thakadipuram. "Leadership Wholeness, Volume 2", Springer Science and Business Media LLC, 2024 Yayın	<% 1
26	Panagiotis Gkorezis. "Supervisor support and pro-environmental behavior: the mediating role of LMX", Management Decision, 2015 Yayın	<% 1
27	listens.online İnternet Kaynağı	<% 1
28	repository.nwu.ac.za İnternet Kaynağı	<% 1
29	www.tandfonline.com İnternet Kaynağı	<% 1
30	Bushnell, Brian D.. "A Mixed Methods Study of the Relationship Between Perceived Leadership Styles and Employee Engagement at the Transportation Security Administration (Tsa).", Creighton University, 2020 Yayın	<% 1

31	Satinder K. Dhiman. "The Routledge Companion to Mindfulness at Work", Routledge, 2020 Yayın	<% 1
32	acikerisim.kastamonu.edu.tr İnternet Kaynağı	<% 1
33	scholarscompass.vcu.edu İnternet Kaynağı	<% 1
34	docplayer.net İnternet Kaynağı	<% 1
35	Jnaneswar K. "Demystifying the relationships among green HRM, green work engagement, green innovation and environmental performance: a serial mediation model", Social Responsibility Journal, 2024 Yayın	<% 1
36	Submitted to Higher Education Commission Pakistan Öğrenci Ödevi	<% 1
37	Management for Professionals, 2015. Yayın	<% 1
38	scholarship.shu.edu İnternet Kaynağı	<% 1
39	www-emerald-com-443.webvpn.sxu.edu.cn İnternet Kaynağı	<% 1

40	5dok.net İnternet Kaynağı	<% 1
41	Eleonora Pantano, Francesca Serravalle. "The Role of Smart Technologies in Decision Making - Developing, Supporting and Training Smart Consumers", Routledge, 2022 Yayın	<% 1
42	George Thomas, Norah Ali Albishri. "Driving employee organizational citizenship behaviour through CSR: An empirical study in the context of luxury hotels", Acta Psychologica, 2024 Yayın	<% 1
43	W. B. Schaufeli. "The Measurement of Work Engagement With a Short Questionnaire: A Cross-National Study", Educational and Psychological Measurement, 08/01/2006 Yayın	<% 1
44	wiredspace.wits.ac.za İnternet Kaynağı	<% 1
45	www.sweetstudy.com İnternet Kaynağı	<% 1
46	Serdar Çop, Victor Oluwafemi Olorunsola, Uju Violet Alola. "Achieving environmental sustainability through green transformational leadership policy: Can green team resilience	<% 1

help?", Business Strategy and the Environment, 2020

Yayın

47	Valerie I. Sessa, Nathan A. Bowling. "Essentials of Job Attitudes and Other Workplace Psychological Constructs", Routledge, 2020 Yayın	<% 1
48	doras.dcu.ie İnternet Kaynağı	<% 1
49	econpapers.repec.org İnternet Kaynağı	<% 1
50	eprints.qut.edu.au İnternet Kaynağı	<% 1
51	D. Lance Ferris, Russell E. Johnson, Constantine Sedikides. "The Self at Work - Fundamental Theory and Research", Routledge, 2017 Yayın	<% 1
52	Higgins, Arika. "The Relationship Between Diversity Climate Perceptions and Organizational Citizenship Behavior and Work Engagement: The Mediating Role of Overall Organizational Justice.", San Jose State University, 2020 Yayın	<% 1

53	MaryAnn Christison, Denise E. Murray. "Leadership in English Language Education - Theoretical Foundations and Practical Skills for Changing Times", Routledge, 2012 Yayın	<% 1
54	cpet.eat.kmutnb.ac.th İnternet Kaynağı	<% 1
55	sci-hub.se İnternet Kaynağı	<% 1
56	Submitted to American Intercontinental University Online Öğrenci Ödevi	<% 1
57	Atina Ndindeng. "The Impact of Effective Menopausal Symptom Management on Workplace Performance and Well-being: A Comprehensive Analysis", Springer Science and Business Media LLC, 2024 Yayın	<% 1
58	Muhammad Waheed Akhtar, Osman M. Karatepe, Elisa Rescalvo-Martin, Muhammad Rizwan. "Thriving at work as a mediator between high-performance human resource practices and innovative behavior in the hotel industry: The moderating role of self- enhancement motive", International Journal of Hospitality Management, 2024 Yayın	<% 1

59	Submitted to Napier University Öğrenci Ödevi	<% 1
60	Watson, Gwendolyn Paige. "Towards a Better Understanding of Job Crafting in the Job Demands-Resources Model: A Three-Wave Study.", Clemson University, 2020 Yayın	<% 1
61	www.carlcorway.cc İnternet Kaynağı	<% 1
62	Ahmad Abualigah, Tamer Koburtay, Islam Bourini, Kamal Badar, Ali Meftah Gerged. "Towards sustainable development in the hospitality sector: Does green human resource management stimulate green creativity? A moderated mediation model", Business Strategy and the Environment, 2022 Yayın	<% 1
63	Catherine Truss, Rick Delbridge, Kerstin Alfes, Amanda Shantz, Emma Soane. "Employee Engagement in Theory and Practice", Routledge, 2013 Yayın	<% 1
64	Submitted to Erasmus University Rotterdam Öğrenci Ödevi	<% 1
65	www.inderscience.com İnternet Kaynağı	<% 1

66	Sutarmin Sutartin, Aneu Yuliane, Akhmad Darmawan, Arief Adhy Kurniawan. "Driving Sustainable Change: Green Transformational Leadership, Job Crafting, and Work Engagement in Frugal Eco-Innovation", International Journal of Sustainable Development and Planning, 2023 Yayın	<% 1
67	Submitted to University of Northumbria at Newcastle Öğrenci Ödevi	<% 1
68	Yamaner, Elgun Emre. "The Relationship Between Employee Participation in Decision-making and Work Engagement: The Mediating Role of Organizational Justice", Marmara Universitesi (Turkey), 2020 Yayın	<% 1
69	mental.jmir.org İnternet Kaynağı	<% 1
70	www.researchsquare.com İnternet Kaynağı	<% 1
71	Akansha Mer, Vimal Kumar, Virendra Kumar Verma, Tanmoy De, Joshy Mathew. "A review of predictors and outcomes of work engagement in nonprofit organizations", Social Sciences & Humanities Open, 2024 Yayın	<% 1

72	Submitted to Eastern Mediterranean University Öğrenci Ödevi	<%1
73	Hung-Yuan Su, Jen-Long Tsai, Yin-Chou Hsu, Kuo-Hsin Lee, Chao-Sheng Chang, Cheuk-Kwan Sun, Yu-Han Wang, Chih-Wei Hsu. "A Modified Chief Complaint-Based Cardiac Triage Strategy for Reducing Delays in the Management of Patients With ST-Elevation Myocardial Infarction", Research Square, 2020 Yayın	<%1
74	Jessica Braojos, Jose Benitez, Javier Llorens, Laura Ruiz. "Impact of IT integration on the firm's knowledge absorption and desorption", Information & Management, 2020 Yayın	<%1
75	Submitted to University of Bath Öğrenci Ödevi	<%1
76	dspace.library.uu.nl İnternet Kaynağı	<%1
77	link.springer.com İnternet Kaynağı	<%1
78	www.care.org İnternet Kaynağı	<%1

79	Mohammad Rabiul Basher Rubel, Daisy Mui Hung Kee, Nadia Newaz Rimi. "Green human resource management and supervisor pro-environmental behavior: The role of green work climate perceptions", Journal of Cleaner Production, 2021 Yayın	<% 1
80	asia.citi.com İnternet Kaynağı	<% 1
81	bmcpublichealth.biomedcentral.com İnternet Kaynağı	<% 1
82	journals.sagepub.com İnternet Kaynağı	<% 1
83	papersearch.net İnternet Kaynağı	<% 1
84	pure.uva.nl İnternet Kaynağı	<% 1
85	www.msm.nl İnternet Kaynağı	<% 1
86	Elisa Rescalvo-Martin, Leopoldo Gutierrez, F. Javier Llorens-Montes, Osman M. Karatepe. "Effects of leader behaviors on extra-role proactive service: The role of cultural tightness-looseness", International Journal of Hospitality Management, 2024 Yayın	<% 1

87 Farida Saleem, Sofia Mateou, Muhammad Imran Malik. "How Green Transformational Leaders Trigger Environmental Performance? Unleashing the Missing Links Through Green Self-Efficacy, Green Empowerment, and Green Training of Employees", Sustainability, 2024

<% 1

Yayın

88 Megan J. Bissing-Olson, Aarti Iyer, Kelly S. Fielding, Hannes Zacher. "Relationships between daily affect and pro-environmental behavior at work: The moderating role of pro-environmental attitude", Journal of Organizational Behavior, 2013

<% 1

Yayın

89 Mohammed Aboramadan. "The effect of green HRM on employee green behaviors in higher education: the mediating mechanism of green work engagement", International Journal of Organizational Analysis, 2020

<% 1

Yayın

90 Muhammad Farhan Mughal, ShuangLi Cai, Naveed Ahmad Faraz, Chen Haiying, Petra Poulouva. "Green servant leadership and employees' workplace green behavior: interplay of green self-efficacy, green work engagement, and environmental passion", Current Psychology, 2024

<% 1

91	Sait Gürbüz, Beatrice Van der Heijden, Charissa Freese, Evelien P.M. Brouwers. ""Follow the leader"": how inclusive leaders inspire followers to perform well through strengths use", Career Development International, 2024 Yayın	<% 1
92	academic.oup.com İnternet Kaynağı	<% 1
93	iceb.johogo.com İnternet Kaynağı	<% 1
94	repositori.uji.es İnternet Kaynağı	<% 1
95	research-portal.uu.nl İnternet Kaynağı	<% 1
96	www.sajip.co.za İnternet Kaynağı	<% 1
97	Anamika Pandey, Balamurugan Balusamy, Naveen Chilamkurti. "Disruptive Artificial Intelligence and Sustainable Human Resource Management: Impacts and Innovations – The Future of HR", River Publishers, 2023 Yayın	<% 1
98	Ardin Sianipar, Ayu Yulianti Putri. "How Transformational Leadership Enhancing	<% 1

School's Performance: A Systematic Literature Review", Open Science Framework, 2024

Yayın

99

Career Development International, Volume 17, Issue 3 (2012-06-19)

Yayın

<% 1

100

Donna Yao, Melody M. Chao, Elizabeth George, Pritviraj Chattopadhyay. "Like Attracts Like? The Effects of Anxiety, Implicit Bias, and Perception of Diversity Culture on Team Attraction", Makara Human Behavior Studies in Asia, 2022

Yayın

<% 1

101

Eduardo Lopez-Senespleda, Andres Bravo-Oviedo, Rafael Alonso Ponce, Gregorio Montero Gonzalez. "Modeling dominant height growth including site attributes in the GADA approach for Quercus faginea Lam. in Spain", Forest Systems, 2014

Yayın

<% 1

102

Elisa Rescalvo-Martin, Ana Castillo, Adriana P. Moreno-Marcial, Carlos A. Albacete-Saez, F. Javier Llorens-Montes. "Effects of empowering leadership under boundary conditions in the hospitality industry", International Journal of Hospitality Management, 2022

Yayın

<% 1

103 Farhad Taghizadeh-Hesary, Hassanudin Mohd Thas Thaker, M. Ishaq Bhatti, Mohamed Asmy Mohd Thas Thaker. "Islamic Finance and Sustainability - A Research Companion", Routledge, 2025

Yayın

<% 1

104 Felix Kwame Opoku, Richard Kofi Boateng. "Employee engagement, perceived organizational support, and job performance of medical staff at the Cape Coast Teaching Hospital", PLOS ONE, 2024

Yayın

<% 1

105 Ozturk, Ayhan. "Determinants and Outcomes of Teachers' Work Engagement and Organizational Commitment: A Cross-National Comparative Study Between Turkey and the United States.", University of Arkansas at Little Rock, 2020

Yayın

<% 1

106 Submitted to Robert Kennedy College AG

Öğrenci Ödevi

<% 1

107 Robert R. Sinclair, Mo Wang, Lois E. Tetrick. "Research Methods in Occupational Health Psychology - Measurement, Design, and Data Analysis", Routledge, 2012

Yayın

<% 1

108	Wilmar B. Schaufeli, Marisa Salanova. "Efficacy or inefficacy, that's the question: Burnout and work engagement, and their relationships with efficacy beliefs", Anxiety, Stress, & Coping, 2007 Yayın	<% 1
109	archive.conscientiabeam.com İnternet Kaynağı	<% 1
110	melbado.com İnternet Kaynağı	<% 1
111	ntnuopen.ntnu.no İnternet Kaynağı	<% 1
112	osuva.uwasa.fi İnternet Kaynağı	<% 1
113	share.calbaptist.edu İnternet Kaynağı	<% 1
114	www.econstor.eu İnternet Kaynağı	<% 1
115	www.scielo.org.za İnternet Kaynağı	<% 1
116	www.tdx.cat İnternet Kaynağı	<% 1
117	"Conceptualising Sustainability in the Fintech Sector", Corvinus University of Budapest, 2023	<% 1

- 118 Elena Valionienė, Genutė Kalvaitienė. "THEORETICAL MODELLING OF THE MARITIME BUSINESS' RESILIENCE ENHANCEMENT POSSIBILITIES IN A VOLATILE, UNCERTAIN, COMPLEX AND AMBIGUOUS ENVIRONMENT", Vilnius Gediminas Technical University, 2023

<%1

Yayın

- 119 Haoming Ding, Wei Su, Juhee Hahn. "How Green Transformational Leadership Affects Employee Individual Green Performance—A Multilevel Moderated Mediation Model", Behavioral Sciences, 2023

<%1

Yayın

- 120 Sara Kanwal, Abdullah Al Mamun, Mengling Wu, Saad Mahmood Bhatti, Mohd Helmi Ali. "Corporate social responsibility: A Driver for green organizational climate and workplace pro-environmental behavior", Heliyon, 2024

<%1

Yayın

- 121 Yost, Mikel R.. "Leadership Style of Call-Center Management Post-COVID-19: A Mixed Methods Descriptive Exploratory Case Study", University of Phoenix, 2024

<%1

Yayın

- 122 Antonio Marturano, Jonathan Gosling. "Leadership: The Key Concepts", Routledge,

<%1

2019

Yayın

123 Journal of Managerial Psychology, Volume 27, Issue 6 (2012-08-18) <% 1
Yayın

124 mdpi-res.com <% 1
İnternet Kaynağı

125 mypenservices.com <% 1
İnternet Kaynağı

Alıntılarını çıkart üzerinde
Bibliyografyayı Çıkart üzerinde

Eşleşmeleri çıkar Kapat

RESUME

Full Name: Ali Cenk YORULMAZ

Educational Status:

Degree	Major	University	Year
Undergraduate Degree	Industrial Engineering	Başkent University	2005
Master Degree	Business Administration	Middle East Technical University	2011

Work Experience:

Workplace	Position	Year
ASELSAN	Internship	2002
ASELSAN	Internship	2003
Winsa Pvc Doors & Windows	Marketing & Sales Engineer	2005-2006
Mescioglu Engineering and Consulting Co.	Quality Management Director	2006-2007
Akasya Thermal Resort	Management Trainee	2007-2008
Loews Hotels	Management Trainee	2008-2009
Doc's Wellness & Spa Hotel	Owner	2009-Present

Foreign Languages: English and German

Date: 25.12.2024