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SCHOOL OF ECONOMICS AND BUSINESS

MASTER'S THESIS

**THE IMPACT OF TRANSACTIONAL AND TRANSFORMATIONAL
LEADERSHIP ON EMPLOYEE PRODUCTIVITY AND
COMMITMENT**

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LIST OF ABBREVIATIONS

sl. – Slovene

ANOVA – (sl. Analiza variance); Analysis of variance

FLRT – (sl. Celovita teorija pristopov k vodenju); Full Range Leadership Theory

HSD – (sl. Test mnogoterih primerjav); Honest Significant Difference

IT – (sl. Informacijska tehnologija); Information technology

MLQ – (sl. Večfaktorski vprašalnik o vodenju); Multifactor Leadership Questionnaire

Ph.D. – (sl. Doktorat); Doctoral degree

INTRODUCTION

Throughout history, organizational practices and leadership behaviours have changed dramatically due to rapid development and globalization. In the modern world, leadership is critical because it provides direction and purpose and helps others understand long-term strategies and goals. Many different approaches and models have been developed over the years, but Bennis stated that »leadership is the most studied and least understood topic in the social sciences« and »never have so many laboured so long to say so little« (King, 1990, p. 43).

The fast pace of globalization, technological development, crisis, and greed have become significant dangers to sustainable economic development and stability. In order to advance, leaders must be inspiring, motivating, and believe in their goals so that they can be achieved. Accordingly, human capital is the most crucial factor in the improvement, growth, and quality puzzle. Parameters such as commitment, job satisfaction, motivation, and productivity of the followers are fundamental when it comes to the success of an organization. Therefore, modern leaders should do everything in their power to improve the productivity and commitment of their followers.

The purpose of this Master's thesis is to use secondary sources to examine the Full Range Leadership Model, focusing on exploring transformational and transactional leadership styles. After that, the productivity and commitment of followers in the organizations in context with transformational and transactional leadership style will be examined. The objective of the Master's thesis is to investigate the correlation between leaders' different leadership styles and the followers' commitment and productivity. Based on the results and analysis, recommendations will be given on how to increase commitment or productivity.

This Master's thesis aims to answer the following research questions:

- Does transformational leadership lead to higher productivity and commitment of followers?
- Does transactional leadership lead to higher productivity and commitment of followers?
- Do age groups, educational levels, and industry affect the productivity and commitment of the followers?

Over the years, multiple different leadership theories emerged. From the Great Man theory in the mid-19th century, which claimed that only special people possess leadership skills, to the contingency era when a significant breakthrough in leadership theory was made. In the contingency era, researchers found that leadership cannot be unidimensional but is built on multiple dimensions. According to that theory, a leader is dependent on multiple factors such as personality, influence, behaviour, and situation (King, 1990). Later on, in the 1990s, researchers realized that centre of attention should not be only on one aspect of

leadership, so transactional and transformational leadership style theories emerged. Per transformational leadership, leaders motivate, encourage, mentor, and support followers. As a result, they can present their confidence, purpose, and vision to their followers. Bass and Riggio (2006) claimed that the transformational leadership style should be used when the organization needs to be restructured, is looking for a new direction, or is going through an innovation period.

On the other hand, the transactional leadership style has a different approach to the followers. According to transactional leadership theory, the leader is viewed as an authority who exchanges rewards and punishment to motivate followers. Bass asserts that transactional leadership is best used in large and well-developed organizations with well-established goals and structures (Bass & Riggio, 2006). My Master's thesis is about transformational and transactional leadership styles in the context of follower productivity and commitment followers, so after a historical overview and explanation of the full-range leadership model, I will focus on commitment and productivity.

Several studies have been conducted on this topic. For example, Javaid and Mirza (2012) found that transformational leadership style positively correlated with follower commitment, while they found no relationship between transactional leadership style and commitment. In terms of productivity, one study concluded that the transformational leadership style could help improve follower productivity because leaders can encourage and motivate them (Lai, Tang, Lu, Lee & Lin, 2020). On the other hand, another study found that transactional leadership successfully increases productivity and reduces costs because it pursues short-term goals and makes it easier for employees to get work done (Kabiru & Bula, 2020).

The Master's thesis is divided into two parts, namely the theoretical part and the empirical part. In the theoretical part, the Master's thesis will mainly rely on secondary data from searching relevant literature in academic articles, journals, and books. This will help define and systematize different aspects of leadership and provide an analytical overview of the topic. The method of observation and description will be used to present the theory.

In the empirical part, I will analyse the construct of leadership styles, commitment, and productivity in selected companies differently. To obtain primary data, I will create a questionnaire to be completed by employees of the selected organizations in an online form. All respondents will have access to the internet and, therefore, the ability to complete a questionnaire through the 1KA portal. The fact that all respondents have access to the internet is fundamental, as there can be no input errors, as can be the case with questionnaires in physical form. Furthermore, since I want to ensure the most accurate results possible in the evaluation and the most significant possible number of participants, the questionnaire will be designed so that the participants remain anonymous.

Using the method of synthesis, at the end of the Master's thesis, I will compare the research findings with the theory and, on this basis, evaluate the weight of the primary research questions previously established. The conclusion of the Master's thesis will also provide answers to the research questions and, of course, recommendations that will help improve the leadership style used by companies and, consequently, increase the commitment and productivity of followers in selected organizations or other companies that are still deciding whether the leadership style is essential to achieve commitment and productivity.

1 HISTORY OF LEADERSHIP

The word »leader« emerged in the English dictionary about 800 years ago in the 1300s. The first methodical research on leadership started almost 600 years later in the 19th century. In the last 100 years, numerous leadership styles and theories emerged, and almost every theory has its interpretation of leadership. In this chapter, multiple leadership theories will be briefly explained chronologically throughout history.

1.1 Leadership eras

In this chapter, multiple leadership eras from the will be briefly explained chronologically throughout history.

1.1.1 Personality era and trait theories

In the mid-19th century, researchers focused primarily on leaders' personality traits and character. The first known theory is the Great Man Theory, which was put forward in the 19th century by academics such as the historian Thomas Carlyle, who claimed that world history is based on historical events that happened to great men. The centre of the Great Man Theory is that leaders are born and cannot be trained or made. According to this theory, very few people possess the unique qualities to be successful leaders and achieve greatness (Jennings, 1961). The theory referred to well-known historical figures such as Julius Caesar, Napoleon Bonaparte, and Abraham Lincoln as born leaders. With exceptional leadership traits, they were able to make history (Organ, 1996).

The next period of leadership theories led to trait theories which emerged in the 1930s. Leadership theory did not make a vital process during the Trait Period. The theory believes that the traits of successful leaders can also be achieved through a drill, and they are not only given to specific individuals. Instead, trait theorists wanted to identify the shared characteristics of well-known leaders. One of the early trait theory researchers was Professor Tead from Columbia University. In 1935 he claimed that physical energy, a sense of purpose and direction, enthusiasm, friendliness, affection, decisiveness, integrity,

intelligence, teaching skill, faith, and technical mastery are needed qualities to become an effective leader (King, 1990).

Researchers have challenged the trait theory. It was argued that leadership is not one-dimensional but a dynamic process that varies with the situation and in which leaders change significantly. Jenkins (1947) attempted to find traits associated with good leadership and failed because most traits cannot be learned. Trait theorists were unsuccessful in finding the traits, so by 1950, there was no longer a reason to pursue the theory, so it was abandoned mainly (King, 1990).

1.1.2 Influence Era

The influence era then followed the personality era. Influence era theorists sought to prove that leadership is not based solely on a leader but is a relationship between the team members. During the influence era, the power relations and persuasion period emerged (King, 1990).

Power Relations Period (Pfeffer, 2017):

- During the power relations period, researchers have tried to measure the effectiveness of leaders by how much power they have and how they use it. They discovered that in today's world, the influence of power could be seen at every turn while dictatorship and authoritarian approaches are no longer considered successful.

Persuasion Period (Mechanic, 1962):

- During this period, oppression leadership was removed from the theory, but the emphasis was on finding the leader as the dominant variable in the leader and follower relationship. This dominant variable is still used today, although there are multiple limitations, such as the power of lower participants.

1.1.3 Behaviour era

In the 1940s and 1950s, the behavioural era changed the path of leadership theory. The new direction of the research highlighted leaders' behaviours rather than their characteristics. However, in contrast to the trait era, leadership theory continued to evolve with strong empirical support, which was not hard to apply (King, 1990).

Early Behaviour era (Griffin, Skivington & Moorhead, 1987):

- In the beginning, the behaviour era was an add-on of the Trait Era, but instead of focusing on personality attributes, the focus was on developing successful behavioural attributes. Michigan State University, led by Likert, and Ohio State University, led by

Stodgill and Shartle, were instrumental in the trait or one-continuum approach. Both identified two dimensions of leadership behaviour. One dimension was the task-oriented axis, and another was the relationship-oriented axis. These two dimensions were not mutually exclusive.

Late Behaviour era (Blake, Mouton & Bidwell, 1962; McGregor, 1960; Stodgill, 1981):

- As might be expected, the late-era has improved upon the theories of the early era by making them useful for application in real life. One of the best-known models is the Managerial Grid Model, which has a 9x9 matrix with x and y-axis. On Y-axis is a concern for people, while on the X-axis is the concern for production. According to this theory, the most successful manager scores 9 on both axes. Another theory that deserves attention is the X and Y theory. They assumed that there are two types of human behaviour. The negative behaviour is called X theory. X theory states that people are largely absent and need to be led and motivated to serve the organization, while the positive behaviour or Y theory asserts that people are already highly motivated and only need stable working conditions. In the late stages of the behavioural era, it was discovered that leaders are not the primary cause of subordinate behaviour but create the conditions and incentives for eliciting subordinate behaviour.

1.1.4 Situational era

After the behavioural era, the situational era has made significant progress in leadership research. The other factors beyond the leader and follower became necessary, such as social status, relative power position of leader and follower, and the external environment. According to situational era theorists, leaders' characteristics and behaviours were shaped by the abovementioned factors (King, 1990).

Environment Period (Hook, 1957; McCall & Lombardo, 1978):

- During the environmental period, the theorists have argued that leaders develop only by being in the right place at the right time. Therefore, the leader's actions were more or less irrelevant. After this era, leadership was insignificant because when a leader was gone, someone new would take their place. Researchers argued that more environmental context must be used in leadership during this era, such as economic factors and situations.

Social Status Period (Stogdill, 1950):

- During this period, the focus was on the approach that certain group members had different tasks. The expectation is that each group member would behave similarly as before. Mutual behavioural expectations well define the role of the leader and follower, but they are still allowed to help the group.

Sociotechnical Period (Trist & Bamforth, 1951):

- The last part of the situational era is called the sociotechnical period, in which both the social status and the environmental era were united. This period was considered an improvement of the environmental era because the influence of the group was recognized.

1.1.5 Contingency era

A leadership theory made a significant step forward during the contingency era. At that time, it was discovered for the first time that leadership does not exist in a clear unidimensional form like previously discussed theories, but it consists of different dimensions. Successful leadership depends on more factors, such as behaviour, personality, influence, and situation. Therefore, researchers tried to select the situational variables that revealed which leadership style to use in a different situation (King, 1990).

A lot of significant theories arose at that time. Contingency theory from Fred Fiedler, Path-Goal theory by Evans, and Normative Theory from Vroom and Yetton in 1973 are the most well-recognized ones. Fred Fiedler was the researcher who established one of the first contingency theories of leadership. His theory claims that context in leadership is vital and supports the belief that there is no perfect set of leadership characteristics or behaviours. He stated that leadership style is fixed, and a leader should be put in an environment that fits the leader's style the most. In other words, the success of a leader is determined by how well the environment or the context fits the leadership style. The other option is to teach leaders how to change the situation to match their leadership style (Fiedler, Chemers & Mahar, 1976). Path and Goal theory from House did not focus so much on the situation or behaviour, but it was more on how the leader should enable working conditions for his follower's success (House, 1971). On the other side Normative model advocates for leaders which type of behaviour is most suitable for the chosen situation. This theory was quite appealing due to its availability to use by leaders. It means that no matter the leader's traits and behaviour, it is possible to increase the effectiveness in given situations (Vroom & Jago, 1978).

Compared to previous eras, many different theories have arisen during the contingency era, but there are still many drawbacks. Due to significant differences between new theories, it is tough to draw distinct periods in this era because all of them have one piece of an answer to the complex leadership puzzle.

1.1.6 New leadership era

In recent history, there have been several eras, such as the anti-leadership era, in which theorists stated that leadership is only a »perceptual phenomenon in the mind of the

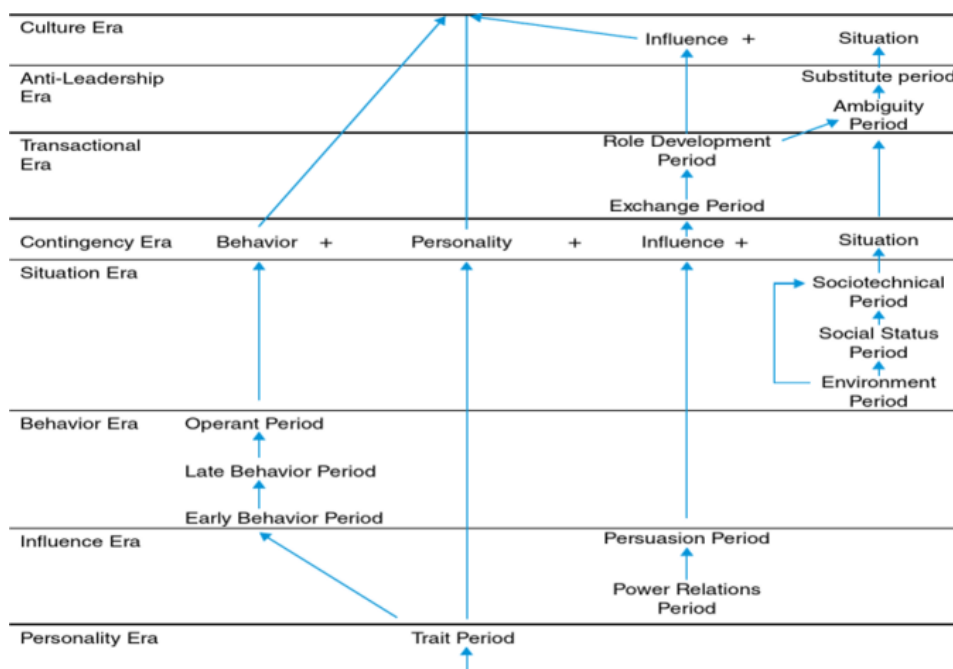
observer« or the cultural era, in which researchers argued that leadership is not a unique phenomenon, but instead manifests itself in the culture of the entire organization (King, 1990).

During these years, it was also recognized for the first time in the 1990s that one should not focus on just one aspect of leadership due to the high complexity of the phenomenon of leadership. Rapid and widespread globalization led to a new era of leadership that moved away from the old familiar traditions. The focus is now on the complex interactions between followers, leaders, systems, and situations.

The new concept of leadership has given rise to two of the most popular leadership theories: the transactional and transformational leadership theories, which will be discussed in more detail in this paper. The transactional theory is based on the use of authority to motivate followers. Leaders and followers exchange rewards for work and effort. When expectations are not met, followers are punished. Followers' perceptions of the fairness and equity of the exchange must be critical. Transactional leadership best suits large and mature organizations with well-established goals and structures. Transformational theory, on the other hand, takes a different approach. Leaders are motivators and influencers who encourage and motivate their followers. According to research, this leadership style should be used when a company needs to restructure, needs a new direction, or is in a phase of breakthrough innovation (King, 1990).

Figure 1 shows the historical periods in the development of leadership styles and the theories developed during those periods.

Figure 1: Leadership theories throughout history



Source: Seters & Field (1990).

1.2 Concept of Full Range Leadership Theory

Antonakis and House (2013) selected five theories necessary to explain Full Range Leadership Theory (hereafter: FLRT) and its components.

First, Weber brought forth the charismatic leader who comes to the forefront under challenging times. Weber considered charisma a unique strength that makes leaders perform great deeds to impress followers. He claimed that followers would peacefully place their fate in the leader's hands and support him no matter what. He argued that charismatic leaders' most crucial personality trait was their »attitude is revolutionary... it goes beyond everything« (Weber, 1968, p. 24).

After Weber, Downton posited a transactional, inspirational, rebellious, and charismatic leadership theory in 1973. Downton argued that transactional leadership is built on the economic exchange process. Trust in transactional leadership is the fulfilment of the obligations on both sides. According to Downton, positive transactions happen when followers receive conditional rewards for meeting goals. When goals are not met, punishment occurs. Downton also believed that charismatic leaders significantly affect their followers because of their transcendental ideals and authority, which followers identify. He also noted that an inspirational leader is persuasive and can encourage followers to sacrifice themselves for their ideals and give them a sense of purpose. An inspirational leader can also create a purpose for action, which is different from the charismatic process. In conclusion, Downton argued that all three types of leadership-rebellious, transactional and inspirational, should be used to some degree (Downton, 1973).

In 1977, based on Weber's explanation of the charismatic leader, House presented an integrated theoretical framework and propositions to describe charismatic leaders. His research included a description of the psychological effects that charismatic leaders have on their subordinates. He asserted that the foundation of a charismatic leader is the emotional interaction with their followers. Different tasks require different approaches. A charismatic leader reinforces followers' will, affiliation, and other motives to achieve the leader's vision. Subordinates respond with admiration and affection for the superior in whom they see their ideas and feelings. House asserted that charismatic leaders set high goals for themselves and their team and express confidence that those goals can be met. He also asserted that charismatic leaders exhibit high self-confidence, pro-social skills, and high morale (House, 1977).

Like Downton's theory of charismatic and transactional leadership, Zaleznik was the one who drew a line between management and leadership theories. In 1989, he argued that managers usually use rational, bureaucratized processes, are inert, and use formal structures to direct and influence the behaviour of their subordinates. Followers are usually not fully satisfied with this, but their satisfaction derives from material rewards. Managers

are usually not creative and do not form emotional bonds with their followers. On the other hand, Zaleznik expressed leaders as visionaries, status quo personalities, and creative individuals. Leaders usually use emotion and charisma to impress and motivate followers. They develop emotional and cognitive subordinates to identify with and idealize their leaders (Antonakis & House, 2013).

To draw a line under all these five theories, Burns asserted in 1978 that the leader-follower relationship should be either transactional, i.e., based on the exchange of value items (political, emotional, or economic), or transformational, i.e., the leader should increase the morale, motivation, and ethical aspirations of the follower (Burns, 1978).

Burns asserted that transformational leadership, which focuses on higher and more complex goals, has a much more significant impact on followers and teams than transactional leadership, which promotes self-interest and is therefore limited in its influence. In addition, transformational leaders can raise their employees' moral and ethical consciousness and persuade them to abandon their self-interest for the greater good (Antonakis & House, 2013).

1.3 Integration of theories and the distinction between revolutionary and organizational charisma

As described in the previous chapter, two sides of the leadership theory were born. The first is the charismatic-transforming-leadership style, and the other is the bureaucratic-transactional management style. The first is oriented toward vision, ideals, values, charisma, and change, while the second focuses on control, rationality, norms, and stability. The difference between the leadership styles can be viewed from different angles, the most important of which concerns moral and ethical conviction. In the works of Zaleznik and House, morals and ethics were described, as well as in the theory of Burns. They claimed that morals and ethics and their implications for different values and ideals lead to decisions that followers make. Ideals and values also guide how organizational goals and objectives are assigned and develop various behaviours. When leaders care about their followers, have a healthy relationship with them, and are aware of the impact of their actions on followers, they adopt ideals that arouse followers' motives and thus promote the leader's charismatic appeal. Individuals who possess such skills are transformational leaders whose followers are intrinsically motivated and connected to the leader's purpose. Leaders who lack these personality traits use rewards and punishments to control their followers. These leaders are called transactional leaders and can only partially influence and motivate their followers (Antonakis & House, 2013).

Years before FLRT, researchers separated the »revolutionary« charisma from the »organizational« charisma explored by neo-charismatic theorists. Many researchers saw charisma from a different, »tame« perspective. They asserted that the taming of charisma has its positive aspects, as it can be found and explored in different settings. According to

them, charismatic leaders are seen as confident and strong leaders who can express their thinking to subordinates and whom they can trust. As described earlier, they are collectively capable of achieving higher goals. This description of charismatic leaders differs from revolutionary leaders who lead by example and take or leave things. Revolutionary leaders can be loved or hated by their subordinates if they do not identify with the leader's goals (Antonakis & House, 2013).

2 THE FULL-RANGE LEADERSHIP THEORY

Full Range Leadership Theory is a promising integrative leadership theory because it builds on theories that take a bold approach and challenge traditional leadership theories. In this chapter, FLRT is described in more detail from its birth to all of its components today.

2.1 The birth of FLRT

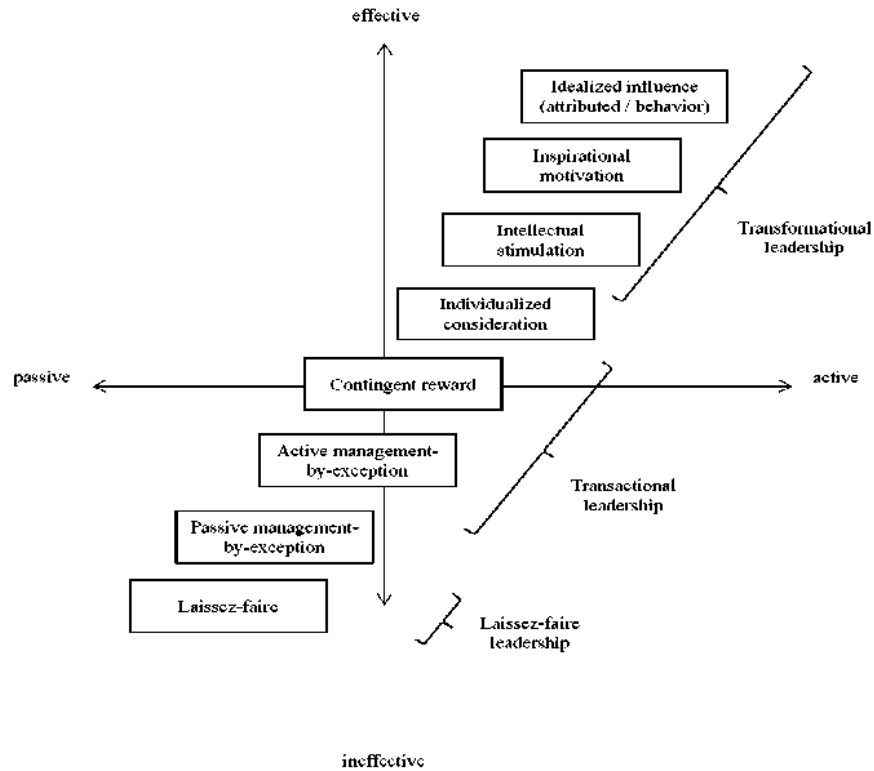
Large parts of Bass's research are based on approaches explained in the previous chapters. The focus of Bass's theoretical work is on the ideals of leaders. He extends Burns' theory by stating that leadership styles can coexist. These two leadership styles were transactional and transforming leadership (Burns, 1978). Bass built on Burns' work and developed an integrative organizational leadership theory. He noted that transformational leaders bring about change by developing the attitudes and beliefs of their followers. Transformational leaders are visionaries, have great emotional intellectuality and a close relationship with their subordinates, and go beyond self-interest. Transactional leaders, on the other hand, serve to clarify goals and objectives. Depending on followers' output, transactional leaders give rewards or punishments (Bass, 1985).

Bass' original theory included only six factors in a Full Range Leadership Model. Four factors of transformational leadership and two factors of transactional leadership. In 1991, Bass and Avolio expanded the theory based on various studies conducted between 1985 and 1990. In addition to the transactional and transformational leadership styles, which complement each other, Bass has found another leadership style in organizations (Bass & Avolio, 1994). This is the so-called passive leadership: laissez-faire leadership, which often occurs in non-leadership situations in organizations. In its current final form, FLRT has nine different individual factors, consisting of five factors of transformational leadership, three factors of transactional leadership, and one factor of laissez-faire leadership. The basic assumption behind this model is that each leader exhibits all three leadership styles at different levels and in different situations (Antonakis, Avolio & Sivasubramaniam, 2003).

Figure 2 shows the Full Range Leadership Model, which consists of three leadership styles: transformational, transactional, and laissez-faire. These leadership styles are made

up of nine different factors, which will be explained in more detail in the next section. The more we move up the diagonal, the more active and effective the leadership style is.

Figure 2: Full Range Leadership Model



Source: Academic library (n.d.).

2.2 Transformational leadership

Full Range Leadership Theory shows that transformational leadership is a process in which a superior uses various behaviours to manage followers' commitment and productivity to achieve organizational goals. These applications enhance the followers' and leaders' values and commitment (Bass & Riggio, 2006). Unlike other traditional leadership theories, this type of leadership seeks to provide enough support to the organization's members to motivate and inspire them toward the organization's objectives. In addition, the transformational leader must engage in an alignment process in which he or she identifies the inner states of the members because this step is critical to positively impacting those inner states (Leithwood & Sun, 2012).

Bass and Avolio argued that leaders with transformational behaviour tend to motivate followers, so they do more than expected. Leaders act in ways to achieve exceptional results by using core components of transformational leadership. The main components of transformational leadership are (1) idealized influence (attributed and behaviours), (2)

inspirational motivation, (3) intellectual stimulation, and (4) individual consideration (Avolio & Bass, 2004).

According to Bass and Avolio, the components have evolved as they have clarified the conceptualization and measurement of transformational leadership. They noted that two types of idealized influence could be measured with the Multifactor Leadership Questionnaire (hereafter: MLQ), which is explained in detail in chapter three. All five major components of transformational leadership are symbiotic and must coexist. These five major components are considered the most successful leadership views and practices (Avolio & Bass, 2004).

2.2.1 Idealized Influence Attributed

The definition of idealized influence attributed is described as the socialized charisma of the leader. Followers recognize the leader as a confident and capable individual guided by higher ideals and ethical principles. Leaders who exert idealized influence set an example that followers seek to emulate (Bono & Judge, 2004). In addition, followers consider their superior as determined, persistent, and possessing exceptional skills. Therefore, they respect and admire the leader and are loyal to him or her (Bass, 1985).

Leaders with an idealized influence component strive to motivate their followers. Leaders with this trait can transform the organization and generate pride and respect. They can see what is needed and have a vision (Avolio & Bass, 1988).

Avolio and Bass argued that followers affected by charismatic leadership are more productive. Charismatic leaders can identify the needs and aspirations of their subordinates. Then, they can build on those needs and hopes with words and practical actions. However, charismatic leaders can also fail because this is a two-way process between the leader and the followers. According to Bass, charismatic leaders are more successful in organizations with reliable employees, low self-esteem, and not highly educated. On the other hand, they feel resistance from highly educated and independent individuals (Bass, 1985).

2.2.2 Idealized Influence Behaviours

The second component of a transactional leader is idealized influence behaviours which refer to the charismatic behaviour of the leader. The leader can communicate his or her values, beliefs, and goals to followers. He or she can act in a way that builds trust and confidence (Antonakis, Avolio & Sivasubramaniam, 2003). Leaders with idealized influence are willing to sacrifice themselves to meet organizational goals and expectations. When followers admire the leader, this can be the basis for radical organizational change. Followers who recognize the leader's morals and vision are more likely to trust the leader

and are not likely to resist change. Leaders who exhibit idealized influence behaviours do not exploit their power for personal gain but have high expectations and think about the consequences of all decisions they make. They strive for long-term achievement and emphasize the importance of having motivation (Bass & Avolio, 1994).

2.2.3 Inspirational Motivation

Inspirational motivation behaviour is a method transformational leaders use to spur and motivate their subordinates by showing them a vision of the organization's future. Their behaviour motivates and inspires followers and communicates their goals' importance. They usually speak enthusiastically and confidently about tasks and obligations that need to be accomplished. Leaders are known as team players who help increase team enthusiasm and optimism (Bass & Avolio, 1994).

Followers have involved in the entire process as leaders present expectations and a vision of the future organization. Motivating leaders motivate employees to identify with the organization and its environment (Moolenaar, Daly & Slegers, 2010). Bass argued that the mix of belief in the rightness of the cause and confidence in the individual's abilities would lead to additional effort and success. Subordinates who believe their work matters and that their organization is thriving and has purpose are more likely to commit to the organization and put forth additional effort (Bass, 1985).

2.2.4 Intellectual Stimulation

The third component is intellectual stimulation which transformational leaders use to stimulate their followers to be creative and daring. Followers have their imagination encouraged and are challenged to do things in better ways. Their solutions are questioned and reframed to stimulate their thinking (Bass & Riggio, 2006).

By creating an intellectually stimulating environment, it is possible to develop creative solutions that help achieve the organization's vision. The leader does not criticize subordinates when they have different ideas, even if they fail. After some time, followers can identify and solve problems without the leader's direct intervention, and they become more capable of coming up with innovative solutions to solve the problems (Yammarino & Bass, 1990).

2.2.5 Individual Consideration

Bass noted that a leader's ability to show individual consideration for followers is essential to a transformational leader. A leader who practices individual consideration is sensitive to the current state of followers and pursues them to achieve a higher state. This can be achieved through mentoring and by setting an example for subordinates. The tasks

assigned to followers are consistent with the needs of each individual (Bass & Avolio, 1994).

Antonakis held that leaders increase the satisfaction of their followers through individual consideration by encouraging, supporting, and advising their needs. When followers are well-led, they can achieve self-actualization. Leaders monitor the tasks they have assigned to followers to see if they need additional support or guidance to progress or achieve goals. Transformational leaders who engage in individualized reflection are effective listeners and pursue two-way communication, allowing them to assess each follower individually and take a different approach each time because everyone has different talents or knowledge. Bass noted that individualized consideration is a crucial trait that differentiates transactional and transformational leaders (Bass, 1999).

2.3 Transactional leadership

On the other side, Transactional leadership occurs when leaders create an environment in which followers are rewarded or punished based on their work. Leaders and subordinates communicate with each other to know the reward when goals are met (Bass & Avolio, 1994). Transactional leaders acknowledge the needs of employees and provide a reward for work completed (Bass, 1999).

In dealing with employees, managers use positive and negative exchanges. Diligent followers whom complete tasks receive positive rewards, while unsuccessful followers are punished (Bass, 1999). The success of transactional leadership relies on whether the leader controls the exchange transactions and whether followers are externally motivated by the rewards given and will do everything possible to avoid punishment. According to Bass, the manager has little say in salary increases, which depend mainly on followers' seniority and qualifications. Due to that reason, followers are encouraged by positive and negative aversive contingent reinforcement. Contingent positive reinforcement occurs when the followers achieve agreed performance to maintain productivity and motivation. Leaders react with contingent aversive reinforcement when an employee does not perform as agreed. The transactional leader must react and change employees' behaviour to stop the followers' unproductivity (Bass, 1985).

Transactional leadership is made of two distinct dimensions. According to the Full Range Leadership Model, the relationship between these dimensions focuses on the transactions between leader and follower. These components represent leaders who are less active and engaged than transformational leaders. The two dimensions are contingent reward and active management, by exception.

2.3.1 Contingent Reward

A contingent reward is a behavioural approach in which leaders promise rewards for work performed. A transactional leader must recognize the needs of followers and facilitate the achievement of agreed-upon goals (Bass, 1999). Leaders who use contingent reward behaviour must agree with the follower on what he or she must do to be rewarded and ensure that the follower receives what is promised (Bass, 1985). There are two types of contingent rewards, positive and negative. Positive rewards are divided into rewards for work, public recognition, and salary rewards. On the other hand, contingent punishment can occur in various ways, such as poor evaluation and discontinuation of annual allowances (Bass & Avolio, 1994).

2.3.2 Management-By-Exception (Active)

The second component of transactional leadership behaviour is management-by-exception. Leaders who behave in this manner attempt to be proactive to minimize errors. Leaders who practice active management-by-exception monitor the performance of their followers and take action when there are deviations from predetermined organizational standards (Bass & Avolio, 1994). Bass and Riggio argue that this type of leadership can be successful and even necessary in certain situations, especially when safety is critical (Bass & Riggio, 2006).

2.3.3 Passive Leadership

The final type of the Full Range Leadership Model is passive leadership. It was found that transformational and transactional leadership styles tend to be effective, while passive leadership is usually ineffective. Passive leaders avoid specific responsibilities and are usually inactive when decisions need to be made. They do not use their authority and often delay actions that would be necessary to increase the productivity and motivation of followers (Judge & Piccolo, 2004).

2.3.4 Management-By-Exception (Passive)

Passive management-by-exception differs from active because it suggests a passive leadership approach until a follower requests action. Leaders only react when problems that occur are serious nature. Usually, leaders with that behaviour monitor followers, and only when mistakes are brought up to them do they take action (Bass, 1999). Leaders tend not to react to difficult situations analytically. They avoid clarifying tasks that need to be done by the followers. Passive management-by-exception is similar to laissez-faire styles – or no leadership, since both types of behaviour have negative impacts on followers and associates (Avolio & Bass, 2004).

2.3.5 Laissez-Faire leadership

Another component of the passive leadership style is called laissez-faire leadership. This means the absence of leadership. Laissez-faire leaders behave passively and avoid responsibility, do not make decisions, do not follow up on problems, delay action, and do not use authority (Bass, 1999).

Bass noted that laissez-faire leaders do not believe in their abilities to lead and supervise followers. They cannot clarify goals and do not make decisions that take the organization to the next level (Bass, 1999). The laissez-faire style shows a lack of leadership. This leadership style is a perfect example of inactive leadership in the Full Range Leadership Model. Contingent reward behaviours have been shown to correlate positively with transformational leadership, while laissez-faire leadership has a negative correlation with transformational leadership style (Bass, 1999).

Table 1 summarizes the transformational, transactional, and passive leadership styles in the Full Range Leadership Model and its nine components.

Table 1: Full Range Leadership Model components

Full Range Leadership Component	Characteristics
Transformational leadership	A process in which leaders achieve a radical change in employee behaviour. They inspire and encourage their employees by giving them a vision and goals. Leaders develop confidence, respect, and trust with charisma and people skills. They often act as mentors and supporters, motivating employees to perform better to achieve organizational goals.
Idealized Influence Attributes	Leaders are seen as confident and strong personalities. They act as role models who are admired and respected by employees.
Idealized Influence Behaviours	Leaders display their charisma based on values, beliefs, and a sense of mission. In addition, they must behave in a way that builds the confidence and trust of the followers.
Idealized Motivation	Leaders motivate their subordinates by showing them a vision of the future and behaving in a way that motivates and inspires their followers. As a result, they are enthusiastic and confident.
Intellectual Stimulation	Managers act as motivators and motivate their subordinates to be creative and innovative. They challenge their employees to break new ground and question everything.
Individual Consideration	Leaders recognize subordinates as individuals and can address each individual's needs, goals, and abilities to achieve goals and growth. They are often viewed as mentors.
Transactional leadership	A leadership style in which leaders set goals and expectations. When goals are met, leaders offer benefits and awards.

to be continued

Table 1: Full Range Leadership Model components (cont.)

Full Range Leadership Component	Characteristics
Contingent Reward	Leaders recognize the needs of subordinates and offer an exchange transaction if goals are met. Conversely, if goals are not met, followers are punished.
Management-By Exception (Active)	They monitor subordinates' performance and take corrective action if needed.
Passive leadership	Leadership where leaders avoid being noticed and recognized. They delay action, are passive, and do not make use of their authority.
Passive Management-By-Exception	They tend to monitor subordinates' performance but do not take action until they are not warned about it.
Laissez-Faire Leadership	The leaders are absent. They avoid taking responsibility and making decisions. They lack self-esteem and are not visible to subordinates.

Adapted from Antonakis & House (2013).

3 MULTIFACTOR LEADERSHIP QUESTIONNAIRE

In 1985, Bass thought of leadership as a three-dimension process: transformational, transactional, and laissez-faire. He believed that transformational leaders are more successful when they create awareness of the organizational vision among the followers. Leaders influence followers and motivate them to achieve goals and pursue their work toward goals that profits the group. The Multifactor Leadership Questionnaire initiated Bass's transformational leadership theory by having three subscales: charismatic-inspirational leadership, intellectual stimulation, and individualized consideration. It was invented to identify a full range of leadership styles (Avolio & Bass, 1988).

Due to theoretical and practical reasons, during the years, multiple adjustments were made to the MLQ. Today, MLQ is built on 9 different scales that assess three dimensions of leadership styles. It is designed as a 360-degree questionnaire, which can be solved by the leader himself, superiors, followers, and other people. Of course, it can also be solved only by a leader, but the results are much weaker.

Since 1990, when the first MLQ was born, multiple new MLQs have been designed to assess different needs. For example, there are Multifactor Leadership Questionnaire 360, Multifactor Leadership Questionnaire Self Form, Multifactor Leadership Questionnaire Rater Form, Team Multifactor Leadership Questionnaire, and Multifactor Leadership Questionnaire Actual vs. Ought. These five MLQs contain 36, 45, 50, and 90 items to measure leadership style behaviour. In 2015, MLQ was renewed because scale names were too complicated for users outside the academic world, so it can be used and understood by the business world and others interested. All MLQ scales have five possible answers: not at all, once in a while, sometimes, fairly often, frequently, if not always.

3.1 Multifactor Leadership Questionnaire Scales

As written in the previous chapter, MLQ has 9 scales, transformational leadership (5 scales), transactional leadership (2 scales), and passive leadership (2 scales). It takes fifteen minutes on average to complete an MLQ, and an individual or group can solve it. The main goal of the MLQ is to distinguish between effective and ineffective leaders at all organizational levels (Avolio & Bass, 2004).

3.1.1 Transformational Leadership Scales

The measurement of transformational leadership consists of five scales (20 items). Transformational leadership is the only dimension measured by the MLQ, enabling an overall average of all twenty items. Compiling all items is still less meaningful than assessing each item individually. Higher scores on the MLQ lead to a higher frequency of transformational leadership behaviours. As explained, scale names were redesigned in 2015 for easier understanding (Avolio & Bass, 2004).

Five scales that measure transformational leadership are:

- Builds Trusts: This scale includes four items that weigh the density with which leaders encourage subordinates, build trust, and set aside self-interest to help the organization and followers.
- Acts with Integrity: This scale also consists of four items and measures the intensity to which leaders act with integrity and pursue their values and thoughts. Leaders tend to demonstrate morality and act ethically when making decisions.
- Encourages Others: This scale includes 4 items that measure the frequency with which leaders act in ways that encourage and inspire their subordinates. For example, the leader challenges the work of subordinates and gives meaning to their work.
- Encourages Innovative Thinking: The scale consists of 4 items that measure the intensity with which superiors encourage their subordinates to think ahead and be creative. Leaders often challenge subordinates and reframe problems to encourage thinking.
- Coaches & Develops People: The scale consists of 4 items that measure the intensity with which the leader responds to the needs and goals of subordinates. The leader acts as a coach or mentor, helping inspire subordinates and promote their growth.

3.1.2 Transactional Leadership Scales

Measuring transactional leadership by MLQ consists of 2 scales with 4 items each. Higher scores mean that leaders pursue transactional leadership behaviours (Avolio & Bass, 2004).

- Rewards Achievement: The scale consists of 4 items that measure the intensity with which leaders reward or praise their followers for completing tasks or achieving goals.
- Monitor Deviations & Mistakes: This four-item scale measures the density with which managers pay attention to errors, mistakes, errors, and deviations and how often they take corrective action.

3.1.3 Passive Behaviours

The last behaviours measured with MLQ are passive or avoidant behaviours measured by two scales of 4 items each. Higher scores in these subscales mean higher intensity of leaders' avoidant behaviours (Avolio & Bass, 2004).

- Fight Fires: This scale consists of 4 items that measure the intensity with which leaders do not react when a problem occurs until they are noticed or reminded to take corrective action.
- Avoids Involvement: This scale consists of 4 items that measure the intensity with which leaders shirk responsibility and are not seen in the team. They are practically invisible and take no action.

3.1.4 Leadership Outcomes

Leadership outcomes are determined using three scales of nine questions. The leaders do not answer these questions but only other individuals in the organization. Therefore, a high score on the leadership outcome questions means that others are satisfied with the leadership outcomes.

- Generates Extra Effort: This is a three-part scale that measures the intensity with which leaders can encourage and influence their followers to achieve more than is expected.
- Is Productive: This is a four-item scale that measures the intensity with which leaders are seen as effective interactors at every organizational level.
- Generates Satisfaction: The scale has two items that measure the level of follower happiness with the leader's behaviour and methods of working with others.

4 RELATIONSHIP BETWEEN FLRM AND PRODUCTIVITY AND COMMITMENT

The empirical part of the Master's thesis focuses on discovering the relationship between productivity and commitment with different leadership styles derived from the Full Range Leadership Model. This chapter presents previously researched to provide a more straightforward overview of the problem.

Organizational commitment has multiple definitions. Organizational commitment has several definitions. Porter and Lawler (1968) explain organizational commitment as the employee's desire to work for the good of the institution, to remain in it, and to accept its main goals and values. Greenberg and Baron (2003) defined organizational commitment as the degree to which followers identify with the organization and whether they are willing to leave it.

Regarding productivity, the »efficiency with which inputs are developed into outputs of an organization.« can be defined as organizational productivity (Kopelman, Brief & Guzzo, 1990, p. 318). Economists typically measure productivity in terms of total factor productivity, while behavioural scientists advocate measuring productivity in subfactors such as materials, energy, and labour. This chapter presents the existing literature on the relationship between leadership styles, commitment, and productivity.

4.1 Commitment and the FLRT

Several studies have been conducted on the relationship between commitment and the full range of leadership styles. For example, in 2012, Javaid and Mirza examined whether different leadership styles influence organizational commitment among employees. The study was conducted at educational institutions in Lahore, Pakistan. They discovered that the transformational leadership style was mainly related to employee organizational commitment, while the transactional style was less so (Javaid & Mirza, 2012). Another study was conducted by Teshome (2013), who examined the relationship between full-range leadership styles and employees' commitment to private higher education institutions in Addis Ababa City. His results show that transformational leadership style has a weak but still significant positive correlation with commitment, transactional leadership style has no significant correlation with affective commitment, and laissez-faire leadership style is negatively associated with affective commitment (Teshome, 2013).

Studies on commitment have also been conducted in industries such as manufacturing plants and electricity companies. The study conducted by Bučiūnienė and Škudienė (2008) involved Lithuanian manufacturing companies. They found the strongest correlation between organizational commitment and transformational and transactional leadership styles. On the other hand, they found that a laissez-faire leadership style was negatively correlated with affective commitment (Bučiūnienė & Škudienė, 2008). Nyengane (2007) examined the relationship between leadership styles and employees' commitment with a South African electric utility case study. A weak but still significant positive correlation between transformational leadership style and commitment was found, and so was between transactional leadership style and practical engagement. A weak but significant negative correlation was found between laissez-faire leadership style and commitment (Nyengane, 2007).

Based on the results of the studies, it is assumed that there is always a significant positive correlation between transformational leadership methods and affective commitment to the organization. On the other hand, laissez-faire leadership is expected to correlate with affective commitment negatively. The results of these studies show no significant correlation between transactional leadership style and commitment; if there is, it is weak and positively correlated.

4.2 Productivity and the FLRT

Productivity is a factor that every company wants to increase. Several studies have been conducted on this subject. Setiawan et al. (2021) conducted a comparative study on the effects of leadership styles on employee productivity in organizations. They found that the transformational approach was closely related to indicators of employee success. The study found that workers who are inspired and enabled by their leader to create value through their work successfully are significantly more productive than workers without a transformational leadership style (Setiawan et al., 2021). Another study found that a transformational leadership style can help improve subordinates' productivity because of leaders' work engagement and their ability to motivate and encourage (Lai, Tang, Lu, Lee & Lin, 2020).

Another study was conducted by Kabiru and Bula (2020), in which he examined the impact of transactional leadership style on employee performance in banks in Nairobi. He found that transactional leadership is successful in increasing productivity and reducing costs. He argued that this happens because transactional leadership is short-term-oriented and makes it easier for followers to get the job done. On the other hand, in 2021, a study on the impact of laissez-faire leadership on labour productivity using academic libraries in Nigeria as an example. The study concluded that laissez-faire leadership style and employee work productivity were negatively correlated (Okpokwasili & Kalu, 2021).

5 ANALYSIS OF EMPLOYEES' PRODUCTIVITY AND PRODUCTIVITY BETWEEN TRANSFORMATIONAL AND TRANSACTIONAL LEADERSHIP

The first four chapters of the Master's thesis are theoretical and deal with various leadership theories, commitment, and productivity. The purpose of this chapter is to analyse leadership styles, commitment, and productivity based on the respondents' answers.

5.1 Research objective

The purpose of this Master's thesis is to help leaders and organizations better understand how leadership styles based on the Full Range Leadership Model predict employee productivity and commitment. Since employees are the most critical element of any organization, leaders want them to be productive and committed to the organization. Committed and productive employees are the most significant value added to a particular organization or company. Another objective of this paper is to investigate whether employees in different sectors have different levels of commitment and productivity.

5.2 Research methodology and data collection

I decided to use a quantitative approach to obtain the primary data and developed an online questionnaire (Appendix 1). The questionnaire was based on existing literature on commitment, productivity, transformational and transactional leadership, and standard socio-demographic data. I chose to use closed-ended questions because I would later analyse them using the SPSS statistical software. The questionnaire was compiled from several already existing questionnaires such as Individual Work Performance (Koopmans et al., 2015), Organizational Commitment Questionnaire (Mowday, Steers & Porter, 1979), Social Leader-Member Exchange and Economic Leader-Member Exchange (Kuvaas, Buch, Dysvik & Haerem, 2012), and Multi-Factor Leadership Questionnaire (Avolio & Bass, 2004). The research was done in the following steps that are explained in Table 2:

Table 2: The course of the research

Conducting a research				
I. The starting point of empirical work				
I.a Collecting literature and resources and preparing tools for empirical research	I.b Compiling documentation	I.c Studying literature and sources	I.d Analysis of the documentation using descriptive, comparative, and compilative methods	
II. Designing the survey				
III. Conducting the survey				
IV. Observation of response rates				
V. Data processing				
V.a Editing the questionnaires received	V.b Creation of database	V.c Entering the data from the questionnaires into the database	V.d Analysing the database	V.e Creation of queries and tables
VI. Interpretation of results and discussion				
VII. Recommendations				
VIII. Conclusion of the research				

Source: Own work.

First, I chose a topic that is interesting and current in today's world, then I read the existing literature and collected data. Based on the collected data and existing research articles, I developed research questions that I attempted to answer through my empirical research. For the research, I created a questionnaire that helped me collect the quantitative data. After receiving the data, I used SPSS statistical software to analyse it variably and look for correlations. Based on the results, I made recommendations for the organizations and suggestions for further research. I also conclude the chapter on empirical research with the suggestions.

5.2.1 Design and implementation of the survey

For the study, I developed a closed questionnaire. The questionnaire consists of five different sections. I formulated the questions based on foreign scientific literature—each question allowed for one response on a 7-point Likert scale where respondents indicated their level of agreement. For example, answer 1 indicates that the respondent strongly disagrees with a statement in the questionnaire. In contrast, answer 7 indicates that the respondent strongly agrees with the statement, which means that the answers from 1 to 7 follow each other in sequence, strongly disagree, disagree, more or less disagree, undecided, more or less agree, agree, strongly agree. Assuming that the differences between the categories are equal, we can calculate the standard deviations, the variance, and the arithmetic mean in the case of the ordinal measurement scale since it is very similar to the interval scale.

The structure of the questionnaire is shown in the Table 3:

Table 3: The structure of the questionnaire

Section	Description
Transformational leadership	How do respondents perceive their leaders? Do they have any characteristics of a transformational leader?
Transactional leadership	How do respondents perceive their leaders as transactional leaders?
Commitment	How committed are respondents to their organization, and how proud are they to be part of it?
Productivity	How productive do respondents think they are, and what are their work habits.
Demographic data	How old are they, in what industry are they working, and what is their educational background?

Source: Own work.

The questionnaire was published on the online website 1-ka, initially in English, with a Slovenian translation in parentheses, as the participants in the survey had different nationalities. The questionnaire was sent through different channels such as social media, private emails, and the CEOs of the companies that participated in the survey. To get a

better insight into the research questions, private companies, educational institutions, and state-owned companies were selected to participate in the survey.

The questionnaire was administered in March 2022 by managers at Novartis AG, DARS, Slovenske Železnice, Gospodar d.o.o., NLB Skladi, and by teachers at the OŠ Miška Kranjca elementary school. In order to obtain a larger sample and better results, the survey was also distributed to other employees in different sectors. The first questionnaire was answered on March 28, 2022, while the last was answered on April 12. Respondents were informed that the survey was anonymous.

As can be seen from the Table 3, the questionnaire is composed of five different sections. Four are crucial, while the last section is for demographic questions. All sections consist of closed questions where statements were made, and respondents rated them on a 7-point Likert scale, whether they strongly disagree or strongly agree. The statements related to transformational leadership are listed in the Table 4.

Table 4: Statements about transformational leadership style

Statements
1. My boss instils pride in me.
2. My boss spends time teaching and coaching.
3. My boss considers moral and ethical consequences.
4. My boss views me as having different needs, abilities, and aspirations.
5. My boss listens to my concerns.
6. My boss encourages me to perform.
7. My boss increases my motivation.
8. My boss encourages me to think more creatively.

Adapted from Avolio & Bass (2004).

In the second section, employees were asked about their superior and his or her use of transactional leadership. Respondents answered close-end questions about their superior. In the Table 5, you will find statements about transactional leadership.

Table 5: Statements about transactional leadership style

Statements
1. My boss sets challenging standards.
2. My boss makes clear expectations.
3. My boss will take action before problems are chronic.
4. My boss tells us standards to carry out work.
5. My boss works out agreements with me.
6. My boss monitors my performance and keeps track of mistakes.
7. I do what my boss requires of me, mainly because he is my boss.
8. The best way to describe my relationship with a superior is to do what he tells me to do.
9. My relationship with my leader is mostly based on authority. He has the right to make decisions at my expense, and I do what he tells me to do.

Adapted from Kuvaas, Kuvaas, Buch, Dysvik & Haerem (2012), Avolio & Bass (2004).

The third section examined the commitment of workers. Again, subjects were asked several questions about their commitment to their work organization. As in the previous two sections, responses were possible on a 7-point Likert scale where respondents could indicate their level of agreement (1 – strongly disagree, 7 – strongly agree). The statements in the commitment section are shown in the Table 6.

Table 6: Statements about commitment

Statements
1. I am willing to put in a great deal of effort beyond what is normally expected in order to help this organization to be successful.
2. I feel very little loyalty to this organization.
3. I would accept almost any type of job assignment in order to keep working for this organization.
4. Often I find it difficult to agree with this organization's policies on important matters relating to its employees.
5. I am proud to tell others that I am part of this organization.
6. It would take very little change in my present circumstances to cause me to leave this organization.

Adapted from Mowday, Steers & Porter (1979).

The fourth section dealt with the respondents' self-assessment of productivity in their work organization. As in the previous three sections, 7 response scales were used to gain insight into employee productivity. See the statements in the Table 7.

Table 7: Statements about productivity

Statements
1. I manage to plan my work so that I finish it on time.
2. I am able to set my priorities
3. I take on extra responsibilities.
4. I complain about minor work-related issues at work.
5. I work on keeping my work skills up-to-date.
6. I focus on the negative aspects of the situation at work instead of the positive aspects.
7. I take on challenging tasks when they are available.

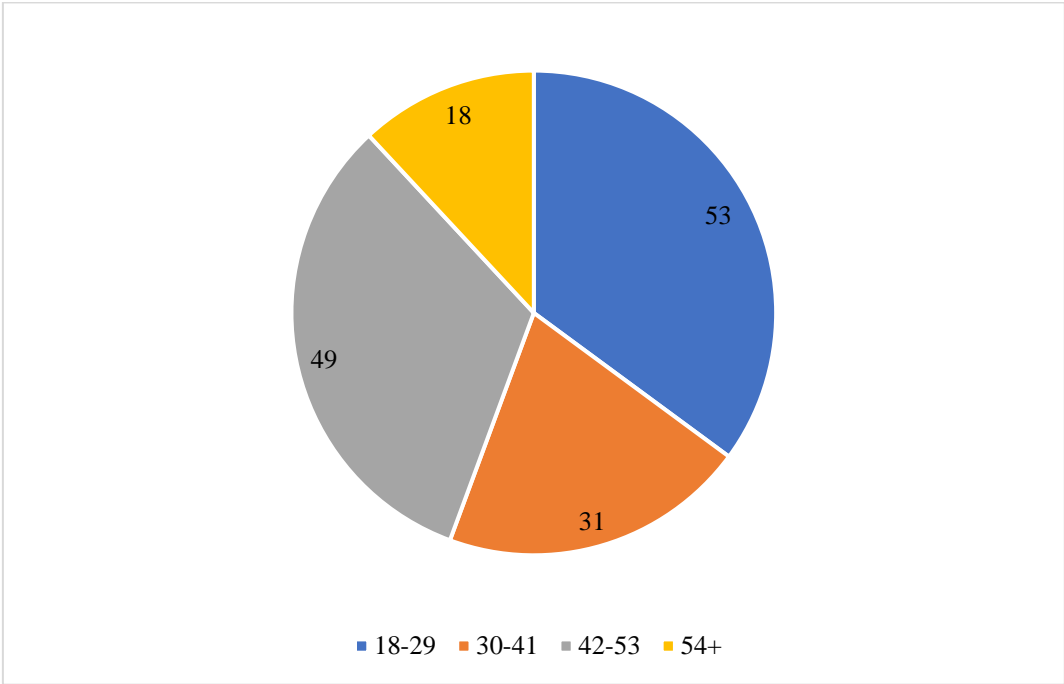
Adapted from Koopmans et al. (2015).

At the end of the questionnaire, respondents answered the sociodemographic questions in the fifth section. Questions were asked about gender and age. Next, they were asked about their level of education: primary school, high school, bachelor's degree, master's degree, and doctoral degree (hereafter: Ph.D.). They also answered questions about the industry in which they work. Multiple answers were possible: pharmacy, banking/accounting, educational institutions, transportation, marketing, a state-owned enterprise, sports, information technology (hereafter: IT), and others. The last question asked about the respondents' job title, and they answered it in their own words.

5.3 Sample description

The final sample consists of 164 valid responses. Although the total number of workers surveyed was 352, 188 respondents did not complete the entire survey or completed only the first page. Therefore, the completion rate was relatively low, as only 142 questionnaires were answered, i.e., 40.34% of the respondents answered all questions. For the sample description I took all the answers from demographic section while for SPSS analysis I took only fully solved questionnaires. Of all respondents, 47% were male, and 52% were female. The remaining one percent did not want to answer the gender question. Figure 3 shows that 35% of the respondents are between 18 and 29 years old, 19% of the respondents are between 30 and 41 years old, 32% of the workers reported being between 42 and 53 years old, while the remaining 11% of the respondents are older than 54 years old.

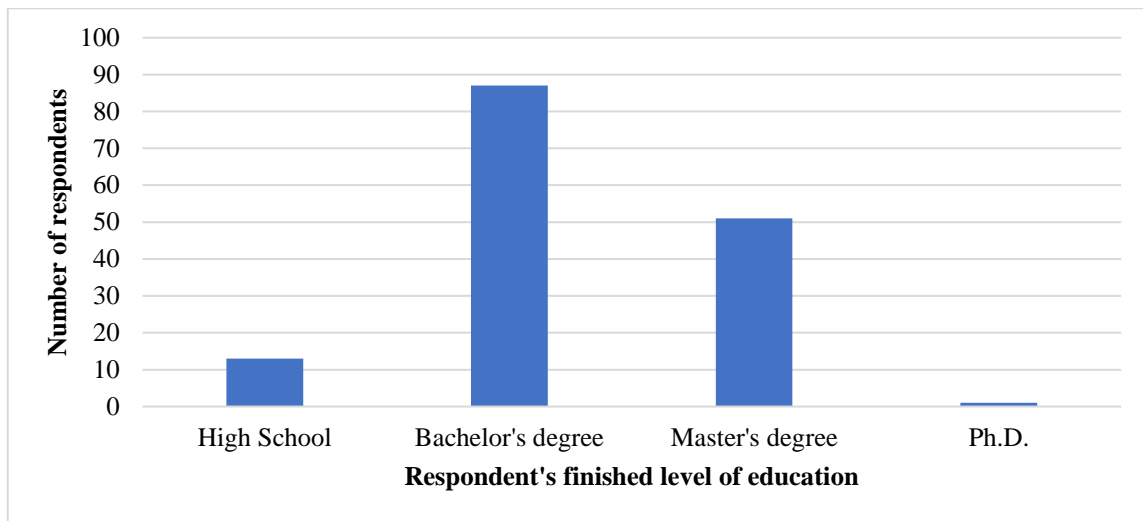
Figure 3: Age of the participants in the questionnaire



Source: Own work.

Of the 152 valid responses on education, the majority of workers surveyed have obtained a bachelor's degree (87 respondents, 57%), but many also have a master's degree (51 respondents, 34%). On the other hand, only 13 respondents, or 9%, have a high school degree. The remaining respondents who answered the questionnaire (Figure 4) have a doctoral degree.

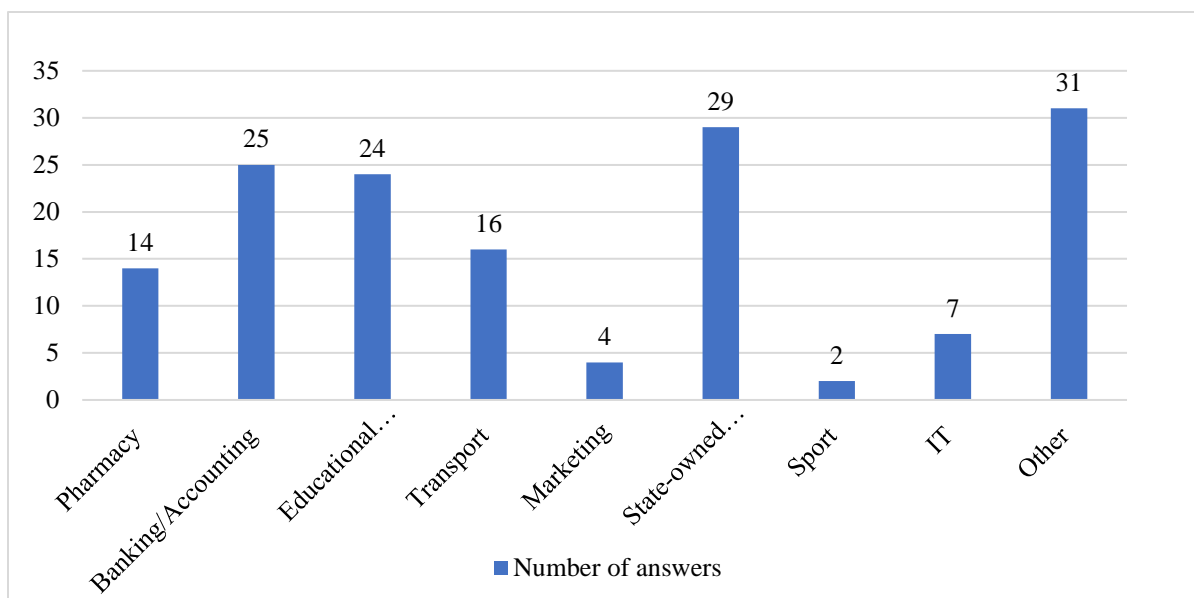
Figure 4: Level of education of respondents



Source: Own work.

Figure 5 below shows the industry in which the respondents work. Again, the results were very diverse, which provides an opportunity to deepen the proposed analysis. For example, 14 respondents or 9% work in the pharmaceutical industry, 25 respondents or 16% of all respondents are employed in the banking/accounting sector, and 24 people or about 16% of all respondents work in educational institutions. Additionally, 16 respondents or 11% work in the transportation sector, 7 respondents (4%) work in the sector IT, 29 respondents (18%) indicated that a state-owned enterprise employs them, 4 people work in marketing, 2 work in sports and the remaining 31 respondents (20%) work in other sectors.

Figure 5: Employment of respondents by sectors



Source: Own work.

5.4 Results

Analysis responses were exported from the 1KA into Excel. The responses were analysed using Excel and SPSS statistical software for the more complex analysis. SPSS was used to run the regressions and t-tests. They were used to analyse how transformational and transactional leadership correlate with employee commitment and productivity. The detailed procedure for the analysis can be found in Appendix 3.

5.4.1 The Transformational Leadership

The first part of the questionnaire was designed to test the extent to which respondents believe that their superiors use transformational leadership techniques in their organization. The Figure 6 shows the average agreement scores for the statements about transformational leadership. There were 140 responses collected in this section of the questionnaire. The average rating of the statements about transformational leadership is 4.89, which means that the respondents agree more or less with the statements.

Figure 6: Average scores on statements about transformational leadership

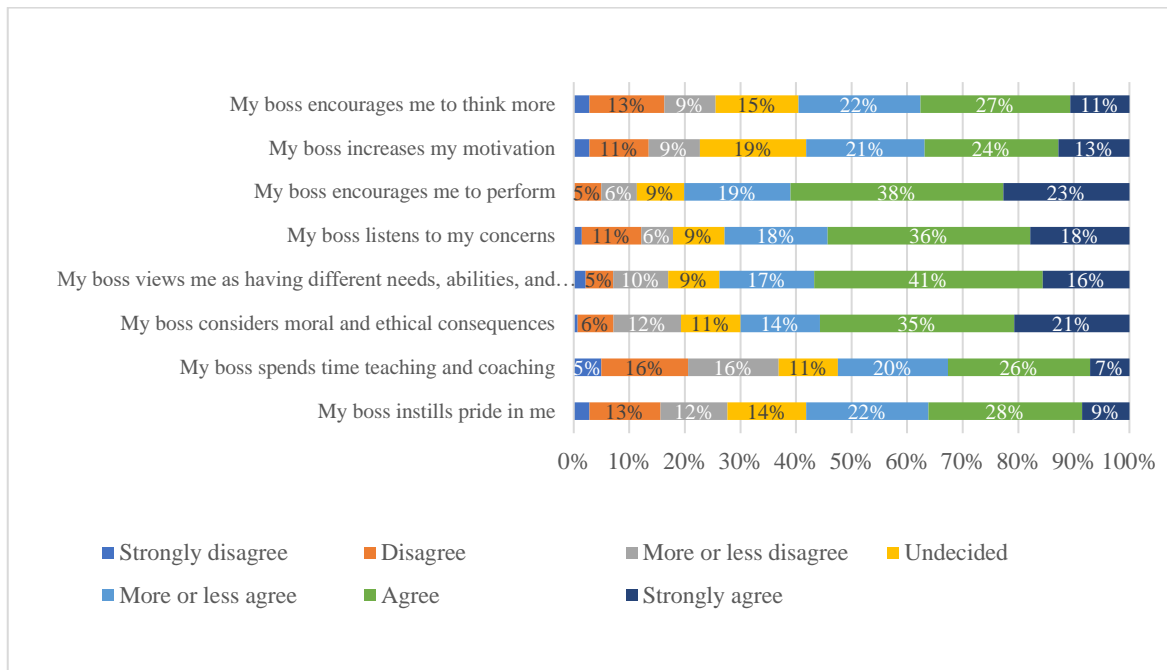


Source: Own work.

Questionnaire respondents largely agree that their boss encourages them to work. The average score for the statement »My boss encourages me to perform« is 5.46 out of 7, which means that the respondents agree with the statements. Employees feel they have good superiors who take time and communicate with followers. The second-highest score on the transformational leadership statements was »My boss considers moral and ethical consequences,« with an average score of 5.19, which indicates that superiors in the

organizations surveyed act ethically and have moral standards. The same average score was obtained for the statements »My boss views me as having different needs, abilities, and aspirations« and »my boss listens to my concerns.« These responses indicate that superiors have a close relationship with followers. Respondents agreed with the least, »My boss spends time teaching and coaching,« with an average score of 4.27, ranging from undecided to more or less agree. Overall, all statements scored fairly high, with an average of 4.89. Figure 7 below shows the percentage of responses for better understanding.

Figure 7: Percentage display of responses to statements about transformational leadership



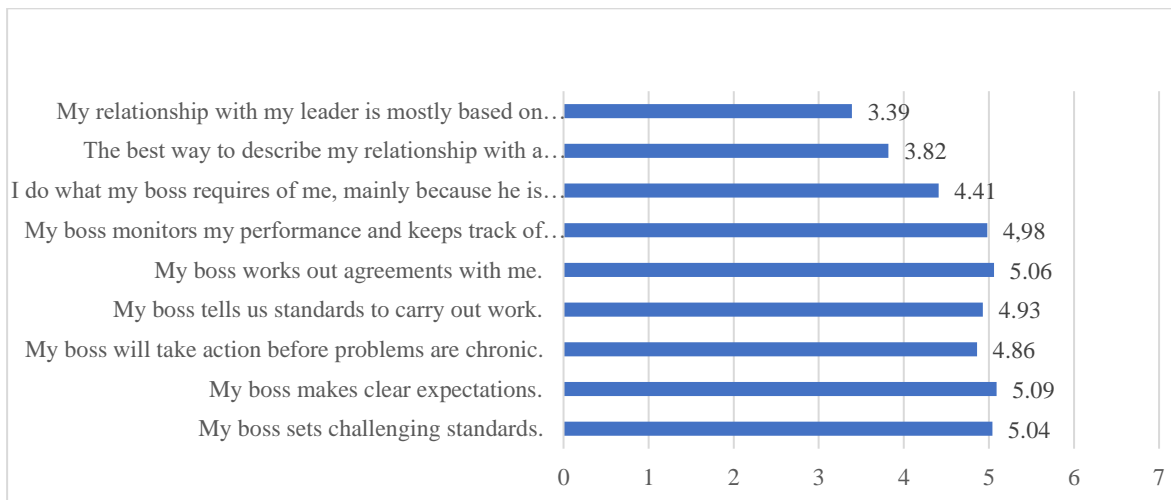
Source: Own work.

Most employees agree with the statement that their boss encourages them to perform. 23% of employees fully agree with this statement. The second strongest statement relates to the superior's consideration of moral and ethical consequences, with 21% of respondents strongly agreeing. Taking all statements together, the percentage of employees who agree or tend to agree with the statements about transformational leadership is over 60%. This means that employees recognize transformational leaders' characteristics in their superiors.

5.4.2 The Transactional leadership

In the survey, 10 statements about transactional leadership were made, as shown in the Figure 8. Respondents answered the level of agreement on a scale of 1 to 7, where 1 means they strongly disagree with the statement, while 7 means they strongly agree with the written statement. The average score for all statements combined is 4.61, which is slightly lower than for the transformational leadership style, so in summary, respondents perceive their superiors as transformational leaders rather than transactional leaders.

Figure 8: Average scores on statements about transactional leadership

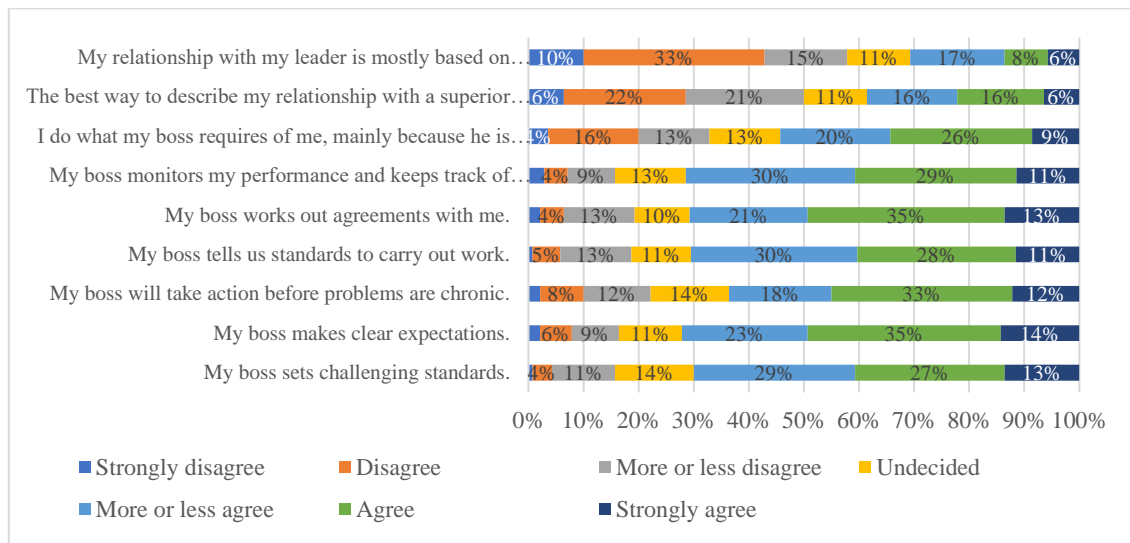


Source: Own work.

On average, respondents most agree with the statement that their boss sets clear expectations. The average score here was 5.09. In addition, statements about superiors setting challenging standards, making agreements with workers, monitoring performance, and keeping track of mistakes had fairly high averages of around 5. On the other hand, the statements »The best way to describe my relationship with a superior is to do what he tells me to do« and »My relationship with my leader is mostly based on authority; he has the right to make decisions at my expense« had average scores of 3.82 and 3.39, respectively, indicating that respondents more or less disagreed with these two statements on average. From these responses, we can conclude that superiors set standards and challenge followers, but they are still not authoritarian and do not want their followers to be strictly obedient.

In Figure 9 it can be seen that, respondents overwhelmingly agreed with the statements about transactional leadership. However, comparing the responses with those on transactional leadership, it is noticeable that they agreed less. This means that superiors do not show as many transactional style characteristics. Interestingly, 31% of the respondents agreed with the statement, »My relationship with my leader is mostly based on authority. He has the right to make decisions at my expense.«. Also, 55% of respondents at least more or less agree with the statement that they do what their boss requires mainly because the person is their boss. Overall, respondents are more likely to agree than disagree with the statements, except those that are inversed.

Figure 9: Percentage display of responses to statements about transactional leadership

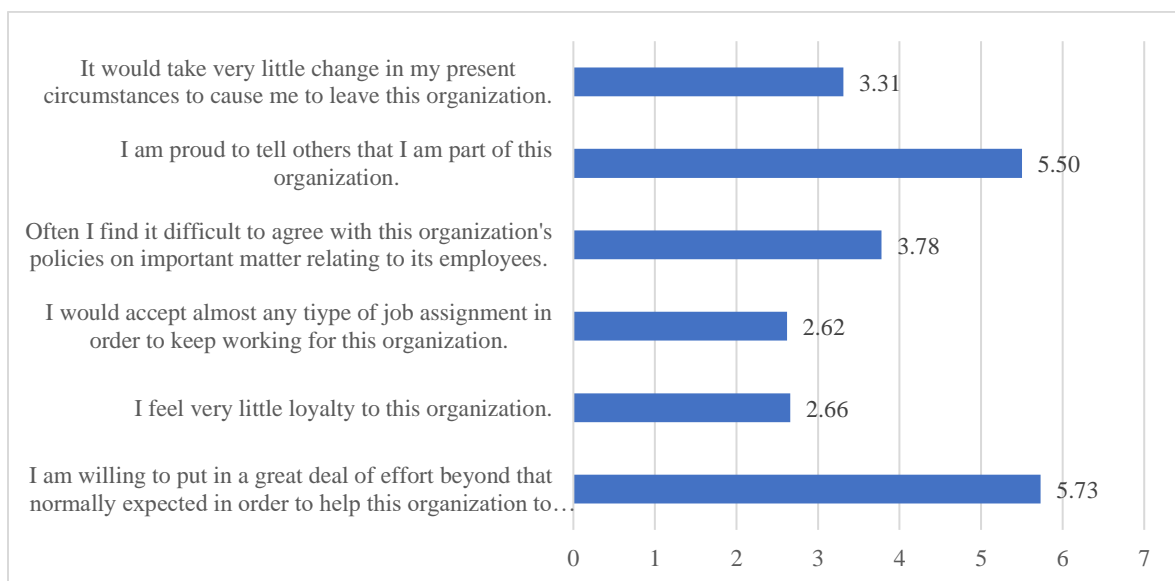


Source: Own work.

5.4.3 The commitment of the respondents

The third section of the questionnaire dealt with the respondents' commitment. There were six different statements about commitment. Respondents had to rate the statements on a scale of 1 – strongly disagree to 7 – strongly agree, as in the previous sections. The average score for the statements about commitment is 3.93, but this is due to the inverse statements. If the statements were not inversed, the average score for commitment would be 4.67. Figure 10 shows the average scores for the statements.

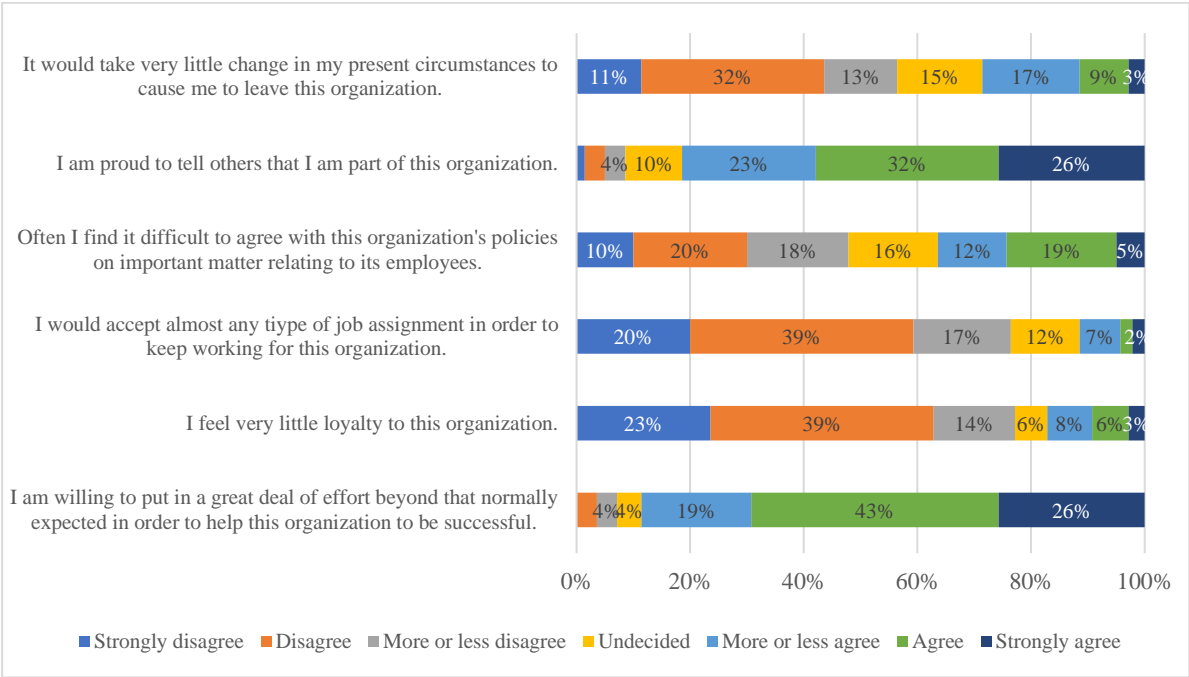
Figure 10: Average scores on statements about commitment



Source: Own work.

As shown in the Figure 10, the statement »I am willing to put in a great deal of effort beyond that normally expected in order to help this organization to be successful.« received an average score of 5.73, indicating that respondents are committed to their organization and willing to help it achieve new heights. The second highest score was 5.5 for the statement asking respondents to answer whether they are proud to tell others they are part of the organization. On the other hand, we have reverse statements. With 2.65 and 3.31, mean scores were given to the statements »I feel very little loyalty to this organization« and »It would take a very little change in my present circumstances to cause me to leave this organization.« On the other hand, we have the statement »I would accept almost any type of job assignment in order to keep working for this organization,« with a relatively low score of 2.62, from which we can conclude that respondents are committed to their role in their organization and would not stay with the organization if they were assigned another role. Figure 11 shows the percentage display of answers for better understanding.

Figure 11: Percentage display of responses to statements about commitment

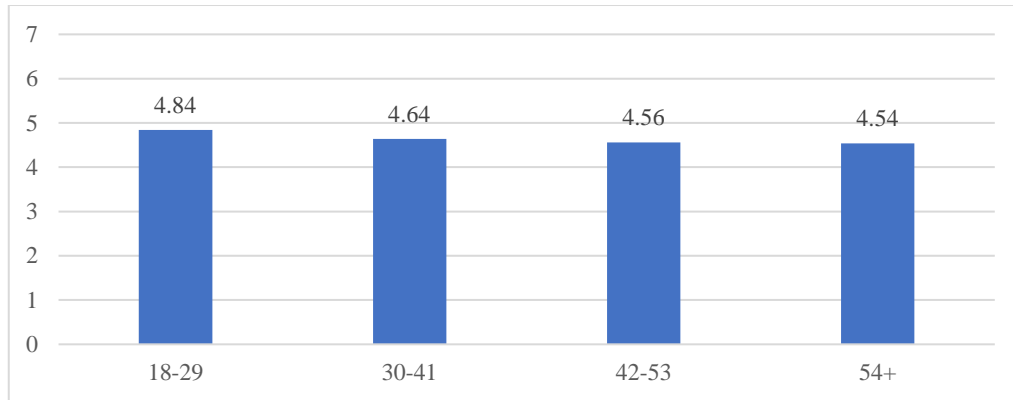


Source: Own work.

Comparing this table with the previous two tables, we can see that the answers are very different. 81% of the respondents are proud to be part of their organization. Also, 76% of the respondents more or less disagree with the statement that they feel very little commitment to their organization. On the other hand, only 11% of respondents more or less agree with the statement, »I would accept almost any type of job assignment in order to keep working for this organization.« Respondents are mostly proud to work for their organization, but they would not accept any job they are asked to do to stay in the organization.

In analysing the statements, I asked myself whether respondents' level of commitment differs across age groups, education levels, or industries. Figure 12 shows that respondents' commitment slowly decreases in older age groups. In the Appendix 3, a t-test analysis was conducted to see if this decline was significant.

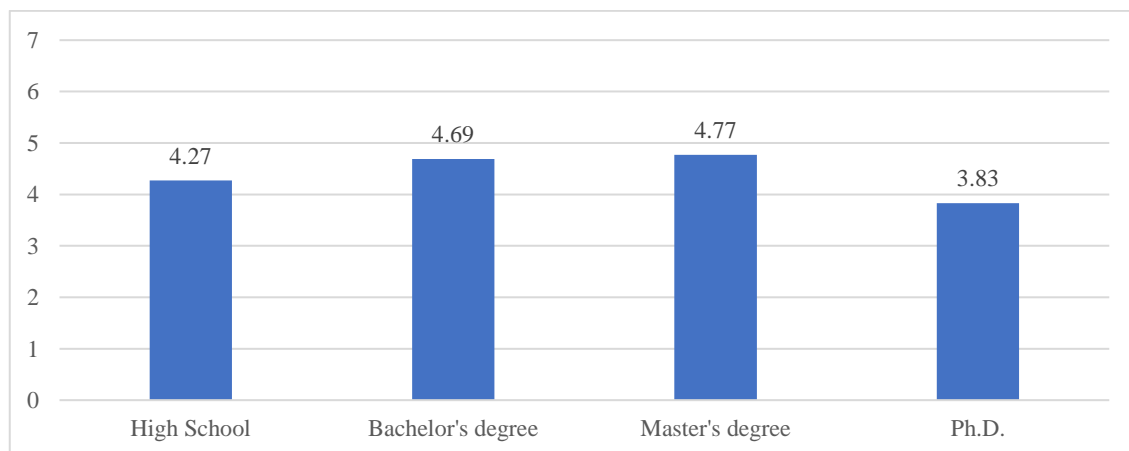
Figure 12: Average commitment scores according to age groups



Source: Own work.

The following Figure 13 shows the commitment of respondents based on their acquired educational title. It can be seen that the largest difference is between respondents with a high school diploma and respondents with a bachelor's degree. I assume that individuals who have only completed high school are not always able to work in the field they would like to, as their first motivation is to earn money for their security and family. On the other hand, individuals who have earned a Ph.D. have a relatively low commitment to the organization. This data should not be considered strictly because only one respondent with a Ph.D. answered the questionnaire, so it may not be accurate data and represent the whole population.

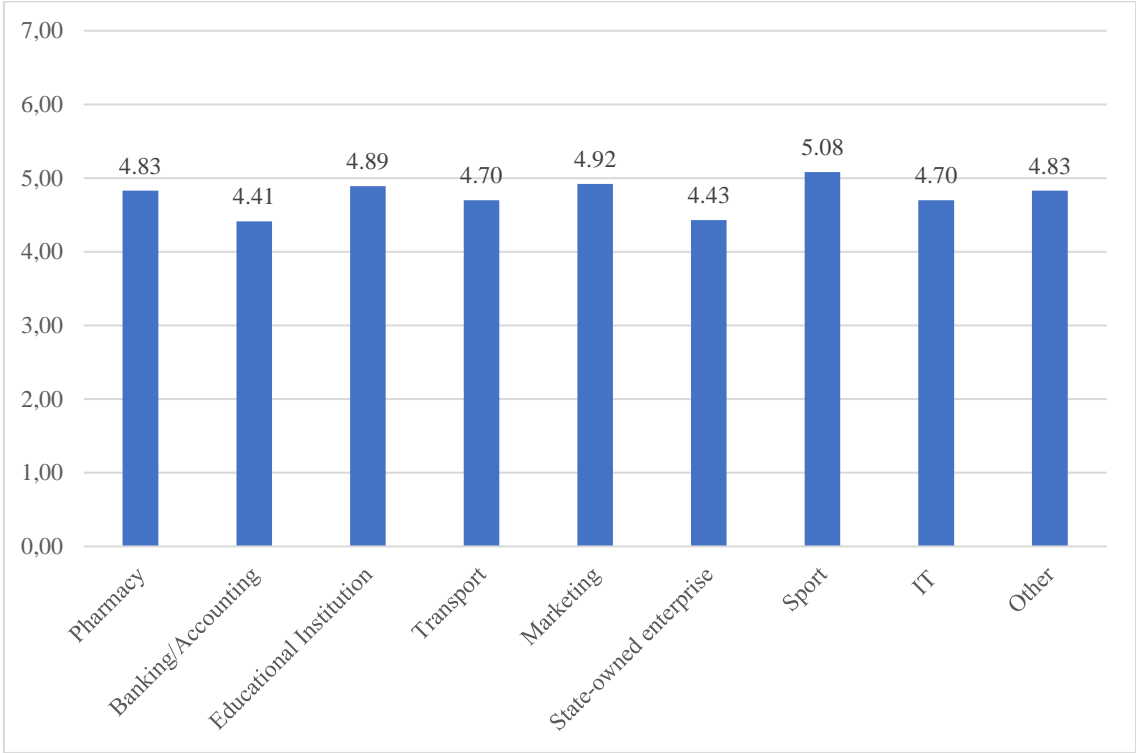
Figure 13: Average commitment scores according to educational level



Source: Own work.

Figure 14 shows how the respondents' commitments differ depending on their work industry. On average, commitment scores are quite similar across sectors, but they still have small differences. The highest commitment score was found in the sports industry. I believe this is due to sports trainers' and coaches' freedom. On the other hand, organizational engagement is lowest in state-owned enterprises and the banking/accounting sector.

Figure 14: Average commitment scores according to sector

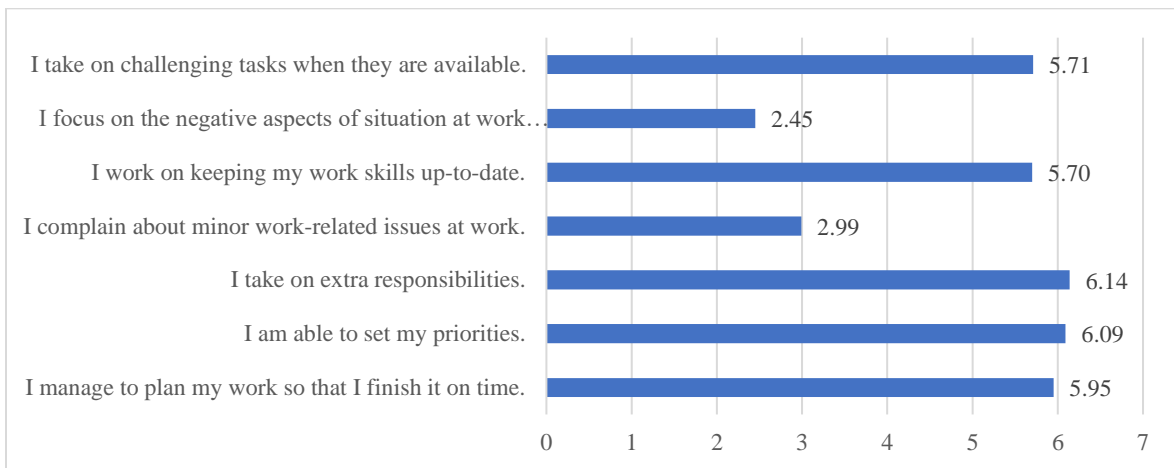


Source: Own work.

5.4.4 The productivity of the respondents

The last section of the questionnaire consisted of statements about productivity. Respondents had to rate seven different statements. These answers can be biased since everyone answered subjectively. The statements had to be answered with responses ranging from 1 – strongly disagree to 7 – strongly agree. The average score for all statements combined is 4.84, which is due to two inverse statements. After correcting for the inverse statements, the average productivity score is 5.06. The average scores are shown in the Figure 15.

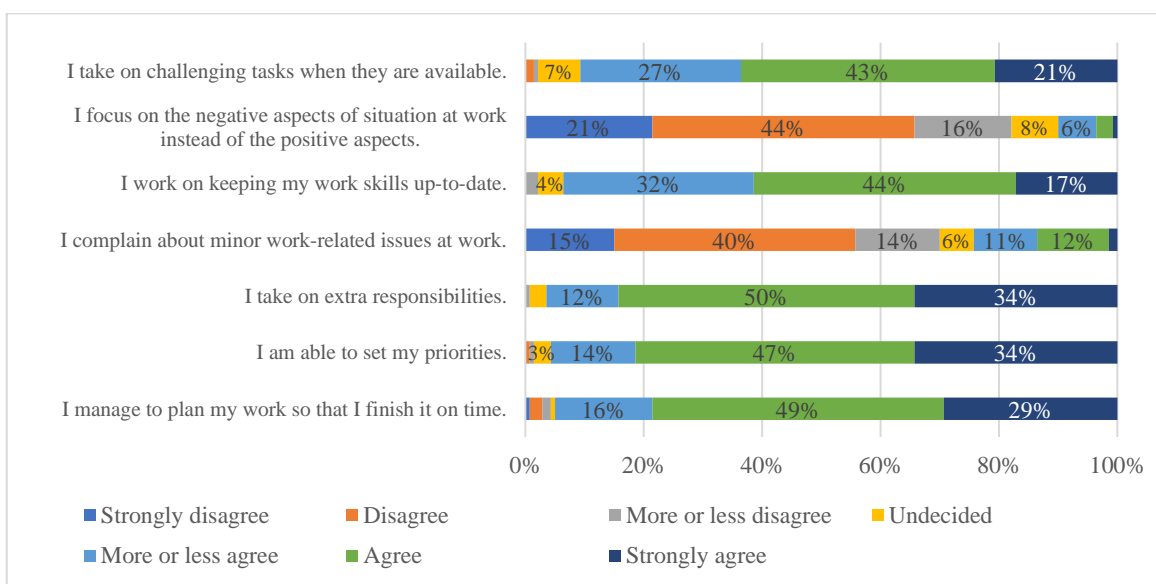
Figure 15: Average scores on statements about productivity



Source: Own work.

The statement with the highest average score in the entire questionnaire is »I take on extra responsibilities.« which has an average score of 6.14. This indicates that almost every respondent takes on additional responsibility in their company. With an average score of 6.09 and 5.95, respondents indicate that they can plan their work so that it is completed on time and they can set their priorities. On the other hand, with 2.45 and 2.99 average scores, the opposite statements were answered. The first one is »I complain about minor work-related issues at work« and »I focus on the negative aspects of the situation at work instead of the positive aspects.« This means that the respondents are mainly positive and do not complain about minor problems but try to see the big picture. Figure 16 shows the percentage of responses for better understanding.

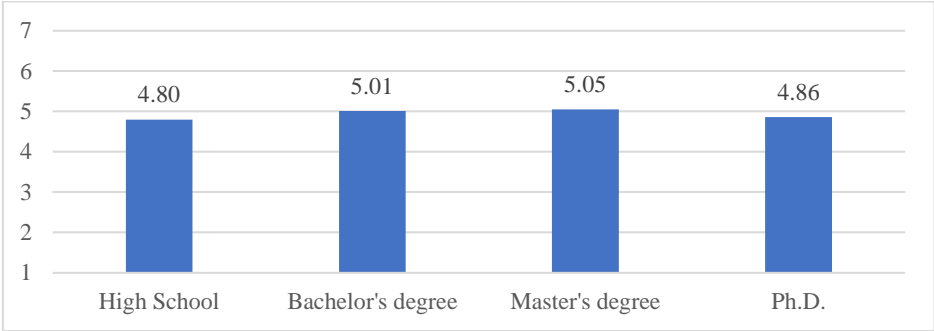
Figure 16: Percentage display of responses to statements about productivity



Source: Own work.

When it comes to the statements about productivity, the majority tend to agree with the statements, with the exception of the opposite statements. For example, 94% of respondents more or less agree that they manage to schedule their work so that they complete it on time. Interestingly, 96% of respondents take on additional responsibilities, and 91% take on challenging tasks when available. The same type of analysis was done for productivity as for commitment. I wanted to see if productivity differed between the different educations obtained. In Figure 17, it is clear that there is a jump in productivity as the respondents with high school degrees have an average score of 4.80 for self-assessment in productivity, and people with bachelor's and master's degrees have scores of 5.01 and 5.05, respectively. The one person who earned a Ph.D. had an average score of 4.86, but this was only one sample, so the data may not be representative of the entire population who earned a doctorate.

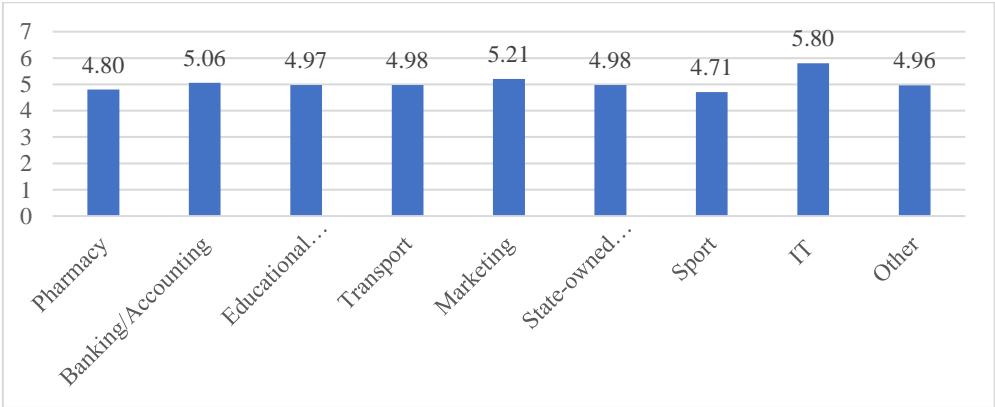
Figure 17: Average productivity scores according to educational level



Source: Own work.

Second, the average scores of the productivity statements were analysed based on the industry in which the respondents work (Figure 18). With the highest average score of 5.80, the IT is outstanding, while the other sectors lag by 1 point on average. The lowest productivity was measured in the sports sector and pharmacy.

Figure 18: Average productivity scores by sector



Source: Own work.

5.5 Linear regressions

In this chapter, linear regressions and t-tests are explained. For the more in-depth analysis of the questionnaire and the statements, the statistical software SPSS was used. The regression technique and t-test were used to analyse the extent to which transformational and transactional leadership correlate with employee commitment and productivity. In the SPSS software, all 35 questions were analysed to develop different regression models and examine the correlation between the leadership styles (transformational and transactional). The detailed procedure for the analysis can be found in Appendix 3.

For the research, the following variables were used for the analysis:

- Transformational leadership: To what extent the transformational leadership is used in the organization
- Transactional leadership: To what extent the transactional leadership is used in the organization
- Productivity: Self-assessment of the employee's productivity in the organization
- Commitment: Self-assessment of the employee's commitment to the organization
- Industry: Pharmacy, Banking/Accounting, Educational institution, Transport, Marketing, State-owned enterprise, Sport, IT, and other
- Age: In which age group are participants of the questionnaire (18-29, 30-41, 42-53, 54+)
- Education: What level of education do participants of the questionnaire have (Primary school, High School, Bachelor's degree, Master's degree, and Ph.D.)

For the analysis, the questions on transformational leadership, transactional leadership, commitment, and productivity were summed, and the average scores were used. Scores can range from 1 – lowest to 7 – highest.

5.5.1 Linear regression: Transformational leadership and Commitment

A linear regression model was used to analyse the relationship between transformational leadership and commitment. Table 8 shows the linear regression table for predicting commitment.

Table 8: Linear regression predicting commitment model summary

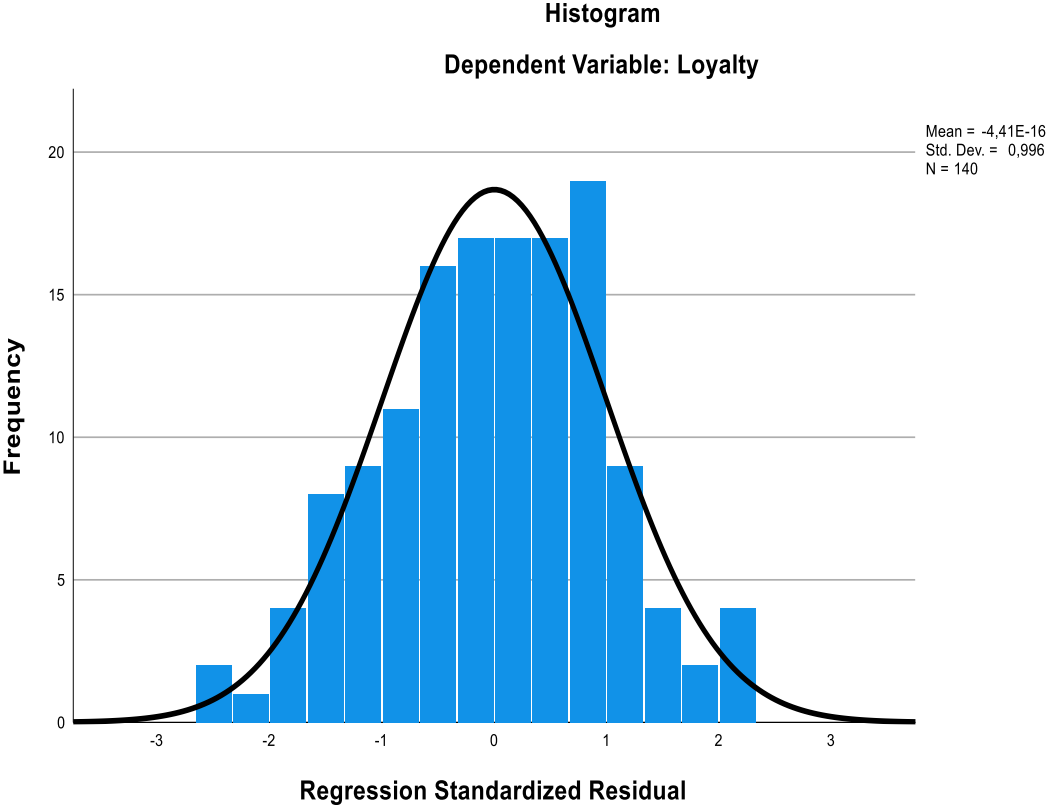
Linear Regression	R Square	Sig.	F	Unstandardized B
Transformational leadership – commitment	0.309	<0.001	61.813	0.372

Source: Own work.

The R square value in Table 8 indicates how much of the total variation in commitment can be explained by transformational leadership. In our analysis, 30.9% of commitment can be explained by transformational leadership, which is considered a low effect. In the Sig. column, it can be seen that the $p < 0.001$ is smaller than $p < 0.05$, which means that the relationship between transformational leadership and commitment is statistically significant. The unstandardized beta value in the last column of Table 8 means that for every point that transformational leadership increases in the organization, employee commitment increases by 0.372 points. These results can be used to train managers and superiors on using transformational leadership if they want to improve organizational commitment.

In Figure 19, we can see that the histogram has a normal distribution. This means that the data are evenly distributed and centred around the mean value.

Figure 19: Histogram of Regression Standardized Residuals



Source: Own work.

The analysis of transformational leadership and commitment partially confirms research question I: »Does transformational leadership lead to higher productivity and commitment of followers?«

5.5.2 Linear regression: Transformational leadership and Productivity

The relationship between transformational leadership and productivity were analysed to test the second part of Research Question I.

In the Table 9, it can be seen that Sig. The column states that the p-value is 0.401, which is more than 0.05. This means that the relationship between the two variables, transformational leadership and productivity is not statistically significant. Therefore, we can reject the second part of research question I without looking further into the data: »Does transformational leadership lead to higher employee productivity and commitment? «.

Table 9: Linear regression predicting productivity model summary

Linear Regression	R Square	Sig.	F	Unstandardized B
Transformational leadership – productivity	0.005	0.401	0.710	0.027

Source: Own work.

5.5.3 Linear regression: Transactional leadership and Commitment

The following regression explains the relationship between transactional leadership style and respondent's commitment.

Looking at R squared in Table 10, transactional leadership explains only 6.3% of the variation in productivity. A look at the Sig. column explains that the relationship between transactional leadership and commitment is statistically significant as the p-value is less than 0.05.

Table 10: Linear regression predicting commitment model summary

Linear Regression	R Square	Sig.	F	Unstandardized B
Transactional leadership – commitment	0.063	0.003	9,230	0.251

Source: Own work.

In summary, there is a relationship between the transactional type of leadership commitment. Unstandardized beta value means that for each additional point of transactional leadership point, the commitment of the employees increases by 0.251 points. The data in Table 10 shows that the relationship between the two mentioned variables is significant, but due to the low R-value, it can be concluded that the impact of transactional leadership on commitment is negligible.

5.5.4 Linear regression: Transactional leadership and Productivity

The following regression explains the relationship between transactional leadership style and respondent's productivity.

In Table 11, the R Square column value is 0.035, indicating that transactional leadership does not explain much in the variation of productivity. P-value in the second column is 0.027, which is lower than 0.05, indicating that the relationship between transactional leadership and productivity is statistically significant. The unstandardized beta value is 0.105, which means that for every point increased in transactional leadership, employee productivity increases by 0.105 points.

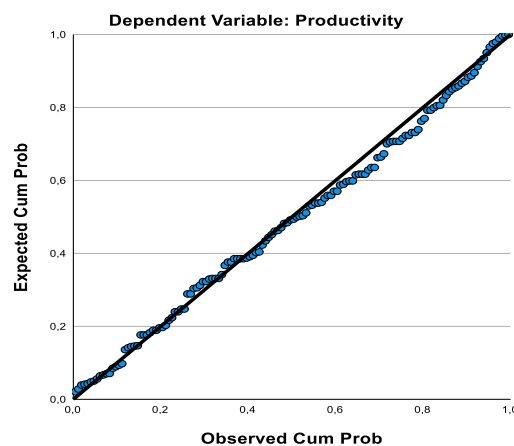
Table 11: Linear regression predicting productivity model summary

Linear Regression	R Square	Sig.	F	Unstandardized B
Transactional leadership – productivity	0.035	0.027	4.981	0.105

Source: Own work.

Figure 20 shows the normal probability plot. The straight diagonal line in a normal probability plot indicates normally distributed data. However, if the line were skewed to the left or right, it would indicate that the data are not normally distributed.

Figure 20: Normal P-P Plot of Regression Standardized Residual



Source: Own work.

In conclusion, the relationship between the transactional type of leadership and productivity exists. It can be said that the relationship between the two mentioned variables is significant, but due to the low R-value, it can be concluded that the impact of transactional leadership on productivity is negligible.

5.5.5 Demographics data in correlation with transformational and transactional leadership

Based on the interesting data and the many inputs in the questionnaire. The analysis of variance (hereafter: ANOVA) was used to test various correlations between demographic data and leadership styles. Six different ANOVA tables were created for the analysis. The following chapter presents the results that had statistically significant results. Additional analysis can be found in Appendix 3.

5.5.5.1 Relationship between Education and Productivity

In Table 12, ANOVA was used to test the relationship between commitment and the education of the employees. The p-value states ($p = 0.208$) that there is no statistically significant difference in commitment between the different levels of education. In addition, I wanted to conduct a Tukey Honest Significant Difference (hereafter: HSD) test to see if there were statistically significant differences between the groups, but this was not possible because less than two people had PhDs. Since there was only one response from an employee with a doctorate, I conducted another independent t-test examining the relationship between employees who have completed high school and employees with bachelor's degrees.

Table 12: ANOVA Education – Productivity

Age – Productivity	Sum of Squares	df	Mean Square	F	Sig.
Between groups	3.467	3	1.156	1.535	0.208
Within groups	102.360	136	0.753		
Total	105.826	139			

Source: Own work.

Table 13 shows that 13 employees who responded to the questionnaire have a high school degree, while 79 have a bachelor's degree. The mean productivity score for the employees with high school degrees is 4.802, while the average productivity score for those with bachelor's degrees is 5.014.

Table 13: Group statistics of employees with high school and bachelor's degree

Component	Education	N	Mean	Std. Dev.	Std. Error Mean
Productivity	High school	13	4.802	0.300	0.083
Productivity	Bachelor's degree	79	5.014	0.554	0.062

Source: Own work.

In Table 14, it can be seen that the two-sided p-value is still higher than 0.05, which means that the employees who finished high school do not have statistically significantly lower productivity in the organizations than those who earned a bachelor's degree.

Table 14: Independent Samples T-Test for productivity

Productivity	One-Sided p	Two-Sided p
Equal variances assumed	0.091	0.182
Equal variances not assumed	0.025	0.051

Source: Own work.

5.5.5.2 Relationship between Industry and Productivity

The study of productivity in various industries has yielded interesting results. For example, Table 15 below shows that the IT sector has the highest productivity value of 5.80, while the lowest productivity value was achieved in the sports and pharmaceutical industries.

Table 15: Group Statistics of employees in different industries

Industry	N	Mean	Std. Deviation	Std. Error
Pharmacy	13	4.80	0.51	0.14
Banking/Accounting	25	5.06	0.49	0.10
Educational Institution	22	4.97	0.38	0.08
Transport	14	4.98	0.60	0.16
Marketing	4	5.21	0.34	0.17
State-owned enterprise	28	4.98	0.40	0.08
Sport	2	4.71	0.20	0.14
IT	5	5.80	0.90	0.40
Other	27	4.96	0.42	0.08

Source: Own work.

The one-way ANOVA was used to determine if there was a statistically significant difference between groups. In Table 16, it can be seen in the Sig. column that the p-value is 0.021, which is less than 0.05. This means a there is a statistically significant difference in productivity between the different sectors.

Table 16: ANOVA Industry – Productivity

Productivity	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	4.228	8	0.529	2.357	0.021
Within Groups	29.380	131	0.224		
Total	33.609	139			

Source: Own work.

To find out between which groups there is a statistically significant difference in productivity, the Tukey HSD test was also performed.

In the Table 17 Tukey post hoc test revealed that workers in the IT sector had statistically significantly higher productivity than pharmacy ($p = 0.003$), banking/accounting ($p = 0.047$), educational institutions ($p = 0.015$), transportation ($p = 0.031$), state-owned enterprises ($p = 0.014$), and other sectors ($p = 0.012$). However, the questions on productivity were a form of self-assessment, so the data may be biased.

Table 17: Tukey HSD test for industries

Industry (I)	Industry (J)	Mean Difference (I-J)	Std. Error	Sig.
IT Sector	Pharmacy	0.998	0.249	0.003
	Banking/Accounting	0.737	0.232	0.047
	Educational Institution	0.832	0.235	0.015
	Transport	0.820	0.247	0.031
	Marketing	0.586	0.318	0.653
	State-owned enterprise	0.820	0.230	0.014
	Sport	1.086	0.396	0.144
	Other	0.837	0.231	0.012

Source: Own work.

In the SPSS statistical software, multiple other ANOVA analyses were performed, but the results were largely not worth mentioning because no relationship was found between the variables studied. A total of 6 different analyses were performed. Three were performed for commitment, each time using a different variable: Age Group, Education, Industry. The other three were performed for productivity using the same variables. These analyses can be found in Appendix 3.

5.6 Results compared to research questions

This research aimed to answer the following research questions:

In Table 18, it can be seen that all three research questions were answered with the research. For the first research question, »Does transformational leadership lead to higher productivity and commitment of followers?« I can say that there is a positive, statistically significant relationship between transformational leadership and commitment ($p < 0.001$), while no relationship was found between transformational leadership and productivity ($p = 0.041$). Second, the research question »Does transactional leadership lead to higher productivity and commitment of followers?« was answered. According to the results, there is a positive, statistically significant relationship between transactional leadership and commitment ($p < 0.001$) and likewise between transactional leadership and productivity ($p = 0.027$). Finally, the last research question, »Does age group, education level, and

industry affect follower productivity and commitment of the followers?» was analysed using 6 ANOVAs. However, only the relationship between industry and productivity was found ($p = 0.021$), while no other statistically significant relationships were found.

Table 18: Results of research questions

Research question	Commitment	Productivity
Does transformational leadership lead to higher productivity and commitment of followers?	Relationship between transformational leadership and commitment is statistically significant ($p < 0.001$)	Relationship between transformational leadership and productivity is statistically insignificant ($p = 0.401$)
Does transactional leadership lead to higher productivity and commitment of followers?	Relationship between transactional leadership and commitment is statistically significant ($p < 0.001$).	Relationship between transactional leadership and productivity is statistically significant ($p = 0.027$)
Do age groups, educational levels, and industry affect the productivity and commitment of the followers?	In all three analyses, there was no statistically significant relationship between the variables.	There was a statistically significant relationship between industry and productivity ($p = 0.021$), while there were no statistically significant relationships with the other two variables

Source: Own work.

6 DISCUSSION

The following chapter summarises the results of the survey results and compares/contrasts them with the findings from the existing literature. Based on the analysis results, this chapter presents recommendations for leaders who want to increase productivity and employee commitment.

6.1 Theoretical contributions

The results of this Master's thesis contribute to the literature on transformational and transactional leadership styles concerning employee commitment and productivity. Other parameters examined were age groups, education level, and the employment sector. The results showed that the average commitment score is higher in younger age groups than in older ones. On the other hand, ANOVA showed that there was no statistically significant difference. Cohen's (1993) study found that commitment and age have a U-shaped relationship, as the relationship between commitment and age groups is strongest in the youngest and oldest age groups, while it is weak in the middle age groups. The research data from the Master's thesis is inconsistent with this study but may be a reasonable basis for future studies.

Second, the findings of this study add to the literature on the relationship between leadership styles, commitment, and productivity. The study found a positive correlation between transformational leadership and commitment ($r = 0.556$, $p < 0.05$), and also a statistically significant difference between transactional leadership style and commitment. When analysing productivity and leadership styles, it was proven that there is a positive correlation between transactional leadership and productivity, while there is no statistically significant difference between transformational leadership and productivity.

In a study by Javaid and Mirza (2012), using a sample of educational institutions in Pakistan, the transformational leadership style was found to be particularly related to commitment, while the transactional style was not. Another study was conducted by Teshome (2013), who investigated the relationship between full-range leadership styles and employee commitment in private higher education institutions in Addis Ababa City. His results show that transformational leadership style has a weak but still significant positive correlation with commitment ($r = 0.305$, $p < 0.003$), while transactional leadership style has no significant correlation with affective commitment ($r = 0.075$, $p < 0.469$).

In the study conducted by Bučiūnienė and Škudienė (2008), a weak but still significant positive relationship between transformational leadership style and commitment was also found. Regarding productivity, a study was conducted by Kabiru and Bule (2020) in which they examined the impact of transactional leadership style on employee performance in banks in Nairobi. They concluded that the transactional leadership style increases productivity and reduces costs. They reasoned that transactional leadership is short-term-oriented and makes it easier for employees to complete their tasks.

The results of this Master's thesis expand the scope of existing literature on the relationship between commitment, productivity, and leadership styles. However, most of the studies were mainly at the micro-level. In contrast, this study was conducted in Slovenia across multiple sectors, which is an advance over the previous literature, which was primarily conducted in specific organizations and focused only on a particular industry. These findings are significant because they can help leaders better understand leadership style from a follower perspective.

6.2 Practical Implications

The main objective of the Master's thesis was to examine how leadership styles influence commitment and productivity. The first finding of the research is that employees influenced by transformational leadership are more committed to the organization than employees influenced by transactional leadership styles.

A leader who wants to achieve higher levels of employee commitment must motivate them, help them with their personal development, have high moral standards, and encourage others to do the same. A true transformational leader encourages collaboration,

is open to ideas, and is not afraid of rapid change. The main goal of such a leader is to focus on employees and allow them the freedom to make their own decisions, be creative, and solve problems. The research found that such a leader influences employees to be more satisfied in the organization and, accordingly, more committed.

Bass (1985) noted that transformational leaders, although motivators and inspirers, may also exhibit specific weaknesses such as coldness, arrogance, and overambition. These flaws diminish the positive impact of transformational leadership. For leaders to become truly transformational leaders, they must:

- Clearly understand the goals and objectives given to them by the top-level management
- internalize the given goals and »feel them« before presenting them to the followers.

In contrast to the transformational leadership style, the study found a significant positive relationship between the transactional leadership style and productivity.

The transactional leadership style, or in other words, the managerial leadership style, is more focused on control, execution, and organization. Leaders who use this leadership style focus more on specific tasks and motivate their employees through rewards and punishments. As explained in the theoretical section of the Master's thesis, this leadership style is easier to apply in large, already established organizations. Followers are most productive when the leader is clear and decisive. The primary goal of a transactional leader is for the followers to obey (Bass, 1999).

As mentioned at the beginning of this paper, leadership is a complex phenomenon, and it is impossible to define a true leadership style. The best leaders often adapt their leadership style to the situation and their followers. The proper use of transformational and transactional leadership styles can improve the commitment and productivity of those being led.

CONCLUSION

This Master's thesis aimed to examine how transformational and transactional leadership styles can influence follower commitment and productivity.

My goal was to conduct a systematic review of the existing literature to illustrate the different leadership styles and the existing research on the relationship between leadership style, commitment, and productivity. I then used this as a basis to examine my research questions.

Based on the results obtained, I can partially confirm the research questions. First, the research question »Does transformational leadership lead to higher productivity and commitment of followers?« is only partially answered, as the results show that there is

only a weak but significant correlation between transformational leadership and commitment. However, no correlation was found between transformational leadership and productivity. The second research question, »Does transactional leadership lead to higher productivity and commitment of followers?« is fully confirmed as the study shows a weak but significant positive relationship between transactional leadership and commitment. The analysis also showed a statistically significant relationship between transactional leadership style and productivity.

During the analyses to investigate my third research question. I found that the employees in the IT are more productive than in the other sectors studied in the questionnaire. However, I could not find any significant relationships between transformational or transactional leadership styles for other variables.

Since I have not been able to prove all my research questions, my recommendations to managers are limited. I can confirm that using a transformational leadership style leads to higher employee commitment in the organization. On the other hand, a transactional leadership style also leads to higher commitment, but the effect is smaller. Therefore, I recommend that leaders who want to increase productivity using a transactional leadership style. In today's complex times, there is no one right leadership style, so leaders need to apply both leadership styles if they want to achieve optimal results.

My findings could be used as study material to show how a particular leadership style affects the productivity and commitment of followers. The study could be used in leadership skills, psychology, and other courses.

If other researchers were to conduct further research in this area, I would advise them to use an even larger sample of respondents, as I could not conduct all of the analyses due to the small sample size. With a larger sample, it might have been easier to answer the research questions and get a better overview of the relationship between age groups, education and employment sectors, and leadership styles. Also, I would advise them to use other models that measure productivity more accurately since my productivity section in the questionnaire was a self-assessment, which may lead to bias on the part of the respondents.

I anticipate that further research will provide additional insights into different leadership styles and their relationship to productivity and commitment. This research will, in turn, help leaders refine their leadership skills for the benefit of their organizations and their employees.

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APPENDICES

Appendix 1: Povzetek (Summary in Slovene language)

Skozi zgodovino so se organizacijske prakse in vedenje vodij zaradi hitrega razvoja in globalizacije močno spremenila. V sodobnem svetu je vodenje pomembno, ker zagotavlja usmeritev in namen ter pomaga drugim razumeti dolgoročne strategije in cilje. Z leti je bilo razvitih veliko različnih pristopov in modelov vodenja, vendar je Bennis izjavil, da je »vodenje najbolj raziskana in najmanj razumljena tema v družboslovju« in da »še nikoli ni toliko ljudi tako dolgo delalo, da bi povedali tako malo« (King, 1990).

Hitra globalizacija, tehnološki razvoj, kriza in pohlep so postali velika nevarnost za trajnostni gospodarski razvoj in stabilnost. Za napredek morajo biti voditelji navdihujoči, motivacijski in verjeti v svoje cilje, da jih je mogoče doseči. V skladu s tem je človeški kapital najpomembnejši dejavnik v sestavljanju izboljšav, rasti in kakovosti. Parametri, kot so predanost, zadovoljstvo, motivacija in produktivnost, so zelo pomembni, ko gre za rezultate organizacije. Sodobni vodje morajo storiti vse, kar je v njihovi moči, da izboljšajo produktivnost in predanost sledilcev. Namen te magistrske naloge je raziskati soodvisnost med različnimi stili vodenja nadrejenih ter predanostjo in produktivnostjo sledilcev. Na podlagi rezultatov in analize bodo podana priporočila, kako povečati predanost ali produktivnost zaposlenih.

Cilj magistrskega dela je odgovoriti na naslednja raziskovalna vprašanja:

- Ali transformacijsko vodenje vodi k večji produktivnosti in predanosti sledilcev?
- Ali transakcijsko vodenje vodi k večji produktivnosti in predanosti sledilcev?
- Ali starostne skupine, stopnje izobrazbe in panoga vplivajo na produktivnost in predanost sledilcev?

V magistrski nalogi je v teoretičnem delu podan pregled različnih teorij vodenja ter kako so se razvijala skozi zgodovino. Kasneje magistrska naloga preide na razlago transformacijskega stila vodenja ter transakcijskega stila vodenja v okviru celovite teorije pristopov k vodenju, ki je bil razvit v devetdesetih letih prejšnjega stoletja, saj je bilo odkrito, da vodenje ne more obstajati le v enodimenzionalni obliki temveč je skupek večih faktorjev. Drugo poglavje podrobneje razvoj opisuje celovito teorijo pristopov k vodenju skozi čas ter njegove komponente. Ta je sestavljen iz treh stilov vodenja: transformacijskega, transakcijskega ter laissez-faire stila vodenja. V zadnji obliki je sestavljen iz devetih različnih komponent. Pet komponent je v okviru transformacijskega stila vodenja, tri v okviru transakcijskega ter zadnji dve v okviru laissez-faire stila vodenja. V tretjem sklopu magistrske naloge je do potankosti razložen večfaktorski vprašalnik o vodenju, ki je bil razvit z namenom, da se lažje odkrije, kakšen stil vodenja je v uporabi. Njegova uporaba je namenjena vodilnim ter zaposlenim. Dandanes poznamo več različnih oblik večfaktorskega vprašalnika o vodenju, saj vsak služi svojemu namenu. V četrtem poglavju sem se osredotočil na predanost ter produktivnost zaposlenih v podjetjih v kontekstu s transformacijskim in transakcijskim stilom vodenja. S pomočjo že obstoječe

literature sem opisal že obstoječe rezultate, glede povezav stilov vodenja s predanostjo in produktivnostjo zato, da sem jih kasneje v diskusiji lahko primerjal z mojimi dobljenimi rezultati.

Peto in šesto poglavje predstavljata empirični del tega magistrske naloge ter so pomagala odgovoriti na temeljna raziskovalna vprašanja. Pri prvem raziskovalnem vprašanju je bil cilj ugotoviti, ali transformacijsko vodenje vodi k večji produktivnosti in predanosti sledilcev. V ta namen sta bil s pomočjo statističnega programa SPSS narejeni dve linearni regresiji. Prva je primerjala transformacijski stil vodenja ter rezultate zaposlenih o predanosti, druga pa transformacijski stil vodenja z rezultati zaposlenih o produktivnosti. Analiza je pokazala, da uporaba transformacijskega stila vodenja pripelje do višje predanosti zaposlenih v analiziranih podjetjih medtem ko analiza ni dokazala, da pri uporabi transformacijskega stila vodenja pripelje do višje produktivnosti zaposlenih.

Pri drugem raziskovalnem vprašanju sem želel odkriti, ali transakcijsko vodenje vodi k večji produktivnosti in predanosti sledilcev. Potrebni sta bili dve linearni regresiji s pomočjo SPSS. Prva regresija je primerjala transakcijski stil vodenja ter rezultate zaposlenih o predanosti, druga pa transakcijski stil vodenja z rezultati zaposlenih o produktivnosti. Rezultati so pokazali, da v raziskanih podjetjih transakcijski stil vodenja vodi, k višji predanosti in produktivnosti zaposlenih.

Pri zadnjem raziskovalnem vprašanju, je bil namen ugotoviti, ali starostne skupine, stopnje izobrazbe in panoga vplivajo na produktivnost in predanost sledilcev. V ta namen je bilo narejenih šest ANOVA tabel. Pri iskanju povezav med starostnimi skupinami, stopnjo izobrazbe ter panoge zaposlitve z transformacijskim ter transakcijskim stilom vodenja ni bilo najdenih veliko povezav. Edina povezava je bila najdena med produktivnostjo in panogo zaposlenih, ki so odgovarjali na vprašanja. Rezultati so pokazali, da so zaposleni v IT panogi, v povprečju, bolj produktivni kot zaposleni v drugih panogah.

Appendix 2: Survey

Hello, My name is Žan Hrovatin and I am a postgraduate student at the School of Economics and Business in Ljubljana. I am conducting an analysis on the effects that leadership styles have on commitment and productivity of the employees. Please complete this 8-minute survey. Your responses are anonymous and you can skip any questions you are not comfortable with. Questions should be answered with a 7-item scale ranging from “strongly disagree/dissatisfied” (1) to “strongly agree/satisfied” (7). Thank you for your participation Pozdravljeni, moje ime je Žan Hrovatin in sem študent podiplomskega študija na Ekonomsko-poslovni šoli v Ljubljani. Izvajam analizo o učinkih, ki jih imajo stili vodenja na zavzetost in produktivnost zaposlenih. Prosim vas, da izpolnite to 8-minutno anketo. Vaši odgovori so anonimni in lahko preskočite vsa vprašanja, ki vam ne ustrezajo. Na vprašanja je treba odgovoriti na lestvici s 7 točkami, ki sega od »močno se ne strinjam/nezadovoljen« (1) do »zelo se strinjam/zadovoljen« (7). Hvala za sodelovanje.

Q1 - My boss instills pride in me (Moj šef vzbuja ponos v meni)

Strongly disagree	disagree	more or less disagree	undecided	more or less agree	agree	strongly agree
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q2 - My boss spends time teaching and coaching (Moj šef namenja čas poučevanju in mentoriranju)

Strongly disagree	disagree	more or less disagree	undecided	more or less agree	agree	strongly agree
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q3 - My boss considers moral and ethical consequences (Moj šef upošteva moralne ter etične posledice dejanj)

Strongly disagree	disagree	more or less disagree	undecided	more or less agree	agree	strongly agree
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q4 - My boss views me as having different needs, abilities, and aspirations (Moj šef opazi, da imam različne potrebe, sposobnosti in želje)

Strongly dissagree	disagree	more or less disagree	undecided	more or less agree	agree	strongly agree
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q5 - My boss listens to my concerns (Moj šef posluša moje skrbi)

Strongly dissagree	disagree	more or less disagree	undecided	more or less agree	agree	strongly agree
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q6 - My boss encourages me to perform (Moj šef me spodbuja k delu)

Strongly dissagree	disagree	more or less disagree	undecided	more or less agree	agree	strongly agree
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q7 - My boss increases my motivation (Moj šef mi dviguje motivacijo)

Strongly dissagree	disagree	more or less disagree	undecided	more or less agree	agree	strongly agree
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q8 - My boss encourages me to think more creatively (Moj šef me spodbuja k bolj ustvarjalnemu razmišljanju)

Strongly dissagree	disagree	more or less disagree	undecided	more or less agree	agree	strongly agree
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q9 - My boss sets challenging standards (Moj šef postavlja zahtevne standarde)

Strongly dissagree	disagree	more or less disagree	undecided	more or less agree	agree	strongly agree
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q10 - My boss makes clear expectations (Moj šef ima jasna pričakovanja)

Strongly dissagree	disagree	more or less disagree	undecided	more or less agree	agree	strongly agree
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q11 - My boss will take action before problems are chronic (Moj šef bo ukrepal, preden težave postanejo neznosne)

Strongly dissagree	disagree	more or less disagree	undecided	more or less agree	agree	strongly agree
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q12 - My boss tells us standards to carry out work (Šef nam določi standarde za opravljanje dela)

Strongly dissagree	disagree	more or less disagree	undecided	more or less agree	agree	strongly agree
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q13 - My boss works out agreements with me (Moj šef z mano sklepa dogovore)

Strongly dissagree	disagree	more or less disagree	undecided	more or less agree	agree	strongly agree
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q14 - My boss monitors my performance and keeps track of mistakes (Moj šef spremlja moj doprinos in spremlja napake)

Strongly dissagree	disagree	more or less disagree	undecided	more or less agree	agree	strongly agree
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q15 - I do what my boss requires of me, mainly because he is my boss (Naredim, kar od mene zahteva nadrejeni, predvsem ker je formalno moj šef)

Strongly dissagree	disagree	more or less disagree	undecided	more or less agree	agree	strongly agree
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q16 - The best way to describe my relationship with a superior is to do what he tells me to do (Najboljši način za opis mojega odnosa z nadrejenim je, da naredim kar mi reče da naj naredim)

Strongly dissagree	disagree	more or less disagree	undecided	more or less agree	agree	strongly agree
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q17 - My relationship with my leader is mostly based on authority; he has the right to make decisions at my expense, and I do what he tells me to do (Moj odnos z nadrejenim večinoma temelji na avtoriteti; ima pravico, da sprejema odločitve na moj račun, jaz pa delam, kar mi reče da delam)

Strongly dissagree	disagree	more or less disagree	undecided	more or less agree	agree	strongly agree
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q18 - I am willing to put in a great deal of effort beyond that normally expected in order to help this organization to be successful (Pripravljen sem vložiti veliko truda, ki presega tisto kar se običajno pričakuje, da bi tej organizaciji pomagal, da bo uspešna)

Strongly dissagree	disagree	more or less disagree	undecided	more or less agree	agree	strongly agree
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q19 - I fell very little loyalty to this organization (Čutim zelo malo pripadnosti do kolektiva)

Strongly dissagree	disagree	more or less disagree	undecided	more or less agree	agree	strongly agree
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q20 - I would accept almost any type of job assignment in order to keep working for this organization (Sprejel bi skoraj vsako vrsto zaposlitve, da bi še naprej delal v tej organizaciji)

Strongly dissagree	disagree	more or less disagree	undecided	more or less agree	agree	strongly agree
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q21 - Often I find it difficult to agree with this organization's policies on important matters relating to its employees (Pogosto se težko strinjam s politiko moje organizacije o pomembnih zadevah v zvezi z zaposlenimi)

Strongly dissagree	disagree	more or less disagree	undecided	more or less agree	agree	strongly agree
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q22 - I am proud to tell others that I am part of this organization (S ponosom povem ostalim, da sem del te organizacije)

Strongly dissagree	disagree	more or less disagree	undecided	more or less agree	agree	strongly agree
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q23 - It would take very little change in my present circumstances to cause me to leave this organization (V mojih trenutnih okoliščinah bi bilo potrebno zelo malo sprememb, da bi zapustil to organizacijo)

Strongly dissagree	disagree	more or less disagree	undecided	more or less agree	agree	strongly agree
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q24 - I manage to plan my work so that I finish it on time (Svoje delo načrtujem tako, da ga končam pravočasno)

Strongly dissagree	disagree	more or less disagree	undecided	more or less agree	agree	strongly agree
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q25 - I am able to set my priorities (Znam določiti svoje prioritete)

Strongly dissagree	disagree	more or less disagree	undecided	more or less agree	agree	strongly agree
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q26 - I take on extra responsibilities (Prevzamem dodatno odgovornost)

Strongly dissagree	disagree	more or less disagree	undecided	more or less agree	agree	strongly agree
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q27 - I complain about minor work-related issues at work (Pritožujem se zaradi manjših težav, povezanih z delom)

Strongly dissagree	disagree	more or less disagree	undecided	more or less agree	agree	strongly agree
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q28 - I work on keeping my work skills up-to-date (Redno posodabljam svoje delovne veščine)

Strongly dissagree	disagree	more or less disagree	undecided	more or less agree	agree	strongly agree
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q29 - I focus on the negative aspects of situation at work instead of the positive aspects (Osredotočam se na negativne vidike situacije v službi namesto na pozitivne vidike)

Strongly dissagree	disagree	more or less disagree	undecided	more or less agree	agree	strongly agree
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q30 - I take on challenging tasks when they are available (Prevzamem zahtevne naloge, ko so na voljo)

Strongly dissagree	disagree	more or less disagree	undecided	more or less agree	agree	strongly agree
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q31 - What gender do you identify as? (Spol)

- Male (Moški)
- Female (Ženski)
- Prefer not to answer (Drugo)

Q32 - What is your age? (Starost)

- 18-29
- 30-41
- 42-53
- 54+

Q33 - Education (Izobrazba)

- Primary School (Osnovnošolska)
- High School (Srednja šola)
- Bachelor's degree (Diploma)
- Master's degree (Magisterij)
- Ph.D or higher (Doktorat ali višje)

Q34 - In what industry are you working? (V kateri panogi ste zaposleni)

- Pharmacy (Farmacevtske dejavnosti)
- Banking/Accounting (Bančništvo in računovodske storitve)
- Educational institution (Izobraževalne institucije)
- Transport (Promet)
- Marketing
- State-owned enterprise (Državno podjetje)
- Sport (Šport)
- IT (Informacijska tehnologija)
- Other (Drugo)

Q35 - What is your job title? (Kakšen je naziv vašega delovnega mesta)

Appendix 3: SPSS Analysis

ANOVA Commitment – Age group

Descriptives						
Commitment						
	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean	
					Lower Bound	
1	50	4.840	.853	.120	4.597	
2	29	4.643	.938	.174	4.286	
3	45	4.555	.856	.127	4.298	
4	16	4.541	.853	.213	4.087	
Total	140	4.673	.872	.073	4.528	

Descriptives				
Commitment				
	95% Confidence Interval for Mean		Minimum	Maximum
	Upper Bound			
1	5.082		3.333	6.333
2	5.000		3.000	7.000
3	4.812		3.333	6.000
4	4.996		2.000	5.666
Total	4.819		2.000	7.000

ANOVA					
Commitment					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	2.316	3	.772	1.014	.388
Within Groups	103.510	136	.761		
Total	105.826	139			

ANOVA Effect Sizes ^{a,b}		
	Point Estimate	95% Confidence Interval

			Lower	Upper
Loyalty	Eta-squared	.022	.000	.072
	Epsilon-squared	.000	-.022	.051
	Omega-squared Fixed-effect	.000	-.022	.051
	Omega-squared Random-effect	.000	-.007	.018
a. Eta-squared and Epsilon-squared are estimated based on the fixed-effect model.				
b. Negative but less biased estimates are retained, not rounded to zero.				

Post Hoc Tests

Multiple Comparisons						
Dependent Variable: Commitment						
Tukey HSD						
(I) Age	(J) Age	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
1	2	.196	.203	.770	-.333	.725
	3	.284	.179	.390	-.181	.750
	4	.298	.250	.634	-.353	.950
2	1	-.196	.203	.770	-.725	.333
	3	.088	.207	.974	-.452	.628
	4	.102	.271	.982	-.604	.808
3	1	-.284	.179	.390	-.750	.181
	2	-.088	.207	.974	-.628	.452
	4	.013	.253	1.000	-.646	.674
4	1	-.298	.250	.634	-.950	.353
	2	-.102	.271	.982	-.808	.604
	3	-.013	.253	1.000	-.674	.646

Homogeneous Subsets

Commitment		
Tukey HSD ^{a,b}		
Age	N	Subset for alpha = 0.05
		1
4	16	4.541

3	45	4.555
2	29	4.643
1	50	4.840
Sig.		.567

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 28.735.

b. The group sizes are unequal. The harmonic mean of the group sizes is used. Type I error levels are not guaranteed.

ANOVA Commitment - Education

Warnings	
Post hoc tests are not performed for Commitment because at least one group has fewer than two cases.	

Descriptives					
Commitment					
	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean
					Lower Bound
2	13	4.256	.741	.205	3.808
3	79	4.694	.831	.093	4.507
4	47	4.773	.953	.139	4.492
5	1	3.833	.	.	.
Total	140	4.673	.872	.073	4.528

Descriptives			
Commitment			
	95% Confidence Interval for Mean	Minimum	Maximum
	Upper Bound		
2	4.704	3.333	5.833
3	4.880	2.000	6.000
4	5.053	3.000	7.000
5	.	3.833	3.833
Total	4.819	2.000	7.000

ANOVA					
Commitment					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	3.467	3	1.156	1.535	.208
Within Groups	102.360	136	.753		
Total	105.826	139			

ANOVA Effect Sizes ^{a,b}				
		Point Estimate	95% Confidence Interval	
			Lower	Upper
Commitment	Eta-squared	.033	.000	.092
	Epsilon-squared	.011	-.022	.072
	Omega-squared Fixed-effect	.011	-.022	.071
	Omega-squared Random-effect	.004	-.007	.025
a. Eta-squared and Epsilon-squared are estimated based on the fixed-effect model.				
b. Negative but less biased estimates are retained, not rounded to zero.				

ANOVA Commitment - Industry

Descriptives						
Commitment						
	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean	
					Lower Bound	
1	13	4.833	.978	.271	4.241	
2	25	4.406	.916	.183	4.028	
3	22	4.886	.823	.175	4.521	
4	14	4.702	.637	.170	4.334	
5	4	4.916	.907	.453	3.472	
6	28	4.434	.977	.184	4.055	
7	2	5.083	.824	.583	-2.328	
8	5	4.699	1.076	.481	3.363	
9	27	4.833	.760	.146	4.532	
Total	140	4.673	.872	.073	4.528	

Descriptives			
Commitment			
	95% Confidence Interval for Mean	Minimum	Maximum

	Upper Bound		
1	5.424	3.333	6.000
2	4.785	3.000	6.000
3	5.251	3.666	7.000
4	5.070	3.333	6.000
5	6.361	4.166	6.000
6	4.813	2.000	6.166
7	12.495	4.500	5.666
8	6.036	3.500	5.833
9	5.134	3.666	6.333
Total	4.819	2.000	7.000

ANOVA					
Commitment					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	5.985	8	.748	.982	.453
Within Groups	99.841	131	.762		
Total	105.826	139			

ANOVA Effect Sizes ^{a,b}				
		Point Estimate	95% Confidence Interval	
			Lower	Upper
Commitment	Eta-squared	.057	.000	.089
	Epsilon-squared	-.001	-.061	.033
	Omega-squared Fixed-effect	-.001	-.061	.033
	Omega-squared Random-effect	.000	-.007	.004
a. Eta-squared and Epsilon-squared are estimated based on the fixed-effect model.				
b. Negative but less biased estimates are retained, not rounded to zero.				

Post Hoc Tests

Multiple Comparisons						
Dependent Variable: Commitment						
Tukey HSD						
(I) Industry	(J) Industry	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
1	2	.426	.298	.884	-.514	1.368
	3	-.053	.305	1.000	-1.016	.910
	4	.130	.336	1.000	-.929	1.191
	5	-.083	.499	1.000	-1.657	1.491
	6	.398	.292	.910	-.525	1.323
	7	-.250	.663	1.000	-2.341	1.841
	8	.133	.459	1.000	-1.315	1.582
	9	.000	.294	1.000	-.929	.929
2	1	-.426	.298	.884	-1.368	.514
	3	-.479	.255	.629	-1.284	.325
	4	-.295	.291	.984	-1.214	.623
	5	-.510	.470	.975	-1.992	.972
	6	-.027	.240	1.000	-.785	.729
	7	-.676	.641	.979	-2.700	1.346
	8	-.293	.427	.999	-1.642	1.055
	9	-.426	.242	.707	-1.190	.337
3	1	.053	.305	1.000	-.910	1.016
	2	.479	.255	.629	-.325	1.284
	4	.183	.298	.999	-.757	1.125
	5	-.030	.474	1.000	-1.527	1.466
	6	.451	.248	.671	-.332	1.236
	7	-.196	.644	1.000	-2.230	1.836
	8	.186	.432	1.000	-1.177	1.550
	9	.053	.250	1.000	-.737	.843
4	1	-.130	.336	1.000	-1.191	.929
	2	.295	.291	.984	-.623	1.214
	3	-.183	.298	.999	-1.125	.757
	5	-.214	.494	1.000	-1.775	1.346
	6	.267	.285	.990	-.633	1.169
	7	-.380	.659	1.000	-2.462	1.700
	8	.002	.454	1.000	-1.432	1.437
	9	-.130	.287	1.000	-1.037	.775

5	1	.083	.499	1.000	-1.491	1.657
	2	.510	.470	.975	-.972	1.992
	3	.030	.474	1.000	-1.466	1.527
	4	.214	.494	1.000	-1.346	1.775
	6	.482	.466	.982	-.989	1.954
	7	-.166	.756	1.000	-2.551	2.218
	8	.216	.585	1.000	-1.630	2.063
	9	.083	.467	1.000	-1.392	1.558
	6	1	-.398	.292	.910	-1.323
2		.027	.240	1.000	-.729	.785
3		-.451	.248	.671	-1.236	.332
4		-.267	.285	.990	-1.169	.633
5		-.482	.466	.982	-1.954	.989
7		-.648	.638	.984	-2.664	1.366
8		-.265	.423	.999	-1.602	1.071
9		-.398	.235	.749	-1.141	.343
7		1	.250	.663	1.000	-1.841
	2	.676	.641	.979	-1.346	2.700
	3	.196	.644	1.000	-1.836	2.230
	4	.380	.659	1.000	-1.700	2.462
	5	.166	.756	1.000	-2.218	2.551
	6	.648	.638	.984	-1.366	2.664
	8	.383	.730	1.000	-1.920	2.687
	9	.250	.639	1.000	-1.768	2.268
	8	1	-.133	.459	1.000	-1.582
2		.293	.427	.999	-1.055	1.642
3		-.186	.432	1.000	-1.550	1.177
4		-.002	.454	1.000	-1.437	1.432
5		-.216	.585	1.000	-2.063	1.630
6		.265	.423	.999	-1.071	1.602
7		-.383	.730	1.000	-2.687	1.920
9		-.133	.425	1.000	-1.474	1.207
9		1	-.000	.294	1.000	-.929
	2	.426	.242	.707	-.337	1.190
	3	-.053	.250	1.000	-.843	.737
	4	.130	.287	1.000	-.775	1.037
	5	-.083	.467	1.000	-1.558	1.392
	6	.398	.235	.749	-.343	1.141

	7	-.250	.639	1.000	-2.268	1.768
	8	.133	.425	1.000	-1.207	1.474

Homogeneous Subsets

Commitment		
Tukey HSD ^{a,b}		
Industry	N	Subset for alpha = 0.05
		1
2	25	4.406
6	28	4.434
8	5	4.699
4	14	4.702
9	27	4.833
1	13	4.833
3	22	4.886
5	4	4.916
7	2	5.083
Sig.		.869
Means for groups in homogeneous subsets are displayed.		
a. Uses Harmonic Mean Sample Size = 7.162.		
b. The group sizes are unequal. The harmonic mean of the group sizes is used. Type I error levels are not guaranteed.		

ANOVA Productivity - Age

Descriptives					
Productivity					
	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean
					Lower Bound
1	50	5.002	.499	.070	4.860
2	29	5.024	.556	.103	4.813
3	45	4.984	.465	.069	4.844
4	16	5.035	.459	.114	4.791
Total	140	5.005	.491	.041	4.922

Descriptives			
Productivity			
	95% Confidence Interval for Mean	Minimum	Maximum
	Upper Bound		
1	5.144	4.142	6.428
2	5.236	4.142	7.000
3	5.123	4.142	6.428
4	5.280	4.000	5.714
Total	5.087	4.000	7.000

ANOVA					
Productivity					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	.046	3	.015	.062	.980
Within Groups	33.562	136	.247		
Total	33.609	139			

ANOVA Effect Sizes ^{a,b}				
		Point Estimate	95% Confidence Interval	
			Lower	Upper
Productivity	Eta-squared	.001	.000	.000
	Epsilon-squared	-.021	-.022	-.022
	Omega-squared Fixed-effect	-.021	-.022	-.022
	Omega-squared Random-effect	-.007	-.007	-.007
a. Eta-squared and Epsilon-squared are estimated based on the fixed-effect model.				
b. Negative but less biased estimates are retained, not rounded to zero.				

Post Hoc Tests

Multiple Comparisons

Dependent Variable: Productivity						
Tukey HSD						
(I) Age	(J) Age	Mean Difference (I- J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
1	2	-.021	.115	.998	-.323	.279
	3	.0187	.102	.998	-.246	.284
	4	-.032	.142	.996	-.403	.338
2	1	.021	.115	.998	-.279	.323
	3	.040	.118	.986	-.267	.348
	4	-.011	.154	1.000	-.413	.391
3	1	-.018	.102	.998	-.284	.246
	2	-.040	.118	.986	-.348	.267
	4	-.051	.144	.984	-.427	.324
4	1	.032	.142	.996	-.338	.403
	2	.011	.154	1.000	-.391	.413
	3	.051	.144	.984	-.324	.427

Homogeneous Subsets

Productivity		
Tukey HSD ^{a,b}		
Age	N	Subset for alpha = 0.05
		1
3	45	4.984
1	50	5.002
2	29	5.024
4	16	5.035
Sig.		.979
Means for groups in homogeneous subsets are displayed.		
a. Uses Harmonic Mean Sample Size = 28.735.		
b. The group sizes are unequal. The harmonic mean of the group sizes is used. Type I error levels are not guaranteed.		

ANOVA Productivity - Education

Warnings

Post hoc tests are not performed for Productivity because at least one group has fewer than two cases.

Descriptives

Productivity					
	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean
					Lower Bound
2	13	4.802	.300	.083	4.620
3	79	5.014	.554	.062	4.890
4	47	5.048	.415	.060	4.926
5	1	4.857	.	.	.
Total	140	5.005	.491	.041	4.922

Descriptives

Productivity			
	95% Confidence Interval for Mean	Minimum	Maximum
	Upper Bound		
2	4.983	4.142	5.428
3	5.138	4.142	7.000
4	5.170	4.000	6.142
5	.	4.857	4.857
Total	5.087	4.000	7.000

ANOVA

Productivity					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	.653	3	.218	.898	.444
Within Groups	32.956	136	.242		
Total	33.609	139			

ANOVA Effect Sizes ^{a,b}				
		Point Estimate	95% Confidence Interval	
			Lower	Upper
Productivity	Eta-squared	.019	.000	.067
	Epsilon-squared	-.002	-.022	.046
	Omega-squared Fixed-effect	-.002	-.022	.046
	Omega-squared Random-effect	-.001	-.007	.016
a. Eta-squared and Epsilon-squared are estimated based on the fixed-effect model.				
b. Negative but less biased estimates are retained, not rounded to zero.				

ANOVA Productivity - Industry

Descriptives						
Productivity						
	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean	
					Lower Bound	
1	13	4.802	.513	.142	4.491	
2	25	5.062	.493	.098	4.859	
3	22	4.967	.384	.081	4.797	
4	14	4.979	.597	.159	4.634	
5	4	5.214	.340	.170	4.673	
6	28	4.979	.401	.075	4.823	
7	2	4.714	.202	.142	2.899	
8	5	5.800	.895	.400	4.688	
9	27	4.962	.424	.081	4.795	
Total	140	5.005	.491	.041	4.922	

Descriptives			
Productivity			
	95% Confidence Interval for Mean	Minimum	Maximum
	Upper Bound		
1	5.112	4.142	5.714

2	5.266	4.142	6.142
3	5.137	4.285	5.571
4	5.324	4.142	6.428
5	5.755	4.857	5.571
6	5.135	4.000	5.857
7	6.529	4.571	4.857
8	6.911	4.857	7.000
9	5.130	4.142	6.000
Total	5.087	4.000	7.000

ANOVA					
Productivity					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	4.228	8	.529	2.357	.021
Within Groups	29.380	131	.224		
Total	33.609	139			

ANOVA Effect Sizes ^{a,b}				
		Point Estimate	95% Confidence Interval	
			Lower	Upper
Productivity	Eta-squared	.126	.002	.186
	Epsilon-squared	.072	-.059	.137
	Omega-squared Fixed-effect	.072	-.059	.136
	Omega-squared Random-effect	.010	-.007	.019
a. Eta-squared and Epsilon-squared are estimated based on the fixed-effect model.				
b. Negative but less biased estimates are retained, not rounded to zero.				

Post Hoc Tests

Multiple Comparisons						
Dependent Variable: Productivity						
Tukey HSD						
(I) Industry	(J) Industry	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
1	2	-.260	.161	.798	-.771	.250
	3	-.165	.165	.985	-.687	.357
	4	-.177	.182	.988	-.752	.397
	5	-.412	.270	.843	-1.266	.442
	6	-.177	.158	.971	-.678	.323
	7	.087	.359	1.000	-1.046	1.222
	8	-.997*	.249	.003	-1.783	-.211
	9	-.160	.159	.985	-.665	.343
2	1	.260	.161	.798	-.250	.771
	3	.0953	.138	.999	-.341	.532
	4	.083	.158	1.000	-.415	.581
	5	-.151	.255	1.000	-.955	.653
	6	.083	.130	.999	-.327	.494
	7	.348	.348	.985	-.749	1.446
	8	-.737*	.232	.047	-1.468	-.005
	9	.099	.131	.998	-.314	.514
3	1	.165	.165	.985	-.357	.687
	2	-.095	.138	.999	-.532	.341
	4	-.0120	.161	1.000	-.522	.498
	5	-.246	.257	.989	-1.058	.565
	6	-.0120	.134	1.000	-.437	.413
	7	.253	.349	.998	-.850	1.356
	8	-.832*	.234	.015	-1.572	-.092
	9	.004	.136	1.000	-.424	.433
4	1	.177	.182	.988	-.397	.752
	2	-.083	.158	1.000	-.581	.415
	3	.012	.161	1.000	-.498	.522
	5	-.234	.268	.994	-1.081	.612
	6	-.000	.155	1.000	-.488	.488
	7	.265	.357	.998	-.863	1.394

	8	-.820*	.246	.031	-1.598	-.042
	9	.0166	.155	1.000	-.475	.508
5	1	.412	.270	.843	-.442	1.266
	2	.151	.255	1.000	-.653	.955
	3	.246	.257	.989	-.565	1.058
	4	.234	.268	.994	-.612	1.081
	6	.234	.253	.991	-.563	1.033
	7	.500	.410	.951	-.793	1.793
	8	-.585	.317	.653	-1.587	.416
	9	.251	.253	.986	-.549	1.05
6	1	.177	.158	.971	-.323	.678
	2	-.083	.130	.999	-.494	.327
	3	.012	.134	1.000	-.413	.437
	4	.000	.155	1.000	-.488	.488
	5	-.234	.253	.991	-1.033	.563
	7	.265	.346	.998	-.828	1.358
	8	-.820*	.229	.014	-1.545	-.095
	9	.016	.127	1.000	-.386	.419
7	1	-.087	.359	1.000	-1.222	1.046
	2	-.348	.348	.985	-1.446	.749
	3	-.253	.349	.998	-1.356	.850
	4	-.265	.357	.998	-1.394	.863
	5	-.500	.410	.951	-1.793	.793
	6	-.265	.346	.998	-1.358	.828
	8	-1.085	.396	.144	-2.335	.164
	9	-.248	.347	.998	-1.343	.846
8	1	.997*	.249	.003	.211	1.783
	2	.737*	.232	.047	.005	1.468
	3	.832*	.234	.015	.092	1.572
	4	.820*	.246	.031	.042	1.598
	5	.585	.317	.653	-.416	1.587
	6	.820*	.229	.014	.095	1.545
	7	1.085	.396	.144	-.164	2.335
	9	.837*	.230	.012	.109	1.564
9	1	.160	.159	.985	-.343	.665
	2	-.099	.131	.998	-.514	.314
	3	-.004	.136	1.000	-.433	.424
	4	-.016	.155	1.000	-.508	.475

	5	-.251	.253	.986	-1.051	.549
	6	-.016	.127	1.000	-.419	.386
	7	.248	.347	.998	-.846	1.343
	8	-.837*	.230	.012	-1.564	-.109

* The mean difference is significant at the 0.05 level.

Homogeneous Subsets

Productivity			
Tukey HSD ^{a,b}			
Industry	N	Subset for alpha = 0.05	
		1	2
7	2	4.714	
1	13	4.802	
9	27	4.962	
3	22	4.967	
4	14	4.979	
6	28	4.979	
2	25	5.062	5.062
5	4	5.214	5.214
8	5		5.800
Sig.		.548	.087

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 7.162.

b. The group sizes are unequal. The harmonic mean of the group sizes is used. Type I error levels are not guaranteed.

Regression Commitment-Transformational

Descriptive Statistics			
	Mean	Std. Deviation	N
Commitment	4.673	.872	140

Transformational leadership	4.894	1.304	140
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Correlations			
		Commitment	Transformational leadership
Pearson Correlation	Commitment	1.000	.556
	Transformational leadership	.556	1.000
Sig. (1-tailed)	Commitment	.	<.001
	Transformational leadership	.000	.
N	Commitment	140	140
	Transformational leadership	140	140

Model Summary ^b				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.556 ^a	.309	.304	.727
a. Predictors: (Constant), Transformational leadership				
b. Dependent Variable: Commitment				

ANOVA ^a						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	32.738	1	32.738	61.813	<.001 ^b
	Residual	73.088	138	.530		
	Total	105.826	139			
a. Dependent Variable: Commitment						
b. Predictors: (Constant), Transformational leadership						

Coefficients ^a	
---------------------------	--

Model		Unstandardized Coefficients		Standardized Coefficients	t
		B	Std. Error	Beta	
1	(Constant)	2.853	.240		11.910
	Transformational leadership	.372	.047	.556	7.862

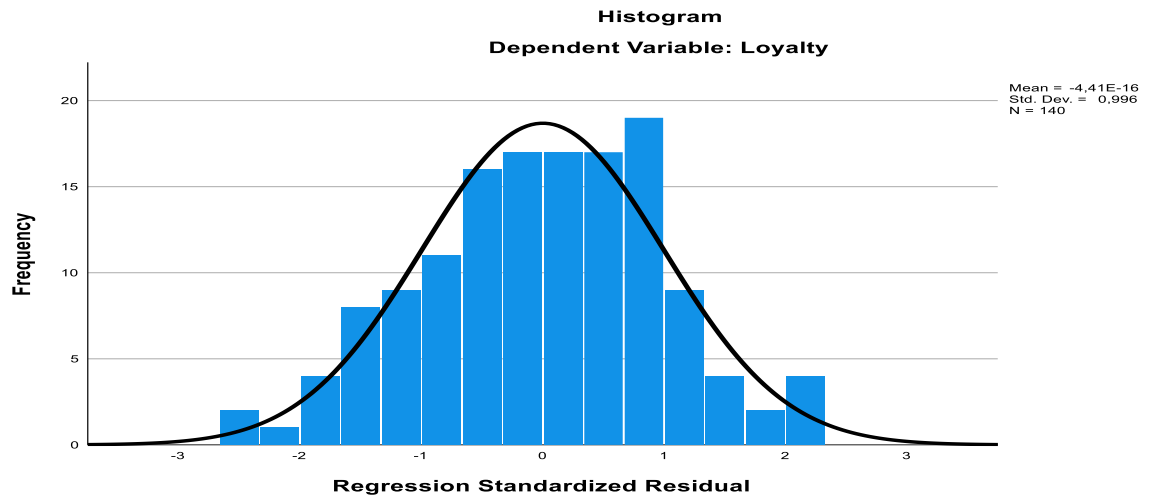
Coefficients ^a				
Model		Sig.	95.0% Confidence Interval for B	
			Lower Bound	Upper Bound
1	(Constant)	<.001	2.380	3.327
	Transformational leadership	<.001	.278	.465

a. Dependent Variable: Commitment

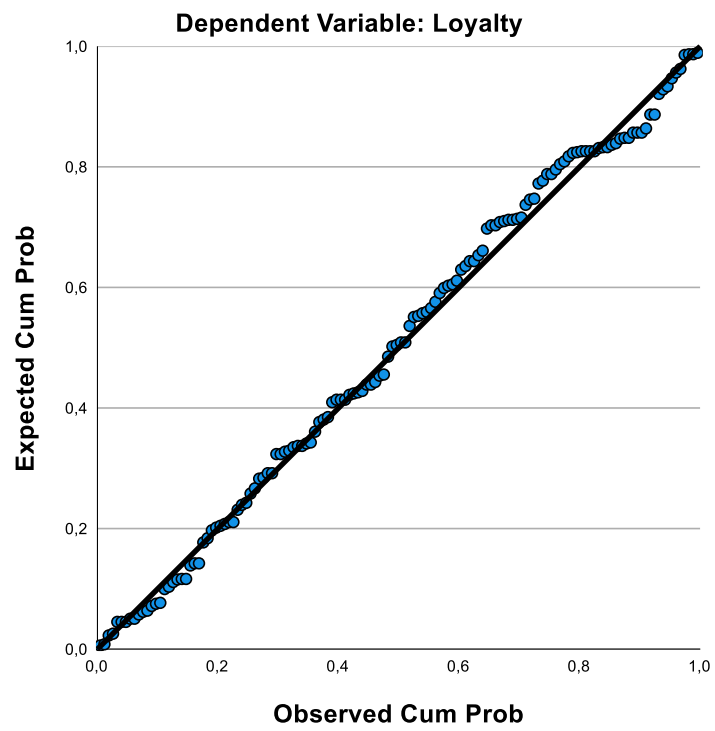
Residuals Statistics ^a					
	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	3.364	5.456	4.67	.485	140
Residual	-1.829	1.670	.000	.725	140
Std. Predicted Value	-2.697	1.613	.000	1.000	140
Std. Residual	-2.514	2.295	.000	.996	140

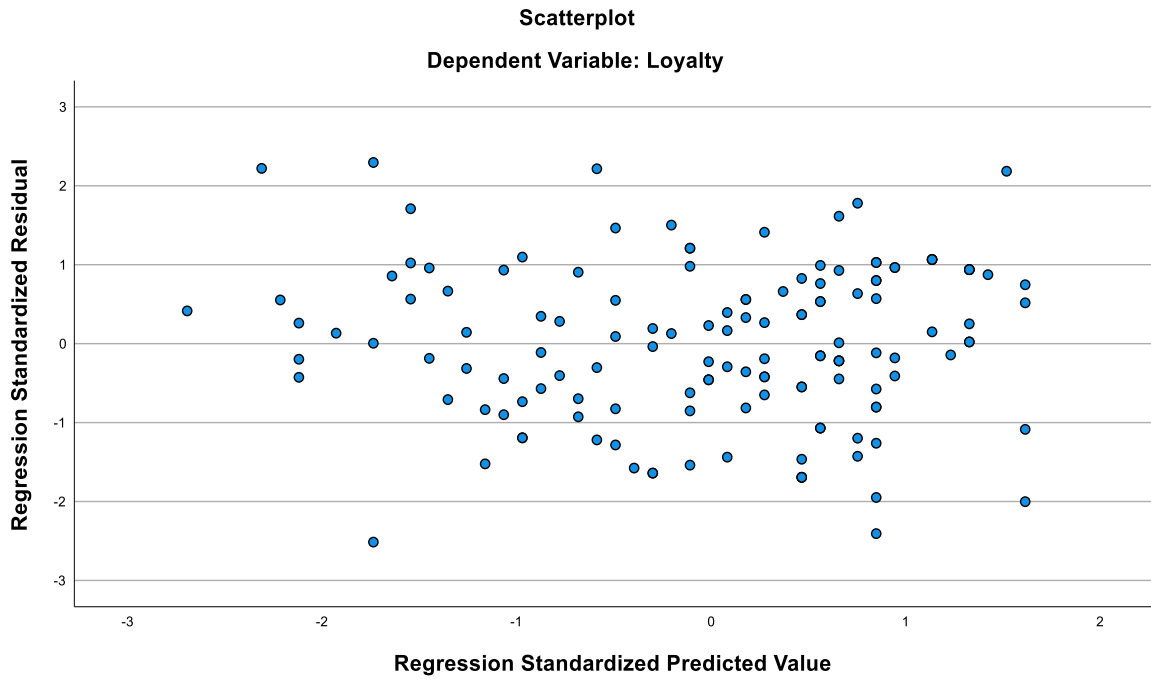
a. Dependent Variable: Commitment

Charts



Normal P-P Plot of Regression Standardized Residual





Regression Commitment - Transactional

Descriptive Statistics			
	Mean	Std. Deviation	N
Commitment	4.673	.872	140
Transactional leadership	4.619	.871	140

Correlations			
		Commitment	Transactional leadership
Pearson Correlation	Commitment	1.000	.250
	Transactional leadership	.250	1.000
Sig. (1-tailed)	Commitment	.	.001
	Transactional leadership	.001	.
N	Commitment	140	140
	Transactional leadership	140	140

Model Summary^b				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate

1	.250 ^a	.063	.056	.847
a. Predictors: (Constant), Transactional leadership				
b. Dependent Variable: Commitment				

ANOVA ^a						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	6.634	1	6.634	9.230	.003 ^b
	Residual	99.192	138	.719		
	Total	105.826	139			
a. Dependent Variable: Commitment						
b. Predictors: (Constant), Transactional leadership						

Coefficients ^a					
Model		Unstandardized Coefficients		Standardized Coefficients	t
		B	Std. Error	Beta	
1	(Constant)	3.515	.388		9.059
	Transactional leadership	.251	.083	.250	3.038

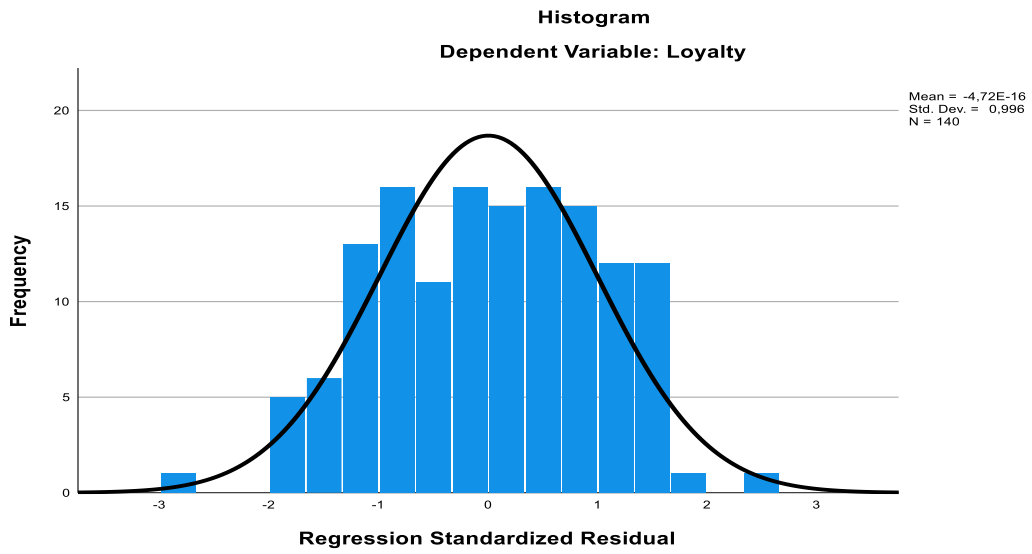
Coefficients ^a				
Model		Sig.	95.0% Confidence Interval for B	
			Lower Bound	Upper Bound
1	(Constant)	<.001	2.748	4.282
	Transactional leadership	.003	.088	.414
a. Dependent Variable: Commitment				

Residuals Statistics ^a					
	Minimum	Maximum	Mean	Std. Deviation	N

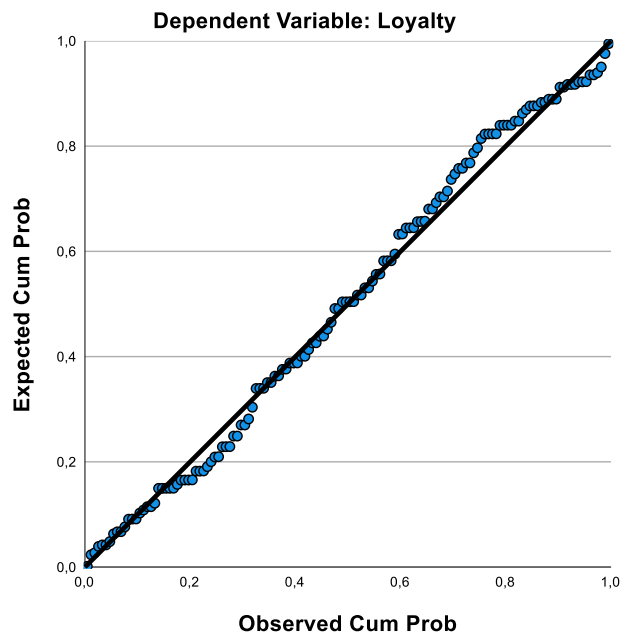
Predicted Value	3.961	5.270	4.673	.218	140
Residual	-2.518	2.175	.000	.844	140
Std. Predicted Value	-3.262	2.732	.000	1.000	140
Std. Residual	-2.970	2.566	.000	.996	140

a. Dependent Variable: Commitment

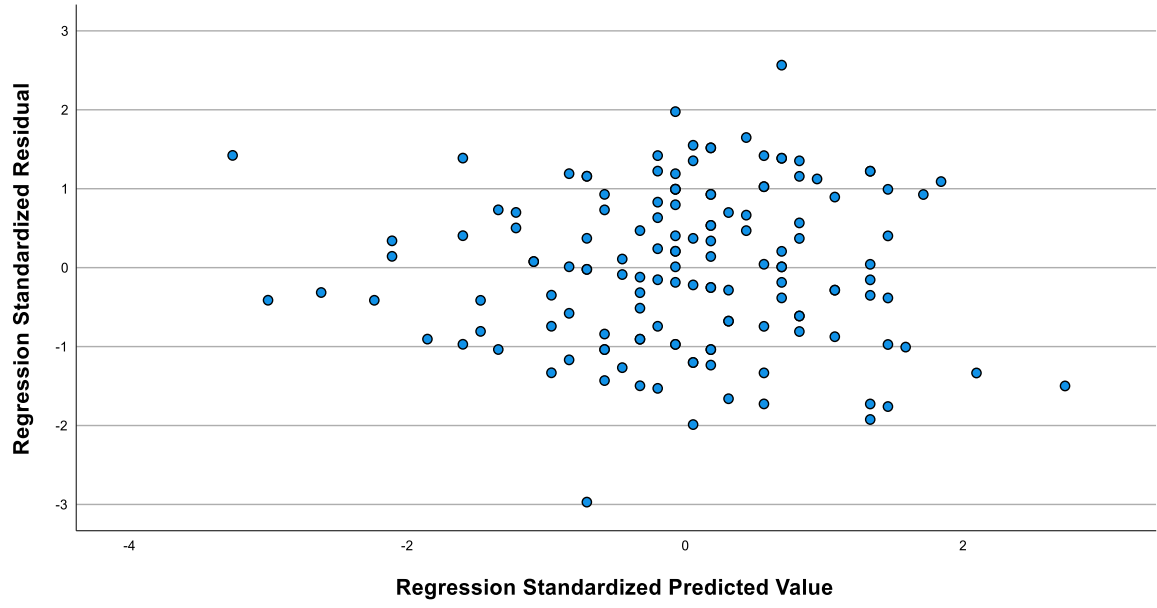
Charts



Normal P-P Plot of Regression Standardized Residual



Scatterplot
Dependent Variable: Loyalty



Regression Productivity - Transformational

Descriptive Statistics			
	Mean	Std. Deviation	N
Productivity	5.005	.491	140
Transformational leadership	4.894	1.304	140

Correlations			
		Productivity	Transformational leadership
Pearson Correlation	Productivity	1.000	.072
	Transformational leadership	.072	1.000
Sig. (1-tailed)	Productivity	.	.201
	Transformational leadership	.201	.
N	Productivity	140	140
	Transformational leadership	140	140

Model Summary ^b				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.072 ^a	.005	-.002	.492
a. Predictors: (Constant), Transformational leadership				
b. Dependent Variable: Productivity				

ANOVA ^a						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.172	1	.172	.710	.401 ^b
	Residual	33.437	138	.242		
	Total	33.609	139			
a. Dependent Variable: Productivity						

b. Predictors: (Constant), Transformational leadership

Coefficients ^a					
Model		Unstandardized Coefficients		Standardized Coefficients	t
		B	Std. Error	Beta	
1	(Constant)	4.873	.162		30.073
	Transformational leadership	.027	.032	.072	.842

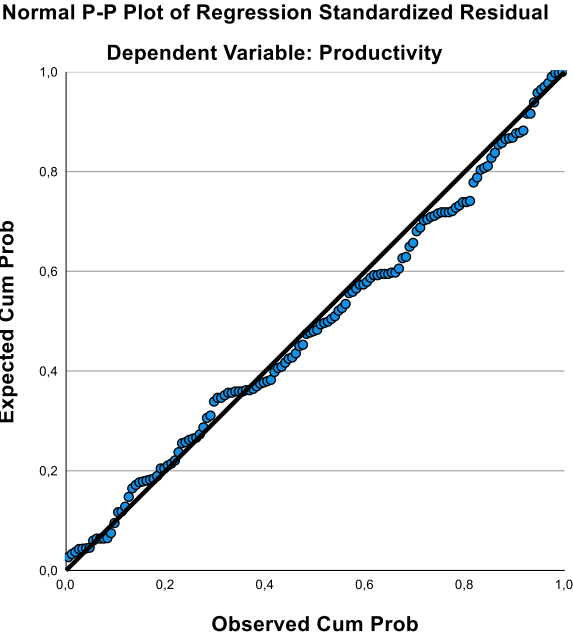
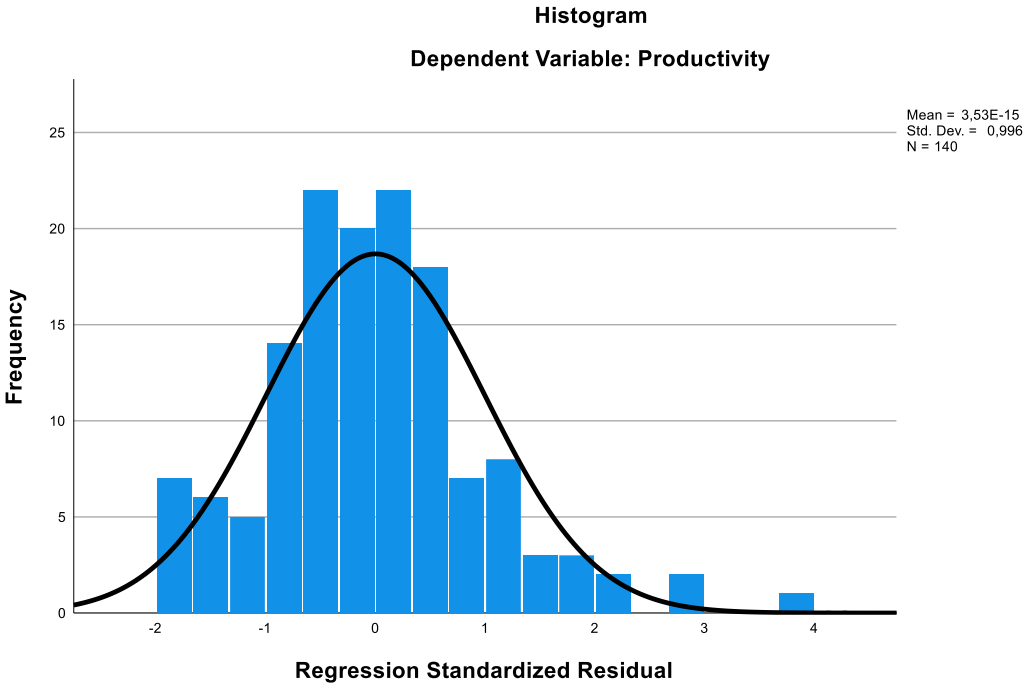
Coefficients ^a				
Model		Sig.	95.0% Confidence Interval for B	
			Lower Bound	Upper Bound
1	(Constant)	<.001	4.553	5.194
	Transformational leadership	.401	-.036	.090

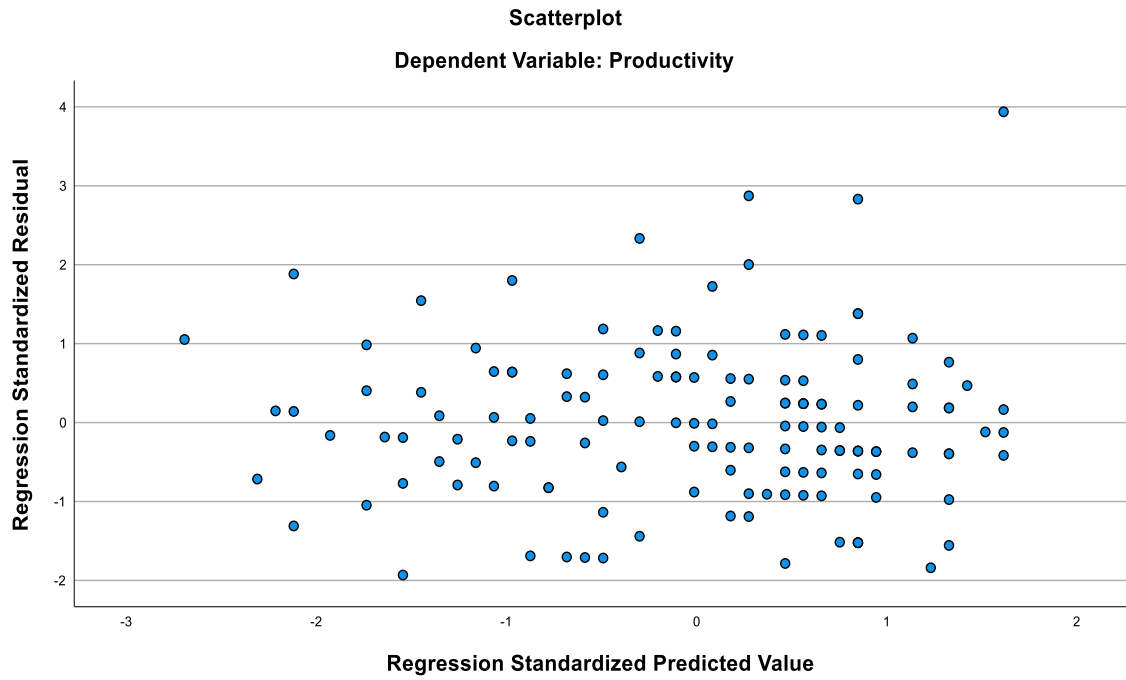
a. Dependent Variable: Productivity

Residuals Statistics ^a					
	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	4.910	5.061	5.005	.035	140
Residual	-.950	1.938	.000	.490	140
Std. Predicted Value	-2.697	1.613	.000	1.000	140
Std. Residual	-1.931	3.937	.000	.996	140

a. Dependent Variable: Productivity

Charts





Regression Productivity - Transactional

Descriptive Statistics			
	Mean	Std. Deviation	N
Productivity	5.005	.491	140
Transactional leadership	4.619	.871	140

Correlations			
		Productivity	Transactional leadership
Pearson Correlation	Productivity	1.000	.187
	Transactional leadership	.187	1.000
Sig. (1-tailed)	Productivity	.	.014
	Transactional leadership	.014	.
N	Productivity	140	140
	Transactional leadership	140	140

Model Summary ^b				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.187 ^a	.035	.028	.484
a. Predictors: (Constant), Transactional leadership				

b. Dependent Variable: Productivity

ANOVA ^a						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1.171	1	1.171	4.981	.027 ^b
	Residual	32.438	138	.235		
	Total	33.609	139			

a. Dependent Variable: Productivity

b. Predictors: (Constant), Transactional leadership

Coefficients ^a					
Model		Unstandardized Coefficients		Standardized Coefficients	t
		B	Std. Error	Beta	
1	(Constant)	4.518	.222		20.362
	Transactional leadership	.105	.047	.187	2.232

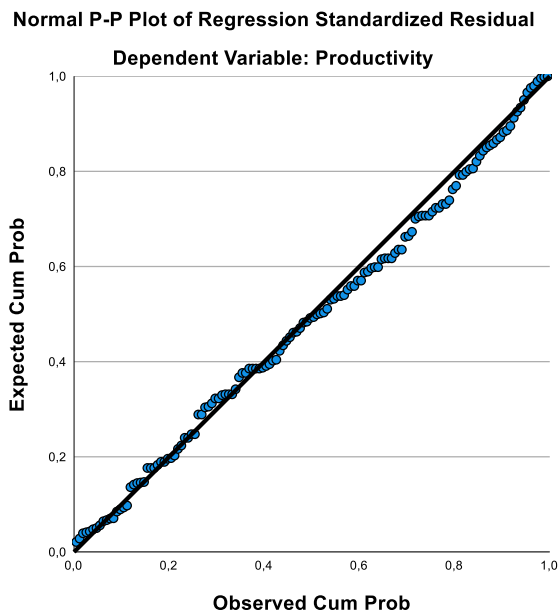
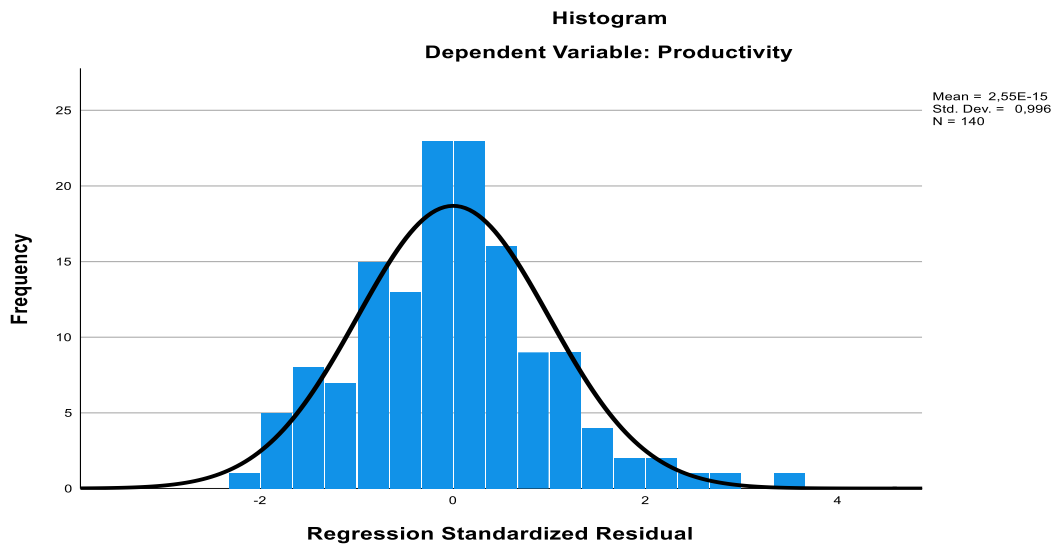
Coefficients ^a				
Model		Sig.	95.0% Confidence Interval for B	
			Lower Bound	Upper Bound
1	(Constant)	<.001	4.080	4.957
	Transactional leadership	.027	.012	.199

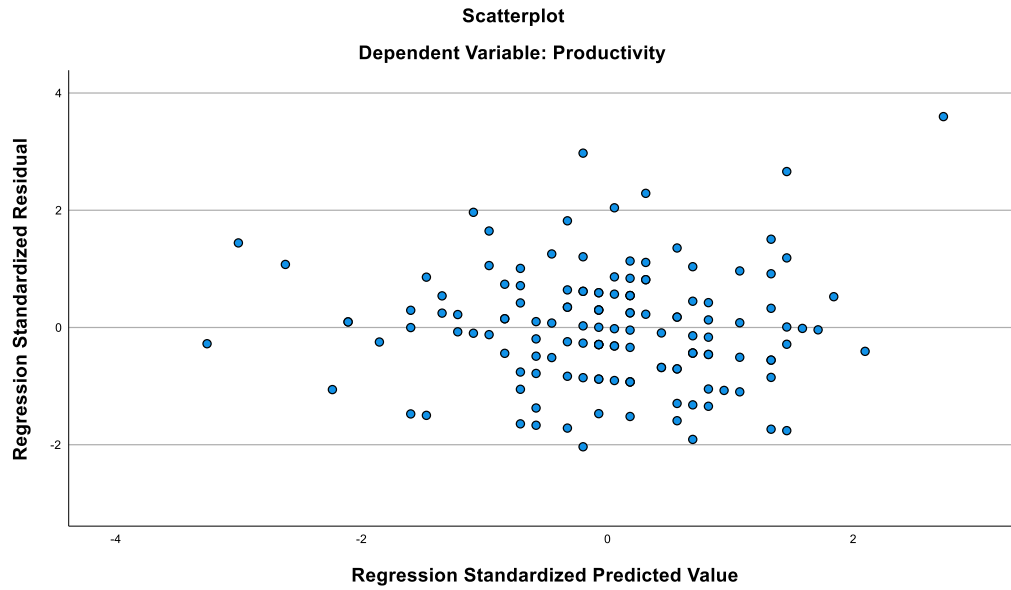
a. Dependent Variable: Productivity

Residuals Statistics ^a					
	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	4.705	5.255	5.005	.091	140
Residual	-.986	1.744	.000	.483	140
Std. Predicted Value	-3.262	2.732	.000	1.000	140
Std. Residual	-2.035	3.597	.000	.996	140

a. Dependent Variable: Productivity

Charts





T-Test Productivity/ Education (- P.hD)

Group Statistics					
	Education	N	Mean	Std. Deviation	Std. Error Mean
Productivity	2	13	4.802	.300	.083
	3	79	5.014	.554	.062

Independent Samples Test					
		Levene's Test for Equality of Variances		t-test for Equality of Means	
		F	Sig.	t	df
Productivity	Equal variances assumed	4.601	.035	-1.345	90
	Equal variances not assumed			-2.040	27.846

Independent Samples Test				
		t-test for Equality of Means		
		Significance		Mean Difference
		One-Sided p	Two-Sided p	

Productivity	Equal variances assumed	.091	.182	-.212
	Equal variances not assumed	.025	.051	-.212

Independent Samples Test				
		t-test for Equality of Means		
		Std. Error Difference	95% Confidence Interval of the Difference	
			Lower	Upper
Productivity	Equal variances assumed	.157	-.525	.101
	Equal variances not assumed	.104	-.425	.000

Independent Samples Effect Sizes					
		Standardizer ^a	Point Estimate	95% Confidence Interval	
				Lower	Upper
Productivity	Cohen's d	.527	-.403	-.991	.188
	Hedges' correction	.531	-.399	-.983	.187
	Glass's delta	.554	-.383	-.972	.208

a. The denominator used in estimating the effect sizes.

Cohen's d uses the pooled standard deviation.

Hedges' correction uses the pooled standard deviation, plus a correction factor.

Glass's delta uses the sample standard deviation of the control group.