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**Comparison of Preferred Leadership Styles of Hungarian and
Turkish Subordinates in Terms of Cultural Dimensions**

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ABBREVIATIONS

Power Distance	PDI
Individualism	IDV
Masculinity	MAS
Uncertainty Avoidance	UAI
Long-Term Orientation	LTO
Indulgence vs. Restraint	IND
The Global Leadership and Organizational Behaviour Effectiveness	GLOBE
Culturally Endorsed Leadership	CLT
Individualism and Collectivism	IND-COL
Horizontal Individualism	HI
Horizontal Collectivism	HC
Vertical Individualism	VI
Vertical Collectivism	VC

1. INTRODUCTION

1.1. Research Background

Leadership is accepted as a universal concept across the cultures however the way leadership is perceived, understood, practiced can vary across the cultures. Studies based on management and culture take into account cultural dimensions and effects of national cultural differences (Watts et al., 2020). Leadership is widely recognized as a universal concept, but its practical application is often shaped by cultural influences. Management and cultural studies frequently reference Hofstede's cultural dimensions, emphasizing the impact of national cultural differences (Watts et al., 2020).

Cultural factors and patterns may impact on leadership process especially how subordinates and leaders interact one another. Especially, leadership styles and decision making are impacted by cultural factors (Urbach et al., 2021). Cultural dimensions of collectivism-individualism, power distance impact how employees view their roles as subordinate. Individuals are thought to be not active and follow the orders to take less initiative. Its vice-versa for the low power distance cultures (Blair and Bligh, 2018). Culture have been studied through the in terms of collectivism and individualism. Some scholars define individualism-collectivism as related but separate aspects (Cozma, 2011).

Triandis (2018) indicated that collectivism and individualism can be divided into vertical and horizontal dimensions. The vertical and horizontal difference relates to the relationship with hierarchy, power and inequality, authority (Shavitt, 2010). Vertical dimension highlights hierarchy while horizontal dimension highlights equality. Cultures identified as horizontal individualism (HI) refers people who see themselves on the same level to others, and independent. Vertical individualism (VI) refers people seek higher status and power and they are independent. Horizontal collectivism emphasizes interdependence and equality. Vertical collectivism refers people dependent and unequal (Singelis et al., 1995; Triandis and Gelfand, 1998).

Cross cultural studies on preferred leadership styles are in perspective of subordinates are still limited especially relationship between preferred leadership styles and horizontality and verticality of individualism-collectivism (Lord et al., 2020).

Culture plays an important role, when assessing different leadership styles, ideologies, cultural patterns and organizational behaviours. Cultural values affect how subordinates perceive their managers' behaviours and attitudes and leadership style of leaders. Therefore, leadership differs across cultures, highlighting the fact that diverse traits and characteristics rooted in community or location are employed to define a leader (Rao-Nicholson et al., 2020).

Individualism-collectivism impacts whether leadership style is authoritarian or democratic. Leaders may face difficulties enforcing an authoritarian leadership style in cultures that respect independence and autonomy and place significant value on being part of decision-making processes. In contrast, individuals in collectivistic societies want leaders to give care and safety, especially in certain conditions (Janićijević, 2019). Effectiveness of different leadership strategies and the formation of leadership styles are influenced by culture. The level of individualism and collectivism within a culture will determine the success of leadership methods, such as those that focus on individual versus team-oriented practices or participative versus autocratic styles (Motta and Gomes, 2022).

Turkish culture consists of high-power distance, collectivist. These characteristics make authoritarian leadership style is the most common leadership style for the Turkish managers (Ersoy et al., 2012). Turkish subordinates are willing to tolerate autocratic leadership styles. Turkish managers exhibit both paternalistic and autocratic leadership styles, and their subordinates frequently expect them to be caring and supportive figures. Due to the considerable power distance in Turkish culture, reputation, position, authority, power highly regarded in organisations (Gürcan, 2021).

Hungary demonstrated an individualistic tendency, emphasizing the well-being of their immediate family over collective goals. This displays in two primary ways at workplace. Firstly, in management and compensation practices, there is a strong emphasis on evaluating employees based on their individual achievements rather than the team performance, emphasizing the greater importance placed on individual contributions. Leaders in SMEs are often viewed as having consultative and participative leadership styles Hungarian managers are increasingly acknowledging the benefits of participative leadership, who apply this style often foster a more welcoming environment, motivating team members to share their perspectives (Tóth et al., 2022).

As indicated above, the main objective of this dissertation is to investigate the compare preferred leadership styles of both Hungarian and Turkish subordinates based on cultural dimensions.

1.2. Problem Statements

Culture also influences how leaders and followers behave toward each other. The interactions between subordinates and leader are affected by culture. Leaders who adjust their behaviours to align with cultural values of their subordinates are appreciated and accepted by the subordinates. Followership and leadership are closely connected and cultural expectations shape how leaders and subordinates behave (House et al. 2014; Urbach et al. 2021).

In high power distance nations, subordinates are generally not active compared to the low power distance nations, as they are instructed to embrace their lower position within the hierarchy. Under these circumstances, subordinates are expected to adhere instructions of their leaders without taking any initiative or asserting themselves (Blair and Bligh, 2018).

In Western societies, subordinates are included decision making process by engaging formally or informally. On the other hand, Eastern cultures such as Japan value input from all levels of the organization, especially from subordinates instead of having orders come from higher levels. The idea behind of including subordinates to the decision-making process to create collaborative environment where everyone's opinions are taking into account before making decisions. For instance, employees are not called subordinates but instead coworkers in Holland. In this setting the term coworker is less hierarchical, and it reflect the main meaning in democratic settings (Stošić and Simić, 2024).

Kemmelmeier et al. (2003) stated that vertical individualism and vertical collectivism are linked to authoritarian leadership styles based on their study. Additionally, Dickson et al. (2003) argued significant respect for authority linked to high vertical collectivism recommend a connection to leadership. Leadership is associated with horizontal-vertical dimensions of collectivism and individualism and suggested that further studies must be conducted to investigate this topic further since there is not enough research in this area. It is stated that in-group collectivism and institutional collectivism could be explained by the idea of vertical and horizontal collectivism.

Based on the literature I conducted our research to fill in this gap in the literature.

1.3. Objectives of Research

This study evaluates the relationship between cultural dimensions (vertical collectivism, vertical individualism, horizontal individualism, horizontal collectivism) and preferred leadership styles (authoritarian and participative leadership) of both Hungarian and Turkish subordinates. As previously mentioned, the lack of studies has been identified in that field therefore, this dissertation attempts to identify whether cultural dimensions affect preferred leadership styles in this paper. For this reason, in this dissertation, cultural patterns and preferred leadership styles of Turkish and Hungarian subordinates have been identified and at the end the link between cultural patterns of both Turkish and Hungarian sample and preferred leadership styles of both subordinate groups statistically have been tested. The discussions regarding the topic lead to research questions, as follows:

Research Question 1: *Do Turkish and Hungarian subordinates prefer different cultural patterns?*

Hungarians shows horizontal collectivist tendencies in some of the studies, some other ones discover Hungarians show horizontal individualism tendencies (Gajdošová et al., 2020; Schermer et al., 2023). Most of the studies showed that Turks have tendency for the vertical collectivism (Erdogan and Bauer, 2010; Erdogan and Liden, 2006) and few studies show Turkey has horizontal collectivism tendencies (Schermer et al., 2023). Based on literature Hungary represents horizontal dimension; Turkey represents vertical dimensions. Due to the lack of studies for cultural dimensions (HI, VI, VC, HC) for Hungary, this research question will help to contribute to literature.

Research Questions 2: *Do Turkish and Hungarian subordinates prefer different leadership styles?*

Hungarian managers tend to practice participative leadership style more compared to the Turkish managers. Most of the Turkish managers tend to practice authoritarian leadership style and most of the Hungarian managers practice the participative leadership style (Lazányi and Holicza, 2020; Gürcan, 2021). Most of the studies were conducted to research leadership styles in perspective of managers.

Research Questions 3: *Is there any link between cultural patterns and subordinates' preferred leadership style?*

Dickson et al. (2003) claimed that horizontal collectivism and horizontal individualism are linked to autocratic leadership style. Kimmelmeier et al. (2003) stated that vertical collectivism and vertical individualism are linked to participative leadership style.

Our research could benefit from examining how the distinctions in horizontal and vertical dimensions of individualism and collectivism link to leadership styles considering Hungarian Turkish subordinates.

Research Questions 4: *Do demographic factors (e.g., age, gender, education) influence the cultural patterns and preferred leadership styles among Turkish and Hungarian subordinates?*

The elements such as educational level, socio economic position of the participants connected with leadership on the study of Batsenko and Halenin (2024). Hofstede (2011) stated horizontal dimension of collectivism and individualism appears to be linked the educational level of the individuals. I've discussed how age, gender, educational level affects the preferred leadership styles and cultural patterns in both countries.

1.4. Contribution and Structure of the Thesis

Main aim of this study was to evaluate the Cultural Patterns of a group of Turkish and Hungarian subordinates using instrument called Values Scale (Singelis et al., 1995) and identify the preferred leadership style of both groups of subordinates using a measuring instrument named The Taxonomy of Leaderships' Styles (Vroom, 2000). Additionally, this research emphasised the relationship between leadership and culture. Therefore, the distribution of power between subordinates and managers as accepted by different social groups, should be considered because each group understands the worlds based on their own cultural viewpoint. Using the statistical method, the degree to which cultural patterns of Hungarians and Turkish subordinates were associated with the leadership styles considering a range from most authoritarian to the most participative style. The literature currently has lack of studies that examines comparison of Hungary and Turkey from this specific perspective and this absence present a significant gap in understanding how these two countries approach the participative and authoritarian leadership styles and culture.

This dissertation consists of seven sections: Introduction, Literature, Methodology, Results, Conclusion, New Scientific Results, Summary. Cultural Dimensions, Leadership and Culture, Overview of the Leadership in Hungary and Turkey, Cultural Patterns, Values Scale that was applied to assess the cultural patterns of Hungarian and Turkish participants. Vroom-Yetton-Jago decision model and The Taxonomy of Leaderships' Styles that are derived from this decision model that was applied to evaluate the preferred leadership style of Turkish and Hungarian participants.

2. LITERATURE REVIEW

2.1. Cultural Dimensions

There are various well-known culture models for analyzing cultural dimensions, such as Gelfand's (2019) concept of tight-loose cultural dimension, GLOBE (House et al., 2004). Hofstede's (1980, 2001) cultural dimensions, Schwartz's (1994) cultural values.

Hofstede's (1980) fundamental study employed a limited set of characteristics to highlight cross-national cultural differences, providing a trustworthy framework for comprehending these variances. His work has made a substantial contribution to the surge in empirical research on the relationship between corporate culture and performance. Geert Hofstede conducted a study with 117,000 IBM employees from 66 different nations between in 1967 and 1973. He chose to replace the original 66 countries for examination in 1983 and 1984 with a smaller sample of 53 countries. Based on his original observations and further modifications, Hofstede developed a framework to categorize cultures according to four essential dimensions: Power Distance (PDI), Individualism (IDV), Masculinity (MAS), and Uncertainty Avoidance (UAI).

Hofstede's model gained a fifth dimension when he carried out a follow-up study that involved surveying Chinese employees in 1991. The model contains the Long-Term Orientation (LTO) dimension, which draws inspiration from Confucian dynamism. This dimension emphasizes characteristics including diligence, determination, and seeking long-term objectives. Hofstede looked at 23 countries to evaluate the impact of this component, which has led to a deeper understanding of cultural variations around the world. Based on Hofstede's research, these five cultural dimensions are relevant for understanding cross-cultural variations since they align with various national, cultural, and religious paradigms. Expanding upon his initial work, Hofstede and Minkov introduced a sixth cultural dimension, Indulgence vs. Restraint (IND), in a comprehensive study involving 93 nations This dimension reflects the inclination towards either the fulfilment or moderation of fundamental human desires (Hofstede et al., 2010).

House et al. (2004) carried out GLOBE (The Global Leadership and Organizational Behaviour Effectiveness) project an extensive investigation into culture, taking into account values and practices at the levels of industry, organization, and society.

The results were derived from the feedback given by around 17,000 executives from 951 businesses that operate internationally in 62 societies. Additional perspectives were incorporated into the managers' input through the collection of further insights obtained from group discussions and interviews. Nine core dimensions of GLOBE were created from societal and organizational culture items. Countries were framed based on nine cultural dimensions and these cultural dimensions are listed in table below.

Schwartz's (1994) study showed that the crucial differentiation among societal values lies in the motivational objectives they articulate. They identified ten universal human values that mirror various needs, social motives, and demands from social institutions. The study involved the examination of 35,000 individuals, comprising both educators and college students, across 122 samples derived from 49 distinct countries, with the aim of exploring their individual value preferences. He categorized values into seven distinct groups (emotive autonomy, embeddedness, hierarchy, intellectual autonomy, equality, harmony, and mastery), structured based on three essential dimensions: autonomy vs conservatism, egalitarianism vs hierarchy, and harmony vs mastery. These values represent the necessities of human existence that are supposedly common to all cultures (Peterson and Søndergaard, 2011).

Gelfand's (2019) tight-loose cultural orientation identifies how strictly societies commits strong rules and norms that shape behaviour (tight) or more flexible and lenient (loose). Tight cultures require strong enforcement of societal norms, strict rules and minimal tolerance for the changes. Conversely, loose cultures require more flexibility, acceptance of non-traditional behaviours.

Table 1 represents the culture models and their dimensions; Hofstede's (2001, 2010) six cultural dimensions, GLOBE's nine cultural dimensions (House et al., 2004), Schwartz's (2012) cultural values, Gelfand's (2019) cultural values.

Table 1. Culture Models and Their Dimensions

Culture Model	Dimension/Value
Hofstede (2001), Hofstede et al. (2010)	
The level of acceptance and expectation of disparate distribution of power within organisations and institutions within a culture.	
Power Distance	The level of acceptance and expectation of disparate distribution of power within organisations and institutions within a culture.
Masculinity vs Femininity	The degree to which a society favours more cooperative and caring qualities over more stereotypically masculine ones like assertiveness and competitiveness.
Individualism vs Collectivism	The degree to which a society favours more cooperative and caring qualities over more stereotypically masculine ones like assertiveness and competitiveness.
Uncertainty Avoidance	The level of discomfort that members of a culture have with confusion, unpredictability, and innovation.
Long term versus short term Orientation	The degree to which a society prioritises long-term goals, frugal living, and perseverance over instant satisfaction.
Indulgence versus Restraint	The degree to which a society favours self-indulgence and satisfaction over self-control and discipline.
GLOBE (House et al., 2004)	
Power Distance	The level of expectation among a group of people that power will be shared equitably.
Uncertainty Avoidance	The degree to which a community, institution, or group depends on customs, laws, and guidelines to lessen the uncertainty of future events
Human Orientation	How much a group supports and honours people for being just, selfless, giving, considerate, and nice to others.
Collectivism 1 (Institutional Collectivism)	The extent to which institutional and organisational processes within a society and organisation promote and reward sharing resources and working together.
Collectivism 2 (in-group collectivism)	The extent to which people display pride, allegiance, and unity in respect to their families or organisations.
Assertiveness	The level of assertiveness, confrontationality, and aggression exhibited by people in their interpersonal interactions.
Gender Egalitarianism	The extent to which a group reduces the gap between genders.
Future Orientation	The degree to which people participate in future-focused actions like saving money, making plans, and postponing satisfaction.
Performance Orientation	The extent to which a group supports and honours individuals who progress and perform very well.

Schwartz (2012)	
Conservation	The importance of maintaining order, resisting change, and exercising self-control.
Conformity	The importance of controlling behaviours, preferences, and urges that could cause damage or disturbance to others or defy social norms or expectations.
Tradition	the importance of honouring and maintaining historical and cultural practices, customs, and values.
Security	The importance of pursuing security, steadiness, and defence against danger or injury.
Openness to Change	The importance of initiative, inventiveness, and adaptability.
Self-Direction	The importance of pursuing individual objectives, liberty, and originality.
Stimulation	The importance of consistently pursuing novelties, exhilaration and experiences.
Self-enhancement	The importance of promoting yourself and working towards your goals.
Achievement	The importance of aiming for individual achievement and greatness.
Power	The importance of aiming for supremacy or authority over both individuals and objects.
Self-transcendence	The importance of having empathy for other people and the community as a whole.
Universalism	The importance of advancing well-being, fairness, and equitable treatment for all.
Benevolence	The importance of attempting to improve the well-being of others, particularly those who are close to or in need.
Spirituality	The significance of trying to grasp the universe and one's role in it from a metaphysical or spiritual perspective.
Gelfand (2019)	
Tight-loose cultural orientation	How much society can be divided into two categories: highly regulated, with strict standards and laws; or loosely regulated, with more latitude and tolerance.

Source: Gelfand (2019), GLOBE (House et al.2004), Hofstede et al. (2010), Schwartz (2012).

In addition to this, there other cultural models and cultural values are created by several scholars. More information is given in below.

Cultural anthropologist Hall and Hall (1990) created a cultural model by carrying out in-depth sociological research in a number of civilizations, including France, Germany, Japan, and the United States. Examining the variations in social communication techniques across various cultural contexts was his primary focus (Adair et al., 2013).

Hampden-Turner and Trompenaars (1997) conducted a survey involving more than 11,000 employees from 46 countries to investigate cultural variations in interpersonal interactions. He established a set of seven standards for identifying cultural variation in organizations. These standards characteristics including time orientation, environmental attitudes, particularism versus universalism, individualism versus collectivism, emotional versus neutral, diffuse versus specific, and ascription versus achievement. The initial five dimensions centre on interpersonal relationships, whereas the final two concentrate on temporal aspects and society's connection with the environment. (Tung and Stahl, 2018).

The core elements of a group's culture are its values, which are reflected in its cultural dimensions. Since these values address fundamental issues faced by all communities, they align with findings in anthropology. These values encompass various dynamics, such as relationships with authority figures, personal identity, social interactions, concepts of gender roles, conflict management, ambiguity avoidance, and emotional expression. Even though these problems are thought to be universal, civilisations' responses to them differ because of the distinct mental programming that exists inside each culture. Hofstede (2011) claimed that both power distance and individualism-collectivism are important cultural factors that are relevant to the leadership.

2.1.1. Power Distance

The degree to which people, communities, or cultures accept the unequal distribution of money, prestige, power in social or organisational settings is measured by the concept of power distance. Research on IBM workers is where Geert Hofstede first identified power distance as a cultural component. Nonetheless, additional research has indicated that Hofstede's conclusions are applicable to a wider range of cultural contexts. The acceptance and tolerance of differences or inequality is the fundamental characteristic of power distance. The term "power distance" describes the disparity in authority between managers and subordinates (Hofstede et al., 2010).

According to Robert et al. (2000), power distance is an important cultural factor that should be considered when analysing employee behaviours and leadership styles. Power distance has been highlighted as being important in leadership studies because of its impact on how people perceive leaders. Scholars propose individual power distance orientation as a variable at the individual level and demonstrate its impact on leadership perception and effectiveness (Kirkman et al., 2009).

Hofstede (2011) asserted that cultures with high and low power distance have different leadership-subordinate dynamics. Paternalistic inclinations frequently rule the dynamics between superiors and subordinates in societies characterised by a high-power distance. People in high-power distance societies are generally more tolerant of differences in wealth and power allocation, and these cultures are also more likely to have authoritarian leadership styles. Societies with high power distance have social distancing standards followed by members of the workforce who are expected to be loyal, obedient, respectful to their superiors (Özdemir, 2021).

Leaders in high power distance cultures are more likely to take an authoritarian position. (Javidan et al., 2006; Yukl, 2006). Autocratic tendencies are more prevalent in high power distance cultures, where subordinates usually rely greatly on their superiors. Power distance refers to the power inequality between superiors and subordinates, so that cultures high in this dimension have an obvious hierarchy in organizations (Hofstede, 2011; Siddique et al., 2020). Cultures with a high-power distance, performance is positively correlated with a more authoritative leadership style. This choice is a result of the value extended families have on preserving family ties and the factors these societies take into account when making decisions about moving and changing careers (Prajogo et al., 2022).

It has been observed that in the families, senior members will take care of the juniors even after they are able to live independently in high power distance cultures. The strong authority relationship with parents, particularly with the father, is further emphasized in the school environment, where children are expected to show great respect for their teachers. Through everyday experiences, they learn that it is preferable to accept the teacher's instructions without questioning them. This behaviour continues into their professional lives, where they are conditioned to follow their supervisors' directives without challenging them (Khan and Panarina, 2017).

Dorfman et al. (2012) argued that people who grow up in high power distance cultures are instilled with values such as respecting authority figures, having faith in the ability of leaders to make decisions, and following the rules that they create. Subordinates in a high-power distance

frequently base their decisions on the advice of their superiors. More specifically, people in high power distance are inclined to tolerate power imbalances within their companies (Areiqata et al., 2020). Employees that work in companies with a high-power distance culture feel that it is better to treat managers, who is in charge of their earnings, with respect, courtesy, and loyalty (Kirkman et al., 2006). Employees in high power distance countries usually expect to be given explicit instructions on what needs to be done, which can limit their ability to think independently and express themselves creatively (Hofstede, 2011).

Decision-making in cultures with a high-power distance is strongly impacted by the dominant cultural norms. A sense of existential inequality between managers and subordinates is reflected in the frequent decision-making by superiors without soliciting opinion from subordinates. In this setting, people accept power imbalances as normal and don't need any further explanation. On the other hand, it was found that high power distance societies—where followers often have a great deal of faith in their leaders—were more likely to exhibit authoritarian tendencies. Societies are with high power distance usually more tolerant of inequality and lean towards authoritarian or centrally planned leadership styles (Trompenaars and Hampden-Turner, 1998). Individuals who have a high-power distance orientation may be more vulnerable to emotions of inferiority and may view their superiors as authoritarian, which may increase their fear of authority (Khatri, 2009). For instance, a less negative attitude towards authoritarian leadership may be found in high power distance societies and in such societies, dominance and strong displays of power might be appropriate for leaders. People in these cultures therefore tend to support hierarchical structures and think that followers should be trusting and devoted to their superiors (Kirkman et al., 2009; Schiller and Cui, 2010).

According to studies, hierarchical wage structures with varying degrees of power distance among cultures result in managers being paid more than their subordinates. In addition, individuals in high power distance cultures typically embrace and anticipate a rigid hierarchy of authority, favouring a paternalistic leadership style (Tosi and Greckhamer, 2004).

Organisations with high power distance, employees believe managers who encourage participation in decision-making as incompetent and unauthoritative. In high power distance environments, people tend to prefer authoritarian, directive management styles because they think that doing as they are told will improve output and advance their objectives. They believe that the leader is capable, and following their instructions will result in maximum performance (Stošić and Simić, 2024).

The term "power distance orientation" describes a person's attitudes towards position, authority, and the allocation of power within organisations. High power distance orientees anticipate and accept the existence of differences between superiors and subordinates, making them psychologically depend on their leaders. They rely on leaders to offer them instructions that are straightforward and unambiguous or they are prone to obey commands without questioning them. Children are frequently trained to respect and obey authoritative people in high power distance nations. It is deemed impolite and inappropriate to question someone in a position of authority, and it is unfavourable to dispute or contradict a boss (Mitter et al., 2024).

Teacher-student relationships are characterised by independence and equality in low power distance cultures, the only difference lies in their roles. This dynamic is reminiscent of the egalitarian father-child dynamics present in these civilisations, where family patterns are reflected and reinforced in schools. Consequently, schools adopt core beliefs and behaviours similar to those found at home. Additionally, in low power distance societies, parents foster a balanced and equal relationship with their children, empowering them to take charge of their own life and approach future and present personal interactions with independence. People are more likely to pay attention to how authorities engage with their supporters when they develop "personal connections" with them. When people interact with their superiors, relationships frequently grow more personalised in settings where social or power disparities are minimal (Lin and Sun, 2018).

Furthermore, despite its overall effectiveness, a participative leadership style might not be appropriate in societies with significant degrees of power distance. People who work in low power distance environments—where subordinates are not as dependent on superiors—tend to favour participative leadership. Low power distance nations reward managers who actively seek their views before making choices through consultative leadership. Individuals with a lower propensity to appreciate power distance are also less likely to develop a strong dependence on their managers (Rabl et al., 2014).

Cultures with low power distance, ability and performance play an important role in promoting and motivating employees and reducing the power distance between the superiors and subordinates could contribute to workplace communication. In particular, lowering down on physical distance can aid in lessening the impression of power distance. People in an organisation are comfortable interacting with coworkers regardless of their gender, seniority, or professional standing (Li et al., 2021).

In cultures with low power distance, the power gap between people with different levels of authority is reduced. Those in higher positions are more likely to involve and share power with those in lower positions. Consequently, people in lower positions often expect to have a voice in decision-making. Leaders in such egalitarian societies should highlight their approachability and equality with others. Creativity is highly prized in low power distance societies, because leaders anticipate receiving feedback and input from their subordinates. People actively endeavour to establish an equitable allocation of power and look for the causes of any power imbalances in societies with low power distance values. In such environments, both superiors and subordinates are seen as partners, and employees feel entitled to participate in decisions that affect them. Employees in organizations with low power distance are less likely to strictly follow their supervisors' directives and are more attuned to how their managers interact with them during discussions (Minkov and Kaasa, 2022).

2.1.2. Individualism-Collectivism

The phrase "individualism-collectivism" has become more crucial in cross-cultural studies over the last two to three decades (Chun et al., 2021), especially difference between individualism vs collectivism is common topic in cross-cultural management and leadership research is (Dickson et al., 2003). Individualism and collectivism (IND-COL) are cultural dimensions that have caught more academic attention than other dimensions (Fatehi et al., 2020). Dimensions of Hofstede and the GLOBE project identified the existence of an individualism-collectivism dimension, which may be the most fundamental contributor to cross-cultural disparities. More research has been conducted on individualism and collectivism (IND-COL) than on other cultural aspects. Some researchers argue that the concepts of IND-COL are more intricate and could be expanded upon further. Some of the researchers described individualism as polar opposite of collectivism within the framework of national cultural dimensions, implying that the two concepts represent opposite points of a single spectrum.

Other scholars held opposite opinion that individualism and collectivism are independent concepts and should be treated as separate dimensions (Taras et al., 2010).

Collectivism refers to a set of values, beliefs, and behaviours targeted at benefiting a broad range of people (Triandis, 2018). It involves a sense of belonging to larger groups or communities, where mutual support is given in return for loyalty. In contrast, individualism is characterized by a focus on oneself and one's immediate family. Hofstede (1993) suggested that individualism is

characteristic of societies with limited personal connections, where individuals are expected to prioritize their own needs and those of their immediate family. In contrast, collectivism fits societies where people are brought up in close-knit, unified communities. These communities persist throughout a person's life, providing security in return for loyal commitment. Individualism and collectivism differences are perceived as unique personality characteristics that distinguish people from one another in an identical cultural group.

Triandis (2018) found four fundamental characteristics that distinguish individualism from collectivism: (a) perceptions of the self – Individuals are considered as autonomous entities in individualistic cultures, whereas people are viewed as attached to others in collectivist societies; (b) attitudes toward goals – In individualistic societies, if there is a conflict between an individual aim and a communal goal, the individual goal is usually prioritized, whereas in collectivist cultures, the group goal is normally prioritized; (c) the importance of norms – Individualist and collectivist cultures view norms differently. Individuals in individualist cultures are motivated to maintain their personal values, attitudes, and beliefs, but in collectivist societies, people are driven by social norms and obligations; and (d) the balance between tasks and relationships – Individualist cultures emphasize the importance of tasks over relationships, whereas collectivist cultures prioritize establishing harmonious relationships, even if it requires compromising completing tasks. Individualism and collectivism have various characteristics across societies and within them. **Table 2** outlines the key differences between the cultural dimensions of individualism and collectivism.

Table 2. Differences between Individualism and Collectivism

Differences	Individualism	Collectivism
Priority	Personal freedom is a core cultural and political value	Values harmony and promote unity and solidarity of the group
Self-Concept	People see themselves as independent with inherent freedoms.	Individuals view themselves as interconnected, needing to attune their thoughts with the group's context.
Decision Making	Individual actions and interests are often guided by their personal ambitions, which the group supports.	Decisions are influenced by the desire for collective agreement and meeting the community's needs.
Communication Style	Communication that is straightforward and clear	People to communicate indirectly and relying on context.
Achievement	Individual progress and accomplishment are praised.	Individual achievement is not as significant as group accomplishment, and self-praise is not encouraged.

Source: Hofstede (2011)

Hofstede (2011) identified individualism-collectivism as a central element in the theory of cultural diversity. Individualism-collectivism (I-C) has been considered a significant cultural component that influences theories and research in organisational and management studies related to culture. The idea of individualism-collectivism demonstrates how much a society values working together to accomplish common goals. Individualistic civilisations tend to attribute success to personal qualities, whereas collectivist societies view achievement as the product of collective efforts (Beilmann and Realo, 2012). Individualistic cultures are typically more open to deviating from accepted standards and more market oriented. Conversely, collectivist societies place a higher priority on upholding traditional values and preserving group cohesion (Cukur et al., 2004; Gorodnichenko and Roland, 2011). On the other hand, in individualistic societies, people can trust the people even they do not them personally. People do not focus on whether a person is part of their group. Strangers are even more trusted due to their honesty and fairness. Therefore, community activities and business are easier to make with strangers than the people of the part of the group especially close friends and family members (Van Hoorn, 2015).

Effective leaders prioritise preserving group cohesion and attending to the personal needs of their coworkers (e.g., a relationship-oriented approach) in collectivist cultures. As opposed to this, goal-driven and participative approaches (task-oriented approach) are thought to be more appropriate in individualist nations (Triandis, 1993; Zhou and Kwon, 2020).

Individualism-collectivism impacts whether leadership style is authoritarian or democratic. Leaders may face difficulties enforcing an authoritarian leadership style in cultures that respect independence and autonomy and place significant value on being part of decision-making processes. In contrast, individuals in collectivistic societies want leaders to give care and safety, especially in uncertain conditions. In exchange, they demonstrate total obedience and commitment. As a result, it's no surprise that authoritarian leadership styles dominate participative leadership in collectivist cultures (Janićijević, 2019).

Effectiveness of different leadership strategies and the formation of leadership styles are influenced by culture. The level of individualism and collectivism within a culture will determine the success of leadership methods, such as those that focus on individual versus team-oriented practices or participative versus autocratic styles. In collectivist cultures, individuals emphasize group cohesiveness and maintaining connections. Leaders set clear expectations for task execution, leading subordinates to avoid direct confrontation and carry out tasks quietly (Minkov and Kaasa, 2021). Due to the high importance placed on social harmony and relationships, managers in these cultures are seen as authoritative figures, direct or transparent methods for resolving conflicts are not commonly supported or promoted. Leadership practices focus on the well-being of group members, family, and the community as a whole. In collectivist societies, effective leadership is seen as a long-term aim that relies on the commitment, extra effort, and satisfaction of subordinates. Consequently, leaders are expected to offer security and guidance to their subordinates in exchange for loyalty and devotion, emphasizing mutual obligation (Srivisal et al., 2021).

Individualistic cultures emphasize autonomy, personal rights, and self-sufficiency, while collectivist societies promote group solidarity, mutual responsibilities, and dependence on the community (Brewer and Venaik, 2011). Individualistic societies reveal a greater degree of autonomy, fostered by the encouragement of independent behaviour and a strong focus on both career and personal development (Kucharska, 2021).

In such contexts, individuals advance in the social and economic hierarchy largely due to their personal accomplishments rather than collective successes. Conversely, in collectivist societies, communal goals are prioritized over personal objectives, and individual accomplishments are often viewed as less significant (Rubino et al., 2020).

Cultural inclinations toward individualism and collectivism impact the extent of authoritarianism or democratic practices in leadership. In individualistic societies, individuals are expected to take responsibility for their own futures, with a strong emphasis on independence and autonomy. As a result, leaders may face challenges when trying to adopt an authoritarian leadership style. People expect to take an active role in decision-making. In contrast, people in collectivist societies want their leader to give compassion and security, sheltering them from instability (Benoliel and Barth, 2017). In exchange, they provide absolute allegiance and commitment. Thus, it is not unexpected that authoritarian leadership styles predominate over participative ones in collectivist cultures. The researchers stressed the centrality of cultural individualism and collectivism, which according to them affects participative decision making. Thus, individualistic cultures participation is mostly relevant to individuals, whereas in collectivistic cultures it is relevant to entire groups. Also, in collectivistic cultures, the entire group may be held responsible for the actions of its individual members (Venaik et al., 2023).

The researchers emphasized the importance of cultural individualism and collectivism, asserting that these factors influence participative decision-making. In individualistic cultures, participation tends to focus on individuals, while in collectivistic cultures, it pertains to whole groups. Additionally, in collectivistic cultures, the entire group may be held accountable for the actions of its individual members. Similarly, countries with high power distance prefer autocratic and paternalistic leadership styles, whereas those with low power distance lean towards democratic leadership styles (Or and Berkovich, 2023).

In high power distance cultures, there is a greater focus on subordinates recognizing and respecting the position of their superiors. Cultures with low power distance and individualistic tendencies are more likely to emphasize decentralization, whereas high power distance and collectivist cultures tend to favour centralization (Tallaki and Bracci, 2015).

Communication is typically more restricted in high power distance and collectivistic cultures compared to cultures with low power distance and individualistic ones. Managers required to convey factual data to guide others' perspectives and practices. In contrast, managers are assumed to share impartial facts to help subordinates to complete allocated responsibilities in collectivist and high-power distance cultures (Ly, 2020).

2.2. Leadership and Culture

House et al. (2004) defined leadership is a skill to convince, induce, and inspire people to assist in achieving organisational objectives. The term "leadership" has no single and universally accepted definition. The interaction between managers and subordinates is referred to leadership (Northouse, 2021). Leader is a type of person has ability to shape other people's behaviour (Vroom and Jago, 2007). Leadership is the most important topic since managers have a big influence on effectiveness and operations their (Janićijević, 2019).

The capacity to influence, motivate, and empower people to improve the effectiveness and prosperity of the organisations is known as leadership. A leader's method for creating objectives, carrying them out, and inspiring supporters is known as their leadership style. There are several ways to categorise leadership styles. Several academics claim that a variety of research has found a variety of leadership styles. For example, six global leadership dimensions were found during the GLOBE research. This study offered a different global definition for hidden leader behaviours, emphasising various cultural characteristics for crucial qualities and behaviours in leadership (Çuhadar, 2022).

House et al. (2004) stated that leadership philosophies consist of charismatic/value-based, team-oriented, self-protective, autonomous, participative, and humane-oriented leadership. Buckingham (2005) established four categories of leadership: autocratic, coaching, affiliative, democratic. Furthermore, Bass and Avolio (1994) proposed leadership framework includes transformative, laissez-faire, transactional styles.

A community's common customs, rules and regulations, and beliefs are all intricately blended to form that called culture (Triandis, 2018). Culture consists of cultural dimensions that helped to organise system of values. Culture consists of the common mental tendencies that people gain when they are children and keep with them during their entire lives. These tendencies include how people behave, feel, and think. The group of practices, concepts, and beliefs that distinguish individuals of one nation from those of another are known as national culture (Dangelico, 2020). A nation's cultural identity is formed by diverse aspects including religion, habits, education, politics, economics, laws, technology, social systems, language, beliefs, behaviors, conventions, perceptions of time, art, architecture, music (Khan and Law, 2018). National culture comprises a system of common behaviors, values, customs, beliefs, and that are emblematically conveyed by society. This system assists individuals in understanding their environment and guiding their actions (Janićijević, 2013).

A deeper understanding of the differences in management practices can be achieved by comparing national scores on cultural dimensions and management techniques across other nations. Culture has a big impact on management and leadership performance, particularly the ability to influence people, since it forms a person's core values and beliefs (Bellibaş and Kılınç, 2023). Recognizing what makes good leadership in various circumstances requires a comprehension of national culture. Cultural origins have an enormous effect on how managers and their staff members behave (Nazarian et al., 2021). Studies examine the direct and indirect effects of cultural elements on leadership (Dickson et al., 2003).

Few studies have explicitly looked at how leadership practices differ between countries in terms of leadership and culture in the present literature (Bartsch et al., 2013). The GLOBE project was established with the intention of exploring a range of theories, especially those related to leadership, while also confirming and developing upon the insights presented in Hofstede model (Zander, 2021). The research entailed a comprehensive examination of characteristics, abilities, dispositions, and proficiencies associated with the growth and efficacy of leadership. Through the First GLOBE project included 112 leader traits and behaviours, along with 21 crucial aspects of leadership determined through statistical analysis. Utilizing second-order factor analysis on these 21 characteristics, researchers effectively delineated six extensive dimensions of global leadership. This clarification enhanced the fundamental understanding of the Culturally Endorsed Theory (House et al., 2004). The GLOBE project studied impact of organizational and societal culture on leader behaviours. Finding showed organizational culture was often as significant as or even stronger than the effect of societal culture.

The second GLOBE study (House et al., 2014), scholars targeted to broaden on the leadership behaviours described in the first GLOBE study and understand if success of top managers depends on how their leadership style align with culture. Scholars gathered responses from 1000 top managers and 5000 senior managers in 24 countries. Charismatic leadership was the most effective leadership style out of the leadership styles, respectively team oriented, human oriented leadership style. Most ineffective leadership style were autonomous and self-protective leadership styles. Participative leadership style showed moderate and beneficial impact on their teams. **Table 3** presents the findings from the first GLOBE study (House et al., 2004) and the second GLOBE study (House et al., 2014).

Table 3: GLOBE Leadership Styles and Their Cross- Cultural Impacts

Dimensions of Leadership	Definition	Endorsement in Phase 1 (House et al., 2004)	Effectiveness in Phase 2 (House et al., 2014)
Charismatic/value based	Inspiring the other and motivate them. Grounded in firmly established core principles.	Widely recognized especially in the Anglo cultural cluster.	Universally recognized as most effective leadership style
Team oriented	Highlighting the unity of the team. Working together for the shared goals.	Universally supported	Recognized as universally effective
Participative	Decision is not made by only leader, but others are included to the decision making. Decision is implemented by all together.	Nordic Europe, Anglos, German Europe clusters support this leadership style. Middle East, Eastern Europe, Confucian and Southern Asia supported that less.	Moderately effective.
Human Oriented	Compassion, empathy, support will be demonstrated by the leader.	This leadership is valued in Confucian Asia, Anglo cultures, Sub Saharan Africa, Southern Asia.	Moderately affective
Autonomous	Promoting individuality, independence and uniqueness.	Latin Europe, Middle East, Sub-Saharan Africa, Latin America clusters rejected this leadership style. Eastern Europe and Germanic clusters supported fair enough of this leadership style.	Ineffective.
Self-protective	Being status conscious and focused on self-interest.	However Southern and Confucian Asia clusters considered this leadership less negatively. However, leadership universally disliked.	Rather ineffective

Source: (House et al., 2004), (House et al., 2014)

According to researchers working on the GLOBE project, cultural leadership values—a major and essential component of culture—can be the cause of cross-cultural variations in business. Leaders from various cultural backgrounds will guide their followers in unique ways due to their diverse viewpoints shaped by their environments where they live (House et al., 2014).

Examining how cultural dimensions linked to leadership is one way to approach to study of leadership and culture. Building comprehension into how leadership styles change across the

countries that are universally applicable and those that are special to the specific country or culture (Adobor, 2021). House et al. (2014) created three approaches (cultural compensation, near universality, cultural congruence). Cultural congruence approach indicates that leader behaviours that align with the social values are more likely to be embraced and efficient than the behaviours that are not aligned with societal values. Cultural compensation approach suggested that a leader's distinctive behaviour can provide effective leadership with new methods to the subordinates to reach their objectives. Effective leader attitudes can compensate for weaknesses in cultural beliefs and practices.

Although leaders that include their supporters in decision-making process are desirable in democratic settings, whereas authoritarian leaders are expected in authoritarian nations (Janićijević, 2019). Egalitarian cultures require participative leadership where power is distributed equally, whereas power and role culture are adaptable with authoritarian leadership style (Nikčević, 2016). A person's country culture, that develops into an essential belief, serves a major role in understanding their leadership style (Tsai, 2022).

Empirical studies demonstrate a robust association between cultural contexts and leadership styles in which they are utilized (House et al., 2004). Styles of leadership that managers deploy are heavily influenced by national cultures, which in turn affects the general accomplishment of organizations. Because different cultures have different points of view, leadership styles that work well in one environment could not work the same way in another. Social psychology researchers contend that a person's cultural heritage, which is formed by the values of the community, has a significant impact on their psychological and social growth. Hence, these cultural factors play a crucial role in influencing how people negotiate their roles and interpersonal relationships in different social environments (Markus and Kitayama, 2003). Culture offers a structure that shapes people's perceptions of their surroundings. It is often known that the dynamics between subordinates and their managers are greatly moulded by culture. Numerous studies in the field of cross-cultural leadership have investigated that how different cultural backgrounds determine the effectiveness of excellent leadership behaviours (Tsui et al., 2007).

Over the past fifty years, the majority of leadership research has come from the United States, Canada, and Western Europe, with significant contributions from North American leadership frameworks. A rising number of studies from different regions has emerged in recent years. People who reside in high power distance cultures—like nations Venezuela, Mexico, China—usually expect their leaders to be extremely powerful. They choose paternalistic leadership styles that

integrate supportive attitudes with autocratic decision-making. The contrary, leadership that fosters collaboration and participation is more widely accepted in societies with low power distance, such as the United States, Western Europe, New Zealand (Dorfman et al., 2012). American leaders are known to be idealised, whereas European leaders are often less favoured. Equality-minded nations such as the Netherlands and New Zealand are more likely to favour participative leadership than directive leadership. On the other hand, leaders are frequently represented as having "great power" in the cultures of Latin America (Romero, 2004).

The participative leadership style, which is highly appreciated in Western societies, frequently proves inefficient in Eastern cultures, due to the clash between collectivist and individualistic values. This discrepancy is reflected in subtle ways, such as the importance placed on a manager's attentiveness to their subordinates. Western cultures value and promote attentiveness, but Eastern cultures tend to place even greater emphasis on this viewpoint. Additionally, in contrast to the assertiveness and rationality valued in the United States, managers are often required to exhibit humility and modesty in Malaysia (Scandura and Dorfman, 2004).

Numerous cross-cultural research on leadership styles frequently restricts their scope to a couple of nations. Although these comparisons can be useful in understanding leadership in particular circumstances, the studies included small number of nations can make it more difficult to extrapolate the results in other cultural settings. Therefore, more extensive study is required to fully understand leadership in many cultural contexts (Den Hartog and De Hoogh, 2024). Strong in-group loyalty, respect for hierarchy, assertiveness are highly valued characteristics among Georgians. Because of this, subordinates typically view a more authoritative style of leadership. Assertiveness and power distance are less influential in the workplace than in-group collectivism, causing in a higher focus on subordinates' welfare than primarily expected (Tkeshelashvili, 2009).

It is clear that, leadership and its practices are heavily shaped by culture. Gaining a deep understanding of how culture impacts these processes remains difficult. Researching how social power is applied across cultures could improve knowledge of the core leadership process, which entails influencing employees and supporters (Mittal and Elias, 2016).

2.3. Cultural Values and Leadership in Hungary

Hungary is a landlocked country strategically positioned along vital land connections between the Western Europe with Balkan Peninsula, Ukraine, Mediterranean region. Country was divided into three large regions by Tisza and Danube rivers. Tisza and Danube rivers. Hungary was a barrier that to prevent Ottoman Empire to be expanded into Europe for many years (Central Intelligence Agency, 2024). Strong collectivist orientation, particularism, limited emotional display, high-context communication, polychronic behaviour, ascription, and a partially long-term focus are characteristics of Hungarian culture. Additionally, there's a notable inclination towards uncertainty avoidance. The only dimension where no substantial difference is observed is masculinity (Lazányi and Holicza, 2020). This is considerably different from the results from Hofstede's (2001) study and consistent with the GLOBE's (2020) survey results.

Based on Hofstede's (2010) findings, power distance is 46 for Hungary and score is low on this dimension. That means being independent, coaching leadership, accessibility of superiors, decentralization of the power, subordinates expected to be consulted and behaviours towards leaders are informal. Communication is participative and direct. Score of Individualism is 71. Score is high on this dimension that means Hungarian society is Individualist and Individuals only take care of themselves and close family members. Management is the management of individuals. In individualist societies, the management approach treats each employee as an individual and each person is managed according to his needs, abilities and performance. Hungarians appreciate egalitarianism and independence In Hungary, managers are approachable, and hierarchy is used mainly for pragmatic reasons. The main role of managers is to support and guide subordinates. Power is delegated, and leaders depend on the abilities of their team members. Subordinates are included decision-making process. Most subordinates dislike excessive control, and workplaces often have an informal atmosphere, where supervisors are addressed by their first names.

Hungary is identified as a masculine society with a masculinity score of 88. Such cultures reinforce "living to work," and managers are expected to be confident and determined. There is a strong focus on competition, performance, and objectivity. Hungary's uncertainty avoidance score of 82 displays a strong tendency for avoiding uncertainty. Societies with high uncertainty avoidance often have firm ethical standards, are less lenient of changes from the established norms, and tend to be distrustful of unusual behaviour and beliefs.

Long-term orientation score is 50 for Hungary. Such societies are adaptable and pragmatic, adjusting traditions to fit modern conditions. There is a noticeable tendency toward saving and investing, modest living, endurance in achieving goals, and a strong loyalty to ethical values. Communication is typically open, direct and interactive (The Culture Factor Group, 2023).

Country practice score of In-group collectivism is 5,25 and score is relatively high, and institutional collectivism is 3.53 and that is relatively low. Country practice score of power distance is 5.56 is quite high. Score of participative leadership is 5.22 and this leadership style contributes slightly to the outstanding leadership in Hungary (GLOBE Research Project, 2020).

Four different leadership styles have been determined to be more appropriate when referring to Hungarian micro, small, and medium-sized businesses. When it comes to 9 type behaviour, managers and staff collaborate to make decisions. By strongly seeking their opinions, they build a culture where people participate in decision-making. Moreover, these leaders often interact with their subordinates, especially when facing challenges or issues. Consequently, leaders in SMEs are often viewed as having consultative and participative leadership styles (Hegedűs and Lentner, 2023).

The decision-making style is the most popular and frequently used among Hungarian managers, followed by the participatory and pseudo-participative styles. It's interesting to note that while a small number of respondents acknowledge the usefulness of the delegatory approach, there isn't a big appreciation for that in terms of preference or actual application. Although a significant number of Hungarian managers utilise the autocratic style and this style is considered to be less effective compared to other decision-making methods (Podrug, 2011).

Managers don't have a domineering attitude, and they would rather to be respected for their knowledge and for holding the legitimate position as manager. They stress the importance of being open to the input of their subordinates and aim to create a culture of openness within the company. This approach indicates a shift away from a "selling" leadership style towards more empowering and participative methods. Although subordinates' activities aren't closely watched, their results are closely examined. This implies that subordinates have freedom to arrange their schedules as long as they consistent with the team's goals and responsibilities (Chiaburu, 2002).

Hungary demonstrated an individualistic tendency, emphasizing the well-being of their immediate family over collective goals. This displays in two primary ways at workplace. Firstly, in management and compensation practices, there is a strong emphasis on evaluating employees based on their individual achievements rather than the team performance, emphasizing the greater importance placed on individual contributions (Tóth et al., 2025). Hungary demonstrates a relatively low power distance culture in which leaders and subordinates are seen as equals. Subordinates are granted a certain amount of independence in their work duties. Hungarian workers are accustomed to freely voice their thoughts to their managers. Managers are more inclined to offer clarifications regarding work-related issues. Consequently, Hungarian businesses usually promote an initially relaxed work atmosphere (Rudnák and Zhang, 2020).

Another research has revealed that the majority of the interviewed managers were Autocratic, followed by a substantial number who were Democratic, with a smaller group being Laissez-Faire leaders. Significant number of managers employed both autocratic and democratic leadership styles based on interview. Many managers reported making decisions independently, while a considerable number of made decisions with their subordinates beforehand. Only a few managers allowed their subordinates to make decisions autonomously (Karácsony, 2021). Values that are particularistic, ascriptive, and individualistic define culture of Hungary., Hungarians value relationships and circumstances over formal norms and agreements (Hampden-Turner and Trompenaars, 2008).

Hungarian managers are less likely to use an authoritarian style when implementing change. Middle managers tend to avoid authoritarian management approaches in proactive situations, even when senior management teams have assertive strategic mindsets (Joshi et al., 2004). In Hungary, the transformative leadership style was often favoured. It is crucial to understand that Hungary's westernization process influenced these results, although other factors may have also played a role (Teller and Validova, 2013).

In order to consistent with their organisations' internal and external settings, leaders in nonprofit organisations learn to embrace a certain leadership style. They mostly adopt democratic leadership practices, making sure that followers actively participate in decision-making, have their voices heard, and are encouraged to develop their own perspectives (Karácsony, 2021).

These managers are typically educated, have the required professional experience and knowledge, and exhibit good attributes. They are inclined to collaborate and enjoy working in teams. From the

viewpoint of the subordinates, these executives don't enforce authoritarian control or strict supervision over their subordinates (Karácsony and Czibula, 2020).

According to the survey's results, Hungarian university students exhibit preferred four distinct leadership styles. The first is the transformational-inspirational style, which emphasizes on inspiring and motivating followers through ethical behaviour and moral principles. The second style, known as the supportive-prudent style, focuses on listening to subordinates, considering various viewpoints, and providing personal assistance. Third, the defensive style incorporates elements of previous mistakes and loyalty to established norms. Lastly, the laissez-faire style is characterized by a non-interventionist, passive approach to leadership. Students from large cities, women, and those with significant social advantages are more likely to prefer the transformational leadership style. Meanwhile, the supportive leadership style is also popular among women and students from lower social classes and those with less resources. The defensive leadership style is more favoured by students from small towns or municipalities. These preferences highlight the diverse attitudes Hungarian students hold towards managerial roles, entrepreneurial initiatives, and leadership approaches (Perpék et al., 2021).

Charismatic leadership is not highly esteemed in Hungary, and participative leadership is even less valued. Hungarian leaders are often noted for displaying self-protective behaviours. Effective leadership in Hungary is generally defined by the ability to make firm decisions, maintain a practical vision, and prioritize high performance. Additional investigation reveals that improving organisational performance can still be achieved with an autocratic leadership style. Furthermore, the most popular motivational technique used by leaders is the offering financial incentives. In contrast to the GLOBE project's findings, a recent study found that disregarding subordinates' ideas and failing to consult or listen to them is seen unfavourably. On the other hand, supportive and democratic (participative) leadership is seen favourably (Karácsony, 2020).

I can identify the usual leadership style of Hungarians by looking at the cultural norms that are present in the culture. These norms—hierarchy, indirectness, authoritarianism, lack of autonomy, work-to-live mentality, and self-defence inclinations—have the biggest impact on a leadership style. Hungarians have a propensity to follow hierarchical structures and anticipate that superiors will keep a clear distance from their subordinates. Leaders have the authority to give orders to their subordinates since they are positioned higher level in the hierarchy.

Subordinates shouldn't be given the authority to make decisions on their own, according to the cultural expectation of limited autonomy. Since work is mainly seen as a way to make a living,

employees often show low loyalty to their jobs. Managers, therefore, frequently use financial incentives to motivate their staff, given the strong emphasis on monetary benefits. Hungarian cultural norms highlight characteristics of transactional and autocratic leadership, including restricted autonomy and a dependence on financial incentives (Broers, 2022; Genkova et al., 2022).

The results of the empirical investigation show that future-focused planning and a strong emphasis on group loyalty define Hungary's organisational culture. In situations of disagreements, subordinates respect one another, avoid attempting to be the one in charge, and don't hesitate to confront their superiors. Directive and collaborative leadership styles are prevalent in Hungarian organisations, leaders view their team members or employees not just as subordinates who must follow orders, but as individuals who have choices and alternatives, and they gain authority by following established guidelines. They are open to change, primarily adopting transformational leadership, but also utilizing transactional leadership when necessary (Gál, 2018).

Banai and Reisel (2007) conducted research to identify which manager styles are chosen in six countries: Hungary, Russia, Germany, US, Israel. Subordinates were asked how they feel about their managers. Especially, providing opportunities for growth, supporting subordinates to take responsibilities, performance feedback, job independence. Findings showed that being disconnected from job is impacted by whether managers support their subordinates. Research results showed in Hungary, Russia, Cuba, managers are more supportive than US, Germany, Israel.

Lindell and Arvonen (1996) examined task-oriented, employee-oriented, and development-oriented leadership exist in Hungary. It was discovered that power distance, uncertainty avoidance, and masculinity could provide a deeper understanding of the differences in leadership across various locations. The study indicates that Hungarian executives tend to favour particularism, which may include loosening the rules, and foster collectivism, obscuring the boundaries between work and personal life. They also tend to behave in emotional and attributional ways. Hungarians appear to organize their activities more systematically. Additionally, they are less proactive in shaping their future, as observed in cross-cultural management studies (Tompos, 2015).

The following are the study's results with regard to Hungary: There is low uncertainty avoidance, which is an exact opposite to Hofstede's results. High power distances are widely disliked, but they nevertheless exist in many organisations, which leads to a lack of initiative and personal accountability in decision-making. Hungarians are also perceived to be objective, competitive, and typically distrustful of each other. Hungarians are more likely to prioritise short-term goals, quick

decisions, and improvised solutions when it comes to future orientation (Hegedűs and Lentner, 2023).

The study highlights that in Hungary, there is a low level of uncertainty avoidance, which contrast Hofstede's findings. While high power distance is generally disliked, they are still prevalent in many organizations, leading to reduced attempt and personal responsibility in decision-making. Hungarians are often seen as objective and competitive, with a tendency to distrust one another. Additionally, they tend to focus on short-term goals and quick, flexible solutions rather than long-term planning (Tóth et al., 2022).

Another study carried out in Hungary provides additional insights into workplace dynamics. Results show that many subordinates feel they are obligated to obey follow their managers' instructions without questioning them. In Hungarian organizations, the most common leadership style is diplomatic, that means leaders are skilled at handling relationships and exhibiting diplomacy. However, Hungarian subordinates do not prefer managers who refrain from offering feedback just to keep things pleasant. Instead, effective leadership in Hungary is mainly about adhere to regulations and rules (Gál, 2018).

2.4. Cultural Values and Leadership in Turkey

The Aegean, Black, and Mediterranean seas encircle Turkey, which has a land area of about 297,000 square miles. Due to its special geographic location and historical roots in the ruins of the Ottoman Empire, the region has produced a unique Muslim-majority culture that has been assiduously navigating the westernisation process for more than 200 years (Central Intelligence Agency, 2024). Score of Power distance is 66 for Turkey and score is high on this dimension that means dependency, inaccessibility of superiors, hierarchical structure. Subordinates follow the rules and listen their managers and they expected to be told what to do. Managers are seen as a father figure. Behaviours towards managers are formal. Families have the same kind of structure Turkey, is a collectivistic society with a score of 46 and that means people who is part of the organizations and families take care of each other. Moral principles come first in the relationships. Indirect communication and feedback. Nepotism occurs more frequently in the business environment (The Culture Factor Group, 2023).

Country practice score of In-group collectivism is 5,88 and score is relatively high, and institutional collectivism is 4.03 and that is medium level score. The country practice score of power distance is 5.57 is quite high. The core of participative leadership is 5.09 and this leadership style contributes slightly to the outstanding leadership in Turkey (GLOBE Research Project, 2020). Turkey ranked number six in hierarchy based on the survey of 38 nations. Turkish managers frequently displayed overtly paternalistic tendencies. These managers exhibited strong i power distance, paternalism, and collectivism (Schwartz, 1992).

Turkey is ranked highly in terms of assertiveness (ranked 11th) and collectivism (4th). Therefore, Asian cultural norms have a greater influence on leadership in Turkey and place a higher priority on collectivism (Arun and Gedik, 2020). High power distance, a collectivist society, and a strong emphasis on humane orientation—where qualities like kindness, compassion, love, and altruism have a big impact on behaviour—are characteristics of Turkey (House et al., 2004). A high degree of collectivism, remarkable power distance, a propensity to avoid uncertainty, and conservatism are among the essential characteristics of Turkish culture (Bayraktar et al., 2022).

Turkish culture is frequently characterised as a blend of "Western" and "Eastern" characteristics most likely the result of its geographic location at the intersection of Europe and Asia and its historical links.

Based on previous studies, Turkish culture shows a high degree of collectivism and power distance, factors that are generally connected to Eastern cultures and their belief systems. People in Turkish

culture have a low threshold for uncertainty and a tendency to embrace disparate power allocation. Due to this, they respect tradition and power more than Western civilizations do. Turkish individuals frequently exhibit unwillingness to connect with the larger environmental and social context, preferring to prioritise the goals of the social groupings they are a part of. This may occasionally give the impression that they are pretentious to others outside of their own social circles. Nonetheless, Turkish culture has changed, just like that of a variety of other cultures. Within Turkish households, autonomy and self-determination have become essential values which has resulted in changes in power distance and a tendency towards collectivism (Dogar, 2021; Durmuş, 2024).

According to latest research, Turkey is currently less hierarchical and less collectivistic than it was in the past. Turkish organisations have also been impacted by this change in social beliefs. The organisational frameworks in Turkey have become more egalitarian and show a lower degree of uncertainty avoidance since the country adopted a liberal economy in the 1980s (Parlar et al., 2022).

Manager-subordinate interactions are greatly influenced by collectivism and power distance, which continue to remain in Turkish society and organisational culture is impacted by Western culture. According to studies on Turkish leadership styles, managers frequently treat their subordinates with a combination of autocratic and paternal practices, equivalent to a family care. Managers that adopt a paternalistic leadership style feel obligated to act as a parent figure, providing motivation and safety for their subordinates (Dedahanov et al., 2022).

Subordinates appreciate the consideration, assistance, and safety offered by paternal authority and demonstrating commitment, reliance, and respect to their superiors. Turkish subordinates prefer managers who value relationships, provide personalised care, show empathy for their personal problems, and cultivate a close-knit work environment. Transformational leadership principles are in line with these actions as well as paternalistic leadership practices. According to current study transformational leadership is the most preferred style of leadership within organizations Turkey (Inandı et al., 2020).

In contrast to the idea that Turkish leaders and managers are perceived as autocratic, another study present an alternative viewpoint. Upon analysing the Turkish white goods industry, they found that Turkish subordinates have a tendency to evaluate their managers more favourably with their respect to the subordinates (Nichols et al., 2002).

The popular perception of Turkish leadership is that is “charismatic” and “team-oriented,” although empirical data indicates that this idealised view may not actually align with reality. The majority of Turkish leaders have leadership styles that are autocratic, non-participatory, and paternalistic (House et al., 2004).

Hofstede (2011) supported these results by observing that Turkish leaders generally preserve a sense of inaccessibility, anticipate more privileges than their subordinates, and are reluctant to assign authority. Authoritarian and paternalistic tendencies are prevalent in Turkish leadership. In a nutshell, autocratic and paternalistic leadership styles are frequently utilised by Turkish managers. In order to be clear, both approaches usually require an unwillingness to assign or share authority and a dislike of subordinates' questions. But while authoritarian leadership upholds a rigid hierarchy with devoid of human interaction, paternalistic leadership seeks to create a familial environment in the workplace by responding to the personal needs of subordinates. Supporters of paternalistic leadership frequently exhibit higher genuine loyalty than supporters of autocratic leadership (Akkaya, 2020; Köksal, 2011).

There are four main categories of leadership behaviours that were discovered within organizations in Turkey. Turkish managers most frequently favoured the “autocratic and hierarchical” approach, which was followed by the “paternalistic and considerate” approach. The third leadership approach that was noted was transactional and team-oriented while the fourth was laissez-faire. The results showed that some characteristics were found to have an impact on the leadership styles that are common in Turkish businesses. These characteristics included morality, quality, power distance, and selfishness (Arun and Kahraman Gedik, 2020; Geçkil, 2022).

Another research shows that managers in the hospitality sector in Alanya, Turkey, primarily use democratic and laissez-faire leadership styles. These findings imply that an important majority of hotel managers now adopt an adaptable, humanistic, participatory management style. These results are also remarkable because they validate the persistence of the leadership behaviours among managers in the hospitality sector (Kozak and Uca, 2008).

The findings suggest that Turkish architects prefer authoritative, affiliative, and progressive styles of leadership. When merging two styles, they predominantly select affiliative-democratic and affiliative-coaching methods of leadership (Ahmed, 2022; Kasapoğlu, 2014).

The research findings show that a “clan culture” is greatly impacted by servant and paternalistic leadership. In these types of organisations, employees consider colleagues as being family members; in contrast to the traditional manager role, managers act as coaches and frequently adopt

a role of parent. This perception strengthens employees' sense of loyalty to the company (Aydın, 2018).

Another research that includes professors and managers, believe that the typical Turkish citizen values traditions and power over freedom, innovation, accomplishment, and variability in life. Within the corporate setting, this viewpoint motivates managers to provide an uplifting work environment marked by benevolent or paternalistic leadership approaches, giving their employees restricted freedom and motivation to control corporate strategies. The average Turkish employee accepts inequality as long as they can support themselves financially and is eager to take risks for both organisational and personal aims. The findings of this study and related studies indicate that the typical Turkish citizen loves authority, maintains cultural norms, and desires a fulfilling life without placing an extreme emphasis on individual achievement (Uysal, 2021; Zhou et al., 2022).

Turkish businesses primarily display a collectivist culture. In addition, employees in cultures with a high degree of power distance are more likely to prefer authoritarian or paternalistic leadership styles. The degree of power distance is determined by the degree of power centralization and the presence of authoritarian leadership in organisations. Hierarchy is essential to administrative systems in high-power-distance societies, because relationships between managers and subordinates adhere to a strong structure of hierarchy (Mansur et al., 2017). Strong leadership, centralised decision-making, restricted authority delegation, and a vertical hierarchical structure are characteristic features of Turkish businesses. Traditional, hierarchical, and collectivist values are prioritised in Turkey's organisational framework, that is defined by paternalistic leadership (Trompenaars and Hampden-Turner, 1998).

In some countries, paternalism is a prevalent cultural paradigm that reflects significant power distance, collectivism, and hierarchical characteristics. Turkey is a prime example of a nation where affectivity—the public display of a range of emotions—is common. People with clear social roles and responsibilities, like such as the role of a father or son, are more willing to accept and use paternalism as a leadership style (Wasti et al., 2011).

Turkish leaders, who highlighted their general inaccessibility, inclination to demand privileges than their subordinates, and unwillingness to share authority. Turkish managers tend to have authoritarian and paternalistic leadership styles. While authoritarian leadership is more focuses on enforcing its own power over others, paternalistic leadership aims to foster a familial environment at work by getting involved in the personal matters of subordinates (Fikret Paşa et al., 2001).

Turkey was part of the research project that involved 22 European nations (European subsample of GLOBE) (Brodbeck et al., 2002). According to the Turkish sample, animosity and ego frequently get in the way of outstanding leadership. Turkish businesses are often more hierarchical than Canadian businesses.

After comparing and analysing the cultural point of view of Turkish and American leaders, Ercan and Sigri (2015) came to the conclusion that Turkish leaders are more security-conscious, conventional, and prioritize power. Turkish managers demonstrated remarkable power distance, significant uncertainty avoidance, and collective inclinations related to femininity, as per a study comparing leadership attributes between the United States and Turkey. The results showed that these characteristics frequently led to authoritarian behaviour in Turkish managers. Another study found that managers were strongly influenced by hierarchy, and Turkish leaders preferred authoritarian and paternalistic styles of leadership. managers are expected to establish patronage relationships with their subordinates in Turkish culture, that emulate feudal ties and provide a solid foundation for their strong leadership power (Evliyaoğlu, 2023).

The cultural characteristics of "collectivism" was strongly demonstrated by the managers in the research. Tepe and Alemdaroğlu (2021) claimed that there's a positive association between the autocratic leadership style of managers and the "collectivism". The Ottoman Empire that historically paved the way for modern Turkey along with Islam's feudal structure promoted collectivism with strong sense of human-centered values, and significant power distance. Ünler and Kılıç (2019) stated that paternalistic leadership and autocratic leadership are interpreted by Turkish subordinates and businesses as a crucial leadership style.

Turkish organizations are often described as having a family style structure. To promote an organisational learning culture, it is imperative that the autocratic leadership style does not impede subordinates from freely exchanging information. The structure of state-business ties in Turkey may also contribute to this dynamic. Because of the high degree of hierarchy, subordinates may be less inclined to focus on organisational learning culture because their primary responsibilities are to carry out standardised duties and obey upper management's orders. Leaders with authoritarian tendencies compel employees to fulfil challenging targets and follow norms (Karakitapoğlu-Aygün et al., 2023; Li et al., 2018).

Another study provides more evidence in favour of the hierarchical structure of Turkish companies, showing that subordinates are obviously discouraged from communicating face-to-face and frequently utilise formal channels for decoding information. Recently studies showed

Turkish subordinates and findings revealed that although authoritarian leadership styles are more common in Asian cultures, they can have an adverse impact on the quality of communication, and this is a key component affecting the efficiency of subordinates (Çuhadar and Rudnák, 2022).

Turkish enterprises have an organisational culture based on collectivism, Employees typically tolerate authoritarian or paternalistic leadership styles in nations with significant power distance, like Turkey. The degree of centralisation of power and the degree of autocratic leadership both affect the degree of power distance in organisations. Hierarchy is an essential administrative component in cultures where significance power distance exists, and the relationship between superiors and subordinates is highly formalized and strictly structured. Strong leadership, centralised decision-making, restricted delegation, and a vertically integrated hierarchy are attributes of Turkish businesses (Karakitapoğlu-Aygün et al., 2021).

Paternalistic leadership, centralised decision-making, and authoritarian leadership are among the main traits of Turkish management culture. Turkish managers are known for displaying both autocratic and paternalistic leadership styles, and their subordinates frequently anticipate their managers to be nurturing, helpful individuals. Because of the significant power distance in Turkish culture, people in organisations place a high value on position, authority, reputation, and organisational power. Considerable power distance found in Turkish organisations is the reason behind the highly autocratic leadership behaviours seen in Turkish supervisors (Fikret Paşa et al., 2001; Scandura and Pellegrini, 2008).

Dominant autocratic leadership behaviours of Turkish managers in Turkish organisations can be linked to high power distance. Paternalistic leadership is acknowledged as a successful leadership style in societies where collectivism and power distance are highly valued. Paternalism has been seen as a suitable style of leadership in Turkish culture (Berkman and Özen, 2007; Erben and Güneşer, 2008). A prominent example of a nation where affectivity—the spectrum of emotions displayed in public—supports the legitimacy of paternalism as a suitable style of leadership is in Turkey where collectivism, hierarchy and significant power distance exist. Social roles, like being a father or son, beside one's social status make it feasible to adopt paternalism as an appropriate and acceptable leadership style (Wasti et al., 2011).

In Eastern, Middle Eastern, and Latin American cultures—including Turkey—paternalism is prevalent cultural norm. Turkish leaders typically exhibit reluctance to delegate authority, frequently demand more privileges than their subordinates, and generally maintain a slightly aloof demeanour (Jackson, 2015).

Consequently, Turkish managers tend to adopt autocratic and paternalistic leadership approaches. In contrast to autocratic leadership, which prioritises imposing control over others, paternalistic leadership aims to foster a family-like environment by being concerned in the personal affairs of subordinates (Baysak, 2020).

2.5. Cultural Patterns

Lord et al. (2020) stated that dimensions of collectivism and individualism are offered by Singelis et al. (1995) and Triandis and Gelfand (1998). Building on the concepts of independent and interdependent self, they distinguished collectivism and individualism between vertical and horizontal. Four cultural patterns came to light that is vertical individualism, horizontal individualism, vertical collectivism, horizontal collectivism (VI, HI, VC, HC). Germani et al. (2019) stated that individualism and collectivism display horizontal (emphasizing equality) and a vertical (emphasizing inequality) dimension.

These dimensions shape four different Cultural Patterns: vertical collectivism (VC), horizontal-individualism (HI), horizontal-collectivism (HC), vertical-individualism (VI). That was emphasised that collectivism and individualism must be separated between horizontal and vertical orientations. Fatehi et al. (2020) explained that 32-item scale is designed to measure four cultural patterns (dimensions) by Singelis et al. (1995). The survey was divided into four distinct parts and each part worked well to measure each dimension. Overall, this survey is accurate and reliable.

Horizontal collectivistic cultures (HC) are characterized by individuals who see themselves as part of a group where everyone is comparable and have equal status, merging their personalities with others in the group. This pattern highlights an interconnected self in which people see equality as the primary value and believe that they are essentially the same as others. On the other hand, vertical collectivism (VC) offers an alternative cultural paradigm in which people belong to a group with distinct hierarchies. In this situation, people acknowledge and accept disparity among members of group while still valuing their connection with the group members. This pattern shows an appreciation of interdependence in a hierarchical structure that accommodates for rank and status disparities (Czerniawska, 2020).

The term "horizontal individualism" (HI) refers to a cultural setting in which individuals see themselves as both independent and peer equal. They place a strong emphasis on independence while still feeling a sense of community. Vertical individualism (VI) defines a social norm in which people maintain an independent sense of self while acknowledging and embracing individual differences and inequality. They value individual liberty above all else and aware of the diverse social and cultural backgrounds of themselves and others (Gallyamova and Grigoryev, 2022).

Individualists place more importance on self-concepts that are unrelated to group connections, whereas collectivists establish their personal identities through their position within a community. One key characteristic that sets them apart is their ability to distinguish between independent and interdependent identities (Idris, 2021).

Collectivists frequently prioritise the aims of the group in times of disagreement and have objectives that are reflective of the group as one. Conversely, individualists may prioritise their own interests over those of their group in the event of a conflict and may have personal goals that diverge from those of the group (Pérez-Nebra et al., 2023). In societies that value collectivism, social behaviour is heavily shaped by accepted norms of society as well as liabilities and perceived responsibilities. On the other hand, individualists are more prone to base their social behaviours on their own terms as well as their personal beliefs and internal impulses (Pagda et al., 2021).

Relationship maintenance is essential in collectivist societies, as people tend to stick with their agreements even when they become more costly than profitable. Individualists are more inclined to terminate partnerships when the drawbacks outweigh the benefits (Al Khatib, 2024). Singelis et al. (1995) identified that vertical- collectivism and vertical -individualism emphasise individual adherence to system of hierarchy while acknowledging and validating disparity among individuals. In contrast, horizontal collectivism and horizontal individualism support personal autonomy and freedom from external factors. **Table 4** represents dimensions of vertical and horizontal for individualism and collectivism.

Table 4. Horizontal-Vertical of Collectivism and Individualism

	Horizontal	Vertical
Individualism	Self-sufficiency/autonomy Equality in status	Self-reliance/autonomy and Inequality in status is accepted Different from others
Collectivism	Interdependent self Equality in status	Interconnected self and disparity are accepted Different from others

Source: Singelis et al. (1995)

Klein et al. (2024) indicated that personal autonomy is prioritised in cultures with horizontal values while authority figures are dominant in societies where vertical values predominate. claimed that vertical cultures uphold hierarchical structures that set people apart from one another, whereas horizontal cultures see everyone as equals. Kemmelmeier et al. (2003) carried out a study in seven

countries Bulgaria, Japan, New Zealand, Germany, Poland, Canada, and the US and found that authoritarianism was linked to both vertical collectivism and vertical individualism. Additionally, concept of vertical and horizontal collectivism contributes the explanation of the findings pertaining to institutional and in-group collectivism within the GLOBE Project, which examines leadership and culture across 62 countries.

Dickson et al. (2003) noted that people often respect authority that affect leadership in cultures with high vertical collectivism. Future studies must focus more on how leadership can be affected by vertical and horizontal dimensions of collectivism and individualism. Different leadership styles most probably work better for each of these dimensions, horizontal individualism, horizontal collectivism, vertical individualism, vertical collectivism. However, link between cultural differences and leadership is not fully studied.

According to Blut et al. (2022) individualism and collectivism—which are sometimes perceived as distinct cultural patterns—have a variety of forms. For instance, American individualism is different from Swedish individualism, and the collectivism of the Israeli kibbutz differs from Korean collectivism. The emphasis on both vertical and horizontal social ties is one of the most important characteristics that sets these forms apart. Vertical patterns draw attention to hierarchical distinctions, while horizontal patterns show that everyone are nearly comparable. HI, VI, HC, and VC are the four distinct patterns that result from the interaction of individualism, collectivism, and their horizontal and vertical dimensions (Cheng et al., 2020).

People who adhere to horizontal individualism (HI) respect their individuality and autonomy apart from their membership in a community. They place a higher value on independence and individual liberty and are less concerned with becoming well-known or famous. In vertical individualistic cultures (VI), people compete with one another in an effort to stand out and achieve status. Their desire to excel is what motivates them (Soler-Anguiano et al., 2023).

Conversely, Horizontal Collectivism (HC) respects equality, mutual goals, interconnectedness, and sociability without readily yielding to authority. Vertical collectivism (VC) emphasises the value of maintaining group integrity by having members who are willing to forego their own objectives in favour of the group, encourage group rivalries, and uphold in-group authority even in spite of personal preferences (Lee et al., 2021).

2.6. Vroom-Yetton-Jago Decision Model

Abun (2021) explained that Vroom- Yetton-Jago decision model is created based on findings of the model that is created by Tannenbaum and Schmidt (1958). Model is developed by Vroom (2000). His research identified five distinct leadership styles, each one present balance between the manager's level of control and the subordinates' degree of autonomy. Model, which states that leadership style exists on a spectrum where manager-centred leadership at one side, while subordinate-centred leadership at the opposite side. When leadership moves away from the manager-centred approach, the manager's influence and control over subordinates decreases while subordinates' level of independence increases.

Dabiriyani-Tehrani and Yamini (2022) stated that decision making model is first developed by Vroom and Yetton (1973) after that more features are added to the model by Vroom and Jago (1988) added more features. The importance of supporters' participation in the decision-making process is highlighted by the Vroom-Yetton-Jago Framework. The model's goal is to maintain the decision's accuracy while ensuring that its supporters embrace it. This contingency model of leadership links decision-making involvement with leadership behaviour. The paradigm starts with the idea that a leader comes across an issue that must be fixed. Decision-making model is the notion that the optimal leadership approach is dependent upon the leader's preference for guaranteeing the embrace of their decisions by their subordinates above obtaining high-quality decisions. Figuring out when to include subordinates in decision-making is the goal of the model for leaders. Between autocratic and democratic, five different leadership styles were distinguished on the model. A leader can adopt a democratic stance by encouraging involvement and opinions, or they might adopt an authoritarian one, making decisions without considering the opinions of the workforce. In this context, leadership is seen as a process of improving collaboration and teamwork to reach out to targeted goals.

The fundamental tenet of the Vroom-Yetton-Jago Model is there is no single decision-making approach or leadership style apply in any circumstance. The leader needs to consider multiple elements in order to identify the best course of action in a particular situation. Leaders can choose the best approach and style by following the model's methodical guidance through these factors. Leaders can quickly become adept at applying the model to adjust their strategies to fit the circumstance (Kadoić et al., 2024).

Decision making styles can be seen on a spectrum, with participative approach at one end, involving maximum participation from subordinates to the decision-making process, and an authoritarian approach at the other end, involving minimal participation from subordinates to the

decision-making process. They described a variety of consultative styles (in which the decision-maker solicits advice from collaborators), group styles, delegation styles, and autocratic styles. The Vroom & Yetton model is a highly recognised approach in this field. Authors explained four different leadership styles in two different ways. Manager and the group debate, assess, and decide together. Delegation style: The manager assigns the decision-making responsibility to subordinates. In addition to defining the various styles and their variants, Vroom and Yetton created a decision model to help managers select the best decision-making style for a given circumstance. Subsequently, model is improved by adding more features, and this produced the final version that is referred to as the Vroom-Jago model (Lührs et al., 2018).

In the model, first management approach requires the lowest level of group involvement, where manager makes decisions independently without any input from the group. This process then moves through five stages, each stage involving increasing levels of group participation, culminating in the final stage where the group independently makes a decision, with the manager providing only encouragement. Managers who exhibit higher levels of involvement often come from nations with the best levels of schooling, financial status, and democratic practices. Moreover, the best ratings in participative management were attained by women and senior executives in organisations (Cinnioglu, 2020). Additionally, situations when supervisors are likely to become less engaged in problem-solving has been identified by his research. The manager may feel that no further information is needed in certain situations, the problem is well-defined and well-considered, group agreement is not necessary to resolve the problem, or the team's personal beliefs disagree with the organization's primary goals. Problem-solving requires the participation of all important parties, including subordinates (Gong and Ye, 2022).

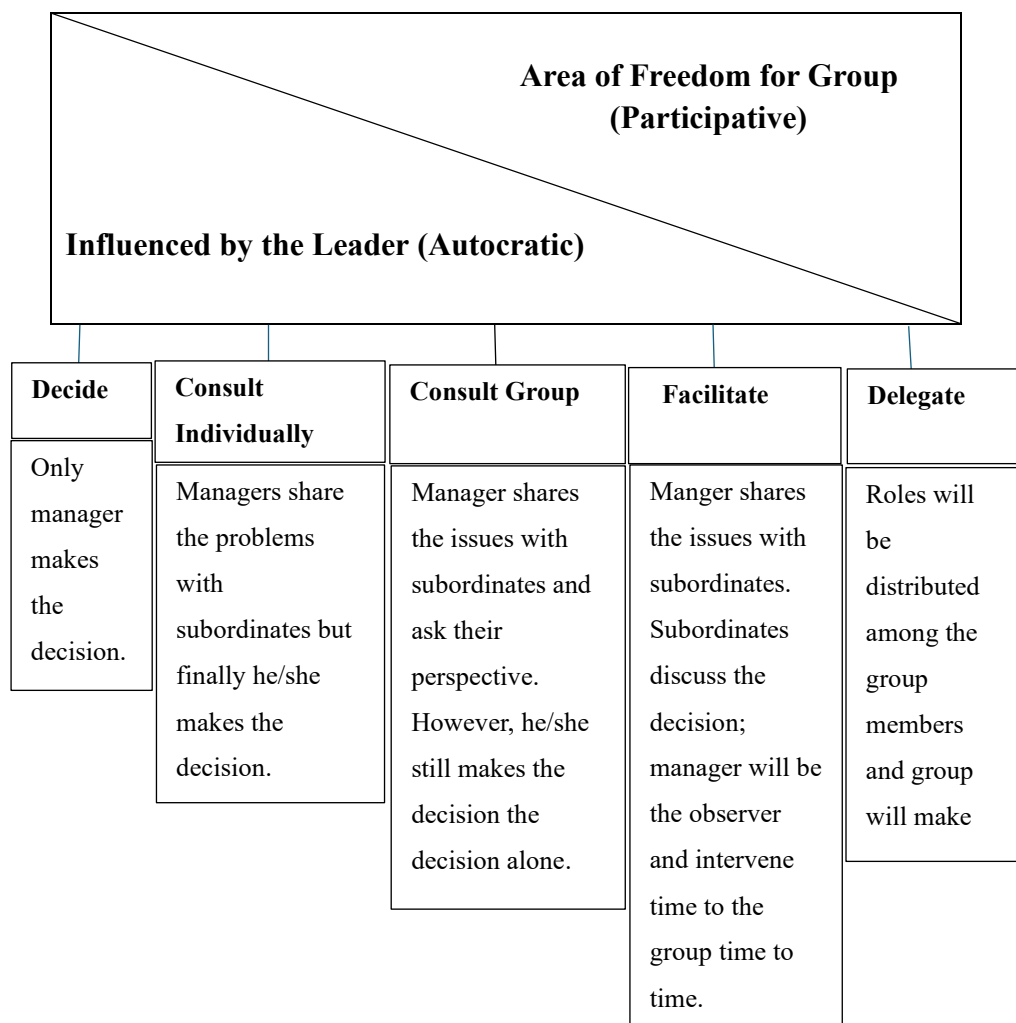


Figure 1. Vroom-Yetton Jago Model Five Leader Decision Styles

Source: Vroom (2000)

Figure 1 illustrates role of influence in the decision-making process. In the first style, Decide, the leader decides everything on their own without consulting their subordinates. Consult individually is the second style, the leader solicits feedback from each follower on a personal basis. Consult group is the third style, the leader solicits feedback from the group by holding a meeting to receive feedback from all subordinates collectively. Fourth style is facilitated, the leader collaborates with group to end up with an outcome that is acceptable to all in the group. In the last style, Delegate, the group is given limited autonomy to decide according to defined rules.

This model's main purpose is to specify the level of participation required and the circumstances in which leaders should urge their followers to participate in decision-making. Participation is the impact that comes from being directly involved in the decision-making process. The degree to

which a person influences the ultimate decision made by a group or organisation is a good indicator of their level of involvement in that decision.

Consequently, a variety of leadership behaviours are described in the model, ranging from the most autocratic—where the leader takes decisions on their own—to the most participative—where the subordinates completely participate in decision-making (Kadoic et al., 2024).

Almost all definitions of leadership concur that its core activity is to influence other people. Having supporters is essential to leadership; without them, it is unthinkable to be a leader. The seven leadership styles were reduced by Vroom to five main groups: Consult Group, Facilitate, Consult Individually, Delegate, Decide. To ascertain the degree of decision-making influence available to team members, he gave these definitions to forty organisational development specialists and asked them to rate each style on a 10-point scale (Vroom, 2000).

The degree of autonomy provided to subordinates to engage in the decision-making process increases gradually from beginning to end. The diagram suggests that subordinates get more involved in decision-making as we continue along the scale, moving from first leadership style to the last leadership style. As previously mentioned, this model focuses on the extent to which subordinates participate in decision-making, based on the particular circumstance the leader faces. An allocation of power between the follower and leader is indicated by this degree of engagement.

Effectiveness of the decision depends on both decision's quality and its implementation technique while development and costs are essential to the success of the decision-making process Vroom (2000) stated that four essential factors are used to assess a decision's efficiency: a) decision quality; b) decision implementation; c) costs associated with decision making; and d) development.

Decision Quality

Dinibutun (2020) asserted that the most crucial element of an excellent choice is its quality. In order to attain those aims, it follows that the quality of decisions made must be aligned with the intended outcomes and consider all pertinent data regarding the consequences of various approaches for accomplishing those objectives.

Vroom (2000) asserted that certain elements of the context for decision-making have an effect on how engagement affects the quality of decision. According to him, it all relies on where the group's knowledge or experience is located—either in the group or in the person in charge. It also depends on the participants' aims, particularly on the degree that subordinates support the targets of the organisation related to the problem.

Finally, the skills and capacities of the team individuals to work together successfully to solve challenges affect the level of harmony in group-based decisions-making procedures.

Decision Implementation

Stosich (2021) explained that success of decision execution is determined by degree to which the group or team is devoted to achieving it. Put simply, individuals tend to endorse and support what they have contributed to creating. Vroom (2000) claimed that increasing participation in the decision-making process results in individuals feeling attached to the choices made and driven to implement them successfully.

Costs of Decision Making

Since every decision-making process involves the consumption of resources, the expenses of decision process are related to the productivity of the process, while quality of decision and implementation of the decision are related to its effectiveness. The time required to make a decision is the main expense associated with these resources. The leader will take longer to reach a decision, as a result, spend more hours in the decision-making process if they expand involvement. It is obvious that decision-making by discussion or consultation takes longer than decision-making by directive (Vroom, 2000).

Development

Vroom (2000) claims that this factor can be viewed as balancing the expenses related to a decision-making process. Participation is the key component here. A leader can improve the worth of their subordinates to the organisation in three important ways when they transition from an authoritarian to a participative style.

The first possible benefit is the development of subordinates' skills and knowledge, which is accomplished by incorporating them in decision-making and problem-solving processes that are normally handled by Top-tier executives. Offering subordinates the chance to collaborate on problem-solving projects can improve cooperation and collaboration, which brings us to our second potential advantage. Last but not least, the third potential advantage by involving staff members in major decision-making processes, it increases their commitment to company objectives. When the decision is trivial and has no significant effects on the company, these possible benefits can be insignificant, particularly if the subordinates are not anticipated to continue with the company (Yuan and Ye, 2020).

Decision-Matrices

Vroom (2000) developed a technique termed Decision-Matrices to assist leaders in making better decisions. The four consequences of participation are evaluated by this technique, and each outcome is contingent upon various situational conditions. These situational factors are:

1) Decision Significance: the level of importance that the decision holds for the success of the project or organization; 2) Commitment importance: the level of the dedication that team members show for the decision; 3) Proficiency of the leader: abilities, qualifications of the leader; 4) Certainty of commitment: The probability that a decision you make on your own will be endorsed by the team; 5) Group support for objectives: how much the group supports the organization's objectives about this matter; 6) Group expertise: individuals of the team's proficiency or understanding of the problem 7) Team competence : team members' capacity for productive problem-solving collaboration.

The Time-Driven Model is the first category of Decision Matrix. Making effective decisions fast and inexpensively is its main goal. Subordinates' progress is not given priority in this situation. In essence, this matrix is meant to be used in scenarios where team member development is not prioritised, and time is of the essence (Stosich, 2021).

The Development-Driven Model is the name of the second kind of Decision Matrix. This concept, which emphasises making wise decisions with substantial developmental benefits, can be viewed as a long-term strategy. This model does not prioritise time. Rather, it is intended for scenarios in which there is an abundance of free time, and the objective is to contribute to the team's expansion and improvement (Abun, 2021).

There are requirements to fulfil in order to use either of these models. Initially, the decision-making issue ought to fall under the authority of the leader's autonomy. A second requirement is that there should be a distinct set of people who have the ability to influence decisions and participate in the process of decision making.

To utilise the models, navigate to the "Problem Statement" section on the left side of the matrix. The leader first assesses if the decision is crucial before deciding on the best course of action. If so, the group leader chooses H and responds to the following query regarding how crucial it is to win the team's commitment. Following this approach and not stepping over any horizontal lines will take the leader to the following recommended procedure: Decide, Consult Individually, Consult Group, Facilitate, or Delegate (Abun, 2021).

Decision model provides range of decision-making process from the most autocratic to the most participative, highlighting participation of subordinates. Therefore, the favoured leadership styles identified among Turkish and Hungarian participants, adjusting this model on my research.

3. MATERIALS AND METHODS

3.1. Hypotheses and Research Questions

All hypotheses and research questions were created based on the literature. My first research question and first two hypotheses test if a country has impact on cultural patterns of Hungarian subordinates and Turkish subordinates.

H1: Turkish subordinates prefer Vertical Collectivism and Turks have higher score than Hungarian subordinates on this dimension.

H2: Hungarian subordinates prefer Horizontal Individualism and Hungarians have higher score than Turkish subordinates on this dimension.

R1: Do Turkish and Hungarian subordinates prefer different cultural patterns?

Second research question, third and fourth hypotheses identify highly favoured leadership method could vary dramatically distinctive among Turkish and Hungarian individuals. Turkish will choose more authoritarian leadership style than Hungarian participants. Hungarian participants will choose more participative leadership style than the Turkish participants.

H3: Hungarian subordinates prefer a more participative leadership style than Turkish subordinates.

H4: Turkish subordinates prefer a more authoritarian leadership style than Hungarian participants.

R2: Do Turkish and Hungarian subordinates prefer different leadership styles?

Authoritarian leadership approaches could be linked to the vertical dimensions and participative leadership approaches could be linked to the horizontal dimensions. Therefore, fifth hypothesis was created below by me.

H5: There is correlation between Leadership Styles and Cultural Patterns. Vertical Individualism and Vertical Collectivism are correlated to authoritarian leadership style. Horizontal Collectivism and Horizontal Individualism are correlated to participative leadership style.

R3: Is there any link between cultural patterns and subordinates' preferred leadership style?

Our other aim is to investigate if any demographic factor such as age, gender, education level impact on cultural patterns and their preferred leadership styles of Hungarian and Turkish subordinates. Therefore, I created another research question to investigate this further.

R4: Do demographic factors (e.g., age, gender, education) influence the cultural patterns and preferred leadership styles among Turkish and Hungarian subordinates?

Research questions and hypotheses formed the foundation of conceptual modelling. **Figure 2** shows the conceptual model of my study.

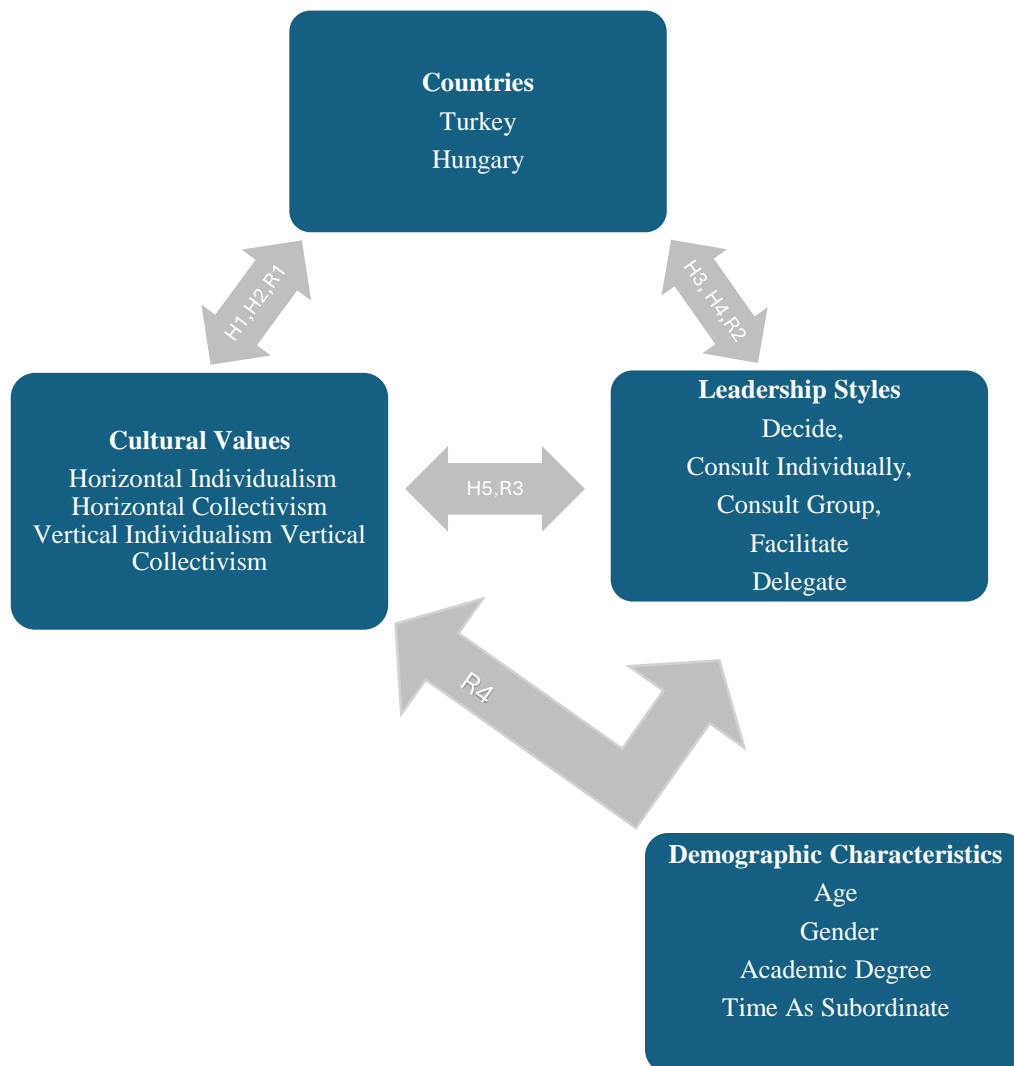


Figure 2. Conceptual Model

Source: Author's own source

3.2. Data Collection

I aimed to distribute our questionnaire to subordinates in local Hungarian and Turkish companies from variety of the sectors. First step, I identified the local companies on the list,. Next step, I approached the target participants from Finance, IT, technology, fashion, tourism, education, health, automative, logistics and transportation, real estate, oil and gas, pharmaceutical sector, energy, manufacturing, construction, tourism, defence, agriculture other. Participants were entry level and senior level subordinates from different sectors. I have chosen subordinates from local Hungarian and Turkish companies as sample because these subordinates and local companies have two key traits: they reflect established perspectives and serve as representatives of a group that conveys the cultural values of society. Because local companies include mostly local employees and managers not foreigner employees. Therefore, it represents the culture of the society.

Participants The questionnaire was sent to the target via online channels such as emails, their profiles on LinkedIn. Questionnaire distributed to 420 subordinates in Budapest (Hungary) and 420 subordinates in Izmir (Turkey) However, researcher removed the questionnaires with anomalies and incomplete data (Kang, 2013). In conclusion, the total Turkish participants numbered 408. The total number of Hungarian participants reached 398.

I chose only Hungarian and Turkish natives living in and working in Hungary and Turkey. Individuals with Turkish and Hungarian citizenship who are not natives were excluded from this study, as they may exhibit cultural traits more closely to their country of origin than to Hungary or Turkey.

3.3. Questionnaire Design

To achieve our main objective, I utilized two questionnaires. To assess the Cultural Patterns of Hungarian and Turkish groups, I administered the Values Scale (Singelis et al., 1995), which consists of 32 items for each Cultural Pattern. Additionally, to examine subordinates' preferred leadership styles, I employed the Leadership Questionnaire (Vroom, 2000). This questionnaire evaluates leadership approaches by presenting five response options for a given situation and issue. The English version of the questionnaire can be found in Appendix 2.

I used quantitative method. Questionnaire was created in Hungarian and Turkish languages. Original questionnaire was in English, I translated questionnaire to Turkish and Hungarian with help of Hungarian Turkish speaking interpreter. Survey was designed in Survey Monkey, and it was carried out in online. Our questionnaire was consisted of 45 questions. The first 6 questions related to demographic characteristics of the samples, next 38 questions related to four cultural patterns: horizontal individualism, horizontal collectivism, vertical individualism, vertical collectivism. Last question is related to preferred leadership styles of subordinates: decide, consult individually, consult group, facilitate, delegate (from the most autocratic to the most participative).

Singelis et al. (1995) created The Values Scale due to the difficulty of measurement of Individualism-Collectivism. Wasti and Erdil (2007) investigated the validity of the instrument and based on both factor and correlation analyses, it was concluded scale was reliable. However, it is recommended that it must be developed with items that would be more meaningful in the Turkish environment. Öztürk et al. (2019) stated that scale is reliable and valid.

The Values Scale has 32 items, and 9 Likert scale was used, 1 represents definitely not/never and 9 represents definitely yes/always. Instrument was consisted of 8 items for each cultural pattern. The Horizontal-Individualism is assessed using the following items: 14,12,22,31,19,37,36,10. For instance, item 22 presents the following statement: "One should live one's life independently of others. "The Vertical-Individualism is measured by the items 16, 26, 7, 11, 30, 18, 21 and 34 and the item 30 makes the statement "Winning is everything".

The horizontal collectivism is evaluated by the items 20,8,13,33,17,32,9,24. Item 2 makes the statement "I would be proud if a colleague of mine received an award for his/her achievement." The vertical collectivism is evaluated by the items 25,29,35,27,23,38,15,28. Item 23 makes the statement "We should keep our aging parent with us at home."

Firstly, I created the questionnaire based on 5 Likert scale and it was tested on 20 Hungarian and 20 Turkish students to eliminate any bias. Students gave feedback and they missed the “moderately agree” or “moderately disagree” option. After the given feedback, I changed the questionnaire to 9 Likert scale to provide more options to the participants and to achieve measurement of a continuous variables in our study.

The Taxonomy of Leadership questionnaire was adapted to use as a second instrument. Aim of the adaptation of this instrument was to pinpoint the leadership approach most favored by participants. Vroom (2000) created The Taxonomy of Leaderships from the Vroom-Yetton-Jago Decision Model. The five alternative leadership styles identified on the model and leaderships styles are considered continuum from the most autocratic to the most participative style, first alternative represent the Decide style where leader makes the decision alone whereas fifth alternative represent the Delegate style where the group takes the decision. I adapted this questionnaire and re-named that as Leadership Questionnaire. I translated the questionnaire to Turkish and Hungarian. To maintain the same meaning I remain aligned with the original questionnaire. I requested the subordinates to rank the leadership styles based on their preferences. To achieve this, 1, 2, 3, 4 and 5, numbers should be used, first statement represents least preferred alternative and number fifth statement the most preferred alternative.

Here is our first statement on the leadership questionnaire: If your manager needs to make a decision on the issue, he/she makes the decision alone and announces his/her decision to the group. Your manager uses their experience to gather information from the group that is pertinent to the matter (Decide). Here is the 5. alternative in our questionnaire: The group is tasked to identify and diagnose the problem as well as developing alternative procedures to solve it. The facilitator does not take a leading position in the team discussions unless specially requested to do so. Their responsibility is to provide the necessary resources and incentives behind the scenes (Delegate).

3.4. Quantitative Data Analysis

I used SPSS to analyse the data that I collected using the questionnaire. Main purpose of this study is to investigate predominant Cultural Pattern of Hungarian and Turkish subordinates' preferred Leadership Styles, including a spectrum from the most authoritarian to the most participative. Both subordinate groups were depicted by different occupational groups in several sectors. I also analysed if a link exists between culture dimensions and favored leadership approaches.

Hungary and Turkey are identified as dichotomous variable, the leadership approaches and the cultural dimensions are identified as a continuous variables: Consult group, delegate, consult individually, decide, facilitate. The items in the Leadership Questionnaire were utilised to reflect different leadership styles, helping to assess how participants responded to each style. Subordinates' nations and the cultural dimensions are considered to be "organismic" factors and could not be modified by me; These types of variables represent participant traits that can only be observed and not influenced by the researcher.

This analysis helps to ensure any irregular data, which might impact the analysis results, is properly identified and managed. Kolmogorov-Smirnov, Levene Test, Shapiro-Wilk, Skewness and Kurtosis test were carried out to test the normality of all variables. I carried out some statistical tests to find out univariate results for the Vaues Scale test. First statistical test is Cronbach's Alpha Reliabilities of VI, HI, HC, VC for the Whole Sample and by Country. Second test is to find out Means and Standard Deviations of the VI, HI, HC, VC for the Whole Sample and by Country. Results show sequence of preference of cultural dimensions for Hungarian and Turkish subordinates.

Next analysis is Cultural Patterns (VI, HI, HC, VC) in terms of percentages. This analysis is carried out to identify the cultural pattern type preferred by each participant. Next analysis is to test if there is correlation among the four Cultural Patterns (HI, HC, VC, VI).

I carried out other statistical analysis for the variables of Leadership Questionnaire. The very first analysis is mean results of leadership styles for each subordinate group. Basically, to find out which leadership style is preferred by subordinate groups. Next analysis is the leadership approach percentages that are chosen by Hungarian and Turkish subordinates. Unlike to sample mean, this percentage indicates the number of participants who prioritized each style as their best preference.

Our first research question and initial hypotheses examine whether the variable "country" influences the cultural patterns of Hungarian and Turkish subordinates. To test this, I conducted Kruskal-Wallis and One-Way ANOVA tests on the cultural patterns (HI, VI, HC, VC) of both Hungarian and Turkish samples. Additionally, the Wilcoxon Signed-Rank Test and T-test were applied to determine if there are significant differences between the two cultural patterns with the highest percentages and means for each group. Furthermore, a One-Way ANOVA was used to assess the primary effects of cultural patterns on Hungarian and Turkish participants. In this analysis, the cultural dimensions (VI, HC, HI, VC) served as dependent variables, while the subordinate's country was the independent variable.

The T-test and Wilcoxon Signed-Rank Test were used to identify the two dominant cultural patterns within each group of subordinates for these hypotheses. The T-test was applied to both Hungarian and Turkish subordinates to determine whether there is a significant distinction between the two cultural patterns with the highest percentages and means. For Hungarian subordinates, Horizontal Individualism (HI) and Vertical Collectivism (VC) exhibited the highest percentages and means, while for Turkish subordinates, Horizontal Individualism (HI) and Horizontal Collectivism (HC) showed the highest means and percentages. Consequently, the HI-HC and HI-VC cultural values were compared using both the T-test and Wilcoxon Signed-Rank Test.

To test the third and fourth hypotheses, as well as the second research question, I conducted the Kruskal-Wallis Test to analyse the leadership styles. The final hypothesis was tested using the Pearson correlation test to examine whether a relationship exists between leadership styles and cultural patterns among Hungarian and Turkish subordinates. Leadership styles were treated as the dependent variables in this analysis. Additionally, to address the final research question, Pearson correlations were applied to explore the relationships between participant characteristics, cultural dimensions, and leadership approaches.

3.5. Sample

3.5.1. Characteristics of Sample

In this Chapter, I obtained our results of this study with application of The Leadership Questionnaire and Values Scale that are detailed in the subsequent units. As outlined earlier, the questionnaire distributed to 420 subordinates in Budapest (Hungary) and 420 subordinates in Izmir (Turkey).

Table 5 shows demographic traits of participants by country. I gathered the data on educational qualifications, gender, tenure as subordinate, age. The final number of Turkish participants was 408 and Hungarian participants was 398. Total number of participants were 806.

Table 5. Characteristics of Participants

		Age (years)		Gender		Academic Degree				TAS (years)
Countries	N	Mean	Range	M	F	P.hD	MSc	BSc	High S.	Mean
Hungary	398	33,44	23 to 59	186	212	4	89	261	44	7,30
Turkey	408	39,44	25 to 65	214	194	38	100	232	38	11,94
Total (N)	806	72,88	23 to 65	400	406	42	189	493	82	19,24

Source: Author's own source

The sample size is 398, number of males is 186, number of females is 212. Average age is 33.44, age range is 23-59 for Hungarian participants. The sample size of Turkish participants is 408, number of males is 214, number of females is 194. The average age is 39.44, the age range is 25-65. The average age of Turkish participants is higher than the average age of Hungarian participants and Turkish participants' age range is wider than Hungarian participants' age range.

Among the Hungarian participants, the number of people with a doctorate degree is 4, master's degree is 89, bachelor's degree is 261, high school degree is 44. Among the Turkish participants, the number of people with a doctorate degree is 38, a master's degree is 100, a bachelor's degree is 232, high school degree is 38. Average professional experience of Hungarian participants is 7.30 years, the average professional experience of Turkish participants is 11,94 years.

The number of Turkish participants with master's and doctoral degree is higher than number of Hungarian participants that hold master's and doctoral degree. The general age range for both participants is 23-65. Total number of males is 400, total number of females is 406. The total number of Ph.D. degree holders is 42, M.Sc. holders is 189, and high school diploma holder holders is 82. The total tenure of the subordinates is 19,24 years on average.

The Turkish participants have higher values than Hungarian participants in terms of average of age and average of professional experience (years). The number of Turkish participants with high academic degrees are more than Hungarian participants. The number of female participants is higher in Hungary, while the number of male participants is higher in Turkey.

This data shows that there are significant differences between the two countries in terms of demographic characteristics.

Figure 3 illustrates the distribution of participants by sector/industry. The Hungarian participants in our survey represent a diverse range of fields. The percentage of participants from the finance sector is 22.5%, the percentage of people working in the technology sector (including IT) is 17.6%, fashion sector is 6.5%, tourism sector is 6%, the education sector is 5.5%, the health care sector is 5.0%, automotive is 5%, logistics and transportation sector is 5%, energy is 4.5 %, manufacture and production sector is 4.0%, oil and gas sector is 3.5%, pharmaceutical industry 3.5%, real estate sector is 3.5%, service sector 3.0%, constructions industry 1.0%, those working in other sectors 2.5%.

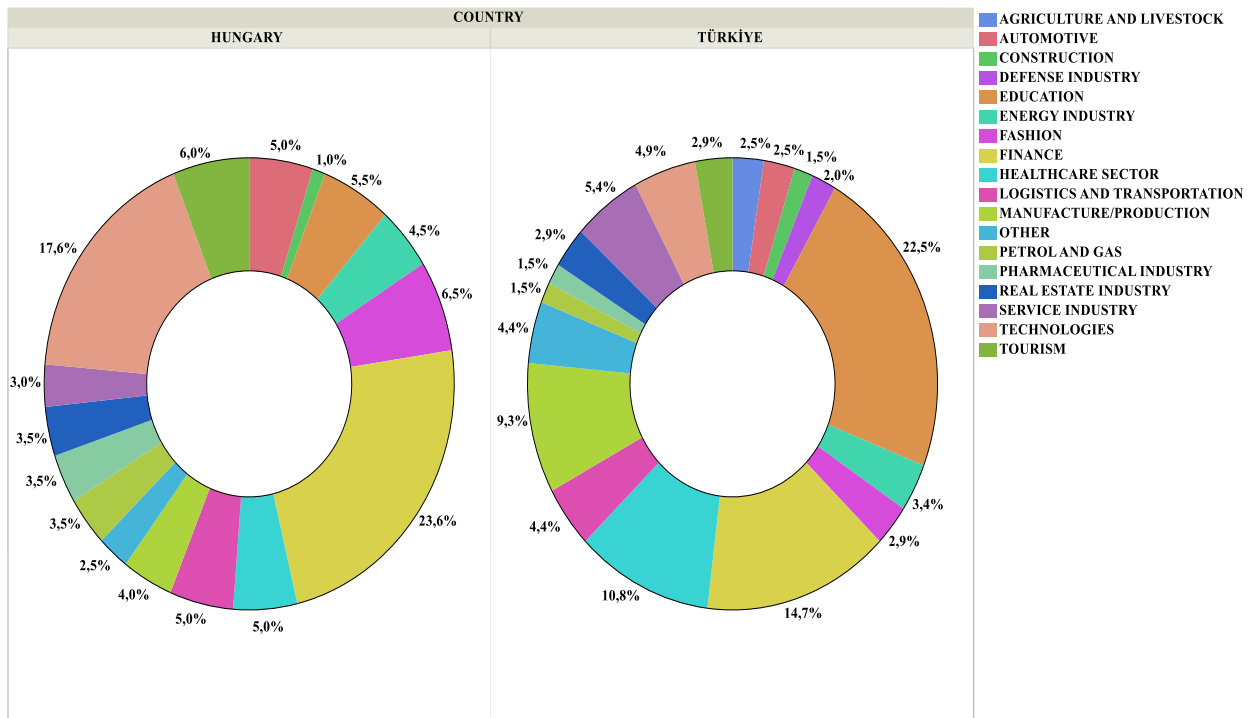


Figure 3. Sectors

Source: Author's own source

The most of Turkish subordinates participated from education sector with 22.5%. Percentage of participants in the financial sector is 14.7%, healthcare sector is 10.8%, manufacture and production sector is 9.3%, service sector is 5.4%, technology sector 4.9%, logistics and transportation 4.4%, energy sector 3.4%, tourism sector 2.9%, real estate sector 2.9%, fashion sector 2.9%, automotive sector 2.5%, agriculture and livestock sector 2.5%, defence sector 2.0%, oil and gas sector 1.5%, construction sector 1.5%, pharmaceutical sector 1.5%, other sectors 4.4%. While the financial sector has the highest percentage among Hungarian participants (23.6%), the education sector has the highest percentage among Turkish participants (22.5%).

3.6. Data Distribution

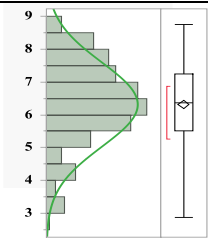
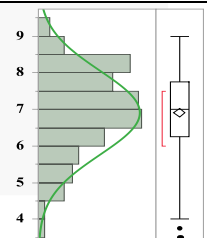
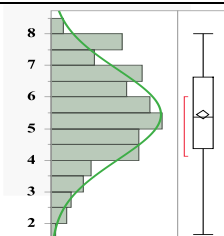
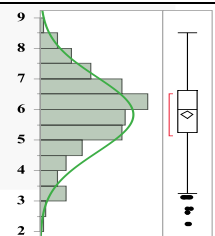
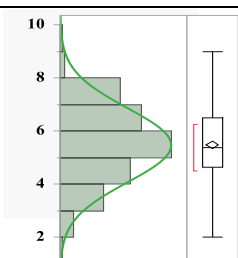
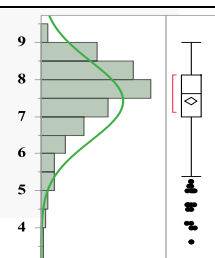
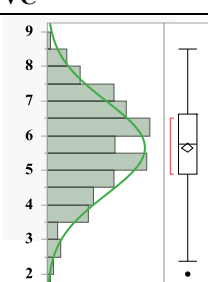
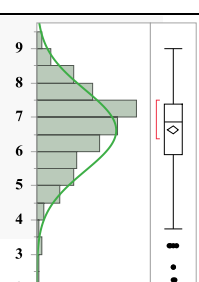
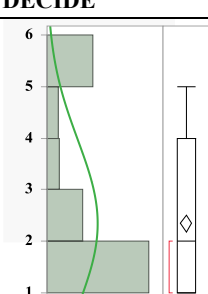
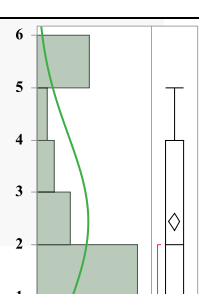
3.6.1. Validity of the Data

The data was evaluated regarding its distribution, along with the occurrence and potential impacts of single variable outliers and multivariate outliers, as previously noted. Also, I applied expert validation procedure to validate my data. Kolmogorov-Smirnov and Levene Test, Shapiro-Wilk Skewness and Kurtosis tests were conducted for each factor to determine if all factors followed a normal distribution (Tabachnick and Fidell, 2013).

Kurtosis measures if a distribution is excessively peaked or flat compared to a normal distribution. Positive kurtosis indicates a more peaked distribution, while negative kurtosis signifies a flatter one. A kurtosis value exceeding +2 suggests an overly peaked distribution, while a value below -2 indicates an excessively flat one. When skewness and kurtosis are near zero, the distribution is considered normal in the unusual case where both skewness and kurtosis are exactly zero, the distribution pattern is regarded as normal. Skewness evaluates the symmetry of a variable's distribution. When the distribution extends towards the right or left tail, it is considered skewed. Negative skewness signifies a greater presence of larger values, while positive skewness indicates a predominance of smaller values. A skewness value ranging from -1 to +1 is ideal, and values between -2 and +2 are typically considered acceptable. However, skewness values beyond -2 and +2 indicate significant nonnormality (Hair et al., 2021).

Figure 4 presents the Skewness and Kurtosis values for Hungary and Turkey. As regard to the Cultural Patterns of Hungarian sample, Skewness of HI is -0.523124 (Left skewed), VI is -0.189965 (Left skewed), HC is -0.224565 (Left skewed), VC is -0.347957 (Left skewed). Regarding the results of Leadership styles, skewness of Decide is 0.7520045 (Right skewed), Consult Individually is 0.4292991 (Right skewed), Consult Group is 0.1241291 (Right skewed), Facilitate is -0.656406 (Left skewed), Delegate is -0.774568 (Left skewed).

For Turkish sample, as regard to the Cultural Patterns skewness of HI is -0,499302 (left skewed), skewness of VI is -0,468761 (left skewed), skewness of HC is -1,28705 (left skewed), skewness of VC is -0,768625 (left skewed) and regarding to leadership styles, skewness of Decide is 0,6324812 (right skewed), skewness of Consult Individually is 0,6241572 (right skewed), skewness of consult group is -0,015027 (left skewed), skewness of facilitate is -0,585685 (left skewed), skewness of delegate is -0,662094 (left skewed).

HUNGARY		TURKEY	
HI			
	Summary Statistics Skewness -0,523124 Kurtosis -0,021904		Summary Statistics Skewness -0,499302 Kurtosis -0,154001
VI			
	Summary Statistics Skewness -0,189965 Kurtosis -0,504484		Summary Statistics Skewness -0,468761 Kurtosis 0,03516
HC			
	Summary Statistics Skewness -0,224565 Kurtosis -0,158086		Summary Statistics Skewness -1,28705 Kurtosis 2,0861418
VC			
	Summary Statistics Skewness -0,347957 Kurtosis -0,134265		Summary Statistics Skewness -0,768625 Kurtosis 0,8928244
DECIDE			
	Summary Statistics Skewness 0,7520045 Kurtosis -1,134054		Summary Statistics Skewness 0,6324812 Kurtosis -1,311215

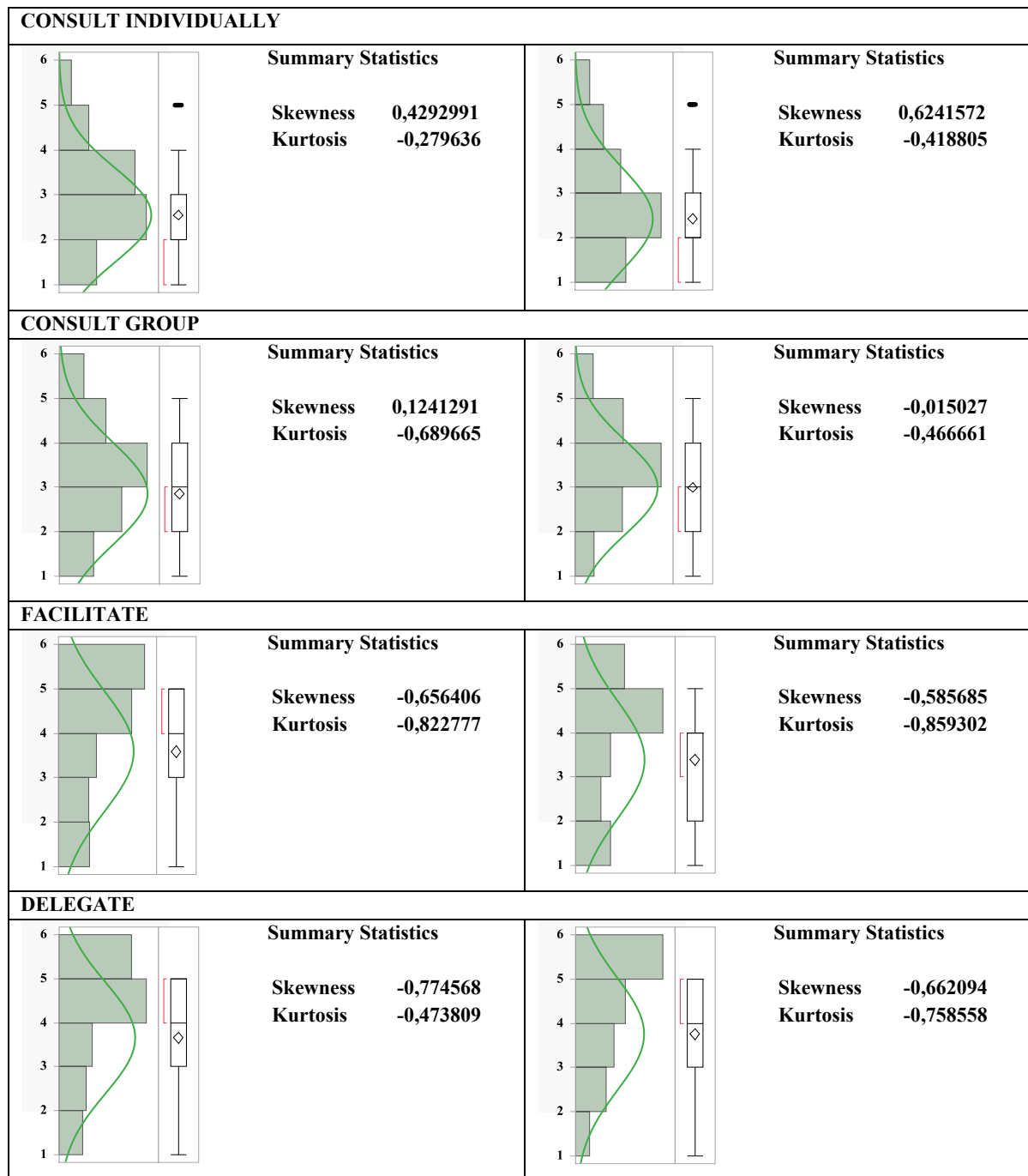


Figure 4. Skewness and Kurtosis for Each Variable by Country

Source: Author's own source

As regard to the Cultural Patterns of Hungarian sample, kurtosis of HI is -0.021904 (near normal distribution), VI is -0.504484 (flat), HC is -0.158086 (near normal distribution), VC is -0.134265 (near normal distribution). Regarding the variables of leadership styles, kurtosis of decide is -1.134054 (close to flat), consult individually is -0.279636 (close to flat), consult group is -0.689665 (close to flat), facilitate -0.822777 (close to flat), delegate is -0.473809 (close to flat).

For Turkish sample, as regard to the cultural patterns, kurtosis of HI is 0,154001(close to normal), VI is 0,03516 (close to normal), HC is 2,0861418 (overly peaked distribution), VC is 0,8928244 (close to picked distribution) and related to the values of leadership styles, kurtosis of decide is -1,311215 (close to flat), consult individually is -0,418805 (close to flat), consult group is -0,466661 (close to flat), facilitate is -0,859302 (close to flat), delegate is -0,758558 (close to flat). Data did not meet the assumption of normality.

Table 6. Levene Test for Each Variable

Parameters	Level	Count	Std Dev	Levene F Ratio	p-Value
HI	HUNGARY	398	1,282718	2,7586	0,0971
	TURKEY	408	1,149545		
VI	HUNGARY	398	1,432309	12,5868	0,0004*
	TURKEY	408	1,235424		
HC	HUNGARY	398	1,396483	35,0422	0,0001*
	TURKEY	408	1,067335		
VC	HUNGARY	398	1,345246	9,4171	0,0022*
	TURKEY	408	1,187611		
DECIDE	HUNGARY	398	1,629025	1,1694	0,2799
	TURKEY	408	1,662262		
CONSULT INDIVIDUALLY	HUNGARY	398	1,050962	3,9588	0,0470*
	TURKEY	408	1,155576		
CONSULT GROUP	HUNGARY	398	1,154159	7,9575	0,0049*
	TURKEY	408	1,060794		
FACILITATE	HUNGARY	398	1,367002	0,2765	0,5992
	TURKEY	408	1,338169		
DELEGATE	HUNGARY	398	1,273486	0,9902	0,9107
	TURKEY	408	1,280635		

Source: Author's own source

The Levene test is a widely used statistical method for assessing variance homogeneity across groups. It calculates the absolute deviations of observations from the group mean and determines their average as the mean deviation for each group. These absolute deviations are then analyzed using variance analysis, leading to the application of the Levene test (Kesici & Kocabaş, 2007).

The Levene test evaluates whether variances are homogeneous across groups. Table 6 analyses variance equality for cultural patterns and leadership styles using Levene's F test. For cultural patterns, HI ($F = 2.7586$, $p = 0.0971$) shows no significant variance difference ($p > 0.05$). In

contrast, VI ($F = 12.5868$, $p = 0.0004$), HC ($F = 35.0422$, $p = 0.0001$), and VC ($F = 9.4171$, $p = 0.0022$) exhibit statistically significant variance differences ($p < 0.05$).

For leadership styles, Decide ($F = 1.1694$, $p = 0.2799$), Facilitate ($F = 0.2765$, $p = 0.5992$), and Delegate ($F = 0.9902$, $p = 0.9107$) show no significant variance differences ($p > 0.05$). In contrast, Consult Individually ($F = 3.9588$, $p = 0.0470$) and Consult Group ($F = 7.9575$, $p = 0.0049$) exhibit significant variance differences ($p < 0.05$).

In summary, significant variance differences are found in VI, HC, VC, Consult Individually, and Consult Group, while the other parameters show no significant differences.

Table 7. Kolmogorov-Smirnov-Shapiro Wilk Test for Each Variable

Cultural Patterns	Countries	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
HI	TURKEY	,065	408	,000	,975	408	,000
	HUNGARY	,068	398	,000	,973	398	,000
VI	TURKEY	,075	408	,000	,978	408	,000
	HUNGARY	,054	398	,007	,983	398	,000
HC	TURKEY	,134	408	,000	,909	408	,000
	HUNGARY	,056	398	,004	,990	398	,011
VC	TURKEY	,105	408	,000	,963	408	,000
	HUNGARY	,065	398	,000	,986	398	,001
Decide	TURKEY	,278	408	,000	,747	408	,000
	HUNGARY	,287	398	,000	,735	398	,000
Consult Individually	TURKEY	,250	408	,000	,878	408	,000
	HUNGARY	,215	398	,000	,899	398	,000
Consult Group	TURKEY	,198	408	,000	,913	408	,000
	HUNGARY	,174	398	,000	,915	398	,000
Facilitate	TURKEY	,265	408	,000	,857	408	,000
	HUNGARY	,234	398	,000	,844	398	,000
Delegate	TURKEY	,232	408	,000	,838	408	,000
	HUNGARY	,265	398	,000	,844	398	,000

Source: Author's own source

Various methods assess the normality of continuous data, with the most common being the Shapiro–Wilk test, Kolmogorov–Smirnov test, skewness, kurtosis, histograms, and comparing the mean to the standard deviation. Among these, the Shapiro–Wilk and Kolmogorov–Smirnov tests

are the most frequently used. The Shapiro–Wilk test is ideal for small samples (fewer than 50) but can also be applied to larger datasets, while the Kolmogorov–Smirnov test is typically preferred for samples of 50 or more. Both tests assume the data follow a normal distribution under the null hypothesis. A p-value above 0.05 suggests normality, whereas a lower value indicates deviation (Mishra et al., 2019).

Table 7 presents the results for HI, VI, HC, VC, Decide, Delegate, Consult Individually, Facilitate, and Consult Group, analyzed separately for Turkish and Hungarian participants. In both the Shapiro–Wilk and Kolmogorov–Smirnov tests, all p-values fall below 0.05, indicating that the dataset does not follow a normal distribution. As a result, none of the variables meet normality assumptions for either group.

4. RESULTS

4.1. The Values Scale

Since noted already, the Values Scale consist of 32 components designed to determine horizontal and vertical dimensions. Singelis et al. (1995) created the Values Scale that measures the four Cultural patterns (dimensions); vertical-individualism, horizontal-individualism, horizontal-collectivism, vertical-collectivism.

Table 8 presents the coefficient reliability for each nation and entire dataset. Cronbach's Alpha value was utilized to assess the scale's reliability. According to Taber (2017), the criteria for scale reliability are as follows: $0 < x < 0.40$ indicates "not reliable," $0.40 < x < 0.60$ indicates "low confidence," $0.60 < x < 0.80$ indicates "reliable," and $0.80 < x < 1.00$ indicates "highly reliable."

Table 8. Cronbach's Alpha Reliabilities for HI, VI, HC, VC

	N	HI	VI	HC	VC
Whole Sample	806	$\alpha=,622$	$\alpha=,701$	$\alpha=,595$	$\alpha=,560$
Hungary	398	$\alpha=,442$	$\alpha=,604$	$\alpha=,480$	$\alpha=,353$
Turkey	408	$\alpha=,668$	$\alpha=,666$	$\alpha=,632$	$\alpha=,658$

Source: Author's own source

In the overall sample, the VI subscale had the highest internal consistency ($\alpha = 0.701$), and the VC subscale had the lowest internal consistency ($\alpha = 0.560$). In Hungarian sample, VI had the highest internal consistency ($\alpha=604$). HI ($\alpha=442$) and HC($\alpha=480$) sub-scales were low reliable. In Turkish sample, Cronbach's Alpha values for all subscales are higher than both the overall sample and Hungarian sample. All Cronbach's Alpha values are between " $0.60 < x < 0.80$ " that indicates all sub-scales are reliable. This indicates that Turkish sample provides more consistent results.

Table 9. Mean and Standard Deviation Comparisons for HI, VI, HC,VC

		HI		VI		HC		VC	
	N	Mean	SD	Mean	SD	Mean	SD	Mean	SD
Whole Sample	806	52,91	10,02	45,09	10,79	51,64	12,61	49,12	10,85
Hungary	398	50,49	10,26	43,54	11,45	43,76	11,17	45,20	10,76
Turkey	408	55,27	9,19	46,62	9,88	59,33	8,53	52,94	9,50

Source: Author's own source

Table 9 presents the average value of every cultural dimension (pattern) for each nation and entire dataset. Horizontal individualism (52,91) was the most preferred cultural pattern for whole sample. The horizontal individualism was the most favoured cultural dimension (50,49) in Hungarian sample. Horizontal collectivism (59,33) is the most preferred cultural pattern for Turkish sample. The second preferred Cultural Pattern was horizontal collectivism (51,64) for whole sample. Second preferred cultural pattern was vertical collectivism (45,20) for Hungarian subordinates and horizontal individualism (55,27) was second preferred cultural pattern for Turkish participants. Third preferred cultural pattern was vertical collectivism (49,12) for whole sample. Horizontal collectivism (43,76) is the third most favoured cultural dimension among Hungarian participants. Vertical collectivism (52,94) is the third most favoured cultural pattern among Turkish participants. Finally, the least preferred cultural pattern was the vertical individualism (45,09) for whole sample. Vertical individualism (43,54) was the least preferred cultural pattern for Hungarian subordinates. Vertical individualism (46,62) was the least preferred cultural pattern for Turkish subordinates. To sum up, whole sample, Turkish sample and Hungarian sample different sequence of preference for the HI, VI, VC, HC.

Table 10. Percentages for HI, VI, VC, HC by Country

Cultural Patterns					
	N	HI	VI	HC	VC
Hungary	398	%27,59	%23,79	%23,91	%24,70
Turkey	408	%25,80	%21,76	%27,70	%24,71

Source: Author's own source

Table 10 highlights the distribution of cultural dimensions. Hungarians exhibit a preference for horizontal individualism (27.59%), followed by vertical collectivism (24.70%). In contrast, Turks lean towards horizontal individualism (27.70%), with vertical collectivism as their second preference (24.71%). While Hungary reflects a balance of both horizontal and vertical tendencies, Turkey predominantly emphasizes horizontal values, indicating notable differences in social dynamics between the two cultures. These differences in cultural values highlight distinct social structures and interpersonal dynamics between the two countries. The percentage distributions offer valuable insights into the underlying cultural frameworks of Hungary and Turkey, revealing how their social norms and relationships are shaped by varying cultural orientations.

Table 11 demonstrates the relationship between the four cultural dimensions. There is a moderate positive relationship between VI and HI ($r = 0.522$). In other words, as the HI value increases, the

VI value also tends to increase. There is a low-level positive relationship between HI and HC ($r = 0.306$). In other words, as HI increases, HC also tends to increase. There is a low-level positive relationship between HI and VC ($r = 0.266$) as well as between VI and HC ($r = 0.124$). Correlation coefficient value is $r = 0.210$. This implies a weak positive bond between VC and VI.

Table 11. Correlations Among HI, VI, VC, HC

	HI	VI	HC	VC
HI	---			

VI	,522**	---		
	<,001	---		
HC	,306**	,124**	---	
	<,001	<,001	---	
VC	,266**	,210**	,716**	---
	<,001	<,001	<,001	---

Source: Author's own source

The Correlation between HC and VC ($r = 0.716$). This reflects prominent positive association between VC and HC.

In other words, when HC level increases, VC level tends to increase. Overall, the significance levels of the correlation coefficients ($p < 0.001$) indicate that these relationships are statistically significant. These findings suggest that there are significant relationships between different cultural values and that these values may influence each other.

These findings align with the results of value's scale (Singelis et al., 1995), that was noted that four cultural patterns are not separated and influence each other.

4.2. The Leadership Questionnaire

Leadership questionnaire in order to assess preferred leadership styles among both countries' participants. **Table 12** demonstrates the average replies for each question on the Leadership Survey. These outcomes unveil that the most favored leadership approach for Hungarian participants is depicted by option 5 (Delegate) with an average of 3,66. Regarding the Turkish participants, the outcomes unveil option 5 (Delegate) as the most favored leadership approach with an average of 3,75. It's crucial to emphasize that the nearer to the element 1, the more authoritarian leadership approach, while nearer to element 5, the more participative leadership approach.

Table 12. Comparison of Mean Values of Leadership Styles for Each Country

		Decide		Consult Individually		Consult Group		Facilitate		Delegate	
Countries	N	Mean	Sd	Mean	Sd	Mean	Sd	Mean	Sd	Mean	Sd
Hungary	398	2,34	1,62	2,55	1,05	2,86	1,15	3,60	1,86	3,66	1,62
Turkey	408	2,44	1,66	2,42	1,15	3,00	1,06	3,39	1,33	3,75	1,28

Source: Author's own source

The least favored leadership approach is option 1(decide) with an average score of 2,34 by the Hungarian subordinates. Item 1 (consult individually) is least preferred leadership style with a mean of 2.42 by Turkish subordinates. Both countries participants prefer participate leadership style.

Table 13. Percentage Distribution of Leaderships Styles by Country

	N	Decide	Consult Individually	Consult Group	Facilitate	Delegate
Hungary	398	%15,58	%16,98	%19,05	%23,98	%24,38
Turkey	408	%16,26	%16,13	%20,00	%22,60	%25,00

Source: Author's own source

Table 13 presents the percentage of each leadership style in both countries. The highest preference among Hungarians (24.38%) and the Turks (25.00%) was for the delegate style. The leadership style with the lowest rate is Decide (15.58%) and Facilitate (23.98%) and Consult Group (19.05%) styles also have significant rates for Hungarian

The leadership style with the lowest rate is Consult Individually (16.13%) and Consult Group (20.00%) and Facilitate (22.60%) styles also have significant rates for Turkish participants. These data show the general distribution of leadership styles for Hungarian and Turkish participants,

results showed that there are similar trends in both countries. However, in Turkey, the rate of Consult Individually style is lower and the rate of Decide style is higher.

Tables 14 and 15 were created to examine the fourth research question. **Table 14** demonstrated the link between relevant demographic factors and the cultural dimensions for Turkish and Hungarian participants. For Turkey, horizontal individualism and age exhibit a negative correlation (-0.116). There is a negative correlation between Time as Subordinate and HI, HC, VC and positive correlation between Academic degree and HI, HC, VC. All values are statistically significant.

Table 14. Correlations Among Cultural Patterns and Characteristics of Participants

		HI	VI	HC	VC
Hungary	Age	-,161**	-,002	-,084	-,091
		<,001	,963	,094	,069
	Gender	-,023	-,004	-,084	-,116*
		,648	,938	,094	<,020
	Time as Subordinate	-,163**	,037	-,198**	-169**
		<,001	,466	<,001	<,001
	Academic Degree	,172**	,041	,148**	,134**
		<,001	,416	<,003	<,008
Turkey	Age	-,058	-,043	,163**	,090
		,245	,389	<,001	,068
	Gender	-,170**	,054	,038	,203**
		<,001	,280	,446	<,001
	Time as Subordinate	-,080	,051	,175**	,169**
		,108	,304	<,001	<,001
	Academic Degree	,011	,043	,045	-,011
		,831	,388	,367	,819

Source: Author's own source

Regarding to data of Turkish participants show positive correlation between age and horizontal collectivism, gender and vertical collectivism. There is negative correlation between gender and horizontal individualism. Time as subordinate and horizontal collectivism, vertical collectivism shows positive correlation. All values are statistically significant.

In summary, correlation was found between some variables. These findings provide information about how time as subordinate, gender academic degree and age are related to cultural dimensions. Variables such as time as subordinate and academic degree are seen to have significant relationships with cultural dimensions.

Table 15. Correlations Among Leadership styles and Characteristics of Participants

		Decide	Consult Individually	Consult Group	Facilitate	Delegate
Hungary	Age	,068	,088	,012	-,086	-,078
		,176	,081	,809	,087	,120
	Gender	,131**	,056	,012	-,136**	-,079
		<,009	,266	,819	<,007	,115
	Time as Subordinate	,081	,006	-,003	-,028	-,075
		,108	,913	,945	,580	,137
	Academic Degree	-,088	-,114*	,117*	,054	,042
		,079	<,023	<,019	,282	,398
Turkey	Age	-,052	-,085	,138**	-,008	,040
		,290	,086	<,005	,866	,424
	Gender	,005	-,069	-,014	-,033	,101*
		,925	,164	,783	,512	<,040
	Time as Subordinate	-,088	-,042	,034	-,028	,153**
		,076	,400	,491	,572	<,002
	Academic Degree	,705	-,054	,041	,007	-,017
		,408	,275	,408	,892	,739

Source: Author's own source

Table 15 presents the correlations between leadership styles and demographic characteristics for each country. Among Hungarian participants, gender is positively associated with the Decide leadership style but negatively correlated with the Facilitate style. Additionally, academic degree shows a negative correlation with the Consult Individually style and a positive correlation with the Consult Group style.

For Turkish participants, age is positively correlated with the Consult Group leadership style, while gender and tenure as a subordinate are both positively associated with the Delegate style. All of these correlations are statistically significant.

These findings underscore the influence of demographic factors—such as age, gender, tenure, and academic degree—on leadership styles. In particular, the Consult Group and Delegate styles demonstrate significant associations with specific demographic characteristics, offering valuable insights into how these factors shape leadership approaches.

4.3. Hypothesis Testing

The primary purpose of our study was to evaluate the favored cultural dimensions of Turkish and Hungarian participants and examine whether they showed distinct choices for leadership approaches. In addition to that, our research assessed whether the cultural patterns (dimensions) and the leadership approaches would be related. The first two hypotheses assumed that nationality would be key impact on cultural dimensions. Therefore, hypotheses were created based on the literature that Hungarians and Turkish subordinates prefer different cultural patterns. However, neither the Turkish nor the Hungarian cultural patterns met the normality assumption, as assessed by the Kolmogorov-Smirnov and Shapiro-Wilk tests. Consequently, the Kruskal-Wallis test was applied.

Table 16. Kruskal-Wallis Test for HI, VI, HC, VC by Country

	HUNGARY (N=398)	TURKEY (N=408)			
Cultural Patterns	Mean Rank	Mean Rank	Chi-square	Df	sig.
HI	348,33	457,32	44,20	1	<,001
VI	370,43	435,76	15,87	1	<,001
HC	252,42	550,88	331,34	1	<,000
VC	317,54	487,35	107,29	1	<,000

Source: Author's own source

Table 16 displays the numerical results of Kruskal-Wallis Test. Contrary to the first hypothesis; the results indicate difference on Horizontal-Collectivism (HC), Turkish participants showed higher mean rank on HC than their counterpart, the Hungarians. Contrary to the second hypothesis, Hungarian participants showed higher mean rank in Vertical Individualism. However, their ranking was not higher than that of their Turkish counterparts.

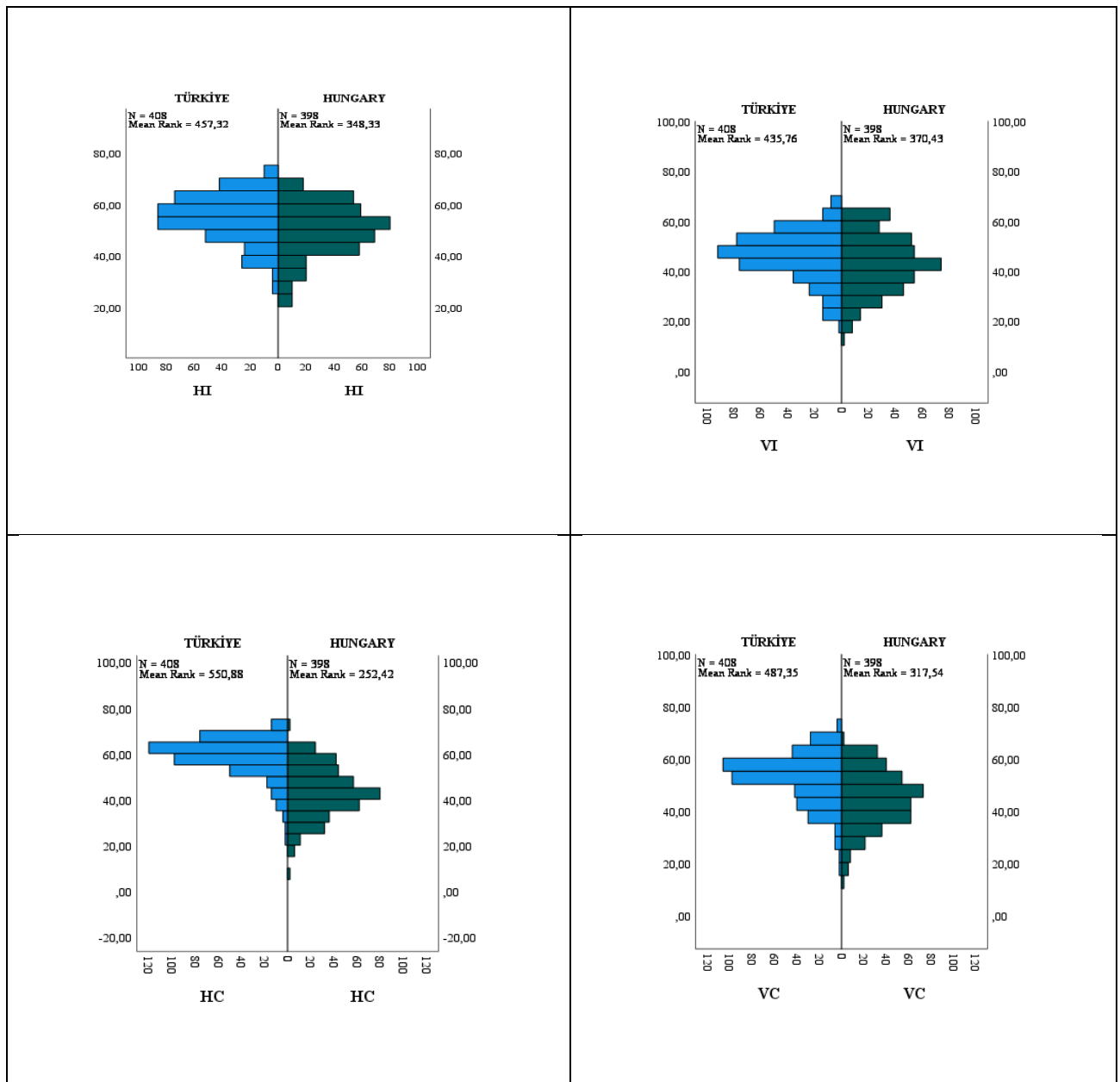


Figure 5. Kruskal-Wallis Test for HI, VI, HC, VC by Country

Source: Author's own source

Figure 5 visually displays results of the Kruskal-Wallis's test.

Table 17. One-Way ANOVA for HI, VI, HC, VC by Country

Cultural Patterns	HUNGARY (N=398)			TURKEY (N=408)					
	M	SD	SE	M	SD	SE	F	Df	sig.
HI	50,49	10,26	0,51	55,27	9,19	0,45	48,69	1	<,001
VI	43,54	11,45	0,57	46,62	9,88	0,48	16,66	1	<,001
HC	43,76	11,17	0,55	59,33	8,53	0,42	495,31	1	<,000
VC	45,20	10,76	0,53	52,94	9,50	0,47	117,24	1	<,000

Source: Author's own source

To explore this finding further, a series of One-Way ANOVA test was conducted. In this analysis, Turkey and Hungary were treated as independent variables, while horizontal individualism, horizontal collectivism, vertical individualism, and vertical collectivism served as dependent variables.

Table 17 presents the one-way ANOVA results for cultural patterns. Contrary to the first hypothesis, the findings indicate a significant difference in Horizontal Collectivism (HC), with Turkish participants displaying a higher mean rank than their Hungarian counterparts. Partially aligning with the second hypothesis, Hungarian participants showed a higher mean rank in Horizontal Individualism; however, their ranking remained lower than that of the Turkish participants.

Table 18. Wilcoxon Signed- Rank Test: Comparison of HI and VC for Hungary

Ranks					Test Statistics	
		N	Mean Rank	Sum of Ranks		HI - VC
HI - VC	Negative Ranks	129 ^a	156,05	20131,00	Z	-8,524 ^d
	Positive Ranks	269 ^b	220,33	59270,00	Asymp. Sig. (2-tailed)	,000
	Ties	0 ^c				
	Total	398				
a. HI < VC b. HI > VC c. HI = VC d. Based on negative ranks p<0,01						

Source: Author's own source

To further test Hypothesis 1 and 2, another set of non-parametric and parametric statistical tests were developed for each group of participants in order to assess if there would be a difference between the two Cultural Patterns with the highest means and percentage in each group. **Table 18** shows Number of Ranks (N): There were 269 participants who stated that the VC cultural pattern

was less effective than the HI cultural pattern, while 129 participants stated that the VC cultural pattern more effective than HI cultural pattern. This shows VC has a lower impact than the HI.

Mean Rank: The mean rank is 156,05 for HI < VC, while it is 220,33 for HI > VC. This shows that the HC cultural pattern has a lower impact than the HI cultural pattern.

Sum of Ranks: The total rank is 20131,00 for HI < VC, while it is 59270,00 for HI > VC. These values also support that the VC cultural pattern has a lower impact than the HI cultural pattern.

Z Value and p Value: Z value is -8,524 and the p value is ,000 ($p < 0.01$), the difference between HI and VC cultural patterns is statistically significant. This difference is not coincidence. This analysis shows that the HI is significantly higher than the VC for Hungarians.

Table 19. T-test: Comparison of HI and VC for Hungary

Paired Differences						Test Statistics		
				%95 CI of the Difference				
	Mean	SD	SE Mean	Lower	Upper	t	df	Sig. (2-tailed)
HI-VC	5,29	14,42	0,72	5,30	8,14	9,29	397	<,000

Source: Author's own source

Table 19 presents a significant difference between the VC and HI cultural patterns among Hungarian participants ($p < 0.05$). The positive mean difference indicates that the HI cultural pattern has a higher value than the VC cultural pattern. The 95% confidence interval (CI) suggests that the true mean difference lies between 5.30 and 8.14. The t-value (9.29) confirms the significance of this difference, while the sample size (397) is sufficient to support the findings. These results reinforce the existence of a statistically significant difference between the HI and VC cultural patterns. Such non-parametric as well as parametric tests indicate that the Horizontal-Individualism is the predominant cultural pattern for Hungarian participants.

Table 20. Wilcoxon Signed-Rank Test: Comparison of HI and HC for Turkey

Ranks					Test Statistics	
		N	Mean Rank	Sum of Ranks		HI - HC
HI - HC	Negative Ranks	248 ^a	226,51	56174,00	Z	-7,409 ^d
	Positive Ranks	148 ^b	151,57	22432,00	Asymp. Sig. (2-tailed)	,000
	Ties	12 ^c				
	Total	408				
a. HI < HC b. HI > HC c. HI = HC d. Based on negative ranks $p < 0,01$						

Source: Author's own source

Table 20 shows Number of Ranks (N): There were 248 participants who stated that the HI cultural pattern was less effective than the HC cultural pattern, while 148 participants stated that the HI cultural pattern is more effective HC dimension. 12 participants stated that both dimensions were equally effective.

Mean Rank: The mean rank is 226,51 for HI < HC, while it is 151,57 for HI > HC. This shows that the HI has a lower impact than the HC.

Sum of Ranks: The total rank is 56174,00 for HI < HC, while it is 22432,00 for HI > HC. These values also support that the HI has a lower impact than the HC.

Z Value and p Value: Z value is -7,409 and the p value is ,000 ($p < 0.01$), the difference between HI and HC dimensions is statistically significant. This difference is not coincidence. This analysis shows that the HC is significantly higher than the HI for Turks.

Table 21. T-test: Comparison of HC and HI for Turkey

Paired Differences						Test Statistics		
				%95 CI of the Difference				
	Mean	SD	SE Mean	Lower	Upper	t	df	Sig. (2-tailed)
HC-HI	4,05	9,97	0,49	3,08	5,02	8,20	407	<,000

Source: Author's own source

Table 21 shows a mean difference of 4.05, indicating that the HC cultural pattern has a higher score than the HI cultural pattern among Turkish participants. The standard deviation (SD) of 9.97 and standard error (SE) of 0.49 reflect the variability in the difference between HI and HC. The 95% confidence interval (CI) suggests that the actual mean difference falls between 3.08 and 5.02. Additionally, the t-value (8.20) and p-value (<0.000) indicate that this difference is statistically significant. Since the p-value is less than 0.05, the difference between HI and HC is not coincidence.

These results show that there is significant difference between HC dimension and HI dimension. Such non-parametric as well as parametric tests indicate that the Horizontal-Collectivism is the predominant cultural pattern for Turkish participants.

Table 22. Wilcoxon Signed-Rank Test: Comparison of VI and HC for Hungary

Ranks				Test Statistics	
	N	Mean Rank	Sum of Ranks		VI - VC
VI - HC	210 ^a	203,95	42829,00	Z	-2,697 ^d
	174 ^b	178,68	31091,00	Asymp. Sig. (2-tailed)	,007
	14 ^c				
	Total	398			
a. VI < HC b. VI > HC c. VI = HC d. Based on negative ranks p<0,01					

Source: Author's own source

Table 22 shows Number of Ranks (N): There were 210 participants who stated that the VI cultural pattern was less effective than the HC cultural pattern, while 174 participants stated that the VI is more effective and 14 participants stated that both cultural patterns were equally effective.

Mean Rank: The mean rank is 203.95 for VI < HC, while it is 178.68 for VI > HC. This shows that the VI has a lower impact than the HC.

Sum of Ranks: The total rank is 42829.00 for VI < HC, while it is 31091.00 for VI > HC. These values also support that the VI has a lower impact than the HC.

Z Value and p Value: Z value is -2.697 and the p value is 0.007 ($p < 0.01$), the difference between VI and HC cultural patterns is statistically significant. This difference is not coincidence.

This analysis shows that the HC is significantly higher than the VI for Hungarians.

Table 23. T-test: Comparison of VI and HC for Hungary

Paired Differences						Test Statistics		
				%95 CI of the Difference				
	Mean	SD	SE Mean	Lower	Upper	t	df	Sig. (2-tailed)
HC-VI	1,22	15,37	,077	,14	3,17	2,15	397	<,032

Source: Author's own source

Table 23 indicates a statistically significant difference between the HC and VI cultural patterns ($p < 0.05$). The positive mean difference suggests that the HC has a greater effect than the VI dimension. The standard deviation and standard error values provide insight into the sample's homogeneity and the test's reliability. Additionally, the 95% confidence interval (0.14 to 3.17) confirms that the true mean difference falls within this range.

These results show that there is significant difference between HC dimension and VI dimension.

Table 24. Wilcoxon Signed-Rank Test: Comparison of VC and VI for Turkey

Ranks				Test Statistics		
		N	Mean Rank	Sum of Ranks		VI - VC
VI - VC	Negative Ranks	294 ^a	215,44	63339,00	Z	-10,551 ^d
	Positive Ranks	102 ^b	149,68	15267,00	Asymp. Sig. (2-tailed)	,000
	Ties	12 ^c				
	Total	408				
a. VI < VC b. VI > VC c. VI = VC d. Based on negative ranks p<0,01						

Source: Author's own source

Table 24 shows Number of Ranks (N): There were 294 participants who stated that the VI cultural pattern was less effective than the VC cultural pattern, while 102 participants stated that the VI is more effective than VC and 12 participants stated that both cultural patterns were equally effective. Mean Rank: The mean rank is 215,44 for VI < VC, while it is 149,68 for VI > VC. This shows that the VI has a lower impact than the VC.

Sum of Ranks: The total rank is 63339,00 for VI < VC, while it is 15267,00 for VI > VC. These values also support that the VI has a lower impact than the VC.

Z Value and p Value: Z value is -10,551 and the p value is 0.000 ($p < 0.01$), the difference between VI and VC cultural patterns is statistically significant. This difference is not coincidence.

This analysis shows that the VC is significantly higher than the VI for Turks.

Table 25. T-test: Comparison VC and VI for Turkey

Paired Differences						Test Statistics		
				%95 CI of the Difference				
	Mean	SD	SE Mean	Lower	Upper	t	df	Sig. (2-tailed)
VC-VI	6,32	11,17	0,55	5,23	7,41	11,43	407	<,000

Source: Author's own source

Table 25 a statistically significant difference between the VC and VI groups ($p < 0.05$). The mean difference of 6.32 indicates that the VC group has a higher mean than the VI group. The 95%

confidence interval (5.23 to 7.41) confirms that the true mean difference falls within this range. Additionally, the t-value (11.43) reinforces the significance of this difference, while the sample size (407) is sufficient to support the findings. These results indicate a significant difference between the VC and VI dimensions.

At this stage, it is important to highlight that the two participant groups exhibited different preferences in the sequence of cultural sub-scales. Among Turkish participants, the order of preference was HC, HI, VC, and VI, whereas for Hungarian participants, it was HI, VC, HC, and VI. Additionally, the results presented in Tables 18–25 indicate significant differences between the dominant cultural patterns within each group. For Turkish participants, the prevailing cultural patterns were Horizontal-Collectivism (HC) and Horizontal-Individualism (HI), while for Hungarian participants, they were Horizontal-Individualism (HI) and Vertical-Collectivism (VC). Based on these findings, the first hypothesis is rejected, as Horizontal-Collectivism emerged as the dominant cultural pattern among Turks. The second hypothesis is partially accepted, as findings from One-Way ANOVA, the Wilcoxon Signed-Rank Test, and the T-test confirm that Horizontal Individualism is the dominant cultural pattern among Hungarians. This outcome also provides an answer to the first research question.

Table 26. Kruskal-Wallis Test for Leadership Styles by Each Country

	HUNGARY (N=398)	TÜRKİYE (N=408)			
Leadership Styles	Mean Rank	Mean Rank	Chi-square	Df	sig.
Decide	397,08	409,76	0,68	1	,407
Consult Individually	421,30	386,14	4,97	1	<,025
Consult Group	388,51	418,12	3,51	1	,061
Facilitate	424,44	383,07	6,79	1	<,009
Delegate	392,35	414,38	1,94	1	,163

Source: Author's own source

Table 26 presents the results of the Kruskal-Wallis test, supported by graphical representations, which indicate significant differences in leadership style preferences between participants in Hungary and Turkey.

Decide: There is no significant difference between the average ranks of the two countries ($p>0.05$).
Consult Individually: Participants in Hungary prefer this leadership style more than Turkish participants. There is significant difference between the average ranks of the two countries ($p<0.05$).

Consult Group: There is no significant difference between the average ranks of the two countries ($p > 0.05$).

Facilitate: Participants in Hungary prefer this leadership style more than Turkish participants. There is significant difference between the average ranks of the two countries ($p < 0.05$).

Delegate: There is no significant difference between the average ranks of the two countries ($p > 0.05$).

The third hypothesis proposed that Hungarian subordinates would prefer a more participative leadership style compared to Turkish subordinates, while the fourth hypothesis suggested that Turkish subordinates would favor a more autocratic leadership style than Hungarians.

However, Table 26 reveals that Hungarians exhibited a preference for both a more participative and a more autocratic leadership style compared to Turks. A significant difference ($p < 0.05$) was found in the Consult Individually style (associated with a more autocratic approach), where Hungarians had a higher mean rank (421.30) than Turks (386.14). Likewise, a significant difference ($p < 0.05$) was observed in the Facilitate style (linked to a more participative approach), with Hungarians scoring higher (424.44) than Turks (383.07). These findings indicate that Hungarians showed a preference for both participative and autocratic leadership styles, leading to a partial acceptance of the third hypothesis.

In contrast, no significant differences were found in the Decide, Consult Group, and Delegate styles. Although Turks had slightly higher mean ranks (409.76, 418.12, 414.38) compared to Hungarians (397.08, 388.51, 392.35), these differences were not statistically significant ($p > 0.05$). Consequently, the fourth hypothesis is rejected. This outcome also provides an answer to the second research question.

Figure 6 visually displays the Kruskal-Wallis Test for Leadership Styles.

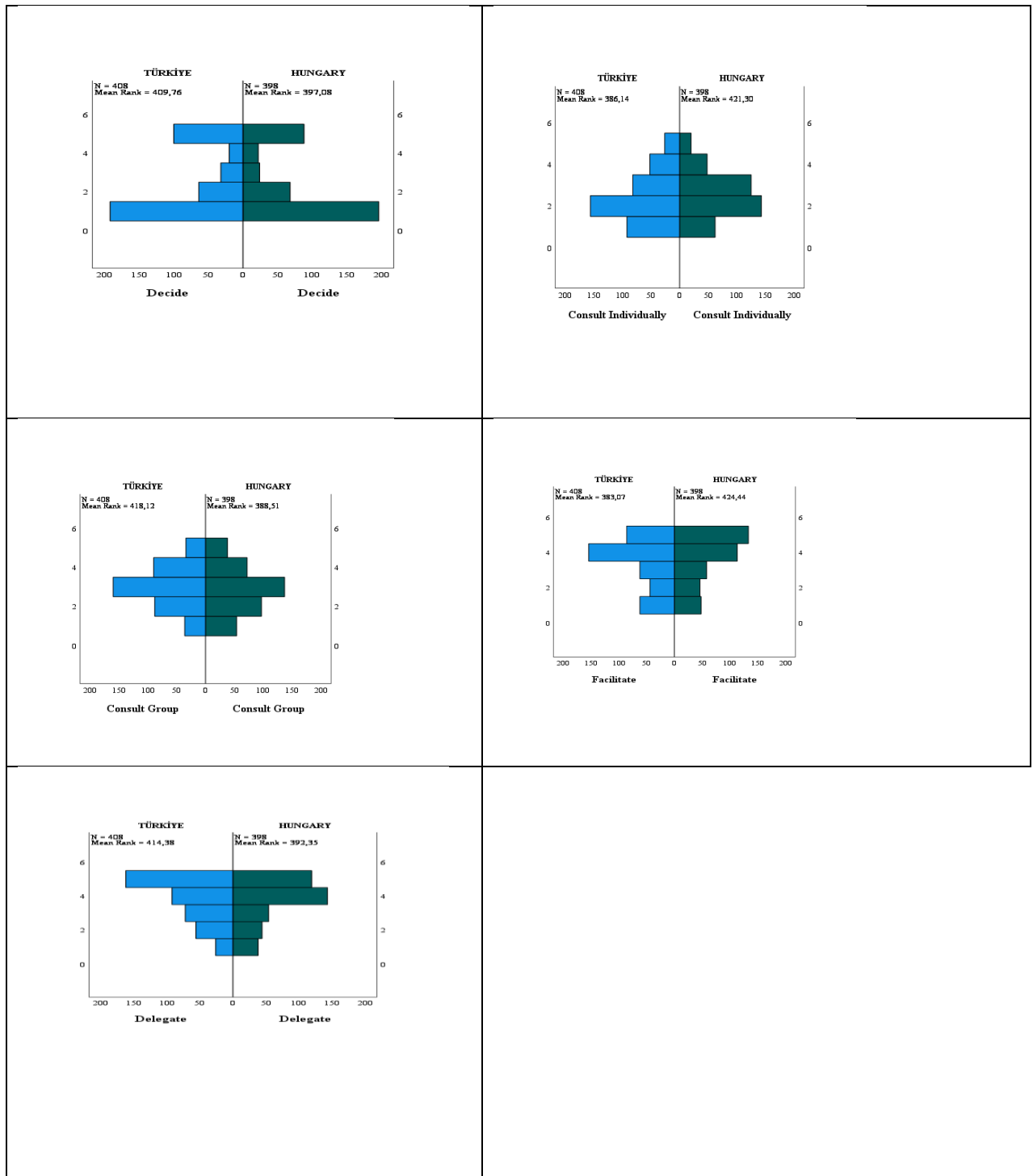


Figure 6. Kruskal-Wallis Test for Leadership Styles by Each Country

Source: Author's own source

Table 27. Correlations of Leadership Styles and Cultural Dimensions

Whole Sample (N=806)				
	HI	VI	HC	VC
Decide	-,037	-,177**	,065	,071*
	,297	<,001	,806	<,044
Consult Individually	-,063	-,050	-,116**	-,075*
	,076	,157	<,001	<,034
Consult Group	,013	-,023	,106**	,035
	,714	,515	<,002	,323
Facilitate	,028	,107**	-,061	-,056
	,430	<,002	,086	,110
Delegate	,061	,177**	-,011	,003
	,085	<,001	,762	,934
Hungary (N=398)				
Decide	,074	-,116*	,183**	,211**
	,138	<,021	<,001	<,001
Consult Individually	-,036	-,058	-,019	-,013
	,472	,247	,700	,792
Consult Group	,019	-,061	,194**	,078
	,704	,222	<,001	,118
Facilitate	-,042	,067	-,205	-,208
	,408	,183	<,001	<,001
Delegate	-,038	,180**	-,174**	-,107*
	,449	<,001	<,001	<,033
Turkey (N=408)				
Decide	-,173**	-,259**	-,096	-,094
	<,001	<,001	,052	,057
Consult Individually	-,065	-,026	-,202	-,103*
	,193	,596	<,001	<,037
Consult Group	-,027	,004	-,062	-,064
	,586	,943	,210	,194
Facilitate	,147**	,182**	,229**	,169**
	<,003	<,001	<,001	<,001
Delegate	,152**	,167**	,120*	,093
	<,002	<,001	<,016	,062

Source: Author's own source

The fifth hypothesis proposed a correlation between Cultural Patterns and Leadership Styles, suggesting that autocratic leadership styles would be associated with the vertical dimensions, while participative leadership styles would be linked to the horizontal dimensions.

Table 27 Correlations for leadership styles and cultural dimensions for the entire sample, the decide style is negatively correlated with vertical individualism ($p < 0.01$), while consulting individually shows a negative correlation with horizontal collectivism ($p < 0.01$). Additionally, the delegate style is positively correlated with vertical individualism ($p < 0.01$).

Among Hungarians, the decide style has a positive correlation with both horizontal collectivism and vertical collectivism ($p < 0.01$). The consult group style also exhibits a positive correlation with horizontal collectivism ($p < 0.01$). Meanwhile, the delegate style is positively correlated with vertical individualism but negatively correlated with horizontal collectivism ($p < 0.01$).

For Turks, the decide style is positively correlated with horizontal individualism and vertical individualism ($p < 0.01$). The facilitate style shows a positive correlation with vertical individualism, vertical collectivism, and horizontal collectivism ($p < 0.01$). Finally, the delegate style is positively correlated with vertical individualism ($p < 0.01$).

These findings emphasize the correlation between cultural dimensions and leadership styles, though this relationship varies in both countries. Notably, there is no consistent association between more autocratic leadership styles and vertical dimensions, nor between more participative leadership styles and horizontal dimensions. As a result, the final hypothesis is rejected. This outcome also provides an answer to the third research question.

Table 28. Acceptance and Rejection of Hypotheses

Hypotheses	Accepted	Partially Accepted	Rejected	Partially Rejected
Hypothesis 1			✓	
Hypothesis 2		✓		
Hypothesis 3		✓		
Hypothesis 4			✓	
Hypothesis 5			✓	

Source: Author's own source

Table 28 shows results of hypotheses. The first hypothesis examines whether country is the primary factor influencing cultural patterns and whether there is a statistically significant difference in Vertical Collectivism between Turkey and Hungary. Parametric statistical test one-way Anova and non-parametric test Kruskal Wallis were applied to evaluate the first hypothesis. Based on Kruskal-Wallis test and one-way ANOVA, there is a statistically significant difference between Hungary and Turkey in terms of Horizontal- Collectivism (HC). Turks shows higher rank (550,88) than Hungarians (252,42) in terms of HI based Kruskal-Wallis test and considering One way ANOVA test, Turkey has higher score (59,33) than Hungarians (43,76) in terms of Horizontal Collectivism. All these discrepancies are statistically significant ($p < 0.01$). As previously shown, Turkish subordinates scored higher in Horizontal-Collectivism (HC) than in Horizontal-Individualism (HI). The Wilcoxon Signed-Rank Test confirmed significantly elevated HC scores compared to HI. Likewise, the T-test results indicated a notably higher mean score in HC than in HI. These differences were statistically significant ($p < 0.01$), highlighting a clear distinction between the two cultural dimensions. As a result, the first hypothesis was rejected.

The second hypothesis examines whether country is the primary factor influencing cultural patterns and whether there is a statistically significant difference in Horizontal Individualism between Turkey and Hungary. To assess this, both the parametric One-Way ANOVA and the non-parametric Kruskal-Wallis test were applied. The results showed that Hungarian participants had higher scores in Vertical Individualism (370.43) based on the Kruskal-Wallis test and in Horizontal Individualism (50.49) according to the One-Way ANOVA test. Hungarian participants had a higher mean rank in Vertical Individualism; however, the Kruskal-Wallis Test showed that their ranking did not surpass that of their Turkish counterparts (435,76). Similarly, while they also exhibited a higher mean rank in Horizontal Individualism, one-way ANOVA revealed that their ranking remained lower than that of the Turkish participants (55,27).

All these discrepancies are statistically significant ($p < 0.01$). However, as previously shown, Hungarian subordinates scored higher in Horizontal Individualism (HI) than in Vertical Collectivism (VC). The Wilcoxon Signed-Rank Test revealed that Hungarian participants had a significantly higher mean score in Horizontal Individualism (HI) than in Vertical Collectivism (VC). This finding was further confirmed by the T-test, which also showed a significantly higher preference for HI over VC. All observed differences were statistically significant ($p < 0.01$). As a result, a clear distinction emerged between these two cultural dimensions, indicating that the Hungarian subordinate group favors Horizontal Individualism over Vertical Collectivism. The second hypothesis is partially accepted, as findings from One-Way ANOVA, the Wilcoxon Signed-

Rank Test, and the T-test confirm that Horizontal Individualism is the dominant cultural pattern among Hungarians.

The third hypothesis suggested that Hungarian subordinates would prefer a more participative leadership style than Turkish subordinates, while the fourth hypothesis proposed that Turkish subordinates would favor a more autocratic leadership style than Hungarians. Hungarians demonstrated a preference for both participative and autocratic leadership styles compared to Turks. A significant difference ($p < 0.05$) was found in the Consult Individually style—associated with a more autocratic approach—where Hungarians had a higher mean rank (421.30) than Turks (386.14). Similarly, a significant difference ($p < 0.05$) was observed in the Facilitate style—linked to a more participative approach—with Hungarians scoring higher (424.44) than Turks (383.07). These findings suggest that Hungarian subordinates favor both participative and autocratic leadership styles, leading to a partial acceptance of the third hypothesis.

The fourth hypothesis represented that Turkish subordinates prefer a leadership style more autocratic than Hungarians. No significant differences were observed in the Decide, Consult Group, and Delegate leadership styles. While Turkish subordinates had slightly higher mean ranks (409.76, 418.12, and 414.38) than Hungarian subordinates (397.08, 388.51, and 392.35), these differences were not statistically significant ($p > 0.05$). Therefore, the fourth hypothesis is rejected.

The fifth hypothesis represented that an interrelation would occur between leadership styles and cultural dimensions. The Decide style is negatively correlated with Vertical Individualism ($p < 0.01$), while Consult Individually shows a negative correlation with Horizontal Collectivism ($p < 0.01$). Additionally, the Delegate style is positively correlated with Vertical Individualism ($p < 0.01$). Among Hungarian participants, the Decide style exhibits a positive correlation with both Horizontal Collectivism and Vertical Collectivism ($p < 0.01$). The Consult Group style also shows a positive correlation with Horizontal Collectivism ($p < 0.01$). Meanwhile, the Delegate style is positively correlated with Vertical Individualism but negatively correlated with Horizontal Collectivism ($p < 0.01$). For Turkish participants, the Decide style is positively correlated with both Horizontal Individualism and Vertical Individualism ($p < 0.01$). The Facilitate style shows a positive correlation with Vertical Individualism, Vertical Collectivism, and Horizontal Collectivism ($p < 0.01$). Lastly, the Delegate style is positively correlated with Vertical Individualism ($p < 0.01$). These findings highlight the relationship between cultural dimensions and leadership styles, though the nature of this correlation varies between the two countries.

Notably, there is no consistent association between more autocratic leadership styles and vertical dimensions, nor between more participative leadership styles and horizontal dimensions. As a result, the final hypothesis is rejected.

5. CONCLUSION AND RECOMMENDATIONS

5.1. Conclusion

Many scholars studied on relationship between leadership styles of managers and culture. However not many of them studied on relationship between cultural dimensions and preferred leadership styles of subordinates. The aim of this dissertation was to analyse the relationship between cultural dimensions; horizontal individualism, horizontal collectivism, vertical collectivism, vertical individualism and preferred leadership styles of subordinates; decide, consult individually, consult group, facilitate, delegate (from autocratic to participative leadership style).

For this dissertation, I developed four research questions and five hypotheses. To test the hypotheses and address the research questions, I applied Kruskal-Wallis, One-Way ANOVA, Wilcoxon Signed-Rank Test, T-test, and Pearson Correlation. The data partially supports hypotheses 2 and 3, leading to the following conclusions:

Firstly,

Turkey is collectivistic country based on the studies in the literature. Many scholars identified Turkey represent the characteristics of vertical collectivism; especially status disparity is accepted by the individuals of the society. Managers mostly choose the authoritarian leadership style and make the decision without involving subordinates in the decision-making process. Subordinates tend to respect managers who adopt an authoritarian leadership style more than those who prefer a participative approach. There is limited freedom for providing feedback to managers about work-related issues or problems. Individuals perceive themselves as distinct from others in the group in terms of status. For Turks, serving and making sacrifices for a shared goal holds significant importance. However, this study found that Turkish participants exhibited a preference for horizontal collectivism. Turkish individuals tend to see themselves as part of the group, without perceiving significant differences in social or employment status compared to others. In horizontal collectivist societies, inequality is less tolerated than in vertical collectivist societies. Interestingly, our findings contradict the existing literature.

Secondly,

The literature on Hungarian culture presents conflicting findings; some studies suggest that Hungarians lean toward horizontal collectivism, while others indicate a preference for horizontal individualism. In my study, Hungary is identified as a horizontal individualistic country, where individuals prioritize autonomy and oppose inequality. Hierarchical structures are rare in the workplace, and Hungarian managers generally adopt participative leadership styles. Subordinates are actively engaged in decision-making and regularly provide feedback to their managers. Overall, our findings align with the trends observed in existing literature.

Thirdly,

Hungarian managers typically favor a participative leadership style, although some also lean toward an autocratic approach. Our study found that Hungarian subordinates, in turn, showed a preference for both autocratic and participative leadership styles. In contrast, while Turkish managers predominantly adopt an autocratic leadership style, our findings revealed that Turkish subordinates did not exhibit a clear preference for autocratic leadership.

Moreover, this study found that vertical dimensions were not related to autocratic leadership, and horizontal dimensions were not associated with participative leadership. Demographic characteristics, such as age, gender, the length of time as a subordinate(tenure), and academic degree, were found to influence preferred leadership styles and the cultural dimensions of subordinates. Notably, age had an impact on the consultative group style, favoring a more autocratic approach, while gender and tenure influenced the delegative style, making it more participative. For Turkish subordinates, horizontal collectivism was influenced by both age and tenure. Gender negatively affected the facilitative style (more participative), while it positively influenced the decide style (more autocratic). In Hungary, the academic degree of participants negatively impacted the consult individually style (more autocratic) and positively influenced the consult group style (more participative). Additionally, horizontal individualism among Hungarian participants was influenced by academic degree and the length of time as a subordinate(tenure). These findings highlight that leadership styles and cultural values are shaped by demographic factors.

5.2. Implications and Recommendations

I've considered cultural patterns in order to understand the leadership and leadership styles. I believe that more studies about this topic must be done for Hungary and Turkey due to the research gap. Future studies must consider other variables such as managers, organizational culture and better ways to measure the cultural patterns.

More studies must be done about cultural values and leadership between Turks and Hungarians since Hungary was ruled by Ottoman Empire over 150 years (Kovács and Rabb, 2020). Therefore, Turkish culture that had important effect on shaping the culture of Hungary.

6. SUMMARY

Leadership styles are affected by nation's culture. Numerous researchers have explored the relationship between culture and leadership focusing on how cultural values shape leadership styles of managers. Effects of cultural dimensions, particularly collectivism and individualism, has been well established in the literature. However, the horizontal and vertical dimensions of individualism and collectivism have received limited attention especially regarding their impacts on leadership. Historically, most leadership studies have primarily focused on the perspective of managers. In response to this gap, this dissertation focuses on Hungarian and Turkish subordinates as research population by broadening the scope of previous studies by addressing a population that has been overlooked. This dissertation contributes to existing research on leadership and culture by comparing both countries' subordinates in terms of cultural values and preferred leadership styles.

This dissertation summarizes the leadership styles favoured by both groups of subordinates, cultural dimensions that characterize Turkey and Hungary, whether this cultural dimension shape favoured leadership styles. What demographic factors (gender, age, academic degree, tenure of the subordinates so on) affects favoured leadership styles and cultural dimensions. Regarding leadership styles, this study explores whether Hungarian participants choose the more participative and Turkish participants choose more autocratic leadership style. Leaderships styles (decide, consult individually, consult group, facilitate and delegate) are considered continuum from the most autocratic to the most participative style, first alternative represent the Decide style where leader makes the decision alone whereas fifth alternative represent the Delegate style where the group takes the decision. Horizontal individualism (HI), horizontal collectivism (HC), vertical collectivism (VC), vertical individualism (VI) are tested in terms of which cultural dimension defines Hungary and Turkey.

Quantitative research was carried out using online questionnaire to test the five hypotheses derived from the research objective, with the data were analysed using SPSS Software. The results revealed that the dominant cultural pattern in Hungary is horizontal individualism while in Turkey, it is horizontal collectivism. The cultural patterns among Hungarian participants are ranked in the following order: Horizontal Individualism, Vertical Collectivism, Horizontal Collectivism, and Vertical Individualism.

For Turkish participants, the cultural patterns are ranked as Horizontal Collectivism, Horizontal Individualism, Vertical Collectivism, and Vertical Individualism.

Additionally, Hungarian participants show stronger preference for the participative leadership style; facilitate style and surprisingly some of other Hungarian participants showed interest in autocratic leadership style: consult individually. Furthermore, this study revealed no relationship between vertical dimensions and autocratic leadership style nor participative leadership and horizontal dimensions.

Demographic factors such as tie as subordinate, gender, academic degree, age affected cultural dimensions and leadership styles. Age, in particular impact the consult group style, tending towards more autocratic approach. Tenure and gender affect delegate style, making it more participative. Age and time as subordinate affected horizontal collectivism for Turkish participants.

Academic qualifications and tenure (time as subordinate), age of the participants affected horizontal individualism. Gender affected facilitate style negatively but decide style positively. Consult individually and consult group and consult individually styles were impacted by academic degree of subordinates positively and negatively. This indicates that demographic characteristics play an important role in determining the leadership preferences and cultural values among both Hungarian and Turkish groups.

7. NEW SCIENTIFIC RESULTS

My study demonstrates several groundbreaking scientific achievements and provides refined perspective into Hungary and Turkey's cultural dimensions and participant's preferred leadership styles. It went beyond that by investigating the relationship between cultural dimensions of both countries and preferred leadership styles of participants of countries. Future studies can consider different variables such as managers, organizational culture and better ways to measure the cultural dimensions. New scientific results of my study are listed below:

1. This research primarily focuses on a detailed exploration of culture, leadership, cultural dimensions, leadership styles, how cultural patterns affect preferred leadership styles. Additionally, this study is the very first study in the literature to make comparison of both countries Hungary and Turkey in terms of cultural dimensions and leadership styles.
2. Turkish participants predominantly demonstrate characteristic of collectivistic culture with vertical collectivism being a main cultural dimension affecting Turkish society. However, my study revealed that while Turkey is considered the collectivistic country, vertical collectivism is not the core value of the Turkish culture. Instead, horizontal collectivism dimensions represent the Turkish culture.
3. Hungarian managers tend to prefer a participative leadership style, influenced by the characteristic of individualistic culture, especially horizontal individualism dimension. This study reveals that Hungarian participants favour both participative and autocratic leadership styles. Notably, there has been no previous research in the literature investigating the leadership styles preferred by Hungarian subordinates. This result contributes to filling this gap in the literature.
4. Turkish managers are inclined to prefer an autocratic leadership style due to the influence of the characteristic of collectivistic culture, particularly vertical collectivism dimension. This study reveals that there is no evidence of a preference for autocratic leadership style from subordinates perspective.
5. This research revealed that participative leadership is not inherently associated with vertical dimensions, while autocratic leadership does not necessarily correlate with horizontal dimensions.

6. This study showed that education level (academic degree), gender, age, tenure (time as subordinate) affects cultural values and leadership styles. Age and tenure impacted horizontal collectivism in Turkish participants, while gender had negative impact on the participative leadership style but positive impact on autocratic style leadership. Age associated to participative leadership; tenure and gender associated participative leadership style. Academic qualifications (academic degree) also impacted both autocratic and participative leadership styles.

APPENDICES

Appendix 1: References

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Appendix 2: Questionnaire

English Version of Questionnaire

Dear Participants,

I am writing my doctoral thesis about cultural values and leadership. For this reason, I need your cooperation to answer the questionnaire presented on the following pages. I would like to state that all participants' answers will be formed according to a statistical calculation.

Also, this research ensures total confidentiality of the participants. Kindly be aware that not a single one of the questions in the questionnaires ask for any individual recognition. Questions are below covering demographics, cultural values and preferred leadership styles.

Thank you very much in advance for your support by completing this questionnaire.

Sevinur Cuhadar

PhD Student

Hungarian University of Agriculture and Life Sciences

Please reply to questions below.

1. Please select your gender.

- Female
- Male

2. Please indicate your age

Answer:.....

3. What is your profession?

Answer:....

4. How many years have you been working in your current job?

Answer:.....

5. Please select the sector where you work at below.

- Automotive
- Gas and Oil
- Energy

- Fashion
- Finance
- Healthcare
- IT
- Manufacturing/Production
- Pharmaceutical Industry
- Real Estate
- Technology
- Logistics and Transportation
- Education
- Tourism

6. Select your academic background from the options below.

- High School
- Bachelor's Degree
- Master's Degree
- PhD

The questions are below related to cultural dimensions. There is no correct or incorrect response. If you strongly agree with the following claims, please mark ``9``. If you strongly disagree with the statement, mark ``1``.

You can also choose any number between ``1`` and ``9`` that best aligns with your point of view.

	Definitely No Definitely Yes								
1. When someone else does better than me, I get unhappy, and it motivates me to do better.	1	2	3	4	5	6	7	8	9
2. I would be proud if a colleague of mine received an award for his/her achievement.	1	2	3	4	5	6	7	8	9
3. My happiness depends largely on the happiness of those around me.	1	2	3	4	5	6	7	8	9
4. I am responsible for consequences of every action I take.	1	2	3	4	5	6	7	8	9
5. Competition is necessary for a well-functioning society to thrive.	1	2	3	4	5	6	7	8	9
6. I value my personal space and like to keep some aspects of my life private.	1	2	3	4	5	6	7	8	9
13. If a relative of mine was in financial trouble, I would help as much as I could.	1	2	3	4	5	6	7	8	9

14. I prefer to be direct and frank when discussing with people.	1	2	3	4	5	6	7	8	9
15. It is important to instill children with prioritization of responsibilities over fun.	1	2	3	4	5	6	7	8	9
16. I get disappointed when others perform better than me.	1	2	3	4	5	6	7	8	9
17. I love sharing with my neighbours	1	2	3	4	5	6	7	8	9
18. It is important for me I do my job better than others.	1	2	3	4	5	6	7	8	9
19.. I am a unique individual with different qualities	1	2	3	4	5	6	7	8	9
20. I care about the welfare/health/well-being of my colleagues.	1	2	3	4	5	6	7	8	9
21. A person should live her/his own life independently of others.	1	2	3	4	5	6	7	8	9
22. A person should live his/her own life independently of others.	1	2	3	4	5	6	7	8	9
23. We must provide care for our aging parents.	1	2	3	4	5	6	7	8	9
24. I enjoy spending time with others.	1	2	3	4	5	6	7	8	9
25. I would give up an activity that I really enjoy if my family did not approve.	1	2	3	4	5	6	7	8	9
26. Competition is the law of nature.	1	2	3	4	5	6	7	8	9
27. I often sacrifice my personal interests for the benefit of my work group.	1	2	3	4	5	6	7	8	9
28. I prefer to avoid disagreements with my colleagues in the work group.	1	2	3	4	5	6	7	8	9
29. Children should be proud when their parents are honoured with a prestigious award.	1	2	3	4	5	6	7	8	9
30. Winning is everything	1	2	3	4	5	6	7	8	9
31. I do what I want and believe is right, regardless of the opinions and expectations of others.	1	2	3	4	5	6	7	8	9
32. I feel good when I cooperate with others.	1	2	3	4	5	6	7	8	9
33. It is very important to ensure a harmonious atmosphere within the team he works with.	1	2	3	4	5	6	7	8	9
34. While some people prioritize winning, for me it is not a priority.	1	2	3	4	5	6	7	8	9
35. Even if I don't like it, I participate in an activity that will make my family happy.	1	2	3	4	5	6	7	8	9
36. I like being unique and different from others in many ways.	1	2	3	4	5	6	7	8	9
37. The reason for my success is usually my abilities.	1	2	3	4	5	6	7	8	9
38. Before going on a big journey, I seek advice from my family and my friends.	1	2	3	4	5	6	7	8	9

This section describes a Situation and a Problem. Five potential options exist for leadership approaches to leadership styles.

Let's assume this scenario occurred.

Situation Statement: The company you work for is the best in the market. The second competitor in the same market is about to take over the leadership. The long-term tactical objective to contend with the other company to take the leading position in the market.

Problem: What strategies should be developed to outpace the emerging rival?
Directions: Begin by, examine read each option. Then rank the alternatives according to your preference. In order to proceed, you need to apply numbers 1 to 5. Number 1 is your least preferred alternative, and number 5 is your most preferred alternative. Please rank your leadership preferences by thinking of your immediate superior. **YOU SHOULD NOT REPEAT THE NUMBER MORE THAN ONCE.**

Alternatives of Leadership Styles	Order Preference
If your manager needs to make a decision on the issue, he/she makes the decision alone and announces his/her decision to the group. Your manager uses his/her proficiency to obtain details from the team that he/she deems pertinent for the problem (Decide).	
The manager shares the issue to the members of the team separately, considers the subordinates' proposals and decides (Consult Individually).	
The manager brings the issue to the team during the discussion. The manager's goal is to reach consensus on a decision. (Consult Group)	
The manager makes sure their own suggestions are not given more weight than others due to their role. The manager permits the team to decide within established limits (Facilitate).	
The team is tasked with identifying and diagnosing the problem and developing alternative procedures for solving it. The facilitator does not take a leading position role during the discussions except when specifically asked to do so. Their position is to provide the necessary resources and incentives behind the scenes (Delegate).	

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