# Leadership Intelligence for Leading Organizations, in Uncertainty and Complexity

#### Narentheren Kaliappen

Institute for Management & Business Research (IMBRe), Universiti Utara Malaysia, 06010 Sintok, Kedah Darul Aman, Malaysia, narentheren@uum.edu.my

#### Katarzyna Szymczyk

Czestochowa University of Technology, Dąbrowskiego 69, 42-201 Częstochowa, Poland, katarzyna.szymczyk@pcz.pl

#### Choo Ling Suan

Department of Management and Marketing, College of Business Administration, University of Bahrain, POB 32038, Sakheer, AlZallaq, Bahrain, csuan@uob.edu.bh

Abstract: The world is changing swiftly. These changes require leaders to possess new kinds of knowledge and skills to understand and deal with such complex trends. Therefore, this chapter explains the Leadership Intelligence, that incorporates Intelligence Quotient (IQ), Emotional Quotient (EQ), Cultural Quotient (CQ) and Spiritual Quotient (SQ), for a leading organization, that has significant uncertainty and complexity. With the growing uncertainty and complexity in business environmental contexts, leadership roles have become paramount. And thus, this paper proposes a leadership intelligence framework that incorporates IQ, EQ, CQ, and SQ elements, based on current literature. Consequently, 21<sup>st</sup> Century leaders should have these leadership intelligence qualities as a secret of leadership success, in today's organizations, particularly during turbulent times. To achieve higher leadership intelligence, global leaders must recognize their emotional stability along with cognitive balance and work according to local cultural patterns as well as spiritual norms by developing superior IQ, EQ, CQ, and SQ. Basically, this paper discusses why IQ, EQ, CQ, and SQ are essential for today's leaders who face demanding situations in which they must anticipate and adapt to changes and address wicked problems. Moreover, in the present 21st Century global setting, leaders must own different thinking skills and higher intelligence levels to achieve higher standards of leadership. In these challenging, complex situations, standardized leadership approaches often do not work. New leadership intelligence is needed, to deal with the complex changes.

Keywords: leadership intelligence; intelligence quotient; emotional quotient; cultural quotient & spiritual quotient

## 1 Introduction

Leadership refers to the act of influencing a group of people in their behavior to follow specific instructions [1]. Intelligence is the ability of an individual to obtain skills and knowledge and apply it to solving various tasks [2]. There are several common types of leadership styles. Leaders have to acknowledge that without the entire team behind them working towards a common goal, it would not be possible to achieve this goal. The discussions on whether leaders are born or made have attracted much attention from different people with different philosophical ideas. However, in the 21<sup>st</sup> Century, the concern is not whether good leaders are born or made, but the key features of commitment and hard work are studied [3].

To add to it, leaders should be able to keep a positive attitude towards challenges, while avoiding being in a state of denial. If a challenge presents itself, the leader should handle the challenge rationally and calmly, but not running things as usual without tackling the current challenge and developing ways to solve it. Leaders should possess the 'can do', 'will do' and 'must-do' attitude, to motivate an entire team [4].

Unlike traditional leadership, intelligent leadership is not only goal-oriented, but also integrates being vision-oriented [1]. This means that the leader looks at the goals and achieves them and considers the current situation and different ways of achieving the common goal. Any organization committed to its success would need leadership from an intelligent leader instead of a traditional leader. This is because an organization cannot stick to only its set goals and loose purpose after achieving it. In other words, leadership is necessary for regional or international organizations to succeed [5].

Leadership has gained much attention from researchers in the past decade. Leadership influences organizational outcomes and gets lots of recognition and credit in present literature, especially concerning leadership intelligence. Sarros [6] said that efficient leadership could motivate others to achieve organizational outcomes by influencing employees. Leaders must be emotionally equipped to lead others. It is crucial to identify the meaning of leadership intelligence and its significance [7] [8].

Also, identifying leadership intelligence should not be the only concern, but enhancing and modifying it to meet desired results, to maximize benefits should be the prime focus [9]. Most leaders are involved in numerous activities at the same time. They need to multitask to manage their daily activities. Whether it is networking or looking after their peers, they need to control everything effectively. A leader needs to modify his organizational skills, sentiments, and professional activities effectively to reduce the risk of emotional or intellectual breakdown [10].

Noble leaders identify their presence and the effect they have on their life and the lives of others [11]. They are conscious of their shortcomings and bring forth the best in them. Nevertheless, such leaders develop each skill and use their understanding of every aspect to effectively conduct human interaction [12].

Each of these elements is related to the other. Having an affinity with a particular dimension does not guarantee success. A mix of these elements helps the leader reach higher goals [13]. Effective Leadership requires well-immersed knowledge about Intelligence Quotient (IQ); Emotional Quotient (EQ); Cultural Quotient (CQ), and Spiritual Quotient (SQ). All these factors are interrelated and complement each other [13].

### 2 Literature Review

#### 2.1 Leadership Intelligence

Leadership intelligence is a skill that relies on one's ability to develop, learn, and master appropriate ways to lead others. The continuing influence of digitization and globalization has increased leadership intelligence demands placed on most organizations [14]. In the 20<sup>th</sup> Century, for the majority, work was viewed as a way of survival. The extent of worker engagement did not define the duration of time they stayed in their roles. That is different in today's world, however. Individuals are often in search of more rewarding and stimulating work, in addition to inspiring environments that enable them to make a difference as well as develop their careers and themselves.

According to a report presented by Ramsey, et al [15], highly motivated, qualified individuals opt to work for organizations that develop a robust and stimulating culture and that address and monitor both climate issues and workplace culture. Leaders must comprehend the logical impacts of their organization's climate and be willing to look deeper to understand cultural norms that are impeding innovation and agility [16] [17]. They must have the finesse to weave the day-to-day task into the big picture and inspire their people to give it their all for the mission's sake. Leadership intelligence relies on a leader's ability to grow, learn and master new ways to lead people. The researcher clarifies four essential forms of leadership intelligence like Emotional, Intelligence, Spiritual and Cultural Quotients useful in today's' leadership.

### 2.2 Intelligence Quotient (IQ)

An intelligence quotient is a score established from a particular set of standardized assessments developed to measure an individual's cognitive abilities. Discussions concerning what makes outstanding leadership are not new. Most organizations in today's world value leaders' intelligence as measured by their IQ attributes such as logical, analytical, and reasoning skills [18]. This view has widely been accepted as a criterion for leadership competency. It has significantly helped companies to recognize and select leaders based on intelligence.

### 2.3 Emotional Quotient (EQ)

EQ refers to the ability to recognize accurately, assess, and express emotions. It is also the ability to comprehend emotions, regulate them to promote intellectual and emotional growth [19]. Since the Emotional Quotient construct was first defined, many studies have been carried out to offer much additional insight into both its practical and theoretical aspects. This increasing interest in EQ has resulted in many assessment methods that have been widely applied in the study of Emotional Intelligence. These three emotional responses serve as an inference to a leader's emotional intelligence when performing their duties: management of emotions, psychological well-being, and emotions management. These responses act as guidelines of how leaders explore their emotional intelligence abilities effectively.

Emotional intelligence is an essential predictor of effective and transformational leadership within organizational settings. Cross-cultural uses of Emotional Intelligence have significant implications for international leadership. The function of Emotional Intelligence in effectual leadership has widely been recognized. Studies have established that leaders who have time after time outperform their colleagues not only have the required technical skills but, more significantly, have upheld a good number of the facets of Emotional Intelligence. There is reliable evidence that the variety of abilities that make up what is now generally referred to as emotional intelligence performs a vital role in establishing success in one's individual life and the workplace [20].

#### 2.4 Cultural Quotient (CQ)

Cultural Quotient refers to the ability to function in intercultural contexts effectively. Cultural Quotient is significant for most organizations and individuals as the world is varied. Modern-day organizations identify the importance of bridging cultures to guarantee both organizational and personal success. Its introduction of CQ represents a noticeable research diversion from concentrating on cultural disparities to centering on how to function in conditions

characterized by cultural dissimilarities effectively. Cultural Quotient offers much insight into different leaders' ability to manage their relationships with varied cultures [21]. It focuses on intercultural settings and is motivated by globalization's practical reality that imposes the need for further research and implementation of this concept into the practice of multinational companies.

Early and Ang [22] conceptualized Cultural Quotient as a comprising multidimensional construct consisting of cognitive, metacognitive, behavioral, and motivational dimensions with specific relevance to functioning in culturally diverse settings. All these dimensions are vital in ensuring effective leadership where leaders effectively get to lead and work with other people from different cultures.

#### 2.5 Spiritual Quotient (SQ)

Spiritual Intelligence (SI) enhances leadership intelligence, and it is currently gaining momentum. Ahmed, Arshad, Mahmood & Akhtar [23] researched the significance of the human spiritual aspect regarding human resource development (HRD). They suggested spiritual quotient as the absent connection to improve human development and should be identified and considered an essential factor for morally competent human resources. The significance of Spiritual Intelligence has been recognized in organizational behavior.

An individual's SI quotient underpins EQ and IQ. Spiritual intelligence generally refers to an ability to access higher values, meanings, abiding purposes, and unconscious aspects of an individual and embed them, purposes, and values in living a more prosperous and more creative life. Signs of high SQ include an ability to think out of the box, humility, and access to energies that come from something beyond the ego, beyond just me-and-my day-to-day concerns. SQ is the ultimate intelligence of the visionary leader.

Every leader is familiar with EI's significance in the current business world. Establishing and enhancing leaders' relationships with others enables them to create high performance. Similarly, spiritual intelligence is a set of individual skills that connect individuals to their sources of purpose, meaning, and ethics.

Differently stated, this source can be referred to as one's higher self. Spiritual Intelligence strengthens individuals' ability to act from their higher self. The higher self serves as a source of individuals' admirable, ethical and noble qualities enabling them to make compassionate and wise decisions.

### **3** Leadership Styles and Leadership Intelligence

Visionary leadership is the first style where the leaders influence changes as well as significant progress [24]. Visionary leaders also earn the rest of the team's trust for new ideas and utilize ways of building the team's unity. This leadership style is often effective in small developing organizations and large organizations that are transitioning from significant change. The second leadership style is the coaching leadership style. This style is based on identifying individuals' motivations, strengths, and weaknesses [25]. These elements will be useful to the leaders in facilitating the improvement of the team's weaknesses as well as the optimization of their strengths. It is seen as the most productive style, but at the same time, it is the least utilized due to the time and effort it demands, especially in large organizations.

On the other hand, servant leadership refers to a style that is mainly based on the motivation of employees to increase productivity [26]. Servant leaders strive to create ideal working conditions for their employees. It is mostly used in non-profit organizations where numerous allowances are offered to employees to increase their morale. The autocratic leadership style is also referred to as the authoritarian style to a great extent. It utilizes the top-down approach where the executives make the decisions without consulting the rest of the team [27].

The leaders' main concerns are the effectiveness and the final results. The leaders expect the employees to follow what they are instructed precisely. This style is usually used in organizations with strict policies, and due to its approach, it does not give room for creativity and innovation. However, it is efficient in cases where the employees are new to the organization or do not have any experience working.

Transformational leadership refers to a leadership style based on the commitment to objectives, not only individual but organizational objectives [27]. The leader emphasizes on employee motivation, clear communication, and goal-setting. The technique is mainly used on teams where various tasks are given to the different teams without the need of constant supervision. The ideal leadership style that can be used to achieve fast results is the pacesetter leadership, where the primary focus is employee performance [27].

The high standards are set in the form of individual goals, and employees' performance will be examined in terms of the achievements of employees. This leadership method is ideal for a fast-moving team being motivated, but it can be difficult for new team members who require feedback and mentorship. Managers usually adopt this style when they have an experienced team that requires minimal oversight and are well trained. However, the leader must give clear instructions since if the team members work at a fast pace without the correct instructions, it may result in a dip in production.

Democratic leadership is the final style, which is based on the participation of all the team members [27]. The leader considers the inputs of the team members in achieving the organization's objectives. This means that the leader involves the entire team before making decisions. This technique effectively brings together the entire team to work together in achieving a common goal.

This is because if the entire team has taken part in setting the goals, they will be dedicated and accountable for their collective decision instead of a decision made by the executives on their behalf. This style can be considered to apply the bottom-up approach. This technique is ideal in organizations that focus on innovation and creativity. Leadership intelligence entails taking into consideration the characteristics of the entire team and the organization [28]. Identifying the ideal leadership style is critical in achieving the maximum output of the team of employees.

Leadership in an organization in the 21<sup>st</sup> Century means keeping up with the competition and finding new ways to increase market share. With this kind of competition, there is no room for making mistakes that can cost the organization its earnings and lose its customers to competing organizations. The 21<sup>st</sup> Century is mainly made up of small and medium enterprises that are vulnerable to economic conditions such as inflation [29]. The leader in these organizations takes into consideration, the numerous variables and leads the entire team into a successful endeavor. Recovering of organizations and especially small and medium enterprises, from any error, is not easy, depending on the extent of the error. Some errors may even result in the organization being shut down indefinitely, due to their actions, which are against the law [29]. However, with effective leadership skills, a company may be able to avoid such errors and if they occur, a company under the leadership of an intelligent leader, can succeed.

### 4 Leadership Intelligence Models

#### 4.1 The Five Intelligences Model

This model attempts to describe five types of intelligences that when integrated, result in intelligence leadership [14]. The five types of intelligences originate from the action, indigenous cultures, intuition, spirit, and emotion. They provide a platform that facilitates a critical analysis of leadership and intelligence. The performance of the individual as a leader depends on these intelligences according to the model [14]. This approach aims at providing an alternative way of understanding leadership.

#### 4.2 Hierarchy of Human Intelligences Model

In this model, the founder, Neal, believes that individuals in their workplaces usually utilize any of the four types of energies that were the latter referred to as intelligences as opposed to energies by Wigglesworth [14]. Neal of physical intelligence (PQ) introduced a new approach, which basically refers to the current physical state of an individual [14]. In this model, the four intelligences or energies are classified into different categories according to their hierarchy position.

Physical intelligence has been positioned at the bottom of the pyramid, which is the starting point of the four intelligences. Physical intelligence is then followed by rational intelligence (IQ), emotional intelligence (EQ) and at the top of the pyramid lays spiritual intelligence (SQ). A leader, according to the hierarchy of human intelligence, model leaders requires different ranks of intelligences to perform different tasks [14]. The more challenging the task is, the higher the rank of intelligence is required to perform the task.

The second rank from below which is rational intelligence, can be applied to managers who are concerned with the action of getting things done. Rational intelligence is a relatively stable type of intelligence and does not require the individual performing the task to interact much with others to perform the task effectively [14]. With a leader having to perform more involving tasks that require others' input from different organizations or departments, emotional intelligence can be applied [14]. This is because a person will have to not only instruct others but to work with them regularly. These situations need rational thinking and require empathy, self-control, and the identification of emotions. To earn other people's trust and cooperation, a person has to understand their emotions and at the same time, control their emotions.

At the top of the pyramid stands the spiritual intelligence, which is mostly applicable to owners of a business or executive official of the board of directors [14]. These kinds of leaders have the success of the organization resting on their shoulders in which they are the last line of defense of the challenges that the organization might be facing. Spiritual intelligence facilitates creativity, vision, and critical analysis of an organization's economic, environmental, and ethical aspects. At the bottom of the pyramid is where physical intelligence is found.

This component is utilized when an individual performs tasks that do not require any of the above intelligences. A construction worker does not need rational intelligence to work, or even emotional intelligence, since it does not require much interaction.

Spiritual intelligence is also not applicable since there is no need for creativity in performing such tasks. The individual only requires physical well-being to follow the instructions of the person in charge to perform the task. Although this model

illustrates the different applications of all the four intelligences, it however does not mention the relationship between the intelligences and how they can be integrated.

### 4.3 Ronthy's LQ Model

Unlike the hierarchy of human intelligence model, Ronthy's leadership intelligence model takes an integrated and holistic approach to the four types of intelligences [30]. Ronthy attempts to bring together the roles of a leader and a manager. Leadership intelligence, according to Ronthy, depends on the ability of leaders to make reasonable decisions (rational intelligence), the ability to clearly express their requirements and work towards their goals (spiritual intelligence), and their ability to control their emotions (Emotional Intelligence) [30].

According to this model, the three intelligences: emotional, spiritual, and rational intelligence are critical to intelligence leadership. The most important task is how leaders will be able to balance the three in their day-to-day endeavors as they work. Taking into consideration job satisfaction, relationships between team members, motivation, transformation, and self-management, these three types of intelligences benefit both the stakeholders and the organization as a whole.

This model is divided into two where leaders work based on two structures: an individual acting as a manager and as a leader [30]. As a manager, rational intelligence is mainly required as the individual mainly focuses on tasks' performance. This is also known as the 'doing' action [30]. The manager focused on tasks as schedules are being prepared; the individual utilizes calculating and planning skills until a routine is developed. The individual is then focused on the routine and requires minimal interaction with the rest of the staff. The individual does not place much emphasis on relationships with co-workers. Ronthy introduced a concept of comfort boundary from her research when she worked in Sweden. Comfort boundary refers to a line that borders a situation where it is comfortable and a situation where it is uncomfortable to speak about such that, relationships and performance [14].

This is the boundary between what individuals feel and what individuals do. This is a key concept in her model that can be used to understand it better. When a manager is task-oriented, they find situations like dealing with task performance comfortable, while situations where they must deal with values and relationships are deemed uncomfortable. The situation where values and relationships are involved requires the individual to act like a leader and not a manager. A leader will require emotional intelligence while listening to team members' feedback and solving problems between them. Spiritual intelligence will also be a requirement for the leader to motivate team members and create an ideal environment for team members to ensure optimal productivity.

## **5** Theoretical and Practical Significances

Earlier theoretical research and practical studies stressed that leaders could not only succeed by their conduct, but it is a complex interplay of IQ, EQ, and CQ. With time, there has been an increase in defining the role of IQ, EQ, CQ, and recently SQ in enhancing a leader's leadership qualities. Academic researchers have been conducted to study the workability of global leaders [31]. The global mindset is a concept that discusses holistic capacities and is mostly linked to the prerequisites of leaders who want to succeed. Although the literature has targeted IQ, EQ, CQ, and SQ, and connected it with leadership intelligence, more work needs to be done relating to these factors.

Scholarly works on Intellectual Quotient (IQ) and Emotional Quotient (EQ) of international leaders have given different outcomes, and there are fewer interrelated studies to understand their applicability on 21<sup>st</sup> Century leaders. More synergistic scientific work is needed by devising a proper theoretical framework to establish the clear linkages between IQ, EQ, CQ, and SQ. This relationship will provide a clear structure for the improvement of the leadership potential of 21<sup>st</sup> Century leaders.

There is immense progress in identifying the particular elements that influence the workability of the leaders of today. Keeping in mind that IQ, EQ, CQ, and SQ independently affect leadership effectiveness, there is little work done to see how collectively they influence the leadership intelligence of 21<sup>st</sup> Century leaders. The effectiveness of the leadership aids a more dynamic output and affects productivity, commitment, team spirit, and many other factors.

Earlier studies only stressed the role of EQ and IQ. EQ was counterproductive and has only become a vital determinant of leadership with time. Emotional intelligence is now considered an essential skill, just like Intelligence skill (IQ) for leadership. Similarly, the role of CQ has gained massive interest but is still not recognized on par with IQ and EQ.

In today's world, emotionally intelligent leaders gain immense success, but it can be noticed that the elements of CQ and SQ are also present in their leadership skills. Research is lacking to provide any useful base to this supposition. Leaders who identify and manage their shortcomings and work on CQ and SQ are massively succeeding in the world. Their decision making is emotionally balanced; they have an aptitude to resolve issues, they are open to addressing cultural barriers present in their working environment and are more spiritually balanced. Leaders who lack any one of these are finding it difficult to withstand the pertaining issues at work. It is crucial to study the interplay of all these factors, keeping in mind the present scenarios to boost leadership skills or intelligence.

Based on previous literature, this paper proposed several leadership intelligence contents, that integrate the elements of IQ, EQ, CQ and SQ (Table 1). Thus, the

21<sup>st</sup> Century leaders should have these leadership intelligence contents as the secret to leadership success in today's organizations.

As demonstrated by the table below, unlike the traditional approach on leadership, 21<sup>st</sup> Century leaders can not only focus on results but have to depend on skills, knowledge, and abilities that can be derived from emotional, cultural, and spiritual intelligence. The 21<sup>st</sup> Century leaders are expected to understand their staff and themselves to execute leadership roles effectively Ahmed et al. [23].

IQ Based Contents	EQ Based Contents	CQ Based Contents	SQ Based Contents
Knowledge	Emotions Control	Metacognitive (Awareness of cultural knowledge)	Wisdom
Skills	Stress Management Skills	Cognitive (Understanding of cultural differences)	Transcendence
Abilities	Conflict Management Skills	Motivational (Motivation to engage in cultural situation)	Integrity, honesty & respect
		Behavioral (Intercultural communication)	Humanization, Meaning, Compassion & Connectedness

Table 1
Proposed Leadership Intelligence Framework Incorporates IQ, EQ, CQ & SQ

Source: Adapted from Ahmed et al. [23]

Emotional intelligence is utilized in self-control and conflict management skills. Cultural intelligence is used to identify and understand cultural diversities and creating an organizational culture that integrates the various cultures and provides motivation for the entire staff. Spiritual intelligence is mainly based on ethical practices both by the leader and the entire team, such as integrity, wisdom, and transcendence. These intelligences are different in their own ways, but they can result in molding an ordinary leader into an intelligent leader, when integrated.

#### Conclusions

Leaders in any environment, face multiple challenges of acclimating to new paradigms of leadership, while leading followers from diverse backgrounds. It is vital that leaders should not choose their leadership style randomly and illogically, but with a clear understanding of the Intelligence Quotient [32]. Moreover, the recent success of leadership styles depends on any organization culture that contemplates on creating emerging future leaders as a long-term tactical significance [33-35].

To achieve higher leadership intelligence, global leaders must recognize their emotional stability along with cognitive balance and work according to local cultural patterns and spiritual norms by developing superior IQ, EQ, CQ, and SQ. An interconnected assessment will help to connect these four constructs and how they influence each other. The analysis of significant research has also helped establish missing unanimity, linked to global leadership competencies.

Moreover, in the present 21<sup>st</sup> Century global setting, leaders must own different thinking skills and higher intelligence levels to achieve higher standards of leadership [36-39]. Also, recognizing intelligence patterns and classifying critical factors that influence them resulting in typical behaviors to enjoy top rated multiple intelligence levels.

The literature offers numerous indications that IQ, EQ, CQ, and SQ are essential factors that affect leadership performance. Significant leadership theories do not articulate an evidently defined term to appropriate intelligence as a constituent of varying cultures that can be demarcated, studied, erudite, implemented, and enhanced [40-42].

Considering the current situation the world is in, it is not too much to confirm that a leader must have the said capacities of the leadership intelligence that have been proposed herein. With the constant turbulence caused by the pandemic, this occurrence further requires what intelligent leaders should do. Leaders should possess the said elements in order to provide an outcome that would be in the best interests of the employees, the shareholders, and the organization, without the expense of anyone or anything. There will be more complexities and uncertainties that may come. The recent pandemic is a novel experience, showing what leaders should and should not do to survive the abyss of economic ruin.

Intelligent leadership models provide various mechanisms that facilitate a better understanding and interpretation of behaviors and events in organizations. However, regardless of the model employed, there is a clear distinction between a manager and a leader, and each of the intelligences is important for the development of intelligent leaders. There is a clear distinction between traditional leadership and intelligent leadership. There are various leadership styles and each one can be applied to an organization considering the various circumstances. An intelligent leader should always be able to assess the situation and identify and utilize the ideal method(s) to solve the problems.

#### References

- [1] Antonakis, J., & Day, D. V. (Eds.) (2017) The nature of leadership. Sage publications
- [2] Ericsson, K. A., Hoffman, R. R., Kozbelt, A., & Williams, A. M. (Eds.) (2018) The Cambridge handbook of expertise and expert performance. Cambridge University Press

- [3] Clinton, R. (2018) *The making of a leader: Recognizing the lessons and stages of leadership development.* Tyndale House Publishers, Inc.
- [4] Carragher, J., & Gormley, K. (2017) Leadership and emotional intelligence in nursing and midwifery education and practice: a discussion paper. Journal of advanced nursing, 73(1), 85-96
- [5] Pero, S. D. M and Apandi, L. S. A. (2018) "Malaysia's Leadership Role in Asean: An Assessment", *Journal of International Studies*, Vol. 14, 65-79
- [6] Sarros, J. C. (2009) Heart and Soul of Leadership: The Personal Journey, Management Press
- [7] Cherniss, C. (2000) Emotional intelligence: What it is and why it matters, Volume 15, New Orleans, LA
- [8] Karácsony P., Analyzing the Relationship between Leadership Style and Corporate Social Responsibility in Hungarian Small and Medium-sized Enterprises, Acta Polytechnica Hungarica, Vol. 17, No. 7, 2020, pp. 183-198
- [9] Spreitzer, G. M. (2006) "Leading to grow and growing to lead: Leadership development lessons from positive organizational studies", Organizational Dynamics, Vol. 35, No. 4, pp. 305-315
- [10] Fullan, M. and Scott, G. (2009) Turnaround leadership for higher education, John Wiley & Sons
- [11] Rosete, D. and Ciarrochi, J. (2005) "Emotional intelligence and its relationship to workplace performance outcomes of leadership effectiveness", Leadership & Organization Development Journal, Vol. 26, No. 5, pp. 388-399
- [12] Day, A. L. and Carroll, S. A. (2004) "Using an ability-based measure of emotional intelligence to predict individual performance, group performance, and group citizenship behaviours", Personality and Individual differences, Vol. 36, No. 6, pp. 1443-1458
- [13] Alon, I. and Higgins, J. M. (2005) "Global leadership success through emotional and cultural intelligences", Business horizons, Vol. 48, No. 6, pp. 501-512
- [14] Gage, T., & Smith, C. (2016) Leadership intelligence: Unlocking the potential for school leadership effectiveness. *South African Journal of Education*, *36*(4), 1-9
- [15] Ramsey, J. R., Rutti, R. M., Lorenz, M. P., Barakat, L. L., & Sant'anna, A. S. (2017) Developing global transformational leaders. *Journal of World Business*, 52(4), 461-473
- [16] Varga J., Defining the Economic Role and Benefits of Micro, Small and Medium-sized Enterprises in the 21<sup>st</sup> Century with a Systematic Review of

the Literature, Acta Polytechnica Hungarica, Vol. 18, No. 11, 2021, pp. 209-228

- [17] Łukomska-Szarek J., Martynko A., Warzecha Ż., Management under Crisis Conditions – the Impact of the COVID-19 Pandemic on the Formation of Respondents' Opinions within the e-commerce Market, in Poland, Acta Polytechnica Hungarica, Vol. 18, No. 11, 2021, pp. 251-267
- [18] Heath, K., Martin, L., & Shahisaman, L. (2017) Global Leadership Competence: The Intelligence Quotient of a Modern Leader. *Journal of Leadership Education*, 16(3), 134-145
- [19] Gutiérrez-Cobo, M. J., Cabello, R., & Fernández-Berrocal, P. (2017) Performance-based ability emotional intelligence benefits working memory capacity during performance on hot tasks. *Scientific reports*, 7(1), 11700
- [20] Machová R., Zsigmond T. Lazányi K., Krepszová V., Generations and Emotional Intelligence A Pilot Study, Acta Polytechnica Hungarica, Vol. 17, No. 5, 2020, pp. 229-247
- [21] Ang, S. and Dyne, L. V. (2015) Conceptualization of cultural intelligence: Definition, distinctiveness, and nomological network, Routledge, 21-33 pp.
- [22] Early, P. C. and Ang, S. (2003) Cultural Intelligence: Individual Interactions across Culture. Stanford Business Books, Stanford, 12-18
- [23] Ahmed, A., Arshad, M. A., Mahmood, A. and Akhtar, S. (2016) "Holistic human resource development: balancing the equation through the inclusion of spiritual quotient", Journal of Human Values, Vol. 22, No. 3, pp. 165-179
- [24] Cheema, S., Akram, A., & Javed, F. (2015) Employee engagement and visionary leadership: Impact on customer and employee satisfaction. *Journal of Business Studies Quarterly*, 7(2), 139
- [25] Berg, M. E., & Karlsen, J. T. (2016) A study of coaching leadership style practice in projects. *Management Research Review*, *39*(9), 1122-1142
- [26] Alonderiene, R., & Majauskaite, M. (2016) Leadership style and job satisfaction in higher education institutions. *International Journal of Educational Management*, 30(1), 140-164
- [27] Holten, A. L., & Brenner, S. O. (2015) Leadership style and the process of organizational change. Leadership & Organization Development Journal, 36(1), 2-16
- [28] Dabke, D. (2016) Impact of leader's emotional intelligence and transformational behavior on perceived leadership effectiveness: A multiple source view. Business Perspectives and Research, 4(1), 27-40

- [29] Menzies, S. (2017) Networking impact on internationalization of SMEs. In Scientific Conference on Economics and Entrepreneurship Scee'2017 (p. 72)
- [30] Ekegren, M., & Dåderman, A. M. (2015) Leadership intelligence before and after participation in UGL leadership training. *International Journal of Transpersonal Studies*, 34(1), 4
- [31] Kedia, B. L. and Mukherji, A. (1999) "Global managers: developing a mindset for global competitiveness", Journal of World Business, Vol. 34, No. 3, pp. 230-251
- [32] Maloney, W. F. (1982) "Supervisory problems in international construction", Journal of the Construction Division, ASCE, Vol. 108, No. 3, pp. 406-418
- [33] Block, L. A. and Manning, L. J. (2007) A systemic approach to developing frontline leaders in healthcare, Volume 20, 85-96 pp.
- [34] Tsai, Y. Relationship between Organizational Culture, Leadership Behavior and Job Satisfaction. BMC Health Serv Res 11, 98 (2011) https://doi.org/10.1186/1472-6963-11-98
- [35] Schein E. H., Organizational Culture and Leadership, John Wiley & Sons, Inc., San Francisco, 2004
- [36] Mintzberg, H. (1975) Impediments to the use of management information, National Association of Accountants
- [37] Knights, J., Grant, D. and Young, G. (2020) "Developing 21<sup>st</sup> Century leaders, a complete new process: We call them Transpersonal Leaders", Journal of Work-Applied Management, Vol. 12, No. 1, pp. 6-21, https://doi.org/10.1108/JWAM-12-2019-0038
- [38] Knights, J., Grant, D. and Young, G. (2018) Leading beyond the Ego: How to Become a Transpersonal Leader, Routledge, NY and Oxford
- [39] Cavaness K, Picchioni A, Fleshman JW. Linking Emotional Intelligence to Successful Health Care Leadership: The Big Five Model of Personality. Clin Colon Rectal Surg. 2020;33(4):195-203. doi:10.1055/s-0040-1709435
- [40] Service, R.W. and Loudon, D. (2012) "A Global Leadership Quotient-GLQ: Measuring, Assessing and Developing", China-USA Business Review, Vol. 11, No. 8, pp. 20-40
- [41] Kerr. R., Garvin. J., Heaton. N., and Boyle, E. (2006) "Emotional intelligence and leadership effectiveness", Leadership & Organization Development Journal, Vol. 27, No. 4, pp. 265-279, URL https://doi.org/10.1108/01437730610666028
- [42] Issah M. Change Leadership: The Role of Emotional Intelligence. SAGE Open. July 2018. doi:10.1177/2158244018800910