The Impact of Knowledge Dynamics on Multicultural Leadership and the Mediating Role of Cultural Intelligence

Constantin Bratianu[1,2], Dan Paiuc[3] and Ruxandra Bejinaru[4]

[1]Academy of Romanian Scientists, Bucharest, Romania

[2]Bucharest University of Economic Studies, Bucharest, Romania

[3]National University of Political Studies and Public Administration, Bucharest, Romania

[4]University "Stefan cel Mare" of Suceava, Suceava, Romania

constantin.bratianu@gmail.com

dan.paiuc@facultateademanagement.ro

ruxandrabejinaru@yahoo.com

Abstract: Business internationalization and globalization naturally led to the need to manage across cultures and develop new competencies for leaders. One of these competencies is cultural intelligence (CQ) that is actually a meta-competence because it incorporates rational, emotional, spiritual, and social intelligence. *Cultural intelligence* expresses the capacity of a leader to understand different cultures and the behavioral types generated by them, and to make decisions able to satisfy multicultural requirements, avoiding intercultural conflicts due especially to different cultural and religious values and principles. Different cultures are characterized by different knowledge dynamics which influence the process of decision making and multicultural leadership. The purpose of this paper is to explore the impact of knowledge dynamics on multicultural leadership, in multicultural business environments, and what is the role of cultural intelligence in this process. Based on the critical literature review we identified the main constructs and connections we have to explore through an investigation based on questionnaires and a statistical analysis using PLS-SEM method. The findings confirmed our initial hypotheses.

Keywords: Knowledge Dynamics, Cultural Intelligence, Social Intelligence, Leadership, Multicultural Leadership

1. Introduction

The increasing dynamics of business internationalization and globalization (Vatamanescu & Mitan, 2024) challenge the leadership competencies within the multicultural environment (Lewis, 2018). Leading across cultures requires a deep understanding of the different value sets of people coming from different cultures to work together in the same company, and making managerial decisions in social contexts with a high potential of conflicts. The new competence required is *cultural intelligence* (CQ), and it can be defined as a capacity to understand different cultures and create a convergence of business interests within a company (Bratianu & Paiuc, 2023; Meyer, 2014). Cultural intelligence is a meta or higher-order intelligence because it is composed of rational, emotional, spiritual, and social intelligence.

Cultural intelligence is impacted by *knowledge dynamics* (KD) understood as a transformation of one form of knowledge (i.e., rational, emotional, spiritual) into another form of knowledge. That relationship is mediated by the decision making that is performed within a multicultural environment (Bratianu et al., 2020; Kahneman, 2011). However, a critical literature review reveals a knowledge gap concerning the influence of knowledge dynamics on multicultural leadership and what are the main constructs involved in this complex process. The purpose of this paper is to explore the connections between knowledge dynamics and multicultural leadership in multicultural business environments and what other variables should be considered in such an analysis. The originality of the present research comes from addressing that knowledge gap and helping managers and leaders working in multicultural business environments to understand the new challenges of the decision making processes.

2. Literature Review

A critical literature review concerning multicultural leadership and the new challenges it faces by comparison with classical management that operates within a monocultural environment reveals the importance of the following constructs: knowledge dynamics, cultural intelligence, and multicultural leadership. The following presentation will focus on the main characteristics of these constructs and on the possible connections between them.

Knowledge dynamics (KD) is a multidimensional concept encompassing variations of knowledge in time and space. Knowledge variation in time is a direct result of learning or unlearning processes at the individual level

(Bereiter, 2002; Cegarra-Navarro & Wensley, 2019; Kolb, 2015; Nonaka & Takeuchi, 1995) or at the organizational levels (Argote, 2013; Cegarra-Navarro, Elridge & Martinez-Martinez, 2010; Nonaka & Takeuchi, 1995, 2019). By extension from knowledge to intangibles, some authors considered the dynamics of intellectual capital (Kianto, 2007; Kianto et al., 2017). In this situation, the dynamics reflect the increase or decrease of the knowledge level from a quantitative point of view. Although there is no measuring system for the quantity of knowledge yet, we can compare the two different states of knowledge before and after a learning or unlearning process, and say which of them is higher. Therefore, it is possible to evaluate a relative variation of the knowledge level instead of an absolute one. At the organizational level, three main processes contribute to the balance of knowledge (Bratianu, 2007; DeLong, 2004): knowledge creation, knowledge acquisition, and knowledge loss. Knowledge dynamics based on the variation of knowledge in space is known metaphorically as *knowledge flow* (Bolisani & Oltramari, 2012; Nissen, 2006; Nonaka, Toyama & Hirotaka, 2008).

From the theory of knowledge fields, knowledge dynamics means *a transformation* of one form of knowledge into another one (Bratianu & Bejinaru, 2020). This transformation process is done continuously within our brain with the final result of making decisions. The classical theory of decision making is based exclusively on rational knowledge and rational intelligence. However, cognitive sciences revealed through many experiments and psychological analyses demonstrated that emotional knowledge and emotional intelligence are very important in decision making (Damasio, 2012; Gladwell, 2005; Goleman, 1995; Hill, 2008). Wise leaders go beyond economic values and consider an enlarged spectrum of values and principles for their thinking and decision making (Kaiser & Martinez, 2023; Nonaka & Takeuchi, 2019; Rocha & Pinheiro, 2021; Zohar & Marshall, 2004). They perform what Aristotle called *phronesis*, or practical wisdom (Aristotle, 1999; Rocha et al., 2021; Shotter & Tsoukas, 2014). Aristotle asserts that *phronesis* is "a state of grasping the truth, involving reason, concerned with action about things that are good or bad for human beings" (Aristotle, 1999, p. 89). In any organization, there is a shared set of values that establishes a certain organizational behavior. That is described in the company's code of ethics. For example, Samsung's ethical code is structured as a "Trinity of Values", that contains the company's management philosophy, core values, and business principles (Song & Lee, 2014, p. 111). "Samsung has set forth core items that were to be followed by all employees as its management principles. The company has 5 overarching principles, 15 detailed principles, and 42 conduct rules that its employees are expected to follow" (Song & Lee, 2014, p. 111). If economic decisions are based mostly on rationality, employees' motivation is based dominantly on emotionality, and their behavior is based on the dynamics between rationality, emotionality, and spirituality. Therefore, their organizational behavior is influenced by knowledge dynamics. It is an independent variable that will be considered in the present research model.

Cultural intelligence (CQ) is a higher-order intelligence because it integrates rational, emotional, spiritual, and social intelligence and becomes significant for people working in multicultural environments, like multicultural companies with employees from different countries (Ang & Van Dyne, 2015; Lewis, 2018; Paiuc, 2021). Understanding the way people from other countries think and behave is essential in creating a supportive working atmosphere in teams and multinational organizations, as well as in competing with products and services on international markets. Rational intelligence (IQ) is the capacity to process efficiently rational knowledge and make the best decisions for a given situation or context (Hawkins & Blakeslee, 2004; Pinker, 2021). As Simon remarks, "intelligence is the work of symbolic systems" (Simon, 1996, p. 23). It is the generic intelligence measured traditionally using IQ tests based on items coming mainly from positive sciences. It is the intelligence developed through formal education in schools and universities and used as a predictor for a successful career. Managers use rational intelligence in making decisions based on economic factors because economic science is based on rational principles like mathematics and physics.

Gardner (1983) introduced the new paradigm of multiple intelligences and opened the way for emotional intelligence and spiritual intelligence. *Emotional intelligence* (EQ) represents the capacity to understand personal emotions and how to work with them. More rigorously, emotional intelligence is defined as: "The capacity to reason about emotions, and of emotions to enhance thinking. It includes the abilities to accurately perceive emotions, to access and generate emotions, so as to assist thought, to understand emotions and emotional knowledge, and to reflectively regulate emotions so as to promote emotional and intellectual growth" (Mayer, Salovey and Caruso, 2004, p. 197). They process emotional knowledge (Goleman, 1995; Mayer, Salovey & Caruso, 2004; Salovey & Mayer, 1990). Emotional intelligence shapes people's motivation and their behavior. It is nonlinear and it manifests faster than rational intelligence in making decisions (Gladwell, 2005; Hill, 2008; Kahneman, 2011). Due to its powerful impact on motivation and behavior, emotional intelligence can be a better predictor for personal success in life and leadership than rational intelligence. *Spiritual intelligence* (SQ) represents the capacity to understand the meaning of life and work, and making decisions in accordance with a

set of well-defined values and principles (Aristotle, 1999; Zohar & Marshal, 2004). As Zohar and Marshall remark, "We know today that human beings are by definition primarily creatures of meaning and value (that is, of 'self-actualization'). We need a sense of meaning and driving purpose in our lives. Without it we become ill or we die" (Zohar & Marshall, 2004, p. 17). Spiritual intelligence is the main ingredient of *phronesis* (Rocha & Pinheiro, 2021; Rocha et al., 2021; Shotter & Tsoukas, 2014). Rational, emotional, and spiritual intelligence are defined at the individual level. When several people work together, the relationships between them become important and that leads to social intelligence (Goleman, 2007). Each of these intelligences may have different levels when people within a team or organization come from different cultures. Therefore, understanding them and leading them toward convergent objectives requires a high level of cultural intelligence.

Multicultural leadership is a complex construct used for leaders of multicultural teams and organizations. The main features of those social contexts are the diversity of education, culture, and thinking models. Leading across cultures requires a high level of cultural intelligence and a balance of knowledge dynamics (Batsa, Abadir & Neubert, 2020; Iskhakova & Ott, 2020; Stahl & Maznevski, 2021). The risk of leading across cultures is the potential conflict between people. The main challenge is to create a set of shared values and a convergent organizational behavior toward achieving the designed objectives.

3. Methodology

The literature review shows a knowledge gap concerning the connections between three main constructs that are characteristic for cross-cultural management: knowledge dynamics, cultural intelligence, and multicultural leadership. Trying to get insight into this complex cross-cultural nexus, we formulate the following research questions (RQ):

RQ: What is the role of knowledge dynamics and cultural intelligence in developing multicultural leadership?

To answer this question we designed a research model containing all three constructs: knowledge dynamics (KD) as an independent variable, cultural intelligence (CQ) as a mediating variable, and multicultural leadership (ML) as a dependent variable. Figure 1 illustrates this research model. The model represents a linear simplification of the nonlinear reality, but it is in accordance with the logic used in designing the quantitative approach based on a questionnaire and statistical analysis using the method of Structural Equations Modeling (SEM). The research model suggests the following hypotheses:

H1: Knowledge dynamics (KD) influences positively multicultural leadership (ML).

H2: Knowledge dynamics (KD) influences positively cultural intelligence (CQ).

H3: Cultural intelligence (CQ) influences positively multicultural leadership (ML).

The construct of KD is measured with three indicators: KD1 – Rational knowledge; KD2 – Emotional knowledge; KD3 – Spiritual knowledge. The mediating construct of CQ is measured with four indicators: CQ1 – Metacognitive cultural intelligence; CQ2 – Cognitive cultural intelligence; CQ3 – Motivational cultural intelligence; CQ4 – Behavioral cultural intelligence. Multicultural leadership is measured using four indicators: ML1 – Administrative skills; ML2 – Interpersonal skills; ML3 – Conceptual skills; ML4 – Multicultural skills. These variables and indicators were defined based on our literature review.
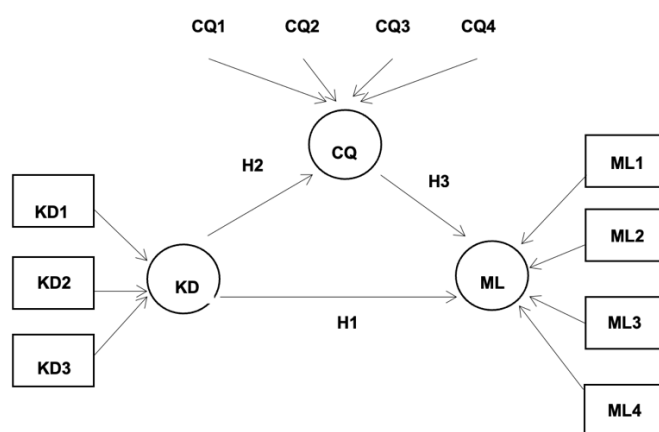
Figure 1: The research model

We designed a questionnaire based on the research model presented in Figure 1 and distributed it online to 396 managers working in multinational companies worldwide. We received 439 answers, out of which we could use 396 valid questionnaires. To establish the sample size we used the standard procedure and data obtained from adequate databases like ILO (2021), STATISTA (2021), and ZIPPIA (2022). The questionnaire has an introductory part where we explain the purpose of the project and guarantee the data confidentiality. Our study reached out to potential participants for the questionnaire through targeted online social media and personal connections such as LinkedIn, Facebook, and email. We used our personal networks of managers working in multinational companies worldwide. Also, we used SurveyMonkey, a worldwide recognized platform for professional online surveys. The valid response recovery rate was 89.14% (396 valid and recorded answers from 439). The demographic statistics show that the respondents can be grouped into three categories: a) males (n=200, 50.5%); b) females (n=188, 47.5%); c) non-binary group (n=8, 2.0%). The educational groups were formed of university graduates (n=164, 41.4%), master graduates (n=157, 39.6%), Ph.D. graduates (n=48, 12.1%), and high school only (n=27, 6.8%). The geographic distribution shows that a number of 47 (11.9%) participants were from Africa, 70 (19.9%) were from Asia, 130 (32.8%) were from Australia, 73 (18.4%) were from Europe, 73 (18.4%) were from North America, and 29 (7.3%) were from South America.

4. Results and Discussions

In the first stage of our analysis, we used IBM SPSS Statistics version 22 software to check the validity of variables, and Cronbach's Alpha's values, for reliability. In the second stage, we used the Partial Least Squares Structural Equation Modeling (PLS-SEM) to test our hypotheses (Hair et al., 2017; Hair et al., 2019). For reliability, we analyzed the factor loading for each item and found that their values were higher than 0.70 (Hair et al., 2019). Therefore, we retain all items for further analysis. All constructs and sub-constructs of the research model met the significant construct reliability threshold of $\alpha > 0.80$.

Our analysis proved that knowledge dynamics has a positive influence on multicultural leadership. Therefore, the hypothesis H1 is validated. Also, knowledge dynamics has a positive influence on cultural intelligence. Therefore, the hypothesis H2 is validated. Furthermore, cultural intelligence has a positive influence on multicultural leadership. Therefore, the hypothesis H3 is validated. In conclusion, all three hypotheses we considered in the present research model are valid, which demonstrates its logical consistency.

The validation of this research model shows that it can be used for further investigations considering more variables and the roles of mediation and moderation. Also, the present research has practical implications for managers and leaders working in multicultural business environments making them aware of the cognitive connections between knowledge dynamics, cultural intelligence, and multicultural leadership. Knowledge dynamics is at the heart of any decision making and thus it is critical for multicultural leadership. The balance between rational, emotional, and spiritual knowledge entering the dynamics varies from one culture to another and therefore leaders should be aware of knowledge dynamics (Bratianu et al., 2020; Bratianu, 2023; Kahneman, 2011). The capacity to understand the potential barriers of cultural diversity and overcome them can be improved through the mediating role of cultural intelligence and the new achievements of neuroscientists (Ang & Van Dyne, 2015; Davidovich & Brunton, 2023; Meyer, 2014). From this perspective, the present research has a

5. Conclusions and Limitations

The present research starts from the new leadership context created by the internalization and globalization of the business processes. Leading teams composed of people coming from different cultures requires a new understanding of how people react to designing and implementing business projects. That difficulty is generated by the different balances between rational, emotional, and spiritual knowledge and intelligence which are specific for different cultures. Knowledge dynamics is the core mechanism in any managerial decision making process and therefore it has a significant influence on multicultural leadership. Also, knowledge dynamics impacts on cultural intelligence, a meta-intelligence that is specific for people living and working in multicultural social contexts. Multicultural intelligence represents the capacity to understand how people from different cultures think and behave. Having different value sets they have different attitudes and behaviors in organizational environments. Multicultural leaders should be capable of anticipating possible working conflicts and finding solutions for mitigation when they appear.

The present research aims at analyzing the influence of knowledge dynamics on multicultural leadership directly and indirectly through the mediation of cultural intelligence. Therefore, we designed a research model

composed of these three main constructs (i.e. knowledge dynamics, cultural intelligence and multicultural leadership) and their relationships. We performed a critical literature review of the literature to extract some ideas from previous similar research and to use them. However, we found that the construct of knowledge dynamics from the thermodynamics perspective was not incorporated in previous studies. Identifying this knowledge gap we designed a questionnaire and a worldwide investigation among the managers working in multicultural business contexts. We collected data from 439 respondents and validated 396 answers. In the first stage of statistical analysis we used IBM SPSS software, and in the second stage we used PLS-SEM software. Findings show that our hypotheses are valid, and therefore we can state that knowledge dynamics influences positively multicultural leadership through the mediating role of cultural intelligence.

The main limitation of the present research comes from the fact that the decision making process of leaders in multicultural companies is a nonlinear process, and we had to consider a simplified linearized model for the purpose of evaluating the interactions between the three constructs (i.e. knowledge dynamics, cultural intelligence, and multicultural leadership). That is in accordance with the logic inherent in the statistical analysis with IBM SPSS and PLS-SEM.

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