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Cyborg HR: Knowledge intelligence solutions to support behavioral integration of senior management teams in the oil sector

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Abstract

Purpose: This study aims to examine the impact of Knowledge Intelligence (KI) on the behavioral integration of senior management teams within the oil sector, with a specific case study on the Misan Oil Company in Iraq. It explores how components of Knowledge Intelligence such as social capital and team creativity affect behavioral integration, including information sharing, collaborative decision-making, and diligence.

Research methodology: A field survey was conducted involving 50 management team members from the Misan Oil Company. Quantitative data were analyzed using SPSS and Smart PLS software to examine the relationship between Knowledge Intelligence and behavioral integration.

Results: The analysis showed a significant positive correlation between Knowledge Intelligence and behavioral integration ($r = 0.307$, $p = 0.03$). Among the dimensions, social capital recorded the highest mean ($M = 3.90$), while innovation participation scored the lowest ($M = 2.98$), indicating limited creativity engagement within teams.

Conclusions: Knowledge Intelligence contributes meaningfully to improving behavioral integration among senior management, particularly through enhanced social capital. However, innovation-related involvement remains an area that requires strategic focus.

Limitations: This study is limited to one company in Iraq's oil sector, which may restrict the generalizability of the findings to other industries or regions.

Contribution: This study provides empirical evidence on how Knowledge Intelligence can be leveraged to strengthen integration and collaboration among top management in high-stakes industrial sectors.

Keywords: *Behavioral Integration, Cyborg Human Resources, Knowledge Intelligence, Misan Oil Company, Senior Management Teams*

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1. Introduction

A significant portion of senior management teams struggles with behavioral integration while having exceptional individual intelligence. This presents a compelling contradiction for teams during a period of growing corporate complexity. This tendency raises the question of why individual talents frequently fail to convert into group achievements. Organizational efficiency is no longer dependent on individual intelligence in a world rapidly approaching the concept of "Cyborg Human Resources," where leaders

integrate their human qualities with intelligent technology to optimize collective performance (Endi, Fanggidae, & Ndoen, 2023).

According to the study, intelligence is the capacity to comprehend complicated information, assess confusing scenarios, and make calculated choices in uncertain circumstances. Conversely, behavioral integration characterizes people's propensity to collaborate effectively, share knowledge, and reach a consensus, turning collective decisions into outcomes that are superior to the sum of their individual parts. Empirical data suggest that the most cohesive leadership teams are not necessarily composed of the most intelligent individuals; rather, they are those that employ Knowledge Intelligence to establish a shared vocabulary that converts complex ideas into coherent plans. According to the McKinsey Global Institute, companies that integrate Knowledge Intelligence into their leadership processes outperform their rivals in terms of return on investment (ROI). This is not just because they have better technology; it is also because they can use it to transform strategic challenges into opportunities for cooperation (Latunusa, Timuneno, & Fanggidae, 2023).

In the contemporary world of Cyborg HR, where human and artificial intelligence coexist, a new issue arises: how can intelligent technology enhance behavioral integration without compromising the human element? This study intends to caution against the "intelligence illusion," which reduces leadership to impersonal cognitive skills while ignoring the fact that true team intelligence is found in transforming individual intelligence into group knowledge. It also aims to empirically support the role of Knowledge Intelligence as a behavioral integration accelerator. "How can we use our intelligence to enhance each other's capabilities?" is a more pertinent issue at a period of strategic upheaval than "How smart are we?" This study provides a useful paradigm that redefines knowing intelligence within the framework of behavioral integration, emphasizing the mediating processes that transform intelligence from an individual asset into a collective competency in hybrid human-machine work contexts.

1.1 Research Problem

Senior management teams are vital for developing behavioral integration in organizations that operate in sophisticated and intensely competitive business contexts. Behavioral integration is the process by which team members work together to make choices and interact successfully. Although its importance has been recognized, little is known about how Knowledge Intelligence aids in this integration. The ability of KSI to assist with organizational constraints and enhance group dynamics has not been considered in previous research, which has mostly focused on emotional intelligence (EQ) as a critical component in building harmonious teams. Despite its benefits, an overreliance on EQ in relationship management masks leaders' ability to think analytically and deconstruct complex problems into their most fundamental components.

The absence of a solid conceptual framework linking behavioral integration and knowledge intelligence hinders the creation of holistic leadership models that effectively utilize both emotional and cognitive capacities in a complementary manner. This ambiguity makes it challenging for firms to design targeted training programs to enhance leaders' analytical and decision-making skills, especially in environments that rely on expert systems and artificial intelligence (Putra, Ahadiyat, & Keumalahayati, 2023). In the era of digital transformation, senior management teams face challenges that cannot be solved using communication skills alone. There is little information in the published research on how to measure these cognitive abilities or incorporate them into team performance evaluations. Teams that rely solely on emotional intelligence run the risk of failing to fully investigate the root causes of complex situations from a strategic perspective. Moreover, organizations that prioritize leaders with strong communication abilities tend to overlook those with exceptional analytical skills.

Senior management teams must adopt a dual-intelligence strategy that balances empathy and reason to achieve behavioral integration that goes beyond simple emotional interactions. It is essential to break down the disciplinary boundaries between organizational psychology and knowledge science to develop management theories that can fully comprehend behavioral integration and redefine what constitutes effective leadership.

1.2 Research Questions

This study seeks to address the following questions:

1. What is the relationship between the degree of behavioral integration in senior management teams and their Knowledge Intelligence?
2. How can Knowledge Intelligence enhance communication and collective decision-making processes in senior management teams?
3. How can individual knowledge abilities be transformed into group competencies that promote behavioral integration?
4. Considering the wide variation in Knowledge Intelligence levels among individuals, what potential challenges could behavioral integration encounter?

2. Literature review

2.1 The Concept of Knowledge Intelligence

Knowledge intelligence refers to the use of thought, experience, and senses to acquire knowledge. In this context, the Latin-derived word consider means analytical thinking through knowledge and perception, which involves deducing the truth (Bayne et al., 2019). Cognition, therefore, encompasses memory, attention, language (both speaking and understanding), problem-solving, reasoning, and decision-making, which are a set of interrelated mental processes (Hayatbini, Knauft, & Kalia, 2021). Knowledge intelligence did not emerge in a vacuum or suddenly. Rather, it is the result of the accumulation of many stages, beginning with data, which progress into information through interconnection and organization.

This information is then transformed into knowledge when analyzed and linked to other information, eventually evolving into innovative knowledge throughout human history (Afriyani, Indrayani, Indrawan, Wibisono, & Ngaliman, 2023). This knowledge results from human efforts to improve their lives and solve the problems they encounter. It is a collective effort that organizes, selects, and expresses specific aspects of reality. This is related to smart capabilities, which are derived from the mechanism of using data, information, and experiences that contribute to knowledge development (Al-Musawi, 2023). According to Hopkins and Yonker (2015), knowledge intelligence is the capacity to carry out tasks in real life and provide workable solutions to common issues by developing efficient scientific techniques.

Coetzer (2016) defined it as the mental ability to think, plan, solve daily problems, think abstractly, understand complex ideas, learn from experience and learn quickly. Sari, Sutiadiningsih, Zaini, Meisarah, and Hubur (2020) described it as a mental process encompassing all proactive stages of speech and action that occur in the mind. It begins with the perception of what one feels, remembers, or sees and represents the primary cognitive processes in thinking, making it the most complex mental activity of all. Some view knowledge intelligence as deep thinking through understanding and experience, that is, the acquisition of knowledge through perception and the senses (Bayne et al., 2019). Shabbir, Khalid, and Ali (2016) explained that knowledge intelligence significantly impacts activities requiring a high level of performance, personal commitment, self-confidence, interpersonal trust within organizations, and proactive behavior. It facilitates individuals' work and enhances their motivation for intelligence.

Greaves (2019) defined it as a cognitive mental process performed by the brain, involving mental images and realistic or imaginary ideas — either implicit ("inner speech") or explicit, manifested through spoken language or clear behavior. Based on the above, researchers believe that knowledge intelligence represents the mental ability to process, analyze, and use information to solve problems, make decisions, and think rationally. This is achieved through perception, comprehension, learning, and reasoning. It is linked to the ability to understand and adapt to situations and build knowledge through experience. It is considered a concept associated with human intelligence and a component thereof.

2.2 Dimensions of Knowledge Intelligence

Based on the previous literature, four dimensions of knowledge intelligence can be identified: emotional intelligence and team or group creativity (Goyal & Akhilesh, 2007).

2.3 Social Capital

Because it is possible to understand how managers' work can be improved through it, studies and research began to focus on the term "social capital" as a foundation for corporate organizations in the mid-twentieth century. This capital was considered a benefit to communities rather than individuals because of its inherently social nature. In recent years, the concept of social capital has gained momentum in analyzing and understanding certain social activities, such as collective effort, community bonding, and other social phenomena that elude interpretation by traditional measures of capital. Unlike other forms of capital, which are based on tangible assets or individuals, social capital is constructed upon social frameworks and depends on the structure of interactions between people and the shared interests that bind individuals to their communities (Wasko & Faraj, 2005).

The World Bank noted that social capital enables the coordination of efforts toward common goals through formal social norms and connections within a social structure. Timberlake (2005) defines social capital as “the knowledge, understanding, trust, reciprocity, information, and cooperation that arise from an individual’s social relationships.” Smith (2006) highlights that the concept of social capital is useful when describing scenarios of collaborative relationships within an organization. Although the concept of social capital has not been definitively defined, it has been described in an organizational context as “the set of tangible and intangible assets that an individual possesses within an organization as a result of their social relationships and how these assets contribute to the achievement of organizational goals” (Gabbay & Leenders, 1999). They further explain that an individual’s social capital is a product of the quality of their connections with coworkers—low social capital stems from distrustful relationships, while high social capital results from strong, close relationships (Muliyanto, Indrayani, Satriawan, Ngaliman, & Catrayasa, 2023).

2.4 Emotional Intelligence

Among the more recent ideas highlighting the role of the emotional system within the knowledge framework of human capabilities is emotional intelligence. Simultaneously, this concept aligns with conventional wisdom, which views emotions as a system separate from thought and as an obstacle to creative thinking. Given that knowledge ability enhances the emotional system and the knowledge system directs emotions through the abstract, inferential knowledge system, emotional intelligence is the end product of the integration of both systems (Mayer, Perkins, Caruso, & Salovey, 2001). The concept of intellectual work leads to creativity and radical problem-solving instead of performing routine tasks (Al-Musawi, 2023).

Mayer, Caruso, and Salovey (1999) defined the ability to recognize and manage one's own and others' emotional states as a component of emotional intelligence, which they categorized as part of social intelligence. They first used the term "emotional intelligence" in 1990. The ability to distinguish between different emotions and use this knowledge to justify one's thoughts and behaviors is another defining characteristic of this trait. Research that has attempted to establish a scientific method for measuring individual differences in this area has shown that people with emotional intelligence can communicate their feelings, read the emotions of others, and control their own emotions. After reading the writings of Mayer and Salovey in the early 1990s, Daniel Goleman published his own definition of emotional intelligence in his book Emotional Intelligence the same year. Goleman believed that an individual's success in personal, professional, and social life depended on their non-cognitive abilities and skills. According to Gilar-Corbí, Pozo-Rico, Sánchez, and Castejón (2018), emotional intelligence can be taught. Emotional competence is divided into two parts: personal competence, which deals with self-management, and social competence, which includes communication with others.

2.5 Team Creativity

Organizational success in today's complex marketplace comes from companies that value individual teams over collaboration. However, there is insufficient structure to explain how task type and group size affect team performance. Studies such as Tseng, Jade, Weng, and Lu (2024) have shown that diverse groups outperform homogeneous groups when it comes to solving difficult problems and making good decisions. Goyal and Akhilesh (2007) identified five broad types of team capabilities and

competencies in previous studies. Mohrman, Cohen, and Morhman Jr (1995) also emphasized the importance of social norms for effective team performance. Collective emotional intelligence, collective intelligence, shared traits, and a range of other team personality and emotional attributes may shed light on complex behaviors in sports. highlights the unique skills of transformational leaders in bringing about change and creativity (Hoshi, Ibrahim, Al-Musawi, & Mustafa, 2024). McEwan, Ruissen, Eys, Zumbo, and Beauchamp (2017) pointed to the importance of considering team composition factors such as communication, power dynamics, and goal setting. A team consists of a limited number of people who have agreed on a common purpose, responsibilities, and working methods. Paris, Salas, and Cannon-Bowers (2000) state that a team is an adaptive group with defined responsibilities and limited membership terms that interacts with each other and adapts to achieve a common goal.

2.6 The Concept of Behavioral Integration

Behavioral integration among team members emphasizes the need for communication and interdependence. The CEO oversees behavioral integration because they can attract these executives to their departments and establish guidelines for their shared interests, as well as a balance of power and influence among team members. By combining three elements, information sharing, teamwork, and collaborative decision-making, behavioral integration is defined as a formation that achieves team outcomes (Barraza, 2018).

It is also characterized as a superstructure that governs team processes in social behavior (collaborative behavior) and tasks (knowledge sharing and joint choice making) (Zhang & Kwan, 2019). G. Wang, Locatelli, Wan, Li, and Le (2021) described behavioral integration as a group action that entails social communication among members of the top management team. According to Rosenkranz and Wulf (2019), the various phenomena of top management team participation in collaborative behavior, information sharing, and joint decision-making include sharing resources, decisions, and knowledge among team members. Luo, Zheng, Ji, and Liang (2018) A term that represents the precise basis of the social and emotional processes of top management teams, as well as their behavioral tendencies and tasks, as a whole and integrated whole. Numerous studies have revealed that organizational effectiveness depends largely on behavioral integration (G. Wang et al., 2021). Integrated management teams have also been considered, as they appear to make better strategic judgments. The top management team (TMT) is characterized by behavioral integration, which includes differences in demographics, perspectives, attitudes, and experiences, and thus adapts better to unstructured creative challenges. Kbiza members come from all backgrounds, knowledge, and experiences (Xiaobao, Rui, Jiewei, & Xiaofan, 2022). Leunbach, Erikson, and Rapp-Ricciardi (2020) claim that diverse teams—as well as those composed of members who value and prefer multitasking rather than sequential work—have a richer and more accurate set of information about their environments and will pay more attention to and engage with relevant external information.

Behavioral integration also improves the appropriate climate and incentives that help employees learn, enabling information sharing and teamwork among the senior management team, frequent interaction with other members, and direct and indirect experience of individual learning. Behavioral integration also develops social mechanisms, including trust, which is manifested in team members' resistance to engagement, providing a degree of creative professional dialogue and information exchange. Du, Chan, Birnbaum, and Lin (2022); Mogård, Rørstad, and Bang (2022) believe that close and regular communication between behaviorally integrated senior managers, as well as the exchange of honest ideas, helps in arriving at common solutions... Based on the above, researchers note that behavioral integration refers to the degree of cohesion and harmony in the work of members of a senior management team (such as executives), as they operate as an integrated unit rather than as a group of isolated individuals, with a focus on interactive processes that improve collective effectiveness, such as information exchange and joint decision-making. Behavioral integration is an integrated system that reflects the maturity of a management team, rather than ordinary cooperation. Although creating a supportive culture and system requires time and dedication, building this system is critical to achieving a competitive advantage.

2.7 Dimensions of Behavioral Integration

Behavioral integration is viewed as a broad variable in terms of breadth and intellectual complexity, which broadens the base of views proposed to define its dimensions. This prompts the researcher to select a set of dimensions consistent with the nature and characteristics of the field of research and the organizations being studied. These dimensions can be indicated by the following points:

2.8 Information exchange

Data is of paramount importance in administrative tasks, as the quality of choices made at all levels of management depends on the accessibility and accuracy of the information. highlighted the importance of information in the administrative decision-making process, stating that " every organization is forced to make distinct and consequential decisions to achieve high levels of efficiency and creativity. Such decision-making requires a focus on information and its quality, making the acquisition, storage, and use of information a fundamental investment activity" (Attar, Demey, Bouazza, & Sastre, 2019). Given the importance of the duties and responsibilities of the senior management team, they need the knowledge to envision the future of the organization and the nature of the market in which they will operate.

The information required at this level is carefully selected, obtained from external sources, has lasting value, and requires significant expertise and discernment for implementation. This exchange is essential for team members to coordinate their individual tasks with the team's collective responsibilities. Because each member typically embodies a distinct functional perspective, information sharing is critical for fostering a comprehensive understanding of tasks and circumstances, thus facilitating the formulation of appropriate strategies and solutions (Rosenkranz & Wulf, 2019). It is important to emphasize that withholding information relevant to the situation under examination is likely to reduce the team's effectiveness, as ignoring any data, no matter how simple, may lead to neglecting potential options related to the issue at hand. Consequently, the team may fail to recognize all the implications of the situation it faces or may not adequately assess the risks to the organization resulting from the decisions it makes (Siachou, Trichina, Papasolomou, & Sakka, 2021).

2.9 Collaborative Behavior

Teamwork to solve urgent problems has become more important, and there has been a clear shift away from individuals working alone toward group projects. The common definition of collaboration is working together to integrate information to generate mutual gain. Essentially, the team's attitudes, beliefs, and feelings focus on collaboration, which is seen as the engine of collective action. This perspective views teamwork as utilizing each member's specific set of expertise and capabilities to achieve a common goal. It is a metaphor for the interconnected web of online communities, the collaborative power of the modern business environment, and other technological marvels (Al-Sakarneh, 2019).

2.10 Shared Decision Making

The company's senior management should move towards leadership and speed in its strategies (Al-Musawi, 2023). Under certain conditions, participatory decision-making is more effective; among these factors, superior decision quality is essential, especially when subordinates have significant knowledge and understanding of the problem and when they may fail to implement the decision effectively without agreement on the issue. Furthermore, it has been observed that managers tend to shift from an authoritarian approach to a more inclusive and participatory style when the company has a dispersed or less authoritarian structure because they see this change as increasing organizational efficiency without sacrificing their authority (J. Park, 2017).

3. Research methodology

The positivist research theory formed the basis of this investigation. The key components of this theory include objectivity, quantitative measurement, and the use of scientific methods to ascertain connections between variables (Y. S. Park, Konge, & Artino Jr, 2020). The function of knowledge intelligence in fostering behavioral integration among senior management teams is investigated through gathering and analyzing empirical data.

Furthermore, a cross-sectional strategy was used to collect data from a particular demographic group at a certain time (X. Wang & Cheng, 2020). In this instance, it is essential to examine the relationships between the variables. Our cross-sectional method will allow us to quantify the interactions between these components. The quantitative research methodology was based on positivist principles. Quantitative data were collected using questionnaires designed to investigate the main factors identified in this study. These traits were measured using five-point Likert scales derived from reliable instruments in the literature. Feedback from previous studies was used to develop the research model. According to Goyal and Akhilesh (2007), intelligence is the independent variable, and behavioral integration is the dependent variable (Zhang & Kwan, 2019).

Research that seeks to examine a particular model of the relationship between variables uses a structural equation model (Azeez, 2024). Smart-PLS, a tool designed for structural partial least squares modeling, was used to evaluate the data. The study sample consisted of administrative leaders from the department heads of the Misan Oil Company. The minimum sample size (N) was estimated at 50 to guarantee sufficient statistical power to evaluate the research model. For exploratory research or scenarios such as this one, where the study model is complex and includes latent variables, PLS-SEM is appropriate. The study hypotheses were verified using the SMART PLS software and structural equation modeling approach (Azeez, 2024).

4. Results and discussions

4.1 Discriminant Validity

The third validity metric in the PLS approach is discriminant validity. To confirm discriminant validity, Radomir and Moisescu (2020) were applied in this study. When one of the model's components interacts with its indicators more than it does with the other constructs, this approach is said to have a satisfactory discriminant validity. When each construct's AVE is larger than its shared variance with the other constructs; that is, when the square root of the AVE is larger than the correlation coefficients. The matrix is presented in Table 1.

It should be noted that the Fornell-Larcker matrix only contains first-order latent variables. If the numbers on the major diagonal (the square of the AVE) are higher than their baseline values, then this model also has good discriminant validity. The square root of the AVE for each of the first-order variables is higher than the correlation value between them, as shown in the matrix below, suggesting that the measurement models are reasonable and have sufficient discriminant validity.

Table 1. Discriminant validity assessment matrix by Fornell and Larcker method

	Knowledge intelligence	**Team creativity**	**cooperative behavior**	**emotional intelligence**	**exchange of information**	**shared decision making**	**social capital**
Knowledge intelligence	0.592						
Team creativity	0.821	0.827					
cooperative behavior	0.357	0.208	0.781				
emotional intelligence	0.781	0.398	0.433	0.637			
exchange of	0.325	-0.031	0.275	0.632	0.767		

information							
shared decision making	0.200	0.006	0.188	0.320	0.631	0.646	
social capital	0.858	0.529	0.269	0.615	0.296	0.208	0.686

4.2 Description results

The researchers analyzed the data using the SPSS statistical program, obtaining arithmetic means and standard deviations for several questionnaire items to provide a comprehensive picture of the degree of agreement among the research sample participants. The values of the arithmetic means and standard deviations can be viewed here: The results of the questionnaires were presented and analyzed for the responses of the research sample members regarding the variables (Karuniawati et al., 2022).

4.3 Statistical description (Knowledge intelligence)

Table 2. Values of arithmetic means and standard deviations of the independent variable

	Paragraph	standard deviation	arithmetic mean	Importance ratio
First: Social capital				
1	Do you think social capital helps integrate people into an organization?	**1.29**	**3.44**	**3**
2	Does your company use social capital ideas to integrate management processes with employee actions?	**1.47**	**3.52**	**2**
3	Does interaction and cooperation between employees help improve the work environment?	**1.26**	**3.90**	**1**
Second: Emotional intelligence				
4	Do the elements of emotional intelligence help in shifting from negative feelings to positive ones depending on the circumstances?	**1.30**	**3.88**	**1**
5	Do you think that emotional intelligence factors help enhance the attractiveness of human resources in an organization?	**1.48**	**3.60**	**2**
6	Can emotional intelligence determine company members' priorities? Third: Team Creativity	**1.34**	**2.94**	**3**
Third: Team creativity				
7	Does team collaboration help enhance actions and events associated with the use of strategies?	**1.36**	**3.66**	**2**
8	Can the creativity of the company's work team enable it to excel in its products?	**1.23**	**3.78**	**1**
9	Do you think that work teams contribute to resolving conflicts and problems?	**1.30**	**3.14**	**3**

Arithmetic means and standard deviations of sample responses based on a five-point Likert scale for the independent variable, Knowledge intelligence. The first component, social capital, scored the highest (3), with an arithmetic mean of 3.90, a standard deviation of 1.26, and a high response rate. This indicates that employees prioritize communication and collaboration in improving the work environment, demonstrating the presence of a strong collaborative culture in the company. The lowest item received a score of (1), with a mean of 3.44 and a standard deviation of 1.29, indicating an average response rate. This may indicate that the function of social capital in assimilation within the organization

is less distinct than its role in improving the work environment of employees. The second component, emotional intelligence, scored the highest at (4), with a mean of 3.88, a standard deviation of 1.30, and a high response rate. This confirms that emotional intelligence is an effective tool for regulating and changing negative emotions based on circumstances, thereby enhancing employees' psychological well-being. The lowest item was (6), with a mean of 2.94, a standard deviation of 1.34, and an average response rate, indicating that emotional intelligence is insufficiently used in determining members' priorities, and its function in this regard remains unclear. Regarding the third dimension, team creativity, the item with the highest score was (8), with a mean of 4.06, standard deviation of 1.23, and high response rate. This result demonstrates a strong belief in the importance of teamwork. To achieve product quality, indicating a belief in collaboration as a critical element of success. Item (9) had the lowest value, with an arithmetic mean of 3.14, a standard deviation of 1.30, and a moderate response rate. This may indicate a deficiency in utilizing work teams to resolve conflicts or that their effectiveness in this regard is insufficient.

4.4 Statistical description (behavioral integration)

Table 3. Values of arithmetic means and standard deviations of the dependent variable

	Paragraph	standard deviation	arithmetic mean	Importance ratio
First: Exchange of information				
10	In order to achieve the desired goals, the company's employees and managers are keen to exchange information and knowledge.	**1.29**	**3.40**	**2**
11	Company strategies and policies are subject to change, and employees and managers exchange information about these changes.	**1.34**	**3.14**	**3**
12	Innovative and innovative ideas that contribute to the company's performance are generated through discussions among company members..	**1.06**	**3.62**	**1**
Second: Joint decision-making				
13	Decisions that contribute to achieving goals are made and implemented by company members.	**1.39**	**3.18**	**2**
14	All team members are encouraged to participate in discussions regarding their opinions, and none are ignored.	**1.32**	**3.28**	**1**
15	Member participation in the decision-making process is a substantive issue, not a formal one.	**1.46**	**2.98**	**3**
Third: Cooperative behavior				
16	A company member gets help from others when he is busy.	**1.29**	**3.60**	**1**
17	The company's team members enjoy the freedom that makes their work easier.	**1.38**	**2.92**	**3**
18	In order to come up with innovative ideas during crises, team members in the organization collaborate really well.	**1.33**	**3.06**	**2**

Table 3 shows the means and standard deviations of the sample responses based on the five-point Likert scale for the dependent variable, behavioral integration (BI). The first dimension, information exchange, as shown in paragraph (12), had the highest mean score of 3.62, a standard deviation of 1.06, and a significant response score. The lowest-scoring item was paragraph (11), which had a mean of 3.14, a standard deviation of 1.34, and a medium response score. This may indicate insufficient communication between management and employees regarding strategic changes or a lack of clarity in the methods used to convey information. The second dimension, shared decision-making, showed the highest score,

as shown in paragraph (14), with a mean of 3.28, a standard deviation of 1.32, and a medium-response score. The results indicate that the organizational environment promotes participation in discussions; however, the mean indicates that this encouragement does not consistently have a tangible impact on the decision-making process. Item (15) showed the lowest value with a mean of 2.98. The standard deviation of 1.46, along with the average response score, indicates that participation in decision-making may often be formal, with employees' opinions not being considered. The third dimension, cooperative behavior, represents item (16), which has a mean of 3.60, a standard deviation of 1.29, and a high response. The results indicate effective cooperation among employees during high-pressure situations, thereby demonstrating team cohesion. The lowest item was item (17), with a mean of 2.92, a standard deviation of 1.38, and an average response score. A low mean score may indicate restrictions on employee autonomy or a rigid organizational structure that restricts performance flexibility.

4.5 R2 criterion

The R2 criterion indicates the influence of an external variable on the internal variable. The values 0.19, 0.33, and 0.67 are considered standard values for weak, medium, and strong R2 values, respectively. The R2 values for cooperative behavior (0.127), information exchange (0.106), and shared decision-making (0.040) show weak effects of these variables on the internal variables of the model.

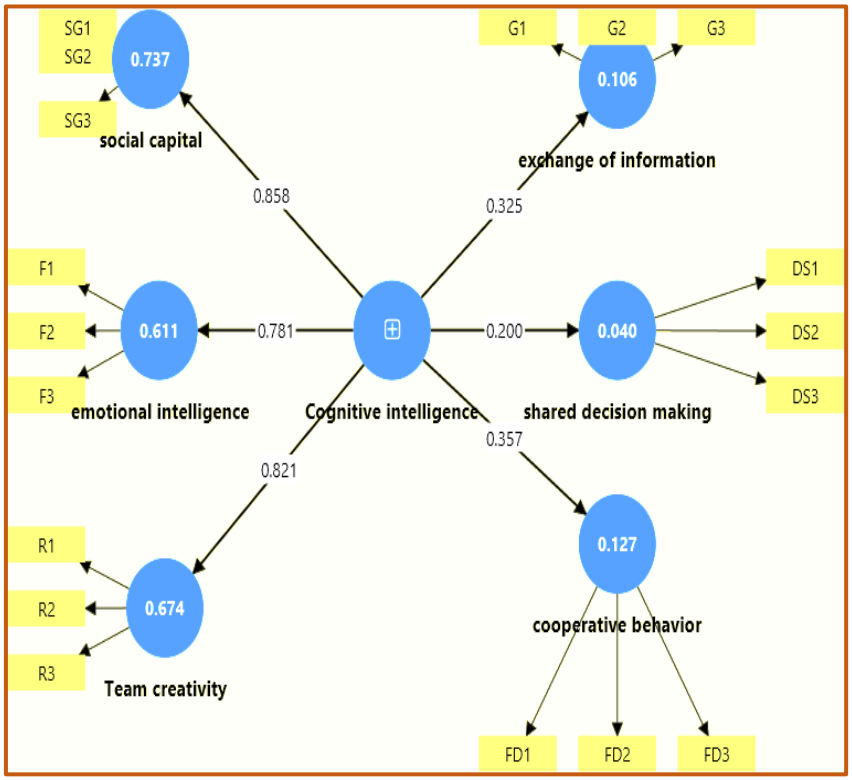

Figure 1. Significance coefficients of the structural equation model for the research

Table 4. R2 Values

	R-square	R-square adjusted
exchange of information	0.106	0.671
Shared decision making	0.127	0.118
cooperative behavior	0.040	0.607

4.6 Statistically Significant Z-Coefficients

In connection with the Model Paths, The T-coefficients for the pathways were calculated and are shown in Figure (1) below. It is evident that all the model's routes have T-coefficients higher than 1.96, and all apparent correlations are significant at the 0.000 level. As a result, we embrace any theory that relates knowledge intelligence to the behavioral integration aspects of senior management teams.

Table 5. Z-coefficients and critical path

	Original sample (O)	Sample mean (M)	Standard deviation (STDEV)	T statistics (|O/STDEV|)	P values	Decision
Knowledge intelligence -> cooperative behavior	0.357	0.380	0.087	4.110	0.000	Supported
Knowledge intelligence -> Shared decision making	0.200	0.786	0.048	16.343	0.000	Supported
Knowledge intelligence -> exchange of information	0.325	0.340	0.084	3.885	0.000	Supported

4.7 Discussion - Practical Implications

The study showed that knowledge intelligence is strongly and positively associated with improved behavioral integration within work teams, with both emotional intelligence and social capital playing a pivotal role in enhancing this integration. For example, companies where managers possess high levels of emotional awareness have demonstrated a greater ability to manage conflict and foster collaboration compared to teams that rely solely on abstract analytical skills. However, this relationship does not operate in isolation from the organizational contexts. The results revealed that participation in decision-making is often formal and insubstantial, limiting the impact of Knowledge intelligence on strategic outcomes.

Although individuals with high knowledge skills generate innovative ideas that contribute to improved performance (as demonstrated by survey items related to creativity), these ideas rarely translate into actual decisions due to centralized power structures or the lack of clear mechanisms for incorporating employee opinions. For example, at one of the technology companies surveyed, employees demonstrated high levels of creativity in brainstorming sessions, but their ideas were not implemented because of bureaucratic decision-making.

The results also highlight that organizational culture significantly impacts the effectiveness of behavioral integration. Lack of transparency in organizations results in poor communication regarding strategic changes, which in turn causes resistance to change and a decline in team trust. Conversely, even in the absence of explicit rewards, people were more inclined to assist their coworkers in times of need in organizations that adopted a collaborative culture, demonstrating that the organizational setting can either strengthen or lessen the influence of individual abilities on performance. This study provides deep insights into the intricate connection between behavioral integration in work teams and knowledge intelligence. This proves that this relationship is shaped by the dynamic interaction of several factors rather than functioning in a vacuum. In the absence of a supportive organizational environment, high knowledge abilities—while crucial for processing complex information and coming up with creative ideas—do not always translate into behavioral cohesion.

One interesting feature that emerges in this situation is the distinction between formal and substantive participation in decision making. Although many firms employ people with great analytical abilities and innovative ideas, their influence on strategic decisions is still minor. This discrepancy can be attributed to the hidden power dynamics that occur in organizations, where participation processes can sometimes become organizational rituals intended to enhance reputation without really changing the allocation of decision-making authority. Emotional intelligence is a crucial element in this regard. Teams with high emotional awareness were found to be able to maintain unity under pressure and during crises, manage conflicts over priorities constructively, and transform heated discussions into opportunities for mutual learning through an analysis of daily interactions within work teams. These results are consistent with what we see in the world's best teams, who recognize that intelligence alone is insufficient without interpersonal skills to achieve success.

However, without a supportive company culture, even these skills are only partially successful. Regardless of individual skill levels, some firms' strict hierarchical structures and vertical communication impede sincere attempts at behavioral integration. In contrast, we observe how informal communication networks and clever incentive schemes in open-culture organizations translate individual talent into group accomplishments. It has been demonstrated that an overemphasis on personal financial incentives can backfire, which is where the incentive paradox comes into play. These incentives have occasionally resulted in the "tunnel phenomenon," where people only concentrate on their limited personal objectives, eroding the collaborative and integrated spirit that the organization as a whole requires. These findings are especially significant given the swift organizational changes occurring in today's business environment, such as hybrid work and digital transformation.

Building cohesive teams is now a strategic requirement for survival in a complex and volatile market, not just a desirable management skill. To achieve this, an integrated strategy that incorporates skill development for individuals, redesigning the organizational structure, and creating a genuinely collaborative culture must be implemented. This study shows that effective behavioral integration results from a complex web of interactions between organizational structures, incentive programs, cultural values, and knowledge and emotional capacities. Organizations can only attain the delicate balance between individual effectiveness and collective cohesion that defines high-performance teams by comprehending and deliberately managing these intricate interactions.

5. Conclusions

Multidisciplinary efforts are ongoing, and we still need to develop the abilities required for the current ecosystem. In light of this, it is essential to design flexible DJ programs that require real-world examples and experiential learning so that students can monitor the development of their event management skills and self-awareness. When faced with scenarios that challenge the demands of daily chores and complex difficulties, they become more skilled at maintaining equilibrium in difficult circumstances, which improves the team's ability to work efficiently.

In the era of "Human Resource Cyborgs,"where people combine their human skills with smart technologies such as artificial intelligence and creative analytics, the development of these skills becomes more urgent. Technology cannot replace the human atom, with its effort requiring a flexible organizational culture that supports human-to-human interaction. For example, AI systems can analyze team dynamics and call for action, but the commitment remains within the leading team to advance interactive intelligence that understands and applies these analyses.

It is also necessary to expand the scope of scientific research to include the study of influencing factors, as culture is a pivotal part of healthcare or disability as part of behavior. The new culture of cooperation, with its new freedom and collaboration, is a special set for collective action to flourish while allowing hidden conflicts to strengthen cooperation. The "cyber human resource" agreement becomes more final and fair, as digital incentives (such as blockchain-based rewards) must be integrated with traditional and effective incentives for technologically advanced employees.

Regarding party building, adopting more inclusive approaches, such as establishing decentralized communication channels and inventing methods for establishing a cycle, ensures broad participation in various business activities. This is a result of the findings of "cyber leadership," where artificial intelligence concepts have emerged to see the thoughts of all individuals, while the human role remains important in transforming these democracies into an effective balance between the two. Cyber mediation systems can be a pivotal component in conflict management. Analyzing programs for anonymous conflicts quickly identifies the underlying causes; however, solutions still rely on human skills in communication and empathy. Hence, there is a need for multi-programs that combine human skills with advanced technology.

Finally, within the framework of future studies, the impact of cyber transformation on behavioral integration could be explored, such as:

1. How can computer-based interfaces (BCIs) facilitate communication among team members?

2. What is the role of virtual reality in building virtual teams?
3. How can incentive systems be designed to support digital collaboration in hybrid work environments?

In conclusion, these recommendations represent a roadmap for the future of "cyber HR," where modern human integration becomes an important technological factor for creating empowered teams capable of innovation in an increasingly complex work environment.

References

Afriyani, N., Indrayani, I., Indrawan, M. G., Wibisono, C., & Ngaliman, N. (2023). The influence of training, discipline, and innovation on the performance of members of the Regional National Crafts Council (Dekranasda) in Tanjungpinang City: A quantitative study. *Journal of Multidisciplinary Academic Business Studies, 1*(1), 53-69. doi:https://doi.org/10.35912/jomabs.v1i1.1780

Al-Musawi, M. R. M. (2023). The Role of Knowledge Makers in Building Ingenious Organizations' Capabilities *Czech Journal of Multidisciplinary Innovations, 22*, 1-13.

Al-Sakarneh, B. K. (2019). The impact of job competencies to achieve team work collaboration: Evidence from Jordanian firms. *Management science letters, 9*(13), 2181-2190.

Attar, K., Demey, H., Bouazza, D., & Sastre, A. M. (2019). Sorption and desorption studies of Pb (II) and Ni (II) from aqueous solutions by a new composite based on alginate and magadiite materials. *Polymers, 11*(2), 340. doi:https://doi.org/10.3390/polym11020340

Azeez, R. T. (2024). The Impact of Effective Coaching on Sales Performance Mediated by the Role of Soft Skills in the Tourism Industry. *Journal of Ecohumanism, 3*(7), 3045-3057. doi:https://doi.org/10.62754/joe.v3i7.4703

Barraza, R. (2018). *Leadership and Behavioral Integration: Leader's Influence and Team's Behavioral Integration in Modern Organizations*: Our Lady of the Lake University.

Bayne, T., Brainard, D., Byrne, R. W., Chittka, L., Clayton, N., Heyes, C., . . . Suddendorf, T. (2019). What is cognition? *Current biology, 29*(13), R608-R615. doi:https://doi.org/10.1016/j.cub.2019.05.044

Coetzer, G. H. (2016). Emotional versus Cognitive Intelligence: Which is the better predictor of Efficacy for Working in Teams? *Journal of Behavioral and Applied Management, 16*(2).

Du, J., Chan, L. B., Birnbaum, A., & Lin, X. (2022). Learning within teams: a multilevel analysis of team behavioral integration and creativity. *Small Group Research, 53*(2), 274-306. doi:https://doi.org/10.1177/10464964219894l5

Endi, A. C., Fanggidae, R. E., & Ndoen, W. M. (2023). The effect of religiosity and spirituality on financial behavior district. *Journal of Multidisciplinary Academic and Practice Studies, 1*(1), 45-53. doi:https://doi.org/10.35912/jomaps.v1i1.1455

Gabbay, S. M., & Leenders, R. T. A. (1999). *Corporate social capital and liability*: Kluwer Academic.

Gilar-Corbí, R., Pozo-Rico, T., Sánchez, B., & Castejón, J. L. (2018). Can emotional competence be taught in higher education? A randomized experimental study of an emotional intelligence training program using a multimethodological approach. *Frontiers in psychology, 9*, 1039. doi:https://doi.org/10.3389/fpsyg.2018.01039

Goyal, A., & Akhilesh, K. (2007). Interplay among innovativeness, cognitive intelligence, emotional intelligence and social capital of work teams. *Team Performance Management: An International Journal, 13*(7/8), 206-226. doi:https://doi.org/10.1108/13527590710842538

Greaves, C. (2019). Emotional, Social and Cognitive Intelligence. *IIBM'S Journal of Management Research*, 26-35. doi:https://doi.org/10.33771/iibm.v4i1-2.144

Hayatbini, N., Knauft, K., & Kalia, V. (2021). Cognitive reappraisal moderates the relationship between perfectionism and cognitive flexibility. *Journal of Clinical Psychology, 77*(7), 1685-1699. doi:https://doi.org/10.1002/jclp.23124

Hopkins, M. M., & Yonker, R. D. (2015). Managing conflict with emotional intelligence: Abilities that make a difference. *Journal of management development, 34*(2), 226-244. doi:https://doi.org/10.1108/JMD-04-2013-0051

Hoshi, H. N., Ibrahim, H. A., Al-Musawi, M. R., & Mustafa, A. A. (2024). The impact of transformational leadership and workplace bullying on service quality. *Manuscript in preparation*.

Karuniawati, H., Sari, N., Hossain, M. S., Ismail, W. I., Haq, A. H. B., Yulianti, T., . . . Sudarsono, G. R. (2022). Assessment of Mental Health and Quality of Life Status of undergraduate students in Indonesia during COVID-19 outbreak: a cross-sectional study. *International journal of environmental research and public health, 19*(19), 12011. doi:https://doi.org/10.3390/ijerph191912011

Latunusa, P. M., Timuneno, T., & Fanggidae, R. E. (2023). The effect of multiple role conflict and work stress on the performance of women nurses during the covid-19 with coping stress as intervening variables (Study at SoE Regional General Hospital). *Journal of Multidisciplinary Academic and Practice Studies, 1*(1), 29-43. doi:https://doi.org/10.35912/jomaps.v1i1.1462

Leunbach, D., Erikson, T., & Rapp-Ricciardi, M. (2020). Muddling through Akerlofian and Knightian uncertainty: The role of sociobehavioral integration, positive affective tone, and polychronicity. *Journal of International Entrepreneurship, 18*(2), 145-164. doi:https://doi.org/10.1007/s10843-019-00255-2

Luo, B., Zheng, S., Ji, H., & Liang, L. (2018). Ambidextrous leadership and TMT-member ambidextrous behavior: the role of TMT behavioral integration and TMT risk propensity. *The InTernaTIonal Journal of human resource management, 29*(2), 338-359. doi:https://doi.org/10.1080/09585192.2016.1194871

Mayer, J. D., Caruso, D. R., & Salovey, P. (1999). Emotional intelligence meets traditional standards for an intelligence. *Intelligence, 27*(4), 267-298. doi:https://doi.org/10.1016/S0160-2896(99)00016-1

Mayer, J. D., Perkins, D. M., Caruso, D. R., & Salovey, P. (2001). Emotional intelligence and giftedness. *Roeper review, 23*(3), 131-137. doi:https://doi.org/10.1080/02783190109554084

McEwan, D., Ruissen, G. R., Eys, M. A., Zumbo, B. D., & Beauchamp, M. R. (2017). The effectiveness of teamwork training on teamwork behaviors and team performance: a systematic review and meta-analysis of controlled interventions. *Plos one, 12*(1), e0169604. doi:https://doi.org/10.1371/journal.pone.0169604

Mogård, E. V., Rørstad, O. B., & Bang, H. (2022). The relationship between psychological safety and management team effectiveness: the mediating role of behavioral integration. *International journal of environmental research and public health, 20*(1), 406. doi:https://doi.org/10.3390/ijerph20010406

Mohrman, S. A., Cohen, S. G., & Morhman Jr, A. M. (1995). *Designing team-based organizations: New forms for knowledge work*: Jossey-Bass.

Muliyanto, M., Indrayani, I., Satriawan, B., Ngaliman, N., & Catrayasa, I. W. (2023). The influence of competence, motivation, and work culture on employee performance through self-efficacy as an intervening variable for medical support employees Regional General Hospital Tanjungpinang City. *Journal of Multidisciplinary Academic Business Studies, 1*(1), 1-12. doi:https://doi.org/10.35912/jomabs.v1i1.1777

Paris, C. R., Salas, E., & Cannon-Bowers, J. A. (2000). Teamwork in multi-person systems: a review and analysis. *Ergonomics, 43*(8), 1052-1075. doi:https://doi.org/10.1080/001401300500848 79

Park, J. (2017). *How does employee empowerment contribute to higher individual and workgroup performance? An empirical assessment of a trickle-down model in law enforcement agencies in Ohio.* The Ohio State University.

Park, Y. S., Konge, L., & Artino Jr, A. R. (2020). The positivism paradigm of research. *Academic medicine, 95*(5), 690-694. doi:https://doi.org/10.1097/acm.0000000000003093

Putra, M. F., Ahadiyat, A., & Keumalahayati, K. (2023). The influence of leadership style on performance with motivation as mediation (study on employees of Metro City Trade Services during pandemi). *Journal of Multidisciplinary Academic and Practice Studies, 1*(1), 15-27. doi:https://doi.org/10.35912/jomaps.v1i1.1536

Radomir, L., & Moisescu, O. I. (2020). Discriminant validity of the customer-based corporate reputation scale: Some causes for concern. *Journal of Product & Brand Management, 29*(4), 457-469. doi:https://doi.org/10.1108/JPBM-11-2018-2115

Rosenkranz, C., & Wulf, T. (2019). Behavioral integration as a relational governance mechanism in family firms—The moderating role of family involvement in management. *Journal of Small Business Management, 57*(3), 801-819.

Sari, R. K., Sutiadiningsih, A., Zaini, H., Meisarah, F., & Hubur, A. (2020). Factors affecting cognitive intelligence theory. *Journal of Critical Reviews, 7*(17), 402-410.

Shabbir, M. Q., Khalid, W., & Ali, M. H. (2016). Organizational Intelligence and Employee Performance: The Mediating Role of Distributive Justice. *Information Management and Business Review, 8*(5). doi:https://doi.org/10.22610/imbr.v8i5.1458

Siachou, E., Trichina, E., Papasolomou, I., & Sakka, G. (2021). Why do employees hide their knowledge and what are the consequences? A systematic literature review. *Journal of business research, 135*, 195-213. doi:https://doi.org/10.1016/j.jbusres.2021.06.031

Smith, M. L. (2006). Social capital and intentional change: Exploring the role of social networks on individual change efforts. *Journal of management development, 25*(7), 718-731. doi:https://doi.org/10.1108/02621710610678517

Timberlake, S. (2005). Social capital and gender in the workplace. *Journal of management development, 24*(1), 34-44. doi:https://doi.org/10.1108/02621710510572335

Tseng, F.-M., Jade, N. B. N., Weng, H.-H. R., & Lu, F.-Y. (2024). Effects of team diversity, emergent leadership, and shared leadership on team performance in a multi-stage innovation and creativity crowdsourcing competition. *The International Journal of Management Education, 22*(2), 100948. doi:https://doi.org/10.1016/j.ijme.2024.100948

Wang, G., Locatelli, G., Wan, J., Li, Y., & Le, Y. (2021). Governing behavioral integration of top management team in megaprojects: A social capital perspective. *International Journal of Project Management, 39*(4), 365-376. doi:https://doi.org/10.1016/j.ijproman.2020.11.005

Wang, X., & Cheng, Z. (2020). Cross-sectional studies: strengths, weaknesses, and recommendations. *Chest, 158*(1), S65-S71. doi:https://doi.org/10.1016/j.chest.2020.03.012

Wasko, M. M., & Faraj, S. (2005). Why should I share? Examining social capital and knowledge contribution in electronic networks of practice. *MIS quarterly*, 35-57. doi:https://doi.org/10.2307/25148667

Xiaobao, P., Rui, G., Jiewei, Z., & Xiaofan, S. (2022). The impact of resource bricolage on entrepreneurial orientation in start-ups: the moderating roles of TMT heterogeneity and TMT behavioral integration. *Frontiers in psychology, 13*, 900177. doi:https://doi.org/10.3389/fpsyg.2022.900177

Zhang, X., & Kwan, H. K. (2019). Team behavioral integration links team interdependence with team performance: an empirical investigation in R&D teams. *Frontiers of Business Research in China, 13*(1), 7. doi:https://doi.org/10.1186/s11782-019-0054-1