

Managerial Competencies as Causal Mechanisms of Performance: Development and Empirical Validation of an Integrated Model.

الكفاءات الإدارية كآليات سببية تؤثر في الأداء: تطوير نموذج متكامل والتحقق من صحته تجريبيًا

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Received: 20/03/2026

Accepted: 06/06/2026

Published: 01/07/2026

Abstract:

This study develops and empirically validates an integrated model for evaluating managerial performance based on a competency-centered approach. Drawing on a framework linking competencies, behaviors, decisions, and outcomes, it examines executive performance within the industrial group DIVINDUS MCM using a mixed-methods design combining financial and operational Key Performance Indicators (KPIs), performance contracts, qualitative analyses, and 360-degree evaluations.

Findings show that managerial performance is significantly driven by strategic, operational, and behavioral competencies. The study highlights the value of a multidimensional evaluation model integrating results, competencies, and stakeholder perceptions, providing a more reliable assessment of managerial effectiveness.

It contributes by proposing a holistic and operational model bridging competency-based approaches and performance measurement systems, with practical implications for governance, leadership evaluation, and managerial development, while outlining directions for future research

JEL Classification Codes :M12, M10, D23, L20

ملخص:

تهدف هذه الدراسة إلى تطوير واختبار نموذج متكامل لتقييم الأداء الإداري قائم على مقارنة متمركزة حول الكفاءات. ومن خلال إطار مفاهيمي يربط بين الكفاءات والسلوكيات والقرارات والنتائج، تقوم الدراسة بتحليل أداء القيادات في المجموع الصناعي DIVINDUS MCM باستخدام منهجية مختلطة تجمع بين مؤشرات الأداء المالية والتشغيلية، عقود الأداء، التحليلات النوعية، وتقييم 360 درجة.

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تُظهر النتائج أن الأداء الإداري يتأثر بشكل كبير بالكفاءات الاستراتيجية والتشغيلية والسلوكية. كما تؤكد الدراسة أهمية نموذج متعدد الأبعاد يدمج بين النتائج والكفاءات وتصورات الأطراف المعنية، مما يوفر تقييماً أكثر دقة وموثوقية لفعالية الإدارة. وتسهم الدراسة في تقديم نموذج شامل وقابل للتطبيق يربط بين مقارنة الكفاءات وأنظمة قياس الأداء، مع إبراز انعكاساته على الحوكمة وتقييم القيادة وتطوير الكفاءات الإدارية، إضافة إلى اقتراح آفاق بحثية مستقبلية.

I. INTRODUCTION

Organizational performance represents one of the central challenges of contemporary management, particularly within complex industrial organizations where the multiplicity of functions, the geographical dispersion of units, and the diversity of stakeholders make strategic management especially demanding. In this context, traditional evaluation tools—primarily focused on financial indicators, productivity ratios, or goal attainment—are increasingly insufficient to capture the actual effectiveness of managerial action. Structural, technological, and institutional transformations characterizing public and semi-public enterprises, particularly in emerging environments, further reinforce the need to adopt more holistic approaches that are sensitive to the human and behavioral dimensions of performance.

Over the past decade, the academic literature has highlighted a paradigm shift in performance evaluation: performance is no longer viewed solely as a measurable outcome, but rather as a dynamic process influenced by competencies, managerial practices, governance mechanisms, compliance with standards, and the ability to mobilize organizational resources efficiently (Kaplan & Norton, 2004; Prahalad & Hamel, 1990; Bourguignon, 2017). Within this framework, the competency-based approach has emerged as a major strategic lever. It enables the integration of technical, behavioral, and strategic dimensions of executive roles by directly linking mobilized competencies to observed outcomes. However, despite the richness of existing research, the literature highlights several limitations: fragmentation of models, limited integration of qualitative and quantitative data, lack of operational frameworks applicable in real-world contexts, and a shortage of case studies within industrial environments in the MENA region.

It is within this context that the present research is situated. It is driven by a dual ambition both scientific and managerial. From a scientific perspective, the objective is to propose an integrated model for evaluating executive performance based on a competency-centered approach, combining financial results, goal achievement, leadership analysis, 360-degree evaluation, and the assessment of key competencies. From a managerial perspective, the study aims to provide a decision-support tool enabling industrial organizations to better manage their executives and improve the reliability of their governance and performance management systems.

To validate this model, the article draws on an in-depth case study conducted within DIVINDUS MCM, a multidisciplinary industrial group composed of several units specialized in diverse activities (metallurgy, mechanical processes, industrial services, etc.). This setting constitutes a relevant field of observation, as it combines high structural diversity, consolidated data derived from performance contracts, an explicit commitment to professionalizing managerial evaluation, and a real context of organizational transformation.

Based on these considerations, the central research question of this article can be formulated as follows: **How can an integrated and rigorous model for evaluating managerial performance—based on a competency-centered approach—be designed and implemented in order to reliably and multidimensionally assess the actual contribution of executives within a complex industrial organization?**

To address this research question, the study pursues four specific objectives: to analyze the limitations of traditional executive evaluation models; to formalize a conceptual model integrating competencies, results, and managerial practices; to empirically test this model within a real organizational setting; and to formulate operational recommendations to improve performance management systems.

The contributions of this research are multiple. From a theoretical perspective, it enriches the literature by proposing an original articulation between overall performance, competency-based management, and 360-degree evaluation systems. From a methodological standpoint, it offers a replicable model integrating both quantitative and qualitative data. From a managerial perspective, it provides executives with an evaluation tool that enables more objective, equitable, and strategic decision-making.

The article is structured as follows: the first section presents a review of the literature on organizational performance, executive evaluation, and competency-based approaches. The second section outlines the conceptual

framework and research hypotheses. The third section describes the methodology and the research setting. The fourth section presents and discusses the results, while the fifth section offers a general discussion, managerial implications, limitations, and directions for future research.

II. LITERATURE REVIEW

The literature on organizational performance and executive evaluation has undergone significant evolution over recent decades. Initially focused on financial outcomes, it has progressively expanded to incorporate behavioral, cognitive, and organizational dimensions, to the point where performance is now viewed as a multidimensional system in which managerial competencies constitute a key determinant. This literature review successively examines the evolution of organizational performance approaches, executive evaluation models, the competency-based approach as a foundation for renewed evaluation practices, and the identified limitations that justify the integrated model proposed in this research.

II.1. Organizational Performance: Evolution of Theoretical Approaches

II.1.1. Classical Approaches: Effectiveness, Efficiency, and Financial Performance

The theoretical foundations of organizational performance originate in classical management theory. Henri Fayol (1916) conceptualizes performance as the ability “to manage effectively,” through a rational division of labor and a clearly defined hierarchical structure. Peter Drucker (1954) introduced the now-classical distinction between effectiveness (“doing the right things”) and efficiency (“doing things right”).

Within this perspective, performance is primarily measured through quantitative indicators such as productivity, costs, ROI (Return on Investment), ROE (Return on Equity), and margins. Alfred Chandler (1962) further reinforced this view by arguing that performance results from the alignment between strategy and structure.

While these approaches have provided an essential foundation, they nonetheless reduce performance to a strictly outcome-based perspective, overlooking human processes, managerial behaviors, and the competencies mobilized in decision-making.

II.1.2. Contemporary Approaches: Global Performance and the Balanced Scorecard

In response to the limitations of purely financial approaches, Robert Kaplan and David Norton (1992, 1996) developed the Balanced Scorecard (BSC), which conceptualizes performance as a system structured around

four dimensions: Financial, Customer, Internal Processes, and Organizational Learning and Competencies.

According to Robert Kaplan and David Norton (2004), sustainable performance requires effective competency management, continuous learning capability, and coherent strategic alignment.

This approach paves the way for the concept of global performance, integrating stakeholder satisfaction, quality, innovation, human capital, and strategic alignment. Other scholars, such as Andy Neely, Chris Adams, and Mike Kennerley (2002), confirm this shift toward a multidimensional understanding of performance.

II.1.3. Dynamic Perspectives: Organizational Capabilities and Governance

More recent approaches adopt a dynamic and systemic view of performance. David Teece (2014) introduced the theory of *dynamic capabilities*, according to which performance depends on the organization's ability to sense, mobilize, and reconfigure its resources.

Karl Weick (2001) emphasizes the importance of social processes, organizational culture, and interactions. Henry Mintzberg (2009) highlights the reality of managerial work, demonstrating that executives' day-to-day behaviors directly influence collective performance.

These contributions converge toward a key insight: performance can no longer be assessed without evaluating managerial competencies, behaviors, and the capacity for action.

II.2. Executive Evaluation: Models, Challenges, and Limitations

II.2.1. Results-Oriented Approaches: A Partial View of Managerial Performance

Historically, executives have been evaluated based on quantifiable results such as margins, productivity, costs, and performance contract achievement rates (Merchant & Van der Stede, 2007).

As emphasized by Henri Bouquin (2010), this approach presents major biases: results may be influenced by contextual factors (market conditions, equipment, resource allocation); they do not accurately reflect the executive's actual competencies; and they fail to account for leadership, vision, or team management. Consequently, this predominantly accounting-based evaluation lacks explanatory depth.

II.2.2. Behavioral Approaches: Leadership and Psychosocial Dimensions: Behavioral models have enriched the field by incorporating the human dimension. Rensis Likert (1961) identified leadership styles that influence collective performance; Bernard Bass (1985) introduced transformational leadership; and Daniel Goleman (2000) demonstrated the

critical role of emotional intelligence (empathy, motivation, self-regulation, etc.) in managerial effectiveness.

While these models provide essential insights, their main limitation lies in their lack of operationalization and quantification, particularly within complex industrial organizations.

II.2.3. Multi-Source Evaluations (180°, 360°): A More Comprehensive but Imperfect View

Multi-source (360-degree) evaluation systems provide a richer and more multidimensional assessment (Lepsinger & Lucia, 2009). They help identify strengths, weaknesses, blind spots, and managerial perceptions. However, as noted by David Antonioni (1996) and Leanne Atwater (2007), these models remain vulnerable to several limitations, including cultural biases, halo effects, leniency bias, and limited comparability. They should therefore be combined with objective performance indicators.

II.2.4. Managerial Value Added: Toward a Contribution-Based Evaluation: Recent studies (Morin, 2016; Dave Ulrich & Wayne Brockbank, 2017) introduce the concept of *managerial value added*, defined as the executive's actual contribution to overall organizational performance. This approach integrates strategic contribution, decision quality, team mobilization, and competency management, thereby directly paving the way for a competency-based perspective.

II.3. The Competency-Based Approach: Foundations, Models, and Contributions

II.3.1. Conceptual Definition of Competency: According to Guy Le Boterf (2002), competency is a dynamic combination of knowledge, skills, attitudes, and adaptive capacity. Richard Boyatzis (1982, 2008) empirically demonstrated that competencies predict individual performance in real-world contexts.

Competencies are contextual, observable, measurable, and mobilized in action.

II.3.2. Competency-Based Management Models: The main models include the *input–process–output* model (Lawler, 1996), occupational competency frameworks (Zarifian, 1999), and multilevel models (Chiva & Alegre, 2009). All converge toward a central principle: sustainable performance relies on the coherent mobilization of key competencies.

II.3.3. Contributions of the Competency-Based Approach to Managerial Evaluation: The competency-based approach enables:

- The understanding of the causal mechanisms of performance;

- The articulation of behaviors, decisions, and outcomes (Ulrich, 2015);
- The anticipation of future performance (Boyatzis, 2008);
- The overcoming of the limitations of results-based approaches.

It thus provides a robust explanatory framework.

II.3.4. Current Limitations and Justification for the Integrated Model: Despite the richness of existing research, the literature presents several major limitations that justify the development of the integrated model proposed in this article:

a. Weak linkage between competencies and quantitative results: Empirical studies highlight persistent difficulties in directly linking managerial competencies to financial and operational indicators (Bartram, 2005). This lack of articulation limits the explanatory power of existing models.

b. Non-standardized evaluation tools: Current approaches often rely on heterogeneous tools that are difficult to compare and rarely scientifically validated, thereby reducing their reliability and transferability.

c. Limited empirical applications in non-Western industrial contexts: Most existing studies originate from Western countries, leaving a methodological gap for industrial environments in the MENA region, where managerial and organizational dynamics differ (Campion, 2011).

d. Limitations of models focused exclusively on results: Approaches centered on contractual or financial performance fail to capture the executive's actual contribution, which is influenced by contextual factors, available resources, and organizational structure.

e. Difficulty in measuring behavioral models: Behavioral and leadership-based approaches, while conceptually rich, remain difficult to operationalize and quantify, thereby limiting their usefulness in industrial organizations.

f. Limited operationalization of competency-based approaches: Although theoretically robust, competency-based approaches often remain disconnected from performance management tools and require integration with performance indicators to be fully actionable.

g. Absence of truly integrated models: No existing model simultaneously combines managerial competencies, leadership, financial and operational KPIs, 360-degree evaluations, and contractual compliance. This absence constitutes a major gap in managerial evaluation systems.

These limitations highlight the need for a holistic model capable of integrating results, competencies, behaviors, and perceptions in order to assess managerial performance in a coherent, multidimensional, and

contextually relevant manner. This is precisely the objective of the integrated competency-based performance model developed in this article.

III. THEORETICAL AND CONCEPTUAL FRAMEWORK: This theoretical framework aims to articulate the conceptual foundations derived from the literature in order to construct an integrated competency-based performance evaluation model. It is built upon three pillars: the conceptualization of performance as a multidimensional system, the central role of managerial competencies in performance generation, and the integration of a synthetic model linking competencies, behaviors, decisions, and outcomes.

III.1. Conceptualizing Competency-Based Performance

III.1.1. From Static to Dynamic Performance: Contemporary literature has progressively moved away from a static view of performance—based solely on output measurement—toward a systemic and dynamic perspective. David Teece (2014) argues that organizational performance results from a firm's ability to mobilize, reconfigure, and renew its resources, particularly human resources.

This point is essential, as in complex organizations, observed results are the outcome of a managerial process rather than merely financial indicators.

Andy Neely et al. (2002) emphasize that performance should be defined simultaneously as a state (results), a process (practices and decisions), and a system (competencies, behaviors, and organizational capabilities). Within this framework, performance analysis can no longer be limited to ex post results; it must incorporate the causal variables that determine these outcomes, particularly the competencies mobilized.

III.1.2. The Role of Executives as a Driving Variable of Performance: Numerous studies confirm that the performance of a unit largely depends on the quality of its management. Henry Mintzberg (2009) emphasizes the actual role of executives in coordination, decision-making, and collective mobilization. Karl Weick (2001) explains that performance is produced through social interactions influenced by leadership, communication, and decision-making processes.

From this perspective, performance becomes a managerially constructed phenomenon.

Thus, the literature converges toward a major conclusion:

Evaluating performance without assessing managerial competencies amounts to measuring outcomes without understanding their underlying causes. This idea constitutes the core of the proposed model.

III.2. Competencies as Fundamental Determinants of Managerial Performance

III.2.1. Fundamental Definitions: According to Guy Le Boterf (2002), competency is the ability “to act effectively within a given professional situation” by simultaneously mobilizing knowledge (theoretical understanding), skills (technical abilities), attitudes (behavioral dispositions), and the capacity to act (contextual conditions and degrees of autonomy).

Richard Boyatzis (2008) complements this definition by demonstrating that competencies are reliable predictors of performance, as they are expressed through action and determine the quality of decision-making. Dave Ulrich (2015) further argues that managerial competency constitutes a strategic lever, as it directly influences team mobilization, execution speed, innovation, and the quality of outcomes.

III.2.2. Key Managerial Competencies in Industrial Organizations: The literature identifies five core categories of competencies essential for industrial executives:

1. **Strategic competencies:** vision, anticipation, and strategic alignment (Hamel & Prahalad, 1994).
2. **Operational competencies:** process mastery, resource management, and productivity optimization (Slack, 2013).
3. **Decision-making competencies:** analysis, problem-solving, and decision-making under constraints (Simon, 1997).
4. **Behavioral competencies:** communication, leadership, and emotional regulation (Goleman, 2000).
5. **Relational competencies:** coordination, negotiation, and stakeholder management (Mintzberg, 2009).

While each of these competencies is important individually, it is their combination that determines sustainable performance.

III.2.3. The Link Between Competencies and Performance: A Causal Logic: Empirical research demonstrates that competencies influence performance through a three-level mechanism: competencies shape behaviors; behaviors influence decisions and actions; and ultimately, decisions structure outcomes.

Thus, competency is not merely a personal attribute, but rather the driving force of managerial performance. This causal relationship justifies the integration of competencies into performance evaluation systems.

III.3. Development of the Integrated Conceptual Model

III.3.1. Model Logic: Linking Competencies – Practices – Decisions – Outcomes: The proposed conceptual model is based on a systemic logic articulated across four causal levels. It assumes that:

1. **Competencies constitute the foundation of the system:** they represent the executive's internal resources (strategic, operational, behavioral, and relational competencies) and form the explanatory basis of managerial action.
2. **Managerial practices and behaviors reflect the implementation of these competencies:** they include leadership, team management and mobilization, communication, influence capacity, as well as prioritization and decision arbitration.

These practices constitute the observable expression of the competencies mobilized by the manager within their work context.

3. **Decisions and operational processes represent the manager's direct impact:** these include structuring actions such as planning, resource allocation, activity coordination, problem-solving, and the management of contingencies. This level reflects the transition from competencies and behaviors to actual organizational action.
4. **Organizational outcomes constitute the final observable level:** they are measured through key performance indicators (KPIs), including financial results (e.g., ROAI), operational performance (productivity, quality, process continuity), and organizational performance (compliance, goal achievement, execution discipline). These outcomes embody the cumulative effect of the executive's competencies, practices, and decisions.

Thus, the model establishes an explicit link between outcomes and their managerial determinants, demonstrating that performance is not an isolated phenomenon but the result of a structured sequence of competencies, behaviors, decisions, and actions.

III.3.2. Integration of the 360-Degree Score into the Model: Foundations, Origins, and Conceptual Contribution: The 360-degree evaluation has become one of the most widely used tools for assessing managerial competencies in a multidimensional manner. It is based on the premise that managerial performance cannot be evaluated solely by hierarchical superiors but must incorporate the perceptions of all stakeholders who interact with the executive.

1. Definition and General Principle of 360-Degree Evaluation: The 360 degree evaluation is a multi-source assessment tool that collects feedback

from supervisors, peers, subordinates, and sometimes the manager themselves through self-assessment. According to Lepsinger and Lucia (2009), it enables the “triangulation” of perceptions of managerial competencies by revealing behavioral consistency, executive credibility, quality of interactions, and actual impact on teams.

Although primarily perceptual, the 360-degree evaluation is particularly relevant for capturing behavioral and relational dimensions that are often absent from traditional quantitative indicators.

The origins of 360-degree evaluation can be traced back to psychosocial approaches of the 1950s and 1960s. The work of Kurt Lewin and the human relations school highlighted the importance of behaviors, perceptions, and organizational climate, paving the way for the idea of a pluralistic evaluation of managerial performance.

The evolution of leadership theories in the 1980s and 1990s further reinforced this perspective. Research on transformational leadership (Bernard Bass, 1985), emotional intelligence (Daniel Goleman, 2000), and behavioral competency models emphasized the need for tools capable of measuring the behavioral expression of competencies, capturing the leader’s actual influence, and integrating employees’ perspectives. It is within this context that 360-degree evaluation became widely adopted in large American organizations.

Finally, in the 2000s, 360-degree evaluation was institutionalized as a structured tool for managerial development. The contributions of Lepsinger and Lucia (2009), as well as those of Atwater & Waldman (2007) position it as a tool dedicated to continuous improvement, behavioral consistency, and the analysis of overall managerial perception.

2. Theoretical Foundations and Analytical Contributions of 360-Degree Evaluation

The analysis of the 360-degree evaluation system reveals that it is grounded in three complementary theoretical streams.

The first, rooted in behavioral and psychosocial perspectives, builds on the work of Kurt Lewin (1951) and the human relations school, which demonstrate that “leader behavior shapes the social climate and group dynamics.” From this perspective, performance largely depends on the quality of interactions, communication, and interpersonal influence. The 360-degree evaluation thus becomes a human diagnostic tool that assesses how the executive mobilizes, supervises, and impacts their teams (Antonioni, 1996).

The second stream relates to competency-based management models. The work of Richard Boyatzis (1982, 2008) shows that

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performance depends on the effective mobilization of competencies in context, defined as “integrated sets of observable behaviors that lead to superior performance.” Within this framework, the 360-degree evaluation provides privileged access to assessing the actual expression of competencies through the cross-perceptions of the professional environment. It allows for the examination of the consistency between declared and perceived competencies, which constitutes a key indicator of managerial mastery (Zarifian, 1999).

The third stream, focused on leadership and legitimacy, draws in particular on the work of Bernard Bass (1985) and Daniel Goleman (2000). These authors emphasize that managerial performance partly relies on the trust, commitment, and credibility attributed to the executive. According to Goleman (2000), “effective leadership is inseparable from the emotional perceptions it generates.” In this perspective, the 360-degree evaluation emerges as a tool for assessing role recognition, the quality of exercised authority, and the socio-organizational legitimacy of the manager (Atwater & Waldman, 2007).

Despite these contributions, the literature highlights several methodological limitations of 360-degree evaluation. Feedback may be influenced by cultural biases, particularly in highly hierarchical organizations (Geert Hofstede, 2001). The halo effect, identified by Edward Thorndike (1920), may lead to global judgments based on a single perceived trait, whether positive or negative. The tool is also sensitive to interpersonal relationships, increasing subjectivity and reducing comparability across units. Most importantly, as noted by Lepsinger and Lucia (2009), “perception is not competence”: therefore, the 360-degree evaluation should be used as a complementary rather than a standalone indicator.

Within the integrated conceptual model proposed in this article, the 360-degree evaluation occupies a specific role: it serves as an indicator of managerial legitimacy. It enables the assessment of consistency between competencies and behaviors, the social validation of leadership, the human impact of the executive, and the quality of exercised authority—dimensions that are essential in industrial environments where coordination, operational discipline, and communication directly influence organizational outcomes (Henry Mintzberg, 2009).

In this sense, the 360-degree evaluation complements financial and operational KPIs, strategic and behavioral competencies, as well as

contractual compliance criteria. It functions as a transversal component that enriches the overall understanding of managerial performance.

In conclusion, the 360-degree evaluation constitutes a valuable tool for capturing the human dimension of leadership; however, it cannot, on its own, assess the full scope of executive performance. It is only when embedded within a multidimensional model—combining results, competencies, behaviors, and perceptions—that it fully reveals its explanatory value, as confirmed by the work of Lepsinger and Lucia (2009) and Atwater (2007).

III.3.3. Integration of the Performance Contract into the Model: The performance contract represents a central instrument in contemporary managerial control systems. It serves simultaneously as a reference framework for objectives, a structure of mutual commitment between the executive and the organization, and a benchmark for assessing the level of performance achievement. It formalizes strategic, operational, and organizational expectations, translating corporate priorities into measurable commitments.

From a theoretical perspective, the performance contract is rooted in the management by objectives approach developed by Peter Drucker (1954), according to which performance must be evaluated against predefined targets. The work of Merchant and Van der Stede (2007) emphasizes that objective-setting systems can only produce reliable assessments when they are aligned with the manager's actual competencies and responsibilities. Otherwise, evaluation becomes biased, attributing to the executive outcomes that may instead result from contextual factors, external constraints, or technical contingencies.

Other scholars, such as Henri Bouquin (2010) and Robert Simons (2000), highlight the structuring role of the performance contract in organizational governance, as it defines degrees of autonomy, priorities, and performance obligations. It acts as a standardization mechanism, enabling the comparison of results across units operating under different contexts and resource endowments. In doing so, it helps distinguish what is attributable to managerial action from what stems from organizational context or available resources.

Within the integrated conceptual model proposed in this article, the performance contract plays a specific role:

- It objectifies the expectations assigned to the executive;
- It defines the scope within which competencies must be mobilized;
- It standardizes performance, enabling a shift from an absolute to a relative interpretation that is more equitable and more explanatory.

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This standardization is essential in industrial organizations, where disparities in resources, technical maturity, or human capital may distort comparisons based solely on raw performance outcomes. The performance contract thus becomes an anchoring mechanism that links competencies, decisions, and results to the manager's actual operating context.

In summary, the performance contract is not merely a monitoring tool but a key analytical component of the model: it contextualizes performance, reduces attribution bias, and strengthens the validity of evaluation by linking observed results to the formalized framework of managerial commitments.

III.3.4. Integrated Theoretical Model: Extended Textual Description:

The integrated conceptual model proposed in this study is based on a systemic architecture structured around four main causal blocks. These blocks represent the successive levels through which managerial competency is translated into observable performance. Each level exerts a directional influence on the next, forming a comprehensive explanatory chain.

The first block corresponds to the executive's key competencies, including strategic, operational, relational, and behavioral competencies. These competencies constitute the internal reservoir of cognitive and emotional resources mobilized in real situations. They determine the manager's ability to analyze, anticipate, and act effectively.

The second block refers to managerial behaviors and practices, which represent the observable expression of competency mobilization. It includes leadership, team management, communication, influence, coordination, and the ability to foster a climate of trust. These practices reflect how competencies are concretely expressed in daily interactions with employees and stakeholders.

The third block consists of operational and strategic decisions, that is, the transformation of practices and behaviors into structuring actions. This level includes planning, resource allocation, problem-solving, prioritization, and the ability to arbitrate in complex contexts. It represents the manager's direct impact on the functioning of the unit or department.

The fourth block encompasses performance outcomes, assessed through financial indicators (ROAI, margins, costs), operational indicators (productivity, continuity, quality), organizational indicators (discipline, compliance, goal achievement), and contractual indicators (performance contract metrics). These outcomes constitute the final and observable level of the model.

In parallel with these four blocks, the model incorporates three essential transversal components.

On the one hand, the 360-degree score provides an external, multi-source measure of managerial legitimacy, revealing perceptions of behavior, human impact, and leadership consistency.

On the other hand, the performance contract serves as a normative framework, contextualizing the evaluation of results and ensuring comparability among executives based on formalized commitments.

Finally, governance indicators (compliance with procedures, adherence to standards, execution discipline, risk management) act as control variables, enabling the interpretation of results in light of institutional and regulatory requirements.

All these elements form an integrated framework in which competencies drive practices, practices drive decisions, and decisions ultimately generate outcomes. The transversal components enrich, balance, and contextualize the evaluation process. This conceptual framework serves as a direct foundation for the empirical analysis presented in the following sections.

III.4. Research Questions and Hypotheses Formulation: Building on the integrated conceptual model proposed in this study—linking managerial competencies, behavioral practices, operational decisions, and observed performance—the research questions aim to empirically examine the underlying causal chain as well as the analytical value added by the model. They extend prior research connecting competencies (Richard Boyatzis, 1982, 2008), leadership and managerial practices (Bernard Bass, 1985; Daniel Goleman, 2000), dynamic capabilities (David Teece, 2014), and multidimensional organizational performance (Robert Kaplan & David Norton, 1996; Andy Neely et al., 2002).

Q1 – Direct Effect of Competencies on Performance: The first research question examines the determining role of managerial competencies in the production of organizational performance. In line with competency-based approaches, performance partly results from the executive's ability to effectively mobilize cognitive, technical, and behavioral resources.

Q1: To what extent do managerial competencies influence the overall performance of industrial units? This question leads to the formulation of the following statistical hypothesis:

H1: Managerial competencies have a positive and significant effect on the organizational performance of units. (Direct effect: competencies → performance)

Q2 – Moderating Role of Leadership Practices: The second research question examines how managerial behaviors and practices moderate the relationship between competencies and performance. Research on transformational leadership, managerial behavior, and emotional intelligence suggests that competencies translate into performance only when activated through appropriate behaviors.

Q2: How do leadership practices and managerial behaviors moderate the relationship between competencies and performance? The corresponding hypothesis is formulated as follows:

H2: Leadership practices positively moderate the relationship between managerial competencies and organizational performance. (Moderation: competencies $\times$ leadership $\rightarrow$ performance)

Q3 – Explanatory Power of the Integrated Model: The third research question aims to compare the explanatory power of the integrated model (competencies + behaviors + decisions) with that of traditional models focused solely on results. It seeks to determine whether incorporating human and behavioral dimensions enhances the understanding of performance.

Q3: Does the integrated model offer greater explanatory power than traditional results-based models?

This is statistically formulated through the following hypothesis:

H3: The integrated competencies–practices–decisions model explains a significantly greater proportion of performance variance than models based exclusively on KPIs. (Comparison of R^2 between traditional and integrated models)

Q4 – Profiling High-Performing Executives: The fourth research question aims to identify specific configurations of competencies and behaviors associated with the highest levels of performance. It follows a configurational logic and a managerial typology perspective.

Q4: What combinations of competencies and behaviors characterize the most high-performing executives?

This question leads to the following hypothesis:

H4: High-performing executives exhibit a specific combination of strategic, behavioral, and operational competencies, forming a distinctive managerial profile. (Cluster analysis or latent profile analysis)

Q5 – Mediating Role of Managerial Decisions: The literature on dynamic capabilities suggests that the impact of competencies operates

through decision-making mechanisms. It is therefore relevant to introduce an additional hypothesis:

H5: Managerial decisions play a mediating role in the relationship between executive competencies and organizational performance. (Mediation: competencies → decisions → performance)

IV. Methodology

The methodology adopted in this research addresses a dual objective: ensuring the scientific validity of the proposed conceptual model and providing a detailed, contextualized, and robust analysis of managerial performance within a real industrial organization. In this perspective, methodological positioning cannot be dissociated from epistemological positioning, as it is the articulation between ontology and methodology that enables a coherent analysis of an object as complex as executive performance.

This research adopts a **realist–constructivist stance**, a framework widely used in empirical studies in management sciences. It is based on the premise that managerial phenomena—competencies, behaviors, decisions, and outcomes—possess an observable reality and can be measured with relative reliability through financial, operational, and contractual data. However, the explanatory power of these phenomena cannot be fully understood without accounting for their interpretive and perceptual dimensions—that is, how stakeholders assess managerial legitimacy, perceive behavior, and interpret influence.

This epistemological duality—measurable facts and constructed perceptions—enables the coherent integration of quantitative data (KPIs, ratios, aggregates) and qualitative data (360-degree evaluations, competency frameworks, and practice analyses). It is particularly well suited for modeling the causal mechanisms linking competencies, practices, and performance, in line with the work of Matthew Miles and A. Michael Huberman (1994), as well as Anna Dubois and Lars-Erik Gadde (2002).

The major methodological choice lies in adopting an in-depth case study approach, following Robert Yin (2018). Contrary to a reductionist view that would consider the case merely as an illustrative setting, this study treats the case as a natural laboratory, enabling the observation of phenomena under real conditions, the understanding of their dynamics, and the testing of their explanatory mechanisms.

The DIVINDUS MCM group, composed of eight operational units and a central headquarters, provides a particularly rich field of study: diversity of executive profiles, multiplicity of organizational contexts, the existence of a formalized management control system, the availability of

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consolidated data, and the coexistence of objective and perceptual indicators.

The selected sample includes all executives involved in strategic and operational management—namely 14 directors (8 unit directors and 6 central directors)—which allows for the analysis of performance variations within a consistent institutional framework.

The analysis is based on a systematic triangulation of data, in line with the work of Todd Jick (1979). Four categories of data were mobilized.

- **Financial and operational data**—including management aggregates, ROAI, margins, and productivity—provide an objective measure of performance.
- **Performance contracts** serve as the normative framework for comparison, enabling results to be interpreted within their actual commitment context.
- **Qualitative data on managerial competencies**—including competency frameworks, role descriptions, and internal analyses—shed light on the underlying characteristics of executives and enable the identification of mobilized individual resources.
- **360-degree evaluations** provide a perceptual reading of leadership, which is essential for understanding managerial legitimacy and behavioral consistency.

The use of these diverse data sources follows a multi-layered analytical logic. Contract analysis aims to measure the level of achievement of contractual objectives, while financial and operational analysis identifies performance patterns, enables inter-unit comparisons, and captures dynamic trends.

Competency analysis draws on frameworks inspired by Richard Boyatzis (2008), Guy Le Boterf (2002), and Dave Ulrich (2015), and allows for linking executives' structural competencies to observed behaviors.

Finally, 360-degree analysis aims to identify potential gaps between declared competencies, perceived competencies, and mobilized competencies.

The integration of all these data leads to the construction of an **integrated performance score**, based on a multicriteria method that ensures balanced weighting of: (1) financial results, (2) operational results, (3) contractual commitments, (4) managerial competencies, (5) 360-degree perceptions, and (6) governance and compliance requirements.

This integration is not merely additive; rather, it aims to capture the systemic complexity of managerial performance and to provide a multidimensional interpretation consistent with the theoretical model.

To ensure the scientific robustness of the methodological framework, four criteria derived from Yvonna Lincoln and Egon Guba (1985) were applied:

1. **Credibility**, ensured through data triangulation and iterative confrontation between empirical evidence and the theoretical framework;
2. **Reliability**, guaranteed by the rigorous formalization of procedures and analytical grids;
3. **External validity**, strengthened by anchoring the model in contemporary research on performance and leadership;
4. **Confirmability**, ensured through the traceability and objectification of analytical choices.

Thus, the adopted methodology provides a solid foundation for rigorously testing the hypotheses formulated in this research and for assessing the scientific relevance of the integrated competency-based performance model. It enables not only the analysis of outcomes but also the understanding of the mechanisms that produce them, which constitutes the central ambition of this article.

V. RESULTS AND ANALYSIS: This section presents the main findings of the study, structured according to the conceptual model: (1) financial and operational performance, (2) contractual performance, (3) managerial competencies, (4) leadership and 360-degree perceptions, and (5) comparative synthesis and integrated performance graph. Each subsection analyzes the data in direct relation to the literature, highlighting convergences, divergences, and empirical contributions.

V.1. Analysis of Financial and Operational Performance of Units

V.1.1. Financial Results: ROAI, Margins, and Cost Structure: The consolidated analysis of financial results reveals significant heterogeneity in performance across units. Some units demonstrate a positive contribution to overall profitability, while others exhibit substantial deficits. This variability confirms that financial performance cannot be interpreted independently of managerial and operational context, in line with Merchant and Van der Stede (2007).

Key findings:

- Certain capital-intensive industrial units display profitability highly dependent on activity levels and control of fixed costs.

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- Mechanical production units exhibit greater capacity to adjust to demand, suggesting a positive impact of operational flexibility.
- The dispersion of ROAI confirms that financial performance is not solely determined by resource endowments or market conditions, but also by managerial choices.

This observation supports the central argument of David Teece (2014): performance results from the ability to orchestrate resources and processes.

V.1.2. Operational Performance: Productivity, Execution Rate, and Process Reliability: Operational analysis shows that the most high-performing units are characterized by:

- Rigorous execution of production plans,
- Effective process control, reducing downtime and non-conformities;
- Efficient interdepartmental coordination, reflecting high managerial quality.

Units with low operational performance exhibit deficiencies related to:

- Planning;
- Priority management;
- Internal communication;
- Lack of control over technical standards.

These findings confirm the work of Slack (2013), according to which operational performance is highly dependent on the quality of day-to-day management.

V.2. Analysis of Contractual Performance: The evaluation of performance contracts reveals that:

- Some units largely achieve their objectives, with a high level of compliance;
- Others show significant gaps between planned and actual results.

Three categories emerge :

1. **Units with high contractual compliance:** strong control of indicators, execution discipline, and effective planning.
2. **Units with partial compliance:** inconsistent achievement of objectives, often linked to managerial weaknesses.
3. **Units with structural deficits:** failure to meet objectives, recurring issues, and lack of vision and anticipation.

These findings corroborate the work of Henri Bouquin (2010): the gap between planned and actual performance reflects not only technical efficiency but also the manager's organizational sense and managerial discipline.

V.3. Analysis of Managerial Competencies

V.3.1. Strategic Competencies: The most high-performing executives demonstrate:

- The ability to anticipate;
- A clear understanding of strategic challenges;
- Alignment between vision and actions;
- The ability to respond rapidly to unforeseen events.

Executives facing difficulties are characterized by:

- Predominantly reactive management;
- Limited prioritization capacity;
- Difficulty in translating headquarters' strategic orientations into action.

These observations confirm the findings of Hamel and Prahalad (1994): strategic competency distinguishes high-performing executives from others.

V.3.2. Operational Competencies: High-performing executives:

- Master industrial processes;
- Effectively monitor their performance dashboards;
- Organize work in a structured manner;
- Minimize downtime and non-quality costs.

Less effective executives:

- Lack operational monitoring;
- Do not adequately control technical indicators;
- Dele gate with out properoversight.

This finding aligns with Guy Le Boterf (2002), for whom competency “is manifested in action.”

V.3.3. Behavioral Competencies: The data indicate that:

- High-performing executives communicate effectively, mobilize their teams, and demonstrate situational leadership;
- Executives facing difficulties exhibit shortcomings in communication, stress management, or influence.

Daniel Goleman (2000) argues that emotional competencies account for up to 70% of leadership performance in complex environments. The observed results empirically support this proposition.

V.4. Leadership Analysis through 360-Degree Evaluations: The 360-degree evaluations reveal three distinct profiles:

1. **Recognized leaders (high scores):** perceived as consistent, fair, professional, and capable of mobilizing teams.
2. **Accepted but improvable leaders:** demonstrate generally satisfactory behavior but lack impact or consistency.

3. **Contested leaders:** characterized by deficits in listening, authority, or communication.

These findings confirm the limitations highlighted by David Antonioni (1996): perceptions reflect not only competencies but also the quality of interpersonal relationships.

However, the consistency observed between 360-degree evaluations and objective performance across several units strengthens the predictive value of this tool.

V.5. Comparative Synthesis and Integrated Performance Mapping: The cross-analysis of data (KPIs + competencies + leadership + contractual compliance) makes it possible to identify four categories of executives:

1. **High overall performers:** excellent results, strong competencies, and solid leadership. These represent benchmark profiles.
2. **High-performing but improvable executives:** good results but behavioral or strategic gaps. They present significant improvement potential.
3. **Competent executives in challenging contexts:** strong theoretical competencies but weak results (due to structural factors). They require targeted support.
4. **Executives in critical situations:** low competencies, poor results, and leadership deficits. They represent priority cases for intervention.

This classification is consistent with the work of Richard Boyatzis (2008) on performance profiles.

Analytical Conclusion: The most high-performing executives systematically combine:

- Strong strategic competencies;
- Recognized leadership;
- Operational rigor;
- Results orientation;
- Contractual discipline.

Conversely, observed deficiencies are rarely technical; they are consistently linked to competency or behavioral gaps. These findings provide empirical validation of the proposed conceptual model.

VI. DISCUSSION: The discussion aims to interpret the empirical findings in light of the theoretical framework and the literature reviewed. It highlights how the results confirm, enrich, or challenge existing models, and outlines their implications for both academic research and managerial practice.

Three major insights emerge: first, the confirmation of the structuring role of competencies in performance; second, the importance of leadership and behaviors in organizational dynamics; and third, the relevance of an integrated evaluation model combining results, competencies, and perceptions.

VI.1. The Central Role of Competencies as a Driver of Managerial Performance: The findings show that the most high-performing executives consistently demonstrate strong competencies across strategic, operational, behavioral, and relational dimensions. This observation confirms the foundational work of Richard Boyatzis (1982; 2008), according to which competencies are reliable and robust predictors of managerial performance.

The study also validates the core idea of Guy Le Boterf (2002): competency is not limited to knowledge but rather constitutes “the appropriate mobilization of resources within a given context.” High-performing executives are not merely trained or experienced; they are capable of adapting their actions, solving complex problems, anticipating challenges, prioritizing effectively, and exercising context-sensitive judgment.

In underperforming units, the observed deficiencies are not primarily technical; they are managerial, relating to leadership, communication, coordination, and decision-making.

These findings provide strong empirical support for the theories of Hamel and Prahalad (1994) regarding the role of core competencies in competitiveness, here transposed to the individual level of the manager.

VI.2. Leadership as a Major Explanatory Factor of Performance: The 360-degree evaluations indicate that executives perceived as credible, mobilizing, and consistent are also those whose units achieve the highest levels of performance. This confirms the work of Daniel Goleman (2000), which highlights that emotional and behavioral dimensions of leadership explain a significant portion of performance in complex environments.

The findings reveal several key empirical relationships:

1. **Recognized leadership enhances cohesion and operational discipline:** Units led by well-regarded leaders demonstrate more reliable execution, smoother communication, and better adherence to standards. vThis supports the transformational leadership model developed by Bernard Bass (1985).
2. **Behavioral deficiencies negatively affect performance:** Executives with shortcomings in communication, stress management, organization, or influence generate organizational disruptions. This

confirms the importance of situational leadership (Hersey & Blanchard, 1984).

3. **External perception (360-degree evaluation) acts as a revealer of actual competencies:** The results show consistency between high 360-degree scores and objective performance outcomes. This extends the work of David Antonioni (1996) on the predictive value of multi-source evaluations.

In sum, performance does not depend solely on rational decision-making, but also on the leader's ability to generate a positive collective dynamic.

VI.3. Financial and Contractual Performance Explained by Managerial Practices: Differences in performance across units cannot be explained solely by technical context, resource endowments, or market conditions. Cross-analysis reveals a direct relationship between:

- Managerial rigor;
- Planning quality;
- Communication effectiveness;
- Process monitoring;
- And financial performance.

This confirms the work of Robert Kaplan and David Norton (2004): financial performance represents the final outcome of a set of internal managerial capabilities.

Units with high contractual performance also exhibit:

- Strong execution discipline;
- Strategic alignment;
- A clear understanding of objectives;
- Effective mobilization of resources.

These characteristics align with the conclusions of Slack (2013), for whom operational performance is a direct reflection of management quality rather than merely technical conditions.

VI.4. Empirical Validation of the Integrated Competencies–Behaviors–Outcomes Model: The findings strongly support the logic of the proposed conceptual model:

competencies → behaviors → decisions → performance

This causal chain, previously theorized by Richard Boyatzis (2008), is here empirically validated within a real industrial context.

Scientific Contribution: The proposed model makes an original contribution at three levels:

1. **Multidimensional integration:** The model combines, for the first time:
 - Key competencies;
 - Managerial practices;
 - Operational and financial KPIs;
 - 360-degree evaluation;
 - Performance contracts.

Few studies in the literature provide such a comprehensive approach, particularly in MENA contexts.

2. **Articulation of performance determinants:** The findings demonstrate that neither KPIs, nor 360-degree evaluations, nor competencies—when considered in isolation—are sufficient to explain performance. Only an integrated model allows for a coherent and robust evaluation.
3. **Development of a replicable operational tool:** The model can be applied to:
 - Recruitment;
 - Training;
 - Evaluation;
 - Career planning;
 - Governance improvement;
 - Organizational transformation support.

VI.5. Managerial Implications: Toward the Professionalization of Executive Evaluation: The study reveals that the proposed model offers three major operational advantages for industrial organizations:

1. **Enhanced objectivity of evaluation:** By combining quantitative results, competencies, perceptions, and behaviors, the evaluation becomes:
 - More equitable;
 - More reliable;
 - Less biased.
2. **Improved predictive capacity:** The analysis of competencies and leadership enables the anticipation of future difficulties, addressing a critical need in public and industrial organizations.
3. **A solid foundation for talent development:** The model enables the identification of:
 - High-potential executives;
 - Executives requiring support;
 - Units presenting managerial risk.

It provides a valuable framework for coaching, training, mobility, and managerial succession planning.

VI.6. Toward a New Conception of Performance: Theoretical Implications: This study contributes to the literature by proposing an integrated multidimensional approach that:

- Overcomes the limitations of purely financial models;
- Avoids the biases of exclusively behavioral tools;
- Explicitly links competencies and outcomes;
- Highlights causal dynamics that are often implicit in prior research.

It thus opens the way for a renewed understanding of managerial performance in complex organizations.

VII. GENERAL CONCLUSION, IMPLICATIONS, AND FUTURE RESEARCH DIRECTIONS

This study aimed to propose and test an integrated model for evaluating managerial performance, based on a competency-centered approach and applied to a real industrial context: DIVINDUS MCM. By combining financial data, operational analyses, managerial competencies, leadership, and multi-source evaluations, the research makes a significant contribution to the literature and provides a robust operational tool for industrial organizations.

VII.1. Main Findings and Contributions of the Study: The findings highlight three major conclusions:

1. **The determining role of competencies in executive performance:** The most high-performing executives demonstrate strong competencies across strategic, operational, and behavioral dimensions. This empirically confirms the work of Richard Boyatzis (2008), Guy Le Boterf (2002), and Hamel & Prahalad (1994).
2. **The essential influence of leadership on organizational dynamics:** 360-degree evaluations reveal a strong correlation between leadership recognition and unit performance. This reinforces the perspectives of Daniel Goleman (2000) and Bernard Bass (1985) on the link between managerial behaviors and performance.
3. **The necessity of a multidimensional evaluation model:** Neither isolated KPIs, nor competencies alone, nor perceptions taken separately are sufficient to evaluate performance. Only a model integrating **results + competencies + behaviors + perceptions + compliance** contractual enables a comprehensive and rigorous understanding of performance. This model represents a scientific

advancement, as it overcomes the limitations of partial approaches identified in the literature.

VII.2. Theoretical Implications: This research makes several important theoretical contributions:

1. **An enriched conception of performance:** It demonstrates that performance is neither a single indicator, nor a behavior, nor a competency, but rather a unified system causally linking these dimensions.
2. **An explicit articulation between competencies and outcomes:** The proposed model clarifies the causal mechanisms linking **competencies** → **practices** → **decisions** → **performance**, thereby addressing a gap identified in the literature.
3. **A contribution to the literature in the MENA context:** Few empirical studies examine managerial performance in industrial organizations within the MENA region. This research addresses this gap by providing original and context-specific data.

VII.3. Managerial Implications: For industrial organizations, the model offers several immediate operational benefits:

1. **A more objective and comprehensive evaluation tool:** The integration of competencies, leadership, KPIs, and performance contracts reduces interpretive bias.
2. **A foundation for talent management:** The model enables the identification of:
 - High-potential executives;
 - Executives requiring support;
 - Critical managerial situations.
3. **Improved governance:** The competency-based approach enhances transparency, fairness, and consistency in managerial evaluations.
4. **Support for organizational transformation:** The study shows that performance can be improved through:
 - Target edtraining;
 - Coaching;
 - Improved leadership practices;
 - Better alignment between objectives and competencies.

VII.4. Research Limitations: Like any scientific study, this research presents several limitations that should be acknowledged:

1. **Single case study:** Although rich, the focus on DIVINDUS MCM limits the direct generalization of the findings.
2. **Dependence on available data:** Some units had more complete data than others, which may introduce analytical asymmetry.

3. **Subjective nature of 360-degree evaluations:** Despite their value, multi-source evaluations remain sensitive to cultural and relational biases.
4. **Model refinement potential:** The weighting of components could be further refined using advanced statistical methods (SEM, PLS, etc.).

VII.5. Future Research Directions: Several avenues for future research may extend this work:

1. **Replicating the model in other organizations**
 - Heavy industries;
 - Public enterprises;
 - Private companies;
 - Service organizations.
2. **Developing statistical modeling approaches:** Test the model using advanced quantitative methods (Structural Equation Modeling) to empirically validate the causal relationship between competencies and performance.
3. **Examining the impact of organizational culture:** Analyze how culture, collective norms, and governance styles influence the expression of competencies.
4. **Integrating artificial intelligence:** Explore how AI-based tools can:
 - Analyze managerial styles;
 - Detect organizational risks;
 - Recommend development actions.
5. **Developing a predictive performance score:** Design a predictive algorithm based on collected data to support managerial decision-making.

VII.6. Final Conclusion: This study proposes a conceptual framework and an operational model enabling a comprehensive, rigorous, and integrated evaluation of executive performance in industrial organizations. By demonstrating the central importance of competencies and leadership, it encourages organizations to rethink their evaluation systems and orient them toward a more strategic, human-centered, and predictive approach.

The model developed represents a major advancement for both theory and practice and opens the way for a new generation of evaluation systems centered on managerial value added.

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