

# FROM ICEBERG TO INSIGHTS: A HUMAN-CENTRIC GUIDE TO COMPETENCY IN THE AI AGE

Dr. Farshad Badie



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#### NAME OF THE BOOK

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#### **ABSTRACT**

In today's fast-paced and competitive work environment, it is crucial for organisations to have a clear understanding of the competencies required for effective performance. The Iceberg Model of Competencies provides a comprehensive framework for understanding the various components of competencies, including knowledge, skills, attitude, and habits. By taking into account all of these components, organisations can develop a more holistic approach to competency analysis and development. This article offers an Al-based approach to competency analysis in organisations. Relying on some key-factors (which are described and analysed based on the Iceberg Model of Competencies), I offer a theoretical framework for AI usage in the analysis and development of competencies. Specifically, I discuss the use of AI in analysing knowledge and skills, attitude and habit formation, and the broader organisational context in which competencies are applied. Accordingly, based on these key factors, I propose an AI-based theoretical model for Competency Analysis in organisations. This model emphasises the importance of taking a holistic approach to competency analysis, integrating Al-based tools and techniques to support a more comprehensive understanding of competencies. Ultimately, approach can help organisations develop more effective competency development programs, leading to improved performance and success in today's competitive business environment. This article can be regarded as a resource for professionals and scholars interested in competency analysis, talent management, and the role of AI in organisational development.

To my inspiration, my father, Farhad, whose vibrant presence and boundless love continue to light up my world.

#### **PREFACE**

Dear Friends.

As I pen down these words, I can't help but feel a warmth in my heart, a mix of excitement and gratitude for the moments we are about to share within the pages of this book. Welcome to a journey that goes beyond the ordinary, a journey into the heart of what makes us uniquely human in a world brimming with technology and rapid change.

This book "From Iceberg to Insights: A Human-Centric Guide to Competency in the AI Age" is more than just theories and models; it's an invitation to uncover the layers of competence that go beyond what meets the eye. We will deal with the richness of knowledge, the dance of skills, the sway of attitudes, and the rhythm of habits – all of which shape the unique tapestry of competency.

As we navigate through the chapters, we'll embrace the idea that technology, particularly artificial intelligence, isn't with us to replace our human touch but to amplify it. Together, we'll weave a story of harmonising the best of both worlds. At becomes not just a tool but a companion, assisting us in unravelling the mysteries of human potential and organisational brilliance.

At the heart of it all, this book unveils a human-centered model for Competency Analysis, a concept that, in essence, is about understanding and supporting the growth of individual human beings within an organisation. It involves acknowledging the hidden strengths, nurturing personal growth, and weaving a collective narrative where each strand plays a vital role in the overall success.

To you, dear reader, thank you for joining me on this adventure. My hope is that these pages not only inform but also spark a sense of curiosity, maybe a few aha moments, and a realisation that, in the grand scheme of things, it's the human touch that makes all the difference.

So, let's embark on this journey together, exploring the depths of competency, embracing the synergy of human and artificial intelligence, and finding the magic that happens when we harmonise our efforts for a common goal.

Warmest wishes,

Dr. Farshad Badie

January 2024, Berlin

#### 1. INITIATION WORDS



Organisations are complex social structures that are made up of individuals who:

i. are precisely identified and characterised,

ii. are aligned and integrated together, and

iii. do collaboratively, co-operationally, and co-ordinately work together to achieve common goals.

To be efficient and effective, an organisation requires individuals who possess certain competencies that are necessary for its functioning. It can be interpreted that the term 'competency' refers to the knowledge, skills, and abilities that any individual possesses and uses to perform his/her job effectively; read more about organisations as well as about their functional structures and behaviours in Simon (1955), March & Simon (1958), Galbraith (1973), Weber (1978), Katz & Kahn (1978), Mintzberg (1979), Schein (2010).

It shall be emphasised that the competency of some specific organisation (say 'O') is highly correlated with the competencies of all individuals who work for (and shape) O. Moreover, the competency of O (and, in fact, the integration of the competencies of all individuals) affects the overall productivity and performance of O; see Deming (1982), Porter (1985), Collins (2001), and Grote (2002).

It is remarkable that some competencies which are extremely required in O may vary depending on the nature of O as well as on the individuals' functional roles and activities within it. As I will be more specific on the concept of 'competency' in the next section, it is interpretable that there are some competencies that are universally important in all organisations. For example, one of the most important universal competencies that individuals need to possess is communication [skills].

Effective communication is critical for successful collaboration within any organisation. This includes the ability to convey information clearly and concisely, to listen actively, and to provide feedback in a constructive manner; see Hunsaker & Alessandra (1985), Jones (2010), Adler & Elmhorst (2010), Hargie (2011). In addition, individuals in an organisation need to be adaptable, flexible, and open to change. This is because organisations are constantly evolving, and individuals need to be able to adapt to new situations, contexts, and challenges; see Tushman & Romanelli (1985), Kotter (1996), Lengnick-Hall & Beck (2005), Senge (2006), O'Reilly & Tushman (2008), Ashkenas, et al. (2018).

In this book, I will have a special focus on the concept of 'competency' in organisations and will attempt to carefully conceptualise and analyse its nature and effects. Accordingly, I will rely on McClelland's Competency Ice-Berg Model (see McClelland (1973a-b)) and offer my own interpretation and analysis of it as well as of its components. Subsequently, I will deal with how we can, relying on the competency iceberg model, think about (and implement) 'competency support' in modern organisations. Consequently, taking into account the achieved results, I will conceptually and theoretically focus on how Artificial Intelligence can support competency analysis in organisations in the modern world. Note that my approach will be human-centred and I am going to see AI and its applications through the lenses of human-based systems.

#### **REFERENCES**

Hunsaker, P. L., & Alessandra, A. J. (1985). A guide to improving your communication skills. Harper & Row.

**Hwang, Y., Green, K. W., & Li, Y. (2012).** The Competency Iceberg Model: A Framework for Understanding the Competencies of Sustainable Supply Chain Management. Journal of Business Logistics, 33(3), 167-182. doi: 10.1111/j.0000-0000.2012.01006.x

**International Labour Organization. (2018).** Skills for improved productivity, employment growth and development. International Labour Organization.

**Jones, G. R. (2010).** Organizational theory, design, and change. Prentice Hall.

**Katz, D., & Kahn, R. L. (1978).** The social psychology of organizations (2nd ed.). John Wiley & Sons.

**Kline, R. B. (2015).** Principles and Practice of Structural Equation Modeling (4th ed.). Guilford Press.

**Koontz, H., & Weihrich, H. (1990).** Essentials of management. Tata McGraw-Hill Education.

Kotler, P., & Keller, K. L. (2015). Marketing management. Pearson Education India.

Kotter, J. P., & Heskett, J. L. (1992). Corporate culture and performance. Simon and Schuster.

Kotter, J. P. (1996). Leading change. Harvard Business Review Press.

**Kozlowski, S. W. J., & Salas, E. (2010).** Learning, Training, and Development in Organizations. In S. W. J. Kozlowski & E. Salas (Eds.), Learning, Training, and Development in Organizations (pp. 3-32). Taylor & Francis.

#### REFERENCES

**Kumar, V., & Bock, G. W. (2012).** The Moderating Role of Task Characteristics in the Relationship between Job Competence and Job Satisfaction. Journal of Business and Psychology, 27(4), 477-490.

**Kumar, A., & Dutta, P. (2020).** Chatbot implementation in human resource management: A systematic review and future research agenda. Computers in Human Behavior, 109, 106360.

**Lencioni, P. (2002).** The five dysfunctions of a team: A leadership fable. Jossey-Bass.

**Lengnick-Hall, M. L., & Beck, T. E. (2005).** Adaptive fit versus robust transformation: How organizations respond to environmental change. Journal of Management, 31(5), 738-757.

**Locke, E. A., & Latham, G. P. (2002).** Building a practically useful theory of goal setting and task motivation: A 35-year odyssey. American Psychologist, 57(9), 705-717. <a href="https://doi.org/10.1037/0003-066x.57.9.705">https://doi.org/10.1037/0003-066x.57.9.705</a>

**Lusk, S. L., & Johnson, J. A. (2013).** Competence and competency models: Implications for industrial and organizational psychology. Industrial and Organizational Psychology, 6(3), 289-292.

March, J. G., & Simon, H. A. (1958). Organizations. John Wiley & Sons.

Masek, A. (2018). Competency Mapping and Its Impact on Organizational Performance: A Study with Reference to Selected Organizations in India. International Journal of Scientific Research and Management, 6(10), 563-571. <a href="http://dx.doi.org/10.18535/ijsrm/v6i10.em01">http://dx.doi.org/10.18535/ijsrm/v6i10.em01</a>

**Mintzberg**, **H. (1979).** The structuring of organizations: A synthesis of the research. Prentice-Hall.

**McClelland, D. C. (1973a).** Testing for competence rather than for intelligence. American psychologist, 28(1), 1-14. doi: 10.1037/h0034092

#### **REFERENCES**

McClelland, D. C. (1973b). The Achieving Society. Princeton, NJ: Van Nostrand.

**Sinek, S. (2009).** Start with why: How great leaders inspire everyone to take action. Penguin.

O'Reilly, C. A., & Tushman, M. L. (2008). Ambidexterity as a dynamic capability: Resolving the innovator's dilemma. Harvard Business Review Press.

**Pearce**, **J. A.**, **& David**, **F. (1987).** Corporate mission statements: The bottom line. Academy of Management Executive, 1(2), 109-116.

Peeters, M. A. G., & Tims, M. (2013). Climate for Innovative Work Behaviour: Examining the Joint Impact of Leader-Member Exchange and Intrinsic Motivation. Journal of Occupational and Organizational Psychology, 86(1), 32-53.

**Porter, M. E. (1985).** Competitive advantage: Creating and sustaining superior performance. Free Press.

**Riggio, R. E., & Tan, S. J. (2013).** Leader Interpersonal and Influence Skills: The Soft Skills of Leadership. Routledge.

Robbins, S. P., Coulter, M., & DeCenzo, D. A. (2013). Fundamentals of management (8th ed.). Pearson.

**Schein, E. H. (2010).** Organizational culture and leadership (Vol. 2). John Wiley & Sons.

**Senge, P. M. (2006).** The fifth discipline: The art and practice of the learning organization. Currency Doubleday.

**Simon, H. A. (1955).** A behavioral model of rational choice. The Quarterly Journal of Economics, 69(1), 99-118.

#### REFERENCES

Smith, C. A., & Easterby-Smith, M. (2016). Intermediaries of learning and knowledge creation in communities of practice: Evidence from new product development in aerospace. Journal of Management Studies, 53(6), 1018-1040. https://doi.org/10.1111/joms.12206

**Spencer, L. M. (1997).** Competency at work: A model for work and performance. Research in organizational change and development, 10, 101-135.

**Spencer, L. M., & Spencer, S. M. (1993).** Competence at work: Models for superior performance. John Wiley & Sons.

**Sternberg**, **R. J. (1996).** Successful intelligence: How practical and creative intelligence determine success in life. New York: Simon and Schuster.

**Tartell, M. A., & Smith, W. R. (1995).** Competency-based human resource development. Human Resource Planning, 18(2), 1-6.

**Tella, A., Ayeni, C. O., & Popoola, S. O. (2007).** Work Motivation, Job Satisfaction, and Organisational Commitment of Library Personnel in Academic and Research Libraries in Oyo State, Nigeria. Library Philosophy and Practice, 1-18.

**Tesone, D. V., & Ricciardi, F. M. (2013).** Conceptualizing and measuring managerial competency: A review, analysis, and critique of the competency modeling literature. Human Resource Development Review, 12(1), 86-107. doi: 10.1177/1534484312465847\

**Tushman, M. L., & Romanelli, E. (1985).** Organizational evolution: A metamorphosis model of convergence and reorientation. Research in Organizational Behavior, 7, 171-222.

Valverde, M., & Sabucedo, J. M. (2011). The Impact of Individual Differences on Training Effectiveness: The Moderating Role of Trainee Characteristics. International Journal of Training and Development, 15(3), 237-252.

#### REFERENCES

**Weber, M. (1978).** Economy and society: An outline of interpretive sociology. University of California Press.

#### **Tools**

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ProProfs Training Maker. URL: <a href="https://www.proprofs.com/training/">https://www.proprofs.com/training/</a>

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Recruitee. URL: <a href="https://www.recruitee.com/">https://www.recruitee.com/</a> Reflektive. URL: <a href="https://www.reflektive.com/">https://www.reflektive.com/</a>

SAP SuccessFactors. URL: <a href="https://www.sap.com/products/human-">https://www.sap.com/products/human-</a>

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us/applications/people-analytics.html

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<u>us/applications/performance-feedback.html</u>

Workday Prism Analytics. URL: <a href="https://www.workday.com/en-">https://www.workday.com/en-</a>

us/products/workday-prism-analytics.html

Zoho Recruit. URL: <a href="https://www.zoho.com/recruit/">https://www.zoho.com/recruit/</a>

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Dr. Farshad Badie, affiliated with the Berlin School of Business and Innovation, holds a PhD in Human-Centered Communication & Informatics, with a specialisation in logic, information science, and learning/cognitive science within socio-technical communication systems. He earned his doctoral degree from Aalborg University in Denmark in 2017. His research expertise encompasses conceptual/logical languages and their applications in semantic knowledge modelling.

Dr. Badie is also highly interested in the analytical exploration of the conceptual and logical dimensions of the phenomena of 'change' and 'innovation', in human-centered and organisational contexts, offering insights from both systematic and strategic perspectives.

Dr. Badie's contributions extend beyond academia; he serves as an editorial board member and reviewer for numerous prestigious journals covering computer science, formal languages, theory of artificial intelligence, cybernetics, decision/learning sciences, and management sciences. Additionally, he has actively participated as a speaker as well as an organising/scientific committee member in various conferences and workshops across all continents.



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