



Human Resources Development Model in the Chemical Industry: A Model with a Futures Research Approach

Saeid Masoudnia*, Pedram Golzari

1. Assistant Professor of the Mammut Applied Science Education Center ,karaj, iran
2. . Student of Automotive Mechanics associate field Mammut Applied Science Education Center, karaj, iran

ABSTRACT

Designing a human resource management (HRM) model for the future agile chemical industry within the framework of administrative systems requires addressing several critical aspects. The model needs to foster flexibility, responsiveness, and innovation while respecting cultural and regulatory contexts. Here is a structured outline for developing such a model. Chemical industries .and systems are among the most important industries in the world.

Keywords: human resource, (HRM) model, management, Chemical Industry. Organization agility.



Introduction

The term “human capital” can refer to two concepts:

1. Human capital as a factor of production: Every company and organization ultimately provides services or goods. To produce and deliver these goods and services, they use factors known as production factors. These factors are included in the production function of companies, leading to production. For a more detailed study, you can refer to the section on producer behavior in microeconomics. You can also contact us to avoid getting bogged down in studies and books.
2. Human capital as talent resources in the labor market: Like any market, the labor market also has supply, demand, and equilibrium. Often, when we use the term human capital, we are referring to the individuals, talents, and potential available in the labor market. For more information, you can refer to macroeconomics books and study the labor market section. You can also contact us to share what we know.

Submission

Another point regarding the term human capital helps to better understand the difference between human capital and human resources. The view of employers (not managers) before the 1960s was that workers were individuals who could be controlled and who merely performed the low-level tasks assigned to them. It is worth mentioning that this view was eliminated with the advent of the automation era. We will further discuss the difference between human capital and human resources.

A point to ponder! These days, there is much talk in seminars, books, programs, and discussions about technology replacing humans. Many speakers attempt to instill fear in people, suggesting that their job positions are at risk of being taken over by robots. The question that arises here is: So far, with the rise in technology, the prestige, respect, productivity, and technical knowledge of individuals have increased. Does this mean that with the ever-increasing and...

Let me know if you need further translation or adjustments!

1. Understanding the Context

Cultural Insights: Recognize the unique Iranian cultural dynamics, including collectivism, relationship orientation, and local values.

Regulatory Framework: Familiarize with government policies, labor laws, and employment regulations specific to Iran.

Economic Environment: Consider the impact of economic conditions, such as inflation or sanctions, on HR practices.



2. Core Principles of the Agile HRM Model

The core principles of an Agile HRM (Human Resource Management) model focus on creating a flexible and responsive environment that can swiftly adapt to changes. Here's a detailed explanation of these principles:

1. Flexibility

- **Adaptive Structures:** Organizations should be able to adjust their structures and processes quickly to meet new challenges or opportunities. This might include cross-functional teams or fluid role definitions that allow employees to move between different functions.
- **Remote Work and Varied Schedules:** Encourage and support remote work options and flexible working hours to accommodate diverse employee needs and preferences.

2. Continuous Learning and Development

- **Lifelong Learning:** Foster a culture that prioritizes ongoing education and skill development. This could be achieved through regular training sessions, workshops, and access to online learning platforms.
- **Skill Versatility:** Encourage employees to develop skills beyond their current roles, supporting personal growth and preparing them for various future opportunities.

3. Collaboration and Communication

- **Cross-functional Teams:** Promote teamwork across different departments to enhance creativity, innovation, and problem-solving capabilities.
- **Open Communication Channels:** Maintain transparent and open lines of communication at all levels to ensure that information flows freely and feedback is encouraged.

4. Employee Empowerment and Engagement

- **Decentralized Decision-making:** Allow employees more autonomy in decision-making processes to enhance ownership and initiative.
- **Engagement Initiatives:** Regularly assess employee engagement levels and implement strategies to improve workplace satisfaction and motivation.

5. Performance Management and Feedback

- **Continuous Feedback Systems:** Replace traditional annual performance reviews with ongoing feedback mechanisms that provide real-time assessments and encourage improvement.
- **Clear Objectives and Metrics:** Set specific, measurable objectives that are aligned with organizational goals, ensuring that employees understand their roles in achieving these targets.



6. Innovation and Agility

- **Encourage Experimentation:** Create an environment where employees feel comfortable experimenting and taking calculated risks without fear of failure.
- **Responsive to Change:** Develop the ability to quickly pivot strategies in response to external changes, such as market shifts or technological advancements.

By embedding these principles into the organizational culture, companies within the Iranian administrative systems (or any other context) can become more agile, enabling them to adapt to change more effectively and foster a highly motivated and innovative workforce.

3. Key Components of the Model Talent Acquisition and Retention

Implement innovative recruitment strategies (e.g., social media hiring, employee referrals).

Develop a strong employer branding to attract top talent.

Focus on retention strategies such as career development opportunities and work-life balance.

Performance Management

Shift from annual reviews to continuous feedback systems that encourage regular check-ins and real-time assessments.

Set clear, measurable objectives aligned with organizational goals.

Employee Engagement

Conduct regular engagement surveys to understand employee sentiment.

Create platforms for employees to voice ideas and feedback.

Workplace Culture

Promote an inclusive and diverse workplace culture that values each employee's contributions.

Encourage agility in teams through decentralized decision-making.



4. Technology Integration

Capital management strategies from labor force

- 1) Recruiting and hiring an experienced workforce that does not require much training and training
- 2) Trying to keep the workforce in the organization by providing favorable working conditions and satisfying the employees
- 3) Training and professional development of employees in a principled manner through detailed review and analysis of training results and receiving feedback from employees
- 4) Managing, monitoring and evaluating the performance of employees and their progress
- 5) Setting goals for employees and helping them to achieve the intended goals
- 6) You created conditions where the work and life of employees are balanced
- 7) Creating an organizational culture that is satisfactory to managers and employees and in this way causes their cooperation and mutual participation to achieve the organization's goals and progress.

Identify technological tools that facilitate remote collaboration, project management, and communication (e.g., Slack, Trello).

Invest in HR software that supports agile methodologies, like performance tracking and employee development platforms.

5. Implementation Strategies

Pilot Programs: Start with smaller teams or departments to test and refine the agile HRM practices.

Training and Development: Provide training for HR and managerial staff to implement agile methodologies effectively.

Feedback Loops: Establish systems for gathering and analyzing feedback on the HRM practices continuou Human capital index

Today, most of the advanced countries of the world have realized the value and importance of this concept. Also, the relationship between the profitability and development of a business or organization with the economic value of its employees is accepted as a definite fact. For this reason, the World Bank annually reports the amount of The productivity of each country's labor force is presented as an economic index. The higher the number of this index, the more optimal it is in the use of its human resources. The importance of this index is understandable because despite the mechanization of many processes. Also, it is the workforce of a country that carries out economic affairs and produces capital and wealth.



Dimensions of human capital

The dimensions of the value of a workforce are actually the same characteristics that an employee has. In this section, we will discuss these characteristics more widely. These characteristics include:

- General skills such as: accuracy, time management, speed of action in performing tasks, etc.
- High communication and social skills
- Technical skills in specialized tasks
- Creativity
- Relevant work experience
- Ability to solve problems
- Mental health
- Hard work and mental endurance.

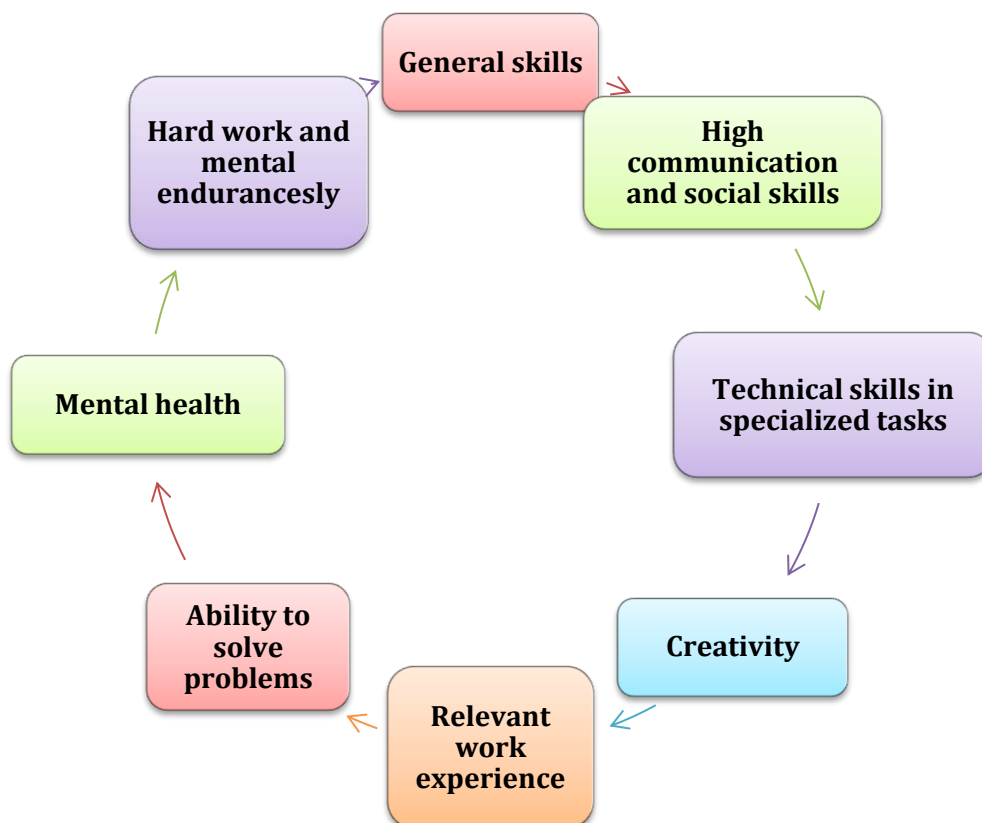


Figure 1 : These characteristics of value that an employee has



6. Measurement and Evaluation

Develop metrics to assess the effectiveness of HR practices (e.g., employee turnover rates, engagement scores, performance metrics).

Continuously revisit and adapt the HRM model based on feedback and changing organizational needs.

Human resource management in the organization can improve the efficiency and useful work of employees. It can also deal with employee affairs including recruitment, cooperation and interpersonal relations in the workplace with the help and cooperation of human resource managers.

Also, by combining these two areas related to the workforce, losses can be prevented and the power of principled and purposeful decision-making can be increased. In the following, we have given the benefits and importance of human capital case by case:

Economic growth and development

Human capital is an effective and prominent factor in economic growth and prosperity. Skilled and experienced employees with a high level of general and specialized knowledge will create more profit for the organization and in this way will cause the economic growth and prosperity of the organization or complex.

Efficiency increases

Based on the definition we provided of human capital; The higher the economic value of an employee means that he has more financial profit for the company and needs less training and internship. As a result, such an experienced person can perform tasks and affairs that take a lot of time from a less experienced workforce in a period of time. A shorter time will accomplish the same quality or even a higher quality. Therefore, if human capital management strategies are used correctly; The efficiency of the organization will increase.

Technological advancement and innovation

An employee who has more economic value for the group; It creates the ground for technological advancement and innovation in the collection in two ways: 1. Due to his high skill, experience and knowledge, such an employee can be more innovative and will have more mastery in using technology. 2. When an employee produces more economic value for the organization; It will allow the organization to invest more in innovation and technology development.

Gain credibility and trust for the organization

Customers will have more trust in an organization or group when they know that the human resources team and employees of a group have high levels of skill, experience and knowledge. Because only in this case they can be sure that they will receive the best product and service. They have entrusted their work to the right place.



7. Future Considerations

Stay informed about global HR trends and technological advancements that can be integrated into the local context.

Encourage an innovation mindset among leadership and employees to drive organizational transformation.

Here's a table illustrating future considerations for implementing an Agile HRM model, particularly within the context of Iranian administrative systems or similar environments:

Consideration	Description
Technological Advancements	Stay informed about new technologies that can enhance HR functions, such as AI and machine learning for recruitment and analytics.
Cultural Adaptation	Ensure that agile practices are adapted to fit the local cultural context, respecting social norms and values.
Regulatory Compliance	Continuously monitor changes in labor laws and regulations to ensure all HR practices are legally compliant.
Diversity and Inclusion	Promote diversity and inclusion within the workplace to enhance creativity and reflect a broader range of perspectives.
Sustainability Practices	Integrate sustainable practices into HR policies, focusing on long-term environmental and social impact.
Global Workforce Dynamics	Be prepared for the effects of globalization, such as remote work and the potential for international talent acquisition.
Skillset Evolution	Anticipate the need for new skills in the workforce and update training programs accordingly to match future demands.
Employee Well-being and Mental Health	Prioritize programs that support employee well-being and mental health to maintain a productive and healthy workforce.
Organizational Resilience	Develop strategies to enhance organizational resilience against economic or environmental disruptions.



Conclusion

Designing an agile HRM model for Iranian administrative systems requires a nuanced approach that blends local cultural elements with best practices in HRM. By focusing on flexibility, continuous learning, and collaboration, organizations can enhance their responsiveness to changing conditions, preparing them for a successful future in an ever-evolving landscape.

Human capital in the organization has been raised as one of the most important concepts and areas in organizations and businesses. Although this task is usually assigned to the human resources unit; But it has major differences with human resources. For almost every organization that dreams of progress and economic growth; It is essential to know what human capital management strategies are and how to use them. This importance is so important that many countries consider the rate of optimization and effective use of their human resources as the most important indicator for economic growth.

References

- 1) Dino, C (2014), "Alignment for the creation and development, Human resource management", Vol. 20, No.3, p. 562-577
- 2) Ebrahimian Jolodar, S.y. and Seyyed Mahmoud Ebrahimian Jolodar,M.E (2010). "Organizational agility: response speed and organizational flexibility". *Police Human Development Journal*, 8(39). pp. 13-34(In Persian)
- 3) Francis,D.(2011). "Managing People in Agile Organisations". In A Gunasekaran (Ed.), *Agile Manufacturing: The 21st Century Competitive Strategy* (pp. 193-202). Oxford: Elsevier Science Ltd.
- 4) Farrokhi, A; Safari, M.and Salehzadeh, R. (2016), "Pathology of Human Resource Management System", *Human Resource Management Research Quarterly of Imam Hossein University (AS)*, 7 (25): pp. 83-111. (In Persian)
- 5) Graves, L.M., Sarkis, J., and Zhu, Q., (2017)," How transformational leadership and employee motivation combine to predict employee proenvironmental behaviors in China", *Journal of Environmental Psychology*, 35, 81-91.
- 6) Gunasekaran, A., & Yusuf, Y. (2002). " Agile Manufacturing: Taxonomy of Strategic and Technological Imperatives" . *International Journal of Production Research*, Vol. 40 .
- 7) Guest,DE, (1997) ," Human resource Management and Performance :a review of the research agend", *International Jornal of Human Resource Management*, 8(3), p263-76
- 8) Hemti, A; Gudarzi, M.A.and Hajiani, I. (2015). "The necessity of future studies in education systems". *Future Management Quarterly*, 26(103): pp. 59-67 (In Persian)
- 9) Hopp, W., & Van Oyen, M. (2004). " Agile workforce evaluation: A framework for cross-training and coordination" , *IIE Transactions*. 36(10) · January 2003 with 1,865 Reads DOI: 10.1080/07408170490487759.
- 10) Harris,paul,(1990) ,"The Moral obligation to obey the law",in paul haris,op.cit.
- 11) Hendricks,M.D. (2015) ,"towards & optimal Teacher salary Schedule" . Designing base Salary to attract and retain effecting Teachers Elsevier, vol.47(C),pages143-167
- 12) Huang, J., & Kim, H. (2013), "Conceptualizing structural ambidexterity into the innovation of human resource management architecture: The case of



- LGElectronics". *The International Journal of Human Resource Management.*, 24, 922–943
- 13) Iranzadeh, S. Mesbahi Jahormi , N. Abdul Hossein Sh. (2015). "Investigating the relationship between dimensions of organizational agility and employee productivity of Dana Insurance Company in East Azerbaijan Province". *Productivity Management Quarterly*, 10(38): pp. 117-145.(In Persian)
 - 14) Jajermizadeh, M, Foruzande Dehkordi, L , Abbasi, N and Tedin, A. (2013). "Designing a native model of human resources management with emphasis on contextual factors". *Public Management Research*, 7 (26): pp. 45-62.(In Persian)
 - 15) Jabedar, A. Lashgari , M ,and Saeedzadeh, H. (2013), "Investigation of the roles of NAJA inspection in the retention of managers", *Monitoring and Inspection Quarterly*, 6 (20): pp. 7-28.(In Persian)
 - 16) Jafaranjad, Aand Shahai., B. (2009) "*An introduction to organizational agility and agile production*", Tehran: Mehraban Publishing House(In Persian).
 - 17) Jalalian, N. (2012). "Designing a model of future organizations (higher education system)". *Journal of the Center for Studies and Development of Medical Sciences*. 8 (30): 63-80. (In Persian)
 - 18) Jorbanian, M; Moradi, K; Dehghanpour Farshah, A; (2018) "Agile policy governance on the brink of the 4th industrial revolution", *Administrative Development Quarterly*, No. 58: pp. 28-37.(In Persian)
 - 19) Jin-Hai, L., Anderson, A., & Harrison, R. (2003). " The Evolution of Agile Manufacturing" . *Business Process Management Journal*, Pages 170-89.
 - 20) Kamrani Nejad, A, Hosseini , S. H., . Nazari, N,. (2013). "Practical methods of recruiting and maintaining human resources in order to increase organizational productivity", *Sharq Police Studies Quarterly*, 1 (1): pp. 37-48. (In Persian)
 - 21) Kang, S. H., Morris, S. S., & Snell, S. A.(2018). "Relational archetypes, organizational learning, and value creation: Extending the human resource architecture". *Academy of Management Review*, 32(1): 236–256.
 - 22) Karre, H., Hammer, M., & Ramsauer, C. (2019). "*Building capabilities for agility in a learning factory setting*". *Procedia Manufacturing* , 31, 60-65. doi:<https://doi.org/10.1016/j.promfg.2019.03.010>..
 - 23) Karimi, M. (2013) "A review of the challenges and solutions of attracting and maintaining human capital in Iran's National Oil Company", *Oil and Gas Exploration and Production Monthly*, 10 (92): pp. 6-18. (In Persian)
 - 24) Kolb,D.A, (1984)."*Experiential learning:Experience as the source of learning and development,prentice*" ,Hall,Englewood cliffs,NJ, 110-122.
 - 25) Lawson,P.(1995). " *Performance management:an overview,in the performance management Handbook*" ,ed MWalters,Institute of personal and Development,London.
 - 26) Majlis Research Center, (1400), "Government Agility from the perspective of reforming the administrative system of Iran", *Department of Management Studies*, subject code: 290, serial number: 17897. (In Persian)
 - 27) Mohammadi, A. Amiri, Y. (2016), "Presenting an interpretive structural model of achieving agility through information technology in production organizations", *Information Technology Management Journal*, 4 (13): pp. 115-134 . (In Persian)