



Designing a Model of Human Resources Capabilities with an Emphasis on Digital Knowledge Management in Iran Oil Terminals Company

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Abstract

Purpose: The main goal of this research is to design a model of human resource capabilities, with an emphasis on digital knowledge management, for Iran Oil Terminals Company.

Method: This research is descriptive-survey in terms of research design, cross-sectional in terms of time, and applied in terms of purpose. It is categorized as exploratory research. The statistical sample consisted of 20 professors and senior managers from the Ministry of Oil in the qualitative section and 100 managers and experts from Iran Oil Terminals Company in the quantitative section. Data collection in the qualitative part was conducted through interviews and data analysis

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techniques, while the quantitative section utilized questionnaires and structural equation modeling techniques.

Findings: The findings were categorized into 114 codes and 26 concepts, which were further grouped into three categories: human-behavioral capabilities, specialized-technical capabilities, and analytical capabilities. The research confirmed that the role of human resource capabilities in the growth and development of organizations is undeniable. It emphasized that human resources management must leverage this intra-organizational capital to foster organizational advancement and excellence. A lack of qualified human resources can be a significant reason for an organization's stagnation.

Conclusion: The analysis revealed that human resource capabilities, with an emphasis on digital knowledge management, encompass behavioral, specialized-technical, and analytical capabilities. Ultimately, a suitable model for human resource capabilities, emphasizing digital knowledge management, was proposed for Iran Oil Terminals Company. Human resource capability is valuable, rare, irreplaceable, and difficult to imitate; thus, it is essential for creating sustainable competitive advantages. Proper utilization of human resource capabilities can enhance organizational performance. This study took a process-oriented approach to propose an integrated model that comprehensively considers key variables such as human resource capability and knowledge management effectiveness.

Keywords: Human Resource, Capabilities, Digital Knowledge Management, Digital Information Management, Digital Information, Oil Terminals Company.

Introduction

In the past, many of the principles and foundations of management remained stable, with differences primarily arising from approaches and ideologies. However, in today's digital age, managers face rapid and novel challenges unique to the new era. Globalization, information technology, and the speed of change are just a few of these challenges. One of the most pressing and disruptive challenges for managers is the change in fundamental definitions that have served as the basis for practice and evaluation for years. Today, definitions of knowledge, wealth, and social values are being redefined (Ranjbar & Pourkiaie, 2014).

As information and technology continue to grow rapidly, society as a whole is transitioning toward digitalization, and organizations must adapt to this trend as well (Ahmed et al., 2020). Human resources, being integral to any organization, must also embrace this digital transformation. Local organizations are now operating in a global market, and in the realm of digital management, managers must not only be skilled in traditional management principles but also possess a comprehensive understanding of information technology and computer usage (Zbucnea et al., 2019).

Digital knowledge management is built on information that can be categorized within a digital platform, and the entire field of digital knowledge management revolves around digital content management. Human resources should be considered the most valuable asset of an organization, playing a pivotal role in achieving organizational goals. Today, organizations invest significant resources to attract and retain human resources, recognizing that falling behind in this regard can result in losing out to competitors (Findıklı et al., 2015). In today's competitive landscape, mastering the available resources has become more crucial than ever. Organizations may have the best technology and facilities, but without skilled and efficient human resources capable of leveraging these assets correctly, they will struggle to make a meaningful impact in the marketplace and achieve success (Swart & Nicholas, 2015).

Human resources are essential in processing other resources and generating the goods and services for which the organization was established. It is clear that knowledge is initially created in the minds of individuals, and by sharing it, it can transform into organizational knowledge. This organizational knowledge, in turn, serves as a foundation for further individual knowledge production (Barclays, 2018). Therefore, organizational assets are primarily embedded in the minds of individuals. This valuable knowledge is only accessible to the organization when

employees are willing to collaborate and share knowledge. Additionally, the organization must create effective provisions and mechanisms to facilitate this process. The digital knowledge management system is a continuous and interconnected system, consisting of components that work together (Nor'ashikin et al., 2017).

With employee turnover and retirement, valuable knowledge accumulated over years of work experience can be lost if organizations fail to implement effective knowledge-sharing methods. According to Nonaka and Takeuchi, if individual knowledge is not shared, it will not contribute to the growth and expansion of organizational knowledge, and new knowledge cannot be generated (Swart & Nicholas, 2015). Therefore, successful organizations continuously assess the production, distribution, exchange, and use of knowledge among their employees using various methods. This approach enables organizations to identify ways to achieve their goals. Among the key reasons organizations benefit from digital knowledge management are the identification of knowledge gaps, increased productivity of human capital, more efficient employee learning, the creation of products and services with greater added value, improved customer and employee satisfaction, prevention of repeated mistakes, reduced redundancy, time savings, enhanced creativity and innovation, and a strengthened competitive position. Thus, digital knowledge management is a process through which organizations focus on generating wealth from their intellectual capital. In essence, digital knowledge management is the systematic and organized management of knowledge and information exchange among employees to prevent work-related errors and mistakes (Abdollahi, 2014).

On one hand, the capabilities and potential of human resources, encompassing their abilities to perform organizational tasks and enhance organizational performance, are among the most prominent indicators of the effectiveness of human resource management within an organization. Given the increasing significance of human resources as the most valuable capital, the primary factor of production, and the creator of sustainable competitive advantage, comprehensive planning for human resource development is essential, in parallel with strategic planning for the organization. There is a significant gap between the outlook for human resource development in Iranian organizations compared to the substantial investments made by developed countries in this area. This highlights the need for greater attention to the preparation and implementation of strategic programs for human resource management and development

(Abbasnejad & Farzadfar, 2015).

Regarding the research conducted at Iran Oil Terminals Company, it is evident that the development of human resource capabilities is often overlooked in human resource strategies, both in scientific and practical research, with no significant academic studies conducted on the topic. Additionally, given the importance of human resource capability development in alignment with the country's 1404 Vision and the five-year development plan, this issue has garnered more attention than ever before. The role of a human resource capability model in Iran Oil Terminals Company has become increasingly crucial, particularly in the context of the economic resilience policies aimed at achieving the nation's goals.

Iran Oil Terminals Company was established to achieve organizational goals, and the success of these goals is directly linked to the performance of the human resources working within the company. Thus, improving their performance and abilities through digital knowledge management and knowledge empowerment has become critical. Today, knowledge is recognized as a valuable competitive asset for Iran Oil Terminals Company, forming the basis for sustainable growth and a key component in maintaining its competitive advantage. The innovation process within the company is highly dependent on the knowledge of its human resources, making the management of knowledge and human capital essential for enhancing human resource capabilities. Both digital knowledge management and innovation can add value and improve performance at the organizational level .

According to the Supreme Leader's emphasis on economic resilience, the goals of the resilient economy in relation to human resource capabilities should be maximized. One key element of the resistance economy is the effective use of resources and capacities, which requires careful assessment and planning. Many untapped capacities need to be recognized and utilized. Given the absence of internal research, especially in Iran Oil Terminals Company, to develop a suitable model for human resource capabilities, the gaps and shortcomings in previous research are evident. This study addresses this gap for the first time by focusing on presenting a suitable model for human resource capabilities in Iran Oil Terminals Company, emphasizing the digital knowledge management approach .

In conclusion, knowledge has become a critical determinant of competitiveness in the oil sector, and through digital knowledge management at all organizational levels, Iran Oil Terminals Company is

enhancing its human resource capabilities in the current dynamic environment. In a knowledge-based economy, companies like Iran Oil Terminals Company face intense national and international competition, and knowledge is recognized as the most important competitive factor. The company's effective functioning relies on leveraging human resource capacities, digital knowledge management, and the efficient dissemination of knowledge to align organizational learning with the company's strategic goals .

Employee turnover and transfers between departments create challenges in knowledge retention and organizational memory. As employees retire, their valuable knowledge risks being lost, which poses a primary challenge for many organizations, including Iran Oil Terminals Company. To address this, the company must innovate to preserve the knowledge of senior employees and facilitate its transfer to newer employees. This knowledge transfer is essential for improving human resource capabilities and preventing knowledge gaps that may lead to increased training costs. Therefore, capturing the knowledge of senior employees and updating it through continuous organizational learning is crucial for Iran Oil Terminals Company's success.

Human resource capabilities are vital to creating competitive advantages and achieving strategic superiority within organizations. Today, human resources are regarded as an organization's most important capital, playing a central role in achieving its goals. Organizations are increasingly investing substantial resources to attract and retain talented human resources to stay competitive. In a highly competitive environment, simply possessing the best technology or facilities is not enough; organizations must be able to leverage and manage the knowledge of their human resources across various departments to succeed. There is a significant research gap in Iran regarding the development of a model for human resource capabilities, especially in the context of digital knowledge management, to enhance organizational effectiveness. This research aims to address this gap by providing an appropriate model of human resource capabilities for Iran Oil Terminals Company, with a focus on digital knowledge management.

Thus, Therefore, according to the above-mentioned needs, this research is trying to find a suitable answer to the question that, what is the appropriate model of human resource capabilities in the Iran Oil Terminals Company with an emphasis on digital knowledge management?

Literature Review

Research in this area has not been conducted internally, and a suitable native model for designing a human resource capability model has not been developed and formulated. In the following, some researches related to the research topic will be explained. Amiri et al. (2018) conducted a study analyzing the integration of human resource management and digital knowledge management. They concluded that the use of a cohesive approach between human resource management and digital knowledge management, in a mutually reinforcing manner, enhances organizational effectiveness and performance. The model used in this research considers the links between human resources management and digital knowledge management as essential changes in four areas: roles, responsibilities, strategic focus and learning focus. Narimani (2017) analyzed the strategies of human resources management in digital knowledge management and came to the conclusion that human resources can greatly help digital knowledge management in achieving its goals. Because knowledge is shared between people. Ensuring that the organization possesses the intellectual capital it requires is a fundamental issue in digital knowledge management, and it is through this process that we recognize the significant role of human resources. KoushkiJahromi and Valian (2016) focused on designing and developing a model of human resource capabilities based on the theory of data-based modeling (case study: knowledge-based organizations). They concluded that capabilities in recruitment, specialization, and emotional aspects have a significant and positive impact on organizational outcomes. Rasouli & et. al. (2015) investigated the impact of digital knowledge management and human resource development on organizational performance at the central headquarters of the Management and Planning Organization of the country.

The current research aims to examine the influence of digital knowledge management and human resource development on organizational performance at the central headquarters of the Management and Planning Organization of the country. In terms of the purpose, it is considered as applied research, and based on the method of data collection, it is a causal survey from the branch of field research. The statistical population of this research is the employees and managers of the central headquarters of the country's management and planning organization. Through random sampling, 216 employees and managers were selected as the target sample. In order to collect data, a standard questionnaire

containing 39 questions was prepared. The current research has followed three main hypotheses. Data analysis was calculated using Laserl software, and the results indicated that the effect of digital knowledge management and human resource development on organizational performance was confirmed in all hypotheses. Ranjbar and Purkiaei (2014) by presenting an appropriate model of strategic human resource management with an approach to creating organizational knowledge capabilities in government organizations of the Islamic Republic of Iran, concluded that the fourfold infrastructure of strategic human resource management is significantly associated with three workforce characteristics (human capital, employee motivation, and employee workflow). Also, the characteristics of the workforce are significantly related to the ability to create organizational knowledge. Finally, the results show a significant relationship between the ability to create organizational knowledge and organizational innovation. Management problems in the current and upcoming decade can be divided into two parts:

- First: those problems caused by instabilities and rapid changes.
- Second: Those issues that undermine intellectual frameworks and value systems.

There is a complex relationship between pain and treatment in today's management. So that the side effects of some treatments need as much attention as the pain itself. And many solutions have serious side effects that require a plan and program for improvement. And all these plans occur in unstable and unpredictable conditions with little certainty. Among researchers outside the country, Asim and Soroushian (2019) in a study titled 'The Role of Knowledge, Innovation, and Organizational Technological Capabilities on Sustainable Effectiveness' concluded that there is a significant and positive relationship between the study variables, and the capacity to absorb knowledge mediates the relationship between human resource management policies and organizational performance. Also, their findings showed that digital knowledge management is the link between human resource management policies and organizational performance and technological capabilities of the organization. In a research titled sustainable digital knowledge management and its effect on human resource capabilities and organizational performance, Zbucnea & et al. (2019) concluded that continuous changes in the business environment have created challenges for human resource management. One of the ways to deal with these challenges is to use digital knowledge management capabilities and create innovation in organizations.

Therefore, the purpose of this article is to examine the role of human resources management directly and through the channel of digital knowledge management on organizational innovation. The results of data analysis indicate the confirmation of seven research hypotheses. In other words, sustainable digital knowledge management has a positive and significant effect on human resource capabilities and organizational performance.

Govender et al. (2018) in a research entitled digital knowledge management as a strategic tool for the development of human resource capabilities of the organization came to the conclusion that human resource management functions have a positive and direct effect on employee creativity and employee creativity has a direct and positive effect on product and process innovation. Additionally, the mediating role of employee creativity in the influence of human resource management functions on product innovation and process innovation was confirmed. Poór et al. (2018) in a research entitled digital knowledge management in human resources management concluded that among the components of human resource efficiency, the relationship between quantitative development and qualitative development and the relationship between qualitative development and digital knowledge management is positive and significant. But quantitative development does not show a significant relationship with digital knowledge management. Also, the three components of human resource efficiency show positive and significant correlations with the overall factor itself, which is significant at the 1% level in all three.

Findıklı et al. (2015) in a research entitled the relationship between organizational innovation and digital knowledge management capacity with strategic use of human resources, concluded that there is a positive and significant relationship between organizational innovation and digital knowledge management capacity with strategic use of human resources. Millar and Doherty (2016) in a research titled Designing a process model of human resources capabilities in non-profit sports organizations based on the theoretical-analytical method designed a model to develop and evaluate human resources capabilities. The results of their analysis showed that sports organizations seek to improve decision-taking and decision-making through the development of human resource capabilities and create fundamental changes in order to improve the level of employee participation. Čalopa & et. al. (2015) in a research entitled the role of human resource management principles through digital knowledge

management came to the conclusion that digital knowledge management in a precise view means the development, sharing and application of knowledge to gain benefits within organizations. The researchers' findings regarding the dependence of human resources management and digital knowledge management indicate the close relationship and dependence of employees and digital knowledge management. In this model, factors such as selection, recruitment, development and training, management efficiency, salary, reward and learning culture are necessary to fulfill the definition of digital knowledge management. One of the factors that lead to the growth and exploitation of digital knowledge management is the recovery of employees who have skills and knowledge that either do not exist in organizations, or are limited by organizations. This research has attempted to present the empowerment cycle paradigm with the aim of analyzing human resource management approaches and generating strategies for organizational effectiveness. This leads to the creation and sharing of knowledge within organizations and the strategies generated through digital knowledge management for improving human resource management. Curtis & et.al. (2007) in a study titled 'Human Resource Capabilities Model: A Guide for Development and Improvement of Working Conditions' concluded that training, leadership development, hiring, and onboarding are the most influential variables on human resources that should receive attention and emphasis.

Method

In this research, according to the goals and questions of the research and its exploratory nature, the direction of the research is both exploratory and applied. The level of analysis is individual. The different stages of conducting research are divided into two qualitative and quantitative stages:

The stage related to the qualitative research method: In this stage, using the exploratory interview method and thematic analysis among the managers of the National Iranian Oil Terminals Company, professors and specialists with experience and experts in the field of human resources, the factors affecting the capabilities of human resources are evaluated. The sampling method at this stage is in the form of a snowball and the number of samples was sufficient or theoretically saturated, so that after the 18th and 19th interviews, no new categories were extracted and the data collection process ended with the 20th interviewee. Information gathering tools at this stage include library methods for collecting existing literature

and research records, in-depth and semi-structured interviews, and thematic analysis method.

The step related to the quantitative research method: In the quantitative section, in order to validate the Human Resource Capabilities model with a digital knowledge management approach in the Iran Oil Terminals Company, all identified variables from the causal conditions, central phenomenon, strategies, contextual factors, intervening factors, and consequences of human resource capabilities development with a digital knowledge management approach were analyzed using structural equation modeling, based on a researcher-made questionnaire.

The data collection tool in the qualitative section was interviewing. In order to conduct an interview, 10 managers of National Iranian Oil Terminals Company and 10 experienced professors and specialists in the field of human resources were studied and comprehensively interviewed for an average time of 60 to 115 minutes. Data collection continued until the stage of theoretical saturation of the categories until it was not possible to obtain new data. The main process in this method, as a data analysis method, is the process of coding and classifying raw data and extracting the main concepts and categories and the relationships between them in a model that will be presented according to the conditions and situation of the research. Based on this, in line with data analysis, three coding methods are used (open coding, axial coding and selective coding). Coding is a process in which raw data is separated, categorized, and combined in a way that the result of this process can provide the final grounded theory. In the coding process, the unit of analysis is the concept. In the open coding stage, primary concepts are extracted, in the axial coding stage, major categories are extracted. In the selective coding stage, the process of integration and improvement of concepts will be carried out comprehensively; Therefore, it is necessary to do open code continuously during the data collection process, key points and codes of the data should be determined through analyzing interview data, and the researcher should be engaged in the data collection, analysis, and research issue in a coordinated manner. In this research, the data were examined multiple times after collection, and by identifying key points and relevant codes, a total of 114 codes (labels) were extracted from the collected data and transformed into 26 concepts through logical coding. Finally, these were consolidated into 3 main themes related to the research topic. For the categorization of cognitive structures of the self-analyzer (due to the scientific and practical involvement of the researcher in the research topic), technical terms are taken from the

theoretical and specialized backgrounds and experts' opinions.

In the validation section of the Human Resource Capabilities Model with an emphasis on Digital knowledge management (based on Information Digital Management), the collected data were used to develop a conceptual model in the form of a Likert-scale questionnaire with 5 options. This questionnaire was administered to a quantitative sample of 100 managers and experts from the National Iranian Oil Terminals Company. They were asked to express their opinions regarding the impact of each of the variables based on Human Resource Capabilities with a Digital knowledge management approach using the Likert scale. The results of these stages are explained further below.

Findings

After collecting the interviews, the open coding process began by extracting key and central concepts from each interview, one at a time, to generate initial concepts. As subsequent interviews were analyzed, new concepts were added to the existing ones, and initial categories began to take shape. This process continued until the saturation stage was reached when no new concepts were identified or added to the categories. Once saturation was achieved, related concepts were systematically classified into their respective categories, leading to the formation of major categories. The categorization process involved thorough examination and analysis of the interviews. In accordance with the research methodology, qualitative content analysis was conducted through open coding and iterative data analysis in a cyclical manner. The axial coding stage aimed to establish connections between the concepts identified during the open coding phase. In this stage, concepts derived from open coding were compared and grouped based on their similarities, forming clusters around a central axis. This process allowed related concepts to be unified under common themes. The results of open and axial coding are summarized in Table 1.

Table 1. Conceptualization resulting from research data (open and axial coding)

The main concepts	Secondary code
Human-behavioral abilities	Personality traits, negotiation and persuasion skills, communication skills, digital management skills, people management skills, management skills

Specialized-technical abilities	Organizational digital knowledge management, knowledge of human resource strategies, understanding tools for human resource capability development, theoretical and scientific dimensions of human resource management, knowledge of human resource behavior, internalization of tacit knowledge, externalization of explicit knowledge, knowledge and skills in knowledge creation or generation, knowledge transfer and dissemination management, creating learning environments with motivating characteristics, incentive for innovation, knowledge sharing and distribution, individual knowledge, IT skills, information management, digital management, FAVA.
Analytical abilities	Systemic thinking, analytical thinking, strategic thinking, creative thinking, logical thinking, organizational intelligence, interdisciplinary attitude, questioning mind, emotional intelligence, ability to solve problems
Recruitment and sourcing strategy	Reengineering the recruitment policies of the National Iranian Oil Terminals Company, developing appropriate strategies in line with the capabilities and capacities of the company, implementing effective and strategic human resource management in the job market, establishing systematic communication with educational institutions and training organizations, succession planning
Human resources improvement strategy	Implementation of an effective performance evaluation system and the right indicators, Enhancing participation levels and the creation of decision-making teams from human resources in the National Iranian Oil Terminals Company, Improving self-control and self-management levels within human resources, Enhancing the quality of employees' work-life and the development of their mental capabilities, Establishing human resource circles involving managers and employees, Human resource talent management, Job enrichment and development, Improving organizational responsiveness, change and growth orientation, Organization and utilization of an organization's well-arrangement code system, Aligning human resource

	strategies with organizational strategies, Using incentives and reward management to motivate feedback from human resources in the form of work reports, potential complaints, and issues
Emotional strategies	Managing the emotions of human resources, improving the level of mental resilience of human resources, recognizing the psychological and intellectual needs and expectations of human resources, institutionalizing values and behavioral norms of human resources, improving the level of values and behavioral norms of human resources
Behavioral consequences of developing human resource capabilities	Reducing behaviors based on psychological isolation, increasing the level of sociability of human resources, reducing anti-citizen behaviors of human resources, improving the level of organizational trust between human resources, improving the level of quality of work life of human resources, increasing the level of job satisfaction of human resources, increasing the level of accountability of human resources
Effective consequences of developing human resource capabilities	Enhancing the mental capacity of human resources, agility in human resources, career path and career roadmap for human resources, appropriate and proportionate job rotation for human resources, alignment of human resources with higher-level organizational strategies
Competitive consequences of developing human resource capabilities	Balanced and fair distribution of power in the organization, paying attention to the job independence of human resources, paying attention to flexibility in work processes, appointing human resources based on interests and capabilities, reducing the level of job burnout

- Presenting the appropriate model of human resource capabilities with an emphasis on digital knowledge management

The process of creating a model is the main stage of theorizing where the researcher presents the theory based on the results of open, axial and selective coding. This approach may have strengths and weaknesses that play an important role during the study and gathering of interviews in transition conditions. Amidst this, the primary phenomenon and strategies to respond to it are crucial, operating within a framework and intervention

conditions, paving the way for creating a new model. The paradigmatic model of this study, based on the development of human resource capabilities with an emphasis on digital knowledge management (with a focus on digital information management), is illustrated in Figure 1.

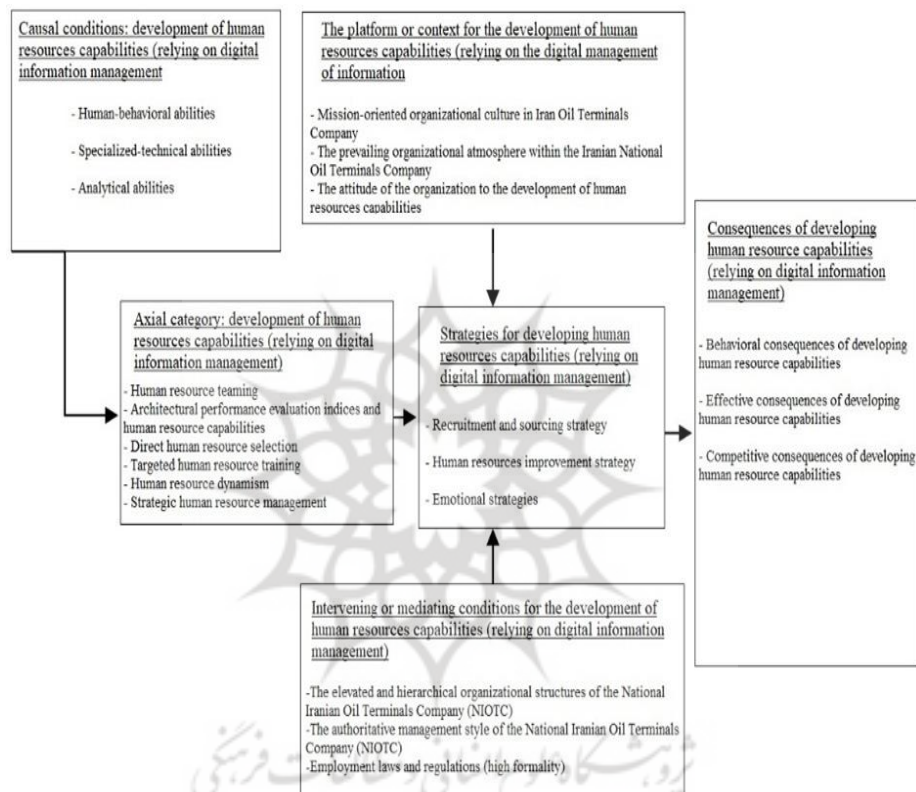


Figure 1. Paradigmatic model of human resource capabilities with emphasis on Digital knowledge management

- Validation of the model

In qualitative research, there are different standards and criteria for validation. To ensure the validity and reliability of the data, the following four standards or concepts are used:

Credibility: This criterion refers to the authenticity of research descriptions and findings. In the current study, continuous and persistent presence in the research environment for 85 days was maintained to collect information, and interview files were reviewed and examined multiple

times. Furthermore, all stages of the research and the mentioned factors were accurately documented and discussed with the participants regarding the findings.

Transferability: It refers to the degree of generalizability or transferring the results to other fields and environments. Therefore, in the current research, the results are expressed in sufficient detail and in depth to achieve the criterion of deep description, which is one of the transferability criteria.

Reliability: In qualitative research, reliability replaces the concept of reliability. In order to increase the reliability, it is recommended that the researcher pay attention to the changing conditions of the research plan, the changes in the study phenomena, and in general, to the changing field of the research and describe these changes accurately. In this research, attention has been paid to all these cases. For this purpose, the recorded interviews, the transcribed texts of the interviews, the interview guide sheet, the list of interviewees and the categories inferred from the data and notes of the researcher were all recorded and documented.

Confirmability: It refers to the issue of how far the research findings have been free from the influence of manipulation or researcher's views. In this research, to ensure the verifiability of the information, from the very beginning of the research, all the documents related to the research data as well as the conclusions, interpretations and findings were registered and recorded in a systematic way. The extracted concepts and categories along with the findings were again informed to the interviewees and their corrective comments were applied or after resubmitting, the items received their final approval.

In the validation phase of the human resource capabilities model, with an emphasis on digital knowledge management, the identified variables were used to develop the conceptual model in the form of a 5-point Likert questionnaire. This questionnaire was administered to 100 managers and experts of the Iranian Oil Terminals Company to assess the impact of each variable in accordance with the capabilities of human resources with an emphasis on digital knowledge management across a spectrum of opinions. the results of fitting the conceptual model of the research are presented in Figure 2.

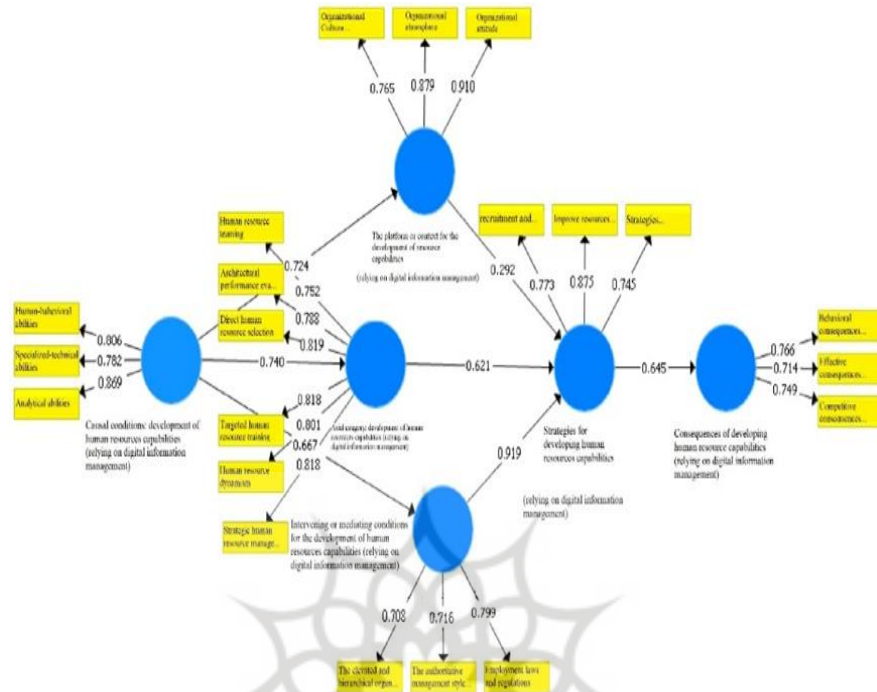


Figure 2. The reflective model of research in the mode of estimating standard coefficients

The path coefficients are in standard mode and their values change between +1 and -1. The closer the route coefficient is to one or negative one, the greater the influence of that route. The standard coefficients of the external models (factor loadings) somehow indicate the validity of the structure. The path coefficients of external models change between 0 and 1. After plotting the coefficients of the path, the significant numbers between the paths and variables are drawn in the form of the diagram of the significant number t in the form of Figure 3.

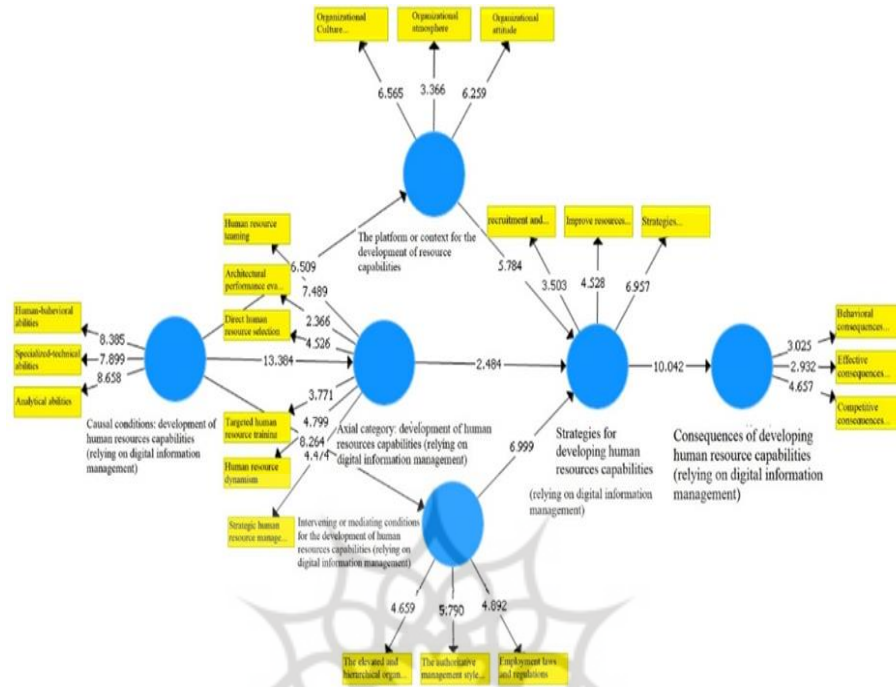


Figure 3. The reflective model of research in the significance of coefficients

According to this diagram, if the significance number between two variables is greater than +1.96 and -1.96, the relationship between the two variables is significant and vice versa. The findings show that the effect of all the factors on each other in the development of human resource capabilities with the digital knowledge management approach is significant and all the coefficients are positive and significant.

- GOF index in order to validate the structural model of the research

This test shows the quality of the overall model. This index is the square of the average of the common values and the average of the determination coefficients.

$$GOF = \sqrt{(\text{communality}) \times (\overline{R^2})}$$

$$GOF=0.855$$

This value should be compared with three values of 0.01, 0.15 and 0.35, which are described as weak, medium and strong respectively. According to the value of the GOF index obtained using the formula, which is equal to 0.855, the quality of our overall model is evaluated as very strong.

Conclusion

For the expansion and development of an organization, it is necessary to transfer knowledge, expertise, skills, and the appropriate mindset to human resources to face changes and keep up with the latest global technologies. In order to bring an organization closer to growth and excellence in terms of performance, it is essential to invest in its human resources. In fact, it is through training human resources in skills and expertise that the foundation for development in an organization is established. In the age of information and communication, the superiority of organizations depends on possessing information, knowledge, and the means to distribute it effectively. The ability of human resources to acquire information and technical knowledge, as well as to distribute and utilize it, forms the foundation for an organization's survival and competitiveness.

In advanced organizations, this knowledge and expertise are considered the core capital of the organization and act as the driving force behind the performance of human resources. Having an expert and skilled workforce can be regarded as the greatest advantage of an organization over its competitors. For this reason, the primary challenge for organizations lies in recruiting, developing, and retaining human resources within human resource management processes. While capital, resources, and raw materials are important factors in the production of goods and services, skilled and knowledgeable human resources, through knowledge-based utilization of capital and resources, can ensure an organization's survival and competitiveness in the external business environment.

Therefore, due to the lack of a comprehensive model or framework for developing human resource capabilities based on the digital knowledge management approach, as well as the insufficient background in this field, this research was conducted with the aim of designing a model for human resource capabilities based on the digital knowledge management approach. After the initial coding, the researcher combined the codes and placed similar codes into abstract classes called categories. Finally, similar categories were grouped at a specific conceptual level. By examining and

analyzing the data from the interviews, the final research model was obtained. As a result, the findings were synthesized into 114 codes and 26 concepts, categorized into three groups: human-behavioral abilities, specialized-technical abilities, and analytical abilities.

This research determined that the role of human resource capabilities in the growth and development of organizations is undeniable. It is the responsibility of human resource management to leverage this intra-organizational capital for the advancement and excellence of the organization. A shortage of qualified human resources can hinder an organization's progress. Hence, the demand for skilled and efficient human resources is increasing, and securing specialized human resources has become a significant challenge for organizations. In fact, organizations today require the design of strategic processes to attract and retain committed and skilled human resources. Development, motivation enhancement, and the creation of necessary incentives for greater productivity are among the factors that must be given significant attention.

It is recommended that the model presented for human resource capabilities based on the digital knowledge management approach in this study be used in designing recruitment and selection systems in various companies, ensuring that companies consider the designed components of the model during the hiring process. Additionally, it is suggested that the human resource managers of the Iran Oil Terminals Company and educational institutions use this model to design suitable in-service training courses for their managers and employees. The framework and indicators related to evaluating the performance of company personnel can also incorporate elements from the current model. Career path management systems can be redesigned using this model as well.

Furthermore, individuals interested in pursuing careers in human resource management can use this model to acquire the necessary managerial skills before entering the labor market and prepare themselves effectively. The findings of this study align with the results of previous research by Asim and Soroushian (2019), Zbucha et al. (2019), Govender et al. (2018), Poór et al. (2018), Fındıklı et al. (2015), Millar and Doherty (2016), and Čalopa et al. (2015). To deepen and extend the current research, it is suggested to study the design of the human resource capabilities model based on the digital knowledge management approach, focusing on specific industries (e.g., the petrochemical industry, leather industry, automobile industry, etc.).

CONFLICT OF INTEREST: The authors declare that they have no conflicts of interest regarding the publication of this manuscript.

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