PRESENTING A MODEL FOR THE ROLE OF HUMAN RESOURCE MANAGEMENT IN THE ALIGNMENT OF INFORMATION TECHNOLOGY AND BUSINESS

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INTRODUCTION
Today, IT alignment (IT) and strategic areas called strategic alignment (SA), and its role in increasing organizational performance, increasing innovation capacity and advantage Competitive has been discussed in information systems(IS) research (GEROW ET AL, 2014, p.1060; CHAN, REICH, 2007, p. 299; OEHLHORN et al, 2020, p.3). In recent decades, information technology has covered into various aspects of human life, including production and the economy on a large scale. This phenomenon has affected the various economic relations and dimensions to such an extent that even the structure of national economies has changed the world (ASONGU, ODHIAMBO, 2019, p.3).

Information technology is important in the economic prosperity of an organization. Because it helps to strengthen the production capacity of the organization (Hong, 2016). Strategic alignment or alignment of information technology and business goes far beyond the role of information technology in business and reduces the gap between information technology and business at the strategic and operational level (OEHLHORN et al, 2020, p. 3). The point here is that organizational managers can play an important role in strategic alignment through their effective actions in the human resources sector (MELVILLE et al, 2004, p. 283; OEHLHORN et al, 2020, p. 4).

Human resource (HR) is the most important factor in any business. Because organization’s human resources are recognized as a source of competitive advantage. Human resource management can be used as a tool to reduce the problems that the organization faces. (Giauque et al.). Human resources management (HRM) is an organizational and strategic function that involves managing all employees in the organization to succeed in business and create a competitive advantage (ULRICH, 2009, p. 231; ULRICH, 1997, p. 281; WRIGHT, 2011, p. 297). Research shows that efficient human resource management is a key factor in organizational success (PAAUWE, 2004, p. 4).

In previous years, researchers used the strategic alignment model of Henderson & Venkatraman (1993, p. 4) to examine strategic alignment in organizations. This model traditionally shows the alignment of information technology and business and introduces human resources in some minor areas. Nevertheless, this model has long been used and useful (AVISON et al., 2004, p. 235; RENAUD et al., 2016, p. 77). Then in a study by Oehlhorn et al, (2020, p. 5), the alignment of information technology and business and the role of human resource management were examined for the first time. The method used in the present study is also based on the model used in the research by Oehlhorn et al, (2020, p. 5). Exceptionally, the present study uses qualitative and quantitative methods to model the role of human resource management in the alignment of information technology and business.

Human Resource Management (HRM) is a type of management that focuses on planned patterns, human resource deployment, and activities that enable the company to achieve its goals (WRIGHT, MCMANAHAN, 1992, p. 297; CUSKELLY et al, 2020, p.5). Traditionally, human resource management is an organizational and strategic function dedicated to managing all individuals to succeed in business and gain a competitive advantage and is often performed by a human resources department (OEHLHORN et al., 2020, p. 4). In general, functions of HRM can be described as follows (NOE et al, 2020, p. 579; WIRTKY et al, 2016, p. 22).

• Planning: includes determining the number of employees and skills needed to meet the future operational needs of the organization. Human resource planning determines the number and types of human resources needed to achieve organizational goals.
• Resourcing: includes obtaining and using the necessary human resources to meet organizational needs. To do this, the organization identifies the best human resources with the appropriate knowledge, skills and abilities.

• Developing employees: It is very important to improve the job performance of employees and prepare them for future situations and goals. It manages the performance, output, and performance of the labor, compares it with goals, and analyzes differences. Employee training enables employees to receive knowledge, skills and related behaviors. Employee development enables them to acquire knowledge, skills and behaviors and increases their ability to achieve changes in job needs and customer wants.

• Motivation: Motivation in employees leads to better performance and loyalty. Motivating employees is essential in competitive markets.

• Administrating: It includes repetitive actions to create a cultural and legal environment to determine employee performance duties that can be useful in reducing costs.

IT and business alignment is rooted in the strategic management literature of the 1980s. At that time, organizations recognized that information strategic is valuable for achieving high performance and maximum efficiency in the organization. In the late 1980s and early 1990s, the concept of information technology and business alignment was introduced in the IS literature, and it was the strategic alignment (SAM) (SCOT - MORTON, 1991, p. 331). In 1993, Henderson and Venkatraman developed SAM model based on the IS concepts (AVISON ET AL., 2004, p. 235; RENAUD et al., 2016, p. 77). So that each of these four areas has three main components that are related to each other. The SAM identifies organizations in four areas, including business strategy, IT strategy, business infrastructure, and IS infrastructure. So that each of these four areas has three main components that are related to each other.

Business strategy: This strategy determines the organization's position and competition in the market of goods and services and includes the scope of business (indicates the choice of goods and services), distinctive competencies (in the form of strategy features that contribute to competitive advantage) and business governance (represents a set of business relationships).

• IT strategy: This strategy defines the organization's position and competition in the IT market and includes the scope of technology (which is the selection of applied information technologies), systemic competencies (in the form of IT strategy features that help create competitive advantage), and information technology governance (which includes the selection and use of tasks to achieve IT competencies).

• Business Infrastructure: This infrastructure is a combination of business structure and operational management and includes the administrative infrastructure, core business processes and business skills required to implement business strategies.

• IS infrastructure: includes the Architectures of the technical structure related to the central IS processes that controls the IS infrastructure and has the IS skills required to manage and operate the IS infrastructure. So this infrastructure includes Architectures, processes and skills.

Human resource management and IT and business alignment

• Human resource management performance adopts different methods, policies and systems for the organization's human resources and gain a competitive advantage (NOE ET AL, 2020, P.579; JACKSON ET AL, 2014, P.58). In order to reveal the role of human resource management in the alignment of information technology and business, HRM performance tasks are reviewed as follows: To meet and manage the organization's need for talent and skills, HRM performance traditionally focuses on several functional tasks including a number of consistently methods outlined in Table 1. Organizations need skilled and motivated individuals to improve their performance, so HRM seeks to find, employ, retain and develop a labor tailored to the labor needs. The long-term demand for human resources, based on internal forecasts and business challenges equates to supply and sales opportunities. HRM motivates employees in a...
variety of ways to support and advance their careers. Specific HRM methods help manage and support these performance tasks (NOE et al., 2020, p. 579).

To identify the tasks and methods of human resource management to maintain the balance of information technology and business, we must first understand the role of human resources in this alignment. Therefore, the question arises that given that human resources have a key role in achieving organizational goals, can human resource management help achieve the alignment of information technology and business or strategic alignment? Little research has been done in the past after the IS concept in the field of IT and business alignment (BAETS, 1992, P.207). Recent research on strategic alignment and value creation also highlights the need to invest in technology and human resources (KAPPELMAN et al., 2019, p. 28; OEHLHORN et al, 2020, p. 5). Therefore, the present study has developed the relevant discussion using the results of previous research in this field.

METHODOLOGY
This research is a type of combined research (qualitative and quantitative) that is applied in terms of purpose and descriptive-exploratory in terms of data collection with inductive approach. In the qualitative part, the method of this research is based on grounded theory method. Theory is a general, inductive, and interpretive research method developed by Glaser and Strauss in 1967. The main function of the foundation data is the emergence of theories (HILDEBRAND, 2004, p. 185). However, fundamental theory is related to previous patterns of research methods and did not arise suddenly. Data-based theory (fundamental theory) is an inductive and exploratory research method that allows the researcher in various subject areas to formulate theory and proposition instead of relying on existing and pre-formulated theories (WAGNER et al, 2010, p. 10).

In this part, the three basic steps of grounded theory method include Open coding, axial coding and selective coding were used. Strauss, Corbin (1994, p.56) recommend that coding be done through microanalysis. By this type of analysis, data is analyzed verbatim and the meanings found in words or open groups of words are encoded. This method has two drawbacks: firstly, it is time consuming and secondly sometimes leads to ambiguity and confusion. In addition, sometimes the division of data into words leads to the contamination of the soul and there is a kind of doubt about what to look for in the text. By Glaser (1992, p. 66) It is suggested that coding is key points. In this method, instead of coding individual words, key points are identified and coded. Therefore, in this research, coding is based on Glaser method. Grounded theory means the central phenomenon, causal conditions, ground conditions, intervening conditions, strategies and consequences.

Thus, semi-structured interviews with experts, including university professors specializing in business management and information technology, as well as experimental elites in Iran’s manufacturing industries were used. The interview consists of two parts, the first part is the demographic information of the experts and the second part is the main questions of the interview consisting of 6 questions. The sampling method is judgmental and the sample size continued until theoretical saturation. After conducting the interview, we reached a theoretical saturation with 10 interviews, of which 6 were university professors and 4 were industry managers. Also, among the experts studied, 8 were male and 2 were female; 1 person had a master’s degree and 9 people had a doctorate degree. Finally, with the exception of two of them, the other interviewees had more than 10 years of experience.

In the quantitative part, of the identified components in the qualitative part, a questionnaire in 5-point Likert scale was developed firstly. Then, by modeling structural equations with partial least squares approach (PLS) and Smart PLS software, the role model of human resource management in the alignment of information technology and trade was tested. The statistical population in the quantitative section are experts and managers of Iranian manufacturing industries. By non-probability sampling and quota sampling, 156 people were selected as the statistical sample. Of the statistical sample selected in the quantitative section, 42% were female, 58% were male, and 10% were 18-30 years old. 45% were 40-31 years old, 25% were 50-41 years old, 20% were 51 years old and above; In terms of education, 20% had a bachelor’s degree, 56% a master’s degree and 24% a doctorate.
FINDINGS

Findings of the qualitative section
As mentioned, the qualitative part is done by grounded theory method in three stages including open coding, axial coding and selective coding.

Open coding
In open coding, the content of all interviews was implemented and written firstly and then their open coding was done by key point coding method. Open coding was performed in three stages including, first stage, second stage and third stage. At each stage, the number of data decreases compared to the previous stage (MARKEY et al., 2020, p.94). Thus, after merging similar codes, a total of 114 codes were extracted from the open coding of the third stage. Table 1 shows number of codes extracted from each interview.

Table 1. Number of open source extracted from each interview in the third step

| Interview No. | Number of open source extracted in the third step |
|---------------|-----------------------------------------------|
|               | Number of open source extracted in the third step    |
|               | 10 | 1          |
|               | 12 | 2          |
|               | 24 | 3          |
|               | 11 | 4          |
|               | 20 | 5          |
|               |  8 | 6          |
|               | 10 | 7          |
|               |  5 | 8          |
|               |  7 | 9          |
|               | 114| total      |

Source: Elaborated by the author

Axial coding
Axial coding is the second step of analysis in the foundation data method. The purpose of this step is to establish the relationship between the classes produced in the open coding step (Creswell, 1998, p.50). This operation is based on the paradigm model and helps the theorist to simplify the theory-making process. The code generated in the previous step is linked to each other by creating communication networks between the codes, a process that is analyzed by the data obtained from open coding. Therefore, the purpose of axial coding is to sort the relationship between each concept (SUN, 2011, p.90). While establishing connections on the network, it is necessary to examine how these categories relate to each other.

This step was done by networks formation to create connections between concepts, categories and components. According to the results, finally, 6 main networks, 22 main components and 114 sub-components were identified by interview analysis for the role of human resource management in the alignment of information technology and business. Therefore, by axial coding, six main networks were identified as follows: axial phenomenon (4 main components), causal conditions (3 main components), ground conditions (3 main components), intervening conditions (2 main component), strategies (5 main Components and Consequences( 5 Principal Component). Axial Coding Results are presented in Table 2).
Table 2. Axial coding results

| Sub-components | The main component | Network |
|----------------|-------------------|---------|
| **Hiring IT staff** | Management responsibility | Human resources management |
| **Hiring commercial staff** | Management knowledge | |
| **Integration** | Staff system development | |
| **To unite** | Project Management | |
| **Business skills** | Business knowledge | Trade competence |
| **Customer understanding** | Understand trade | |
| **Market knowledge** | Business capabilities | |
| **IT capabilities** | IT knowledge | IT competence |
| **IT skills** | IT experience | |
| **Competence in the integration of IT and business** | Integration of information technology and trade | Reciprocal competence |
| **Combined skills of managers** | Staff multitasking skills | |
| **IS managers** | Manager experience | organization management |
| **Business managers** | Problem solving skills | |
| **talent management** | Excellent management team | |
| **Customer acceptance** | IT managers | |
| **Customer preferences** | Customer | |
| **Customer needs** | | |
| **Mutual support** | Organizational Culture | Casual conditions |
| **mutual trust** | Team-centered environment | |
| **IT experts** | Mutual interest | |
| **IS professionals** | | work force |
| **ICT personnel** | | |
| **Trade level business units** | Commercial domain | Grounded conditions |
| **Business groups** | Business performance | |
| **IS domains** | Business areas | |
| **IT units** | IT domain | |
| **IS units** | IT performance | |
| **IT groups** | IT function | |
| **Business risk** | IT domains | Internal risks |
| **Boycott** | Human resource risk | | |
| **Corona virus outbreak** | IT risk | | |
| **Inflation** | Exchange rate fluctuations | | |
| **Team Coordination** | Build relationships | | |
| **Build relationships** | Develop relationships | | |
| **Cooperation** | | | |
| **Common skills** | Knowledge sharing | | |
| **Experience sharing** | Negotiation | | |
| **Share credentials** | Knowledge exchange | | |
| **Agility** | Variability | | |
| **Adaptability** | | | |
| **Hiring a business-educated labor** | Labor training | | |
| **Labor support** | Hire an experienced labor | | |
| **Effort support** | Hiring an IT-educated labor | | |
| **human resources planning** | Assessment | | |
| **Hiring human resources** | Administration and support | | |
| **Evaluate feedback** | Control | | |
| **Training programs and seminars** | Provide policies | | |
| **Resource planning** | Roadmap design | | |
| **Development planning** | Identify goals | | |
| **Increase revenues** | Profitability | | |
| **Reduce costs** | | | |
| **Motivate business** | sales increase | | |
| **Compensation for trade damages** | Job development | Business performance development |
| **Quality of IT infrastructure** | Online shopping | | |
| **Increase the use of information technology** | | IT performance development |
| **Labor loyalty to the organization** | Increase labor motivation | | |
| **Increase labor production** | Labor productivity | | |
| **Use of information technology in business electronic commerce** | Behavior sharing | | |
| **Alignment behavior** | Equality competence | | |
| **Alignment knowledge** | | | |

Source: Elaborated by the author.
Selective coding

Selective coding is the process of integrating and improving categories. The point to be considered at this stage is that if the purpose of the research is to theorize, the findings should be presented in the form of related concepts and not just a list of topics. It is important to note that there is always more than one way to show relationships. In order to achieve the desired integration, it is necessary for the researcher to set the main line of the subject and describe the main line of the story with commitment. In selective coding, the researcher discovers a principle and regularly associates a main category with other categories (Zhang and Ma, 2009, p.116). The main category must have the following characteristics: First, it should be obtained by codes that are centrally coded in the coding phase. Secondly, it should show the highest frequency in the coding process. Thirdly, all communication with the categories should be done spontaneously (He and Shi, 2009, p.47). Selective coding results (qualitative model of the research) is based on the Figure 1.

Figure 1. Research Qualitative Model (Source: Elaborated by the author)

Grounded conditions: Labor, Grounding the business, Grounding IT

Consequences: Economic performance, commercial performance, IT performance, Labor productivity

Alignment behavior

Strategies: Relations, Participation, flexibility, planning

Axial phenomenon: Human resource management, Business competence, IT competence and mutual competence

Casual conditions: Management of the organization, customer, organizational atmosphere

Intervening conditions: internal risks, external risks

Source: Elaborated by the author.

Validation of qualitative data

Data validation in the foundation data method process is done in three ways (Strauss and Corbin, 1994, p.59); these methods have been used in this study. These three methods are:

1. Increasing the transparency of the research process
   Validation is achieved in great detail by increasing the transparency of the research process by distributing the steps taken, the techniques and tools used, and the sections in which the information is collected. Due to the transparency of the information obtained in the three stages of open coding, axial coding and selective coding, the validity of the research data is confirmed by the transparency of the research process.

2. Presenting the findings to the participants
   One of the principles of qualitative methods, and in particular the grounded theory method, is its centered-participatory. In this study, the researcher made no attempt to steer the results in a specific direction and all the results were the result of the interviewees’ responses. To validate
the foundation data method, the research findings were provided to the interviewees and all interviewees confirmed the research findings.

3- Continuous comparison of findings with raw data
At each stage of the higher coding, the obtained data were compared with the data of the first stages of interview and open coding to confirm the validity of the higher stage coding data.

**Findings of quantitative section**
In this section, a questionnaire was designed by the components identified in the qualitative section and provided to the statistical sample in the quantitative section. After collecting and extracting the questionnaire data, the quality of the model was evaluated by the measurement model first. Then, the structural equation model with the partial least squares approach (PLS) was estimated to test the qualitative model or the role model of human resource management in the alignment of information technology and business.

**Examining the measurement model**
To evaluate the model fit quality, several indicators are calculated. In the following, these indices are shown for each of the hidden variables (6 main grounded network) calculated and in the table (3). Cronbach’s alpha and Dillon-Goldstein \( \rho \) measure indicate the reliability of statistical data. Since these values are higher than 0.7, there is acceptable reliability in the data. Also considering that the CR level is higher than 0.7 and AVE is higher than 0.5, there is convergent validity in the data.

**Table 3. Examining the measurement model**

| Hidden variables          | Cronbach’s alpha | Criterion \( \rho \) Dillon-Goldstein | CR   | AVE  |
|---------------------------|------------------|--------------------------------------|------|------|
| Axial phenomenon          | 0/878            | 912 0/                               | 0/895| 0/571|
| Causal conditions         | 0/841            | 0/912                                | 0/894| 0/573|
| Background conditions     | 0/882            | 0/912                                | 0/859| 0/567|
| Interfering conditions    | 0/879            | 0/914                                | 0/888| 0/571|
| Strategies                | 0/852            | 0/901                                | 0/885| 0/564|
| consequences              | 0/842            | 0/912                                | 0/841| 0/565|

Source: Elaborated by the author.

In the next step, the diagnostic validity of the hidden variables is obtained. For this purpose, first the correlation values between the hidden variables are obtained. These values are then copied to an Excel file and taken from the AVE values in the table (3). The root values are replaced by the original diameter of the correlation matrix or the values of 1. According to Fornell & Larcker (1981), the acceptable roots obtained should be greater than the correlation values of one structure with other structures. The values are presented in Table 4. For the diagnostic validity of the hidden variables, the values obtained in the original diameter should be greater than the correlation of one structure with other structures. As can be seen, this condition exists in Table 4, so the diagnostic validity of the hidden variables is confirmed, so the patterns are considered appropriate in terms of the said fit indices.

**Table 4. Evaluation of diagnostic validity of hidden variables**

| Hidden variables          | Axial phenomenon | Causal conditions | Background conditions | Interfering conditions | Strategies | consequences |
|---------------------------|------------------|-------------------|-----------------------|------------------------|------------|--------------|
| Axial phenomenon          | 0/76             |                   |                       |                        |            |              |
| Causal conditions         | 0/445            | 0/76              |                       |                        |            |              |
| Background conditions     | 0/452            | 0/478             | 0/75                  |                        |            |              |
| Interfering conditions    | 0/458            | 0/447             | 0/478                 | 0/76                   |            |              |
| Strategies                | 0/411            | 0/395             | 0/442                 | 0/452                  | 0/75       |              |
| consequences              | 0/358            | 0/428             | 0/446                 | 0/448                  | 0/412      | 0/75         |

Source: Elaborated by the author.

**Estimation of structural equation model (PLS)**
In this section, the path coefficients or factor loads of hidden variables and their significance are calculated by Smart PLS software based on the model presented in Figure 1. The results of
factor load and t-statistic of path coefficients are as shown in Figures (2) and (3). Also, results of path coefficients and the t-statistic is presented in the table (5) for the significance of path coefficients. As can be seen, all path coefficients are significant at the level of probability of 1%, 5% or 10%. Therefore, causal conditions with a factor load of 0.533 affects the axial phenomenon. The axial phenomenon, ground conditions and intervening conditions affect the strategies with factor loads of 0.326, 0.481 and 0.361, respectively, and strategies with a factor load of 0.839 affect the consequences. Since all factor loads are above 0.3, it can be said that the results obtained are acceptable.

**Figure 2.** Structural equation model of the role of human resource management in the alignment of information technology and business.

![Figure 2](image)

**Source:** Elaborated by the author

**Figure 3.** Significance of path coefficients of structural equation model.

![Figure 3](image)

**Source:** Elaborated by the author.
Table 5. Path coefficients and significance of the coefficients

| Relationships                              | Path coefficient | Statistic t | Result |
|--------------------------------------------|------------------|-------------|--------|
| Causal conditions on the central phenomenon| *0/533           | 1/920       | Significant |
| Axis phenomenon on strategies              | **0/326          | 2/611       | Significant |
| Underlying conditions on strategies        | *0/481           | 1/827       | Significant |
| Interfering conditions on strategies       | *0/361           | 1/909       | Significant |
| Strategies on consequences                | ***0/839         | 9/905       | Significant |

Source: Elaborated by the author.

* Coefficients are significant at the level of 10% probability; ** Coefficients are significant at the 5% probability level; *** Coefficients are significant at the 1% probability level.

CONCLUSION AND RECOMMENDATIONS

In recent decades, information technology has covered various aspects of human life, including production and the economy on a large scale. This phenomenon has affected the various economic relations and dimensions to such an extent that it has even changed the structure of national and global economies. Strategic alignment or alignment of information technology and business goes far beyond the role of information technology in business and reduces the gap between information technology and business at the strategic and operational levels. In this regard, according to the research literature, human resource management can play a role in strategic alignment. Therefore, the present study was conducted to present a model of the role of human resource management in the alignment of information technology and business. This study was conducted in two parts, qualitative and quantitative, in order to identify the components and present a qualitative model by the data foundation method and test the model by structural equations. The qualitative part was done with the help of interviews with experts and the quantitative part was done by a questionnaire developed by the identified components.

Based on the results of the qualitative section, finally 6 main networks, 22 main components and 114 sub-components for the role of human resource management in the alignment of information technology and business were identified by interview analysis and grounded theory. The central phenomenon consists of 4 main components of human resource management, business competence, IT competence and mutual competence. Axial phenomenon is a mental form of the phenomenon that forms the basis of the process. Therefore, the management of the organization must have sufficient knowledge to hire employees and develop their system, as well as to integrate and unite them. In the meantime, information technology and business must have the necessary competence to be able to implement strategic alignment in the organization. This competence includes knowledge, understanding, experience, skills, capabilities in information technology and business, and mutually, this understanding and knowledge must coexist. In other words, the management of the organization and the employees must have the combined competencies and skills to integrate business and information technology.

Causal conditions were defined by the three main components of organizational management, customer and organizational atmosphere. Causal conditions are factors that affect the central phenomenon in a causal way. Therefore, the main or axial phenomenon can be achieved by the management of the organization, customers and the desired organizational climate. Therefore, the management of the organization with experience and skills in the field of IT, IS and busi...
information technology, which includes areas, units and specific functions of strategic alignment, can be achieved strategies of this study. Intervention conditions were defined by two main components: internal risks and external risks.

These conditions are factors that are outside the main scope and in a general context and affect strategies in an intervening way. Intervention conditions are risks that exist for the organization in any case. These risks are either within the organization or outside an organization where external risks are not under the control of the organization. Therefore, human resource, IT and business risks within the organization and risks such as inflation, exchange rate fluctuations, sanctions and the spread of the Corona virus all play a role in strategies and put them at risk. Strategies were defined by 5 main components including communication, participation, flexibility, labor empowerment and planning. Strategies are specific actions or interactions that result from a central phenomenon and affect outcomes. Therefore, human resource management by implementing communication and participation in the form of knowledge and information exchanges, team building and coordination and cooperation, sharing experiences and competencies can implement strategic alignment in the organization. Also, human resource management to implement strategic alignment, must have flexibility such as agility and the ability to change and adapt. Human resource management should employ a superior and specialized labor in the organization through various means such as training, labor support, hiring an experienced and knowledgeable labor, and in this regard, the necessary planning to identify goals and prospects and also hire labor and train them. Implications were also described by 5 main components including economic performance development, business performance development, IT performance development, labor productivity and alignment behavior. Consequences are the output of employing strategies. Therefore, if the mentioned strategies are followed correctly, profitability and cost reduction for the organization can be achieved. This increase in profitability is due to increased sales due to improved business performance and reduced costs due to the use of information technology in production. Also, according to the strategies used, labor productivity will increase with increasing production and their motivation. Eventually, the alignment behavior that emerges from the integration of information and communication technology and business will improve with increasing knowledge and competence in this field.

After identifying the components of the role model of human resource management in the alignment of information technology and trade, by structural equations with partial least squares approach (PLS), the proposed qualitative model was tested to obtain path coefficients and significance of the coefficients. Causal conditions with a factor load of 0.533 affect the axial phenomenon. The axial phenomenon, underlying conditions and intervening conditions with a factor load of 0.326, 0.481 and 0.361, respectively, affect the strategies and strategies with a factor load 0.839 is effective on outcomes. This result shows that strategies have the most factor to influence the outcomes. Also, causal conditions have a relatively high impact on the central phenomenon and the underlying conditions have a greater role on strategies than the central phenomenon and conditions. It has an interventer, so we can say that Ali’s conditions and contexts are more important factors for achieving strategic alignment than intervening conditions. Among the causal conditions, organizational climate is more important for the central phenomenon than organizational and customer management. Among the underlying factors, IT grounding is more important than the labor and business grounding to achieve strategies. The most important central phenomenon for the organization in relation to this study is human resource management that can implement strategic alignment well in the organization. Intervention conditions, which are external risks, are more important than internal risks and affect strategies more. For strategies, planning is the most important factor in achieving strategic alignment. Therefore, it can be said that human resource management should prioritize planning in order to achieve this important goal.

Also, in the consequences, alignment behavior is of the highest importance, which can be said, human resource management can improve alignment behavior in the best possible way by improving planning in this area. The results of this study are consistent with the results of OEHLHORN et al, 2020; KAPPELMAN et al., 2019; NOE et al, 2020; JACKSON et al, 2014.
Based on the obtained results, it is suggested that the management of the organization take the necessary measures for planning in the field of human resource management, and in the meantime, great importance should be given to the organizational climate and information technology. Because organizational climate is one of the important factors in achieving strategic alignment that may be neglected in many organizations. Also, given that in Iran, there are always problems such as sanctions, exchange rate fluctuations and inflation, the organization to deal with these problems should take measures such as hiring skilled labor, labor training and information technology training for employees. To be able to reduce the problems of external risks to some extent in the organization.

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Presenting a model for the role of human resource management in the alignment of information technology and business

Abstract

The present study was conducted to present a model for the role of human resource management in the alignment of information technology and business. This study was performed in two parts, qualitative and quantitative, in order to identify the components and present a qualitative model by grounded theory method and test the model by PLS structural equations. Based on the results of the qualitative part, finally 6 main networks, 22 main components and 114 sub-components were identified for the role of human resource management in the alignment of information technology and business. The results of the quantitative part showed that the causal condition with a factor load of 0.533 affects the axial phenomenon. Axial phenomena, contextual conditions and intervening conditions affect strategies with factor loads of 0.326, 0.481 and 0.361, respectively, and strategies with factor loads of 0.839 affect outcomes.

Resumen

El presente estudio se realizó para presentar un modelo para el papel de la gestión de recursos humanos en la alineación de la tecnología de la información y los negocios. Este estudio se realizó en dos partes, cualitativa y cuantitativa, con el fin de identificar los componentes y presentar un modelo cualitativo mediante el método de teoría fundamentada y probar el modelo mediante ecuaciones estructurales PLS. Con base en los resultados de la parte cualitativa, finalmente se identificaron 6 redes principales, 22 componentes principales y 114 subcomponentes para el rol de la gestión de recursos humanos en la alineación de las tecnologías de la información y los negocios. Los resultados de la parte cuantitativa mostraron que la condición causal con una carga factorial de 0.533 afecta el fenómeno axial. Los fenómenos axiales, las condiciones contextuales y las condiciones intermedias afectan las estrategias con cargas factoriales de 0.326, 0.481 y 0.361, respectivamente, y las estrategias con cargas factoriales de 0.839 afectan los resultados.

Keywords: Human resource management. Information technology. Business. Strategic alignment.